## SOME PIECES OF MY JOURNEY

# From my Initial Commitments to my Current Situation



Une vie ne vaut rien, mais rien ne vaut une vie

André Malraux

**Volume 1 to Volume 5** 

Pedro S. Sêco E Pinto

To all my Friends

#### **PREFACE**

Biographies of important geotechnical figures are few and far between. Examples are Richard Goodman's excellent volume on Karl Terzaghi, Judith Nieschcial's biography of her father, Sir Alex Skempton, Peter Scarle's book on the Hungarian Karoly Szechy, the volume on Laurits Bjerrum, edited by Kaare Flaate, Elmo DiBiaggio and Kare Senneset, and the volume on Victor de Mello, edited by his son, Luiz Guilherme.

Autobiographies of such figures are even more rare, and I am aware of only two, one by Geoffrey Meyerhof, and the other by T. William Lambe. Both of these have not been published in book form and so are not generally available to the public. Therefore, this present offering by Pedro Seco e Pinto, which I will refer to as a "Memoir", is a welcome addition to this very small body of literature. Although he states that it was not his intention to write an autobiography, he has in fact done just that, and has provided us with a remarkably detailed and interesting history of his evolution from a schoolboy to one of the world's leading geotechnical personalities. The level of detail can be judged by the fact that the memoir is composed of five volumes, which are as follows:

- 1. From his initial commitments to his current situation.
- 2. Participation in conferences and meetings.
- 3. Touring lectures and international seminars.
- 4. Engineering projects.
- 5. Selected papers.

What strikes the reader is the remarkable level of detail with which his activities are described. There are many photographs of various aspects of his life, including with his parents and his family, with many other distinguished colleagues, and also with many items of memorabilia from conferences and meetings. Indeed, he has even kept name tags from the conferences he has attended, and one can only marvel at his ability to collect, classify and curate such an impressive array of memorabilia.

It is clear that Pedro has a love of travelling and his attendance at 133 conferences must be a candidate for the Guinness Book of Records! The many photographs from these travels must bring back many happy memories, and for the reader, seeing some of the past giants of our profession provokes bittersweet memories of persons who have influenced our profession. Another unique feature of the memoir is the 55 pages of messages from Pedro's colleagues around the world, a measure of the admiration and respect he has enjoyed from his peers during his career.

During his Presidency of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) in the period 2005-2009, Pedro initiated the ISSMGE Bulletin, and set up the Society's own journal, the International Journal of Geotechnical Case Histories. The Bulletin celebrating the 75<sup>th</sup> anniversary of the Society was a particularly important historical document, as it set out in some detail the history of the Society to the year 2011.

A notable feature of Pedro's career is his commitment to promoting geotechnical activities in developing countries. Volume 3 of his memoir, prefaced by appropriate quotes from both Buddha and Socrates, sets out a remarkable catalogue of visits and lectures to 21 countries that he delivered or organized over a period of 13 years, from 2006 to 2019. Were it not for the Covid virus, this number would no doubt have increased in the succeeding 4 years. One can only speculate how many frequent flyer points he accumulated while undertaking these immensely valuable trips.

The book "A Short History of Western Thought", written by Stephen Trombley, discusses the relationship between science and philosophy, and states: "Philosophy ignores science at its peril, and science without philosophy would lose its way Philosophy provides the questions science tries to answer, and it provides the tools with which those answers are judged". There are two main views on philosophy; one states that knowledge can be gained only by reason, the other that it relies on empirical evidence. In our small corner of science, geotechnical engineering, it has become clear that we rely both on reason and empirical evidence to gain knowledge. We use reason to develop a theory, and then judge this theory by undertaking experiments which provide empirical evidence to support or refute this theory. Pedro's memoir amply demonstrates the application of this dual philosophical approach in his work, and how the theories developed by reason and confirmed by experiment, can be applied to solve real-world problems. It is not only Pedro's knowledge of philosophy, and its application, that is impressive, but also his knowledge of literature and poetry, in multiple languages. He particularly delights in quoting relevant pieces of poetry to illustrate and bring home the points he makes during his lectures.

Readers of Pedro's memoir cannot but be impressed by the broad range of projects, research topics, geographical adventures, and literary and philosophical musings that it offers. It reflects a life that has clearly been both diverse and stimulating, one that has been of great service to his profession, and one that has engendered a remarkable number of friendships around the world. Long may he continue to contribute his talents to his family, friends, and to the geotechnical profession.

Harry G. Poulos

March 2024

## **Some Pieces of My Journey**

#### INTRODUCTION

It is not my intention to write a self-biography, because my contribution is very modest and humble in comparison with the lives of politicians and scientists, really giants, that have changed the world. I tried to make things better, considering that innovating, growth, evolution, and reinvention sustain life. "Ad astra per espera".

I would like to take this opportunity to thank you for your great support, and for the joy and happiness that I have lived.

My debt of gratitude is huge.

The life gave me much more that I have deserved and my great sadness is that I was not able to reciprocate in the same scale.

My only purpose is to thank, honor, show my gratitude, stress, and remember the important role of several persons.

Without your support, effort, and time this wonderful journey would not be possible.

I decided to compile some pieces of my journey in simple words, and for better clarification and reading is organized into 5 Volumes.

**Volume 1** covers my roots in Goa-India, my secondary education in Lourenço Marques/Mozambique, the quadrilateral Africa/Europe/Asia/ America where I developed my high education, my first steps in professional practice, the entities to whom I worked, namely the industry activity during the period 1971-1972, the army service in Massingir dam (Mozambique), from 1972-1974, my activity at the National Laboratory of Civil Engineering (LNEC) during the period of 1975 to 2005, my involvement with the University teaching from 1977 to 2018, my interaction with the Portuguese Society for Geotechnique (SPG) since 1976, my relationship with the Portuguese Institute of Engineers (Ordem dos Engenheiros) since 1972.

My involvement with the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), since 1981, in different positions, such as member of Technical Committee, Chairman of Technical Committee, Vice President for Europe, President, Immediate Past President and Appointed Board Member is described. It presents also a brief description how ISSMGE operates.

This Volume ends with some closing remarks and thanks.

**Volume 2**, divided in 2 Parts due to the extension, describes more than 133 Conferences that I had the privilege to participate in different roles, namely Invited Lecturer, State of the Art Lecturer, General Report, Chairman, Advisory Committee Member, Organizing Committee Member, Delegate with paper, and the lessons that I have learned from this very rich experience.

In a world that moves in the direction of the global village it is very important the universality of the knowledge and the need for a permanent renewing. It is important to communicate, to share experiences, to compare methodologies and to monitor the results. The benefits of an open dialogue between academicians, researchers, practitioners, contractors and owners are huge.

**Volume 3** deals with 54 Touring Lectures/International Seminars that I had the privilege to coordinate, with the purpose to divulge the developments on soil mechanics and geotechnical engineering for the Member Societies of developments countries in Africa, Asia, Europe and South America Regions. There are no words to express the support, the generosity and the co-operation that I have received from several experts, colleagues, friends and entities.

I will summarize this rich experience in the following words:

There is still much darkness in the world. But trust me, there is also more light in it than ever. So many people have come to realize that we can curse the darkness or we can have the courage to be one who lights a candle.

We want all of you to make part of our community, to promote our growth and to make you feel that you are contributing for our dream come true.

I enjoy interacting with people, because I believe when people like me, know me and trust me they will help me with new ideas and interesting insights.

I was asked Pedro what keeps you going? What is the source of your energy? Who inspires you? My answer was You. Thank you for the privilege to work together.

**Volume 4** is related with the professional practice and describes 28 engineering geotechnical projects that I have selected from 207 projects (consultant activity) that I was involved during my career.

The following issues were covered: laboratory tests, in situ tests, geotechnical design, soil dynamics and earthquake engineering, numerical methods, constitutive laws, quality control, ground improvement, retaining walls, underground structures, maritime structures, environmental studies, embankment dams, power plants, bridge foundations, building foundations, highways, risk analysis and monitoring and safety evaluation.

This Volume combines the theoretical developments of modeling with the applications for geotechnical projects calibrated by performance behavior under static and seismic actions.

In order to turn the reading more attractive a summary of the history of soils mechanics is included, as well a description of recent earthquakes.

We should not forget that failure is an essential ingredient for high achievement. We cannot win without leaving our safety zone and taking calculated risks. The most risks we take to pursuit our dreams, the more we are going to fail. But we should not forget there is nothing so useless as doing efficiency that which should not be done.

I consider that failure helps us to get closer to our dreams, equipped us with more knowledge and that success and failure go hand in hand.

The error shows us the truth, but we should explore carefully this practice.

**Volume 5** integrates 17 Papers that I have selected from my list of publications and deserve more divulgation, that cover a large spectrum of topics, namely: Ground Characterization, Embankment Dams, Bridge Foundations, Buildings Foundations, Landslides, Tunneling, Earthquake Engineering, Solid Waste Landfills, Port Structures, Eurocodes and Education.

All 5 Volumes end with some personal comments that show my way of living and reflecting engineering.

For writing these notes I had to make some options, maybe you agree or disagree, but I ask for your indulgence.

I believe that the graduate students and the young engineers will find some interest in Volume 4 and in Volume 5.

The most senior engineers will re-visit their contributions for ISSMGE and some episodes that they lived when reading Volume 1 to Volume 3.

Volume 2 and Volume 3 are very easy and light to read, as they are based in photographs, with short legends, to give the possibility to use your imagination when re-visiting those places and remembering your role in those events.

I remember the memorable lines of T.H. Huxley:

"The known is finite

The unknown is infinite

Intellectually we are in the middle of an islet Surrounded by an immense ocean of inexplicability. Our business in each generation is to

Reclaim a little more land To add something to the extent and solitude of our possessions".

The fifth dimension is only possible when the knowledge is raised to a level of unity of vibration. *Ars longa vita brevis* (Seneca).

To all of you my deep gratitude for your kindness, generosity, inspiration, and friendship, and my thanks for this memorable adventure.

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#### **EDUCATION**

1965 - 1971 - Licentiate in Civil Engineering (6 years course) (with honors).

1975 - 1977 - Master of Soil Mechanics (with honors)

1979 - 1983 - Specialist in Geotechnique (Ph.D Level) (with honors)

1992 – Director of Research (Full Professor Level) (with high honors)

#### **POSITIONS**

- ISSMGE Board Member (2017-2022)
- ISSMGE Immediate Past President (2009-2013)
- ISSMGE President (2005-2009)
- ISSMGE Vice President for Europe (2001-2005)
- Full Professor of Geotechnical Engineering of University of Coimbra.
- Member of European Academy of Sciences.
- -Fellow of Portuguese Institute of Engineers
- World Bank Consulting for Dams Safety (2013-2015).
- Invited Professor of Master Courses "Soil Mechanics" and "Engineering Geology" of New University of Lisbon (1983-1995).
- United Nations Consulting for Design and Instrumentation for Dams (1988-1992).
- Invited Guest Lecturer of University of California, USA, (1992-1994).
- Chairman of TC4 "Earthquake Geotechnical Engineer "Committee of ISSMGE (1994-2000).
- President of Portuguese Society for Geotechnique (1996-2000).

#### **Professional Experience**

Consulting Engineer of 450 major projects in Dams, Power plants, Bridges, Tunnels, Waste landfills, and Quay Walls, in Portugal, Angola, Argelia, Brazil, Cabo Verde, China, Dominican Republic, Ecuador, Guinea-Bissau, Guinea Equatorial, India, Lebanon, Malawi, Morocco, Mozambique, Senegal, Syria, Tunisia, Uganda, Venezuela and Zambia, covering field and laboratory testing, dynamic analyses, earthquake engineering, numerical analyses, ground improvement, slopes, special foundations, instrumentation and safety evaluation.

#### **Conferences**

He has presented more than 350 State-of-the Art Lectures and Special Lectures in 80 countries of the 5 Continents.

## **Awards and Honours**

He has received more than 50 international Awards including American Biographical Institute USA, "Special Volume for the Contributors of Earthquake Engineering, Nagadi Lecture by Indian Geotechnical Society, Széchy Lecture by Hungarian S M Society and Hungarian Academy of Sciences, Nonveiller Lecture- by Croatia Geotechnical Society, Sukle Lecture by Slovenia Soil Mechanics Society, Chin Lecture by Huanzhou University (China), Qian Jia Huan Lecture by Hohai University (China), Chin Fung Kee Memorial Lecture by Institute of Engineers of Malasia, Braja Das Lecture and Victor de Mello Lecture by the Indian Geotechnical Society.

#### **Editorial Boards and Reviewer**

- Editor of International Journal of Case Histories
- Co-editor of Geotechnical and Geological Engineering Journal, Springer Publisher
- Member of Editorial Board of several Journals, namely "Geotecnia", "Bulletin of Earthquake Engineering", "Acta de Geotecnia", "International Journal of Geotechnical Engineering".
- Editor of Proceedings of 4 International Conferences.

### **Publications**

He is the author or co-author of 500 Technical and Scientific Reports, more than 180 papers for national and international conferences and journals and has contributed for 14 books.

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## SOME PIECES OF MY JOURNEY

## Volume 1

From Alfa to Omega

Pedro S. Sêco E Pinto

Dedicated to all my friends, that lived in different Regions, with the purpose to express my debt of gratitude for this wonderful journey



"Not all of us can do great things. But we can do small things with great love."

Mother Teresa

#### 1. INTRODUCTION

This Volume 1 covers my roots in Goa-India, my secondary education in Lourenço Marques/Mozambique, the quadrilateral Africa/Europe/Asia/ America\_where I developed my high education, my first steps in professional practice, the entities to whom I worked, namely the industry activity during the period 1971-1972, the army service in Massingir dam (Mozambique), from 1971-1974, my activity at the National Laboratory of Civil Engineering (LNEC) during the period of 1975 to 2005, my involvement with the University teaching from 1977 to 2013, my interaction with the Portuguese Society for Geotechnique (SPG) since 1976, my relationship with the Portuguese Institute of Engineers (Ordem dos Engenheiros) since 1972.

My involvement with the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), since 1981, in different positions, such as member of Technical Committee, Chairman of Technical Committee, Vice President for Europe, President, Immediate Past President and Appointed Board Member is described.

The received honours and awards are introduced.

The consulting activities that I was involved in are addressed.

Some selected papers that deserve more divulgation are referred.

Some family episodes are described.

This Volume ends with some closing remarks and 4 Annexes.

Following the memorable words of Anatole France: "To accomplish great things, we must not only act, But also dream, not only plan, but also believe, And the belief in a thing makes it happen".

To all of you my deep gratitude and my thanks for this adventure.

## 2. Where All has Begun - Goa/India/Asia

I was born in Goa, an old Portuguese colony in India. My initial family was composed by my father, my mother, 3 sisters and myself.

My father, last child from 10 brothers and sisters, was a medical doctor, following the tradition of the highest level of goan families, giving preference to law courses and medical courses. For example, the eldest sister of my father was a medical doctor, the first female medicine doctor in Goa and some brothers were lawyers.

My mother, the middle of two sisters, had an artist's education playing piano and singing opera, and the other sisters were journalist and manager.

In this quiet and healthful environment I had a normal education with the primary school in Portuguese, in opposition to my sisters that initiated the education in English school.

Later my eldest sister Claude finished her musical education with the final classical piano exams in London, my sister Cristina is a medical doctoral and did the doctoral thesis in genetics in USA and became a Professor at the Faculty of Medicine of University of Lisbon, my sister Ivone took management in Paris.

I entered directly to the 3rd year of the portuguese primary school, as at home I learned to read, to write and also arithmetic.

Our family had a good standard of life with several properties with coconuts and with rice that were generating a good income.

In addition to the house that we were living in, we had a bungalow in the beach and also a property in the hills with a dyke and a lake, that we were using to spend the weekends and some short periods.

But in Goa there is a tendency to emigrate, some to search better life conditions, and other to search new challenges. So, my father who was working for the Ultramar Institute of Medicine Doctors, with branches in all Portuguese colonies, namely Angola, Cabo Verde, Guinee Bissau, Mozambique, San Tomé and Principe, and Timor has accepted the Portuguese Government's invitation to work in another colony.

My father has selected Mozambique for two reasons: (i) his brother has worked in Lourenço Marques, the capital of Mozambique, and gave excellent information about the country and the people, (ii) and to travel from Goa to Lourenço Marques we had only to cross the Indian Ocean.

Maybe there was a third reason for the disaffection of my father, as his nephew, a lawyer, was in prison in Fort Aguada, with other political goan prisoners, for expressing his dislike to the Portuguese

government related Goa occupation. My father never talked with me about this situation, but certainly, I was aware.

In summary: I with 10 years old and my family left Mormugao port in Goa, on 10<sup>th</sup> of June of 1958, in the ship Zambeze with 2500 tones and faced the Indian ocean high tides during the monsoon.

After 20 days, in spite of some critical situations during the trip, we reached safe Lourenço Marques.



My father



My mother,



My wife Teresa and my sisters Cristina and Claudette



Family house in Goa (18th century)



First owner of the house in Goa born in 1799



My sister Claudette in front our bungalow near the Indian ocean beach



Our cross 50 m near our bungalow in Goa with the Indian ocean - view of the cross with my uncle and cousin (1978 photo, 20 years after I departed from Goa)



My primally school Abade Faria in Goa /India (1957) – photo in 2005 showing the need for rehabilitation



Aguada Fort – a political prison

The Big Bang occurred 13.7 thousand of millions of years ago, and Homo sapiens has migrated from Africa to Asia, to Europe, and to America during the period of 40 000 to 12 000 years ago, may be due to warming (with the explosion of volcanos) and frizzing of the planet. This dissemination of Homo sapiens was very rapid, in comparison with the period of 1.4 million of years of our predecessor Humus erectus.

So, 40 000 years later I was doing the opposite travelling of Homo sapiens and arriving in Africa, the birth of the civilization.

Also 460 years late I was following the opposite itinerary of Vasco de Gama connecting Goa to Mozambique, with the same purpose of exploring the unknown.

## 3. Secondary and High Education

Secondary Education - Lourenço Marques/Mozambique/Africa

I took high school in Lourenço Marques, for seven years (1958-1965), I had always high grades and with place in the Honnor Table, but a happy life similar to the other boys of my age, fulfilling the time at night with guitar and songs of Elvis Presley, Cliff Richard and Shadows and also the Beatles. Relating the sports playing football, handball, tennis, bicycle, swimming, and motorcycle.



Enjoying handball game



High school - final ball

With a group of boy's scouts, we had also the practice of camping on the beach or the mountains in different places, during the weekends.

In high school, I had an excellent relationship with my professors of Physics and Math, in general in tests I had 19/20 in 20th grade, and I remember that when I was a student in the  $6^{th}$  year of high school,

with 16 years, my math's professor has invited me to help him to deliver the Math's course of 4<sup>th</sup> year, at night, to adults. So, he introduced me in the first lecture and the total lectures, during the whole year (9 effective months), I delivered alone.

To my surprise all the adults (workers during the day), with 21 to 55 years, had a great respect for a kid like me and were showing a great interest in learning.

Also, my math's professor was giving me some problems with 15 to 20 hypotheses, some true and other false, and at the end we had to discover who was the killer, like Hercule Poirot in the books written by Agatha Christie.

In those times there were no TV and no computer, only radio so I was a frequent client of a Public Library, which from 14 to 18 years old allowed me to read hundreds of books covering history, literature, philosophy, and art.

To me, the two most significant events of this period were:

The Cuban Missile Crisis of October 1962 was a dangerous confrontation between the United States and the Soviet Union during the Cold War closest to nuclear conflict, after the failed U.S. attempt to overthrow the Castro regime in Cuba with the Bay of Pigs invasion.

Kennedy's administration planned Operation Mongoose, and Soviet Premier Nikita Khrushchev agreed with Cuban Premier Fidel Castro to place Soviet nuclear missiles in Cuba to avoid future invasion. It was a relief for the world with the end of the crisis on November 20, 1962.

**The assassination of John F. Kennedy on November 22, 1963**, 35<sup>th</sup> President of the United States, when riding in a car with his spouse in Dallas, Texas.

The circumstances surrounding the assassination remain still in speculation.

Later, during my stay in the USA in 1977 and my visit to Cuba only in 2007, I had the opportunity to improve my theoretical knowledge by collecting more facts and information.

At the end of high school, I had to choose the university course between medicine, with family traditions, and engineering without family traditions.

As I had facilities in Math and Physics and to avoid the need to memorize the volumes of Anatomy, I decided on Civil Engineering, i.e. for an apparent easy life.

<u>High Education – Roots of my Attraction to the Quadrilateral Africa/Europe/Asia/ America</u>

My life as a university student (6 years course-1965-1971) was not different of a high school student, with two exceptions my time to read dramatically decreased, and with a car license at 21 years old (was the minimum age) I enjoyed driving the car than the motorcycle.

I enjoyed the civil engineering course, but always with the perspective that my knowledge could be useful to better serve the Society.



Survey team during the university course (1968) – from left to the right- António Sousa, António Paradinha, Ho Wing Ken, Pedro Sêco e Pinto and Jorge Mariano Rebelo



Survey team during the university course (1968) – from left to the right- António Paradinha, António Sousa, Jorge Mariano Rebelo, Ho Wing Ken and Pedro Sêco e Pinto

Profiting the week ends for the parties and trying to pick up the girls for dancing (Party photo).



Party photo

I remember that later, in 2008, when I was travelling from El Salvador to New York, after organizing a ISSMGE International Seminar in El Salvador, speaking with the passenger, next to me, who was a medical doctor returning to USA, after a humanitarian mission of 15 days in El Salvador, I was informing him if I was not an engineer, I would like to be a medical doctor, to better serve the people, and I loved to hear he reciprocates the same sentiments, to be an engineer as 2<sup>nd</sup> option, with the same purpose to serve the people.

## I consider that the most significant event during this period was:

May 1968, a period of civil unrest occurred throughout France, lasting seven weeks and punctuated by demonstrations, general strikes, and the occupation of universities and factories. The unrest began with a series of far-left student occupation protests against capitalism, consumerism, American imperialism and traditional institutions.

The events of May 1968 continue to influence French society. The period is considered a cultural, social and moral turning point in the nation's history.

In Portugal, the student protests had an oscillatory movement, until a final acceleration that started in 1968/69 and culminated in the democratic revolution on 25 April 1974. The revolutionary period extended until 1976.

Not only "May 1968", but several other events such as the XX Congress of CPSU, the crisis in Hungary, the Sino-Soviet conflict, the war in Vietnam, the Second Vatican Council, the Chinese cultural revolution, and the "Prague Spring" played an important role.

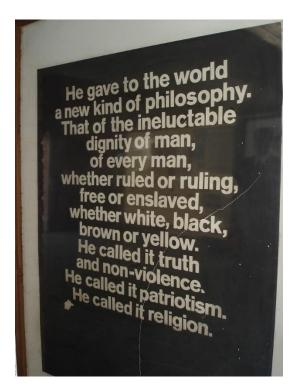
The electoral campaign of General Humberto Delgado, which mobilized large sectors of the population in 1958 against the official presidential candidate, and particularly the colonial war, which began in 1961 in Angola, extended in 1963 and 1964 to Guinea and Mozambique gave an additional push.

In the context of a divided international communist movement and in the aftermath of the shock waves provoked by the 1968 crackdown on the "Prague Spring" by the Moscow army, many young Portuguese people became disillusioned with the Soviet model and the Portuguese Communist Party that defended it.

To me, the trigger for this event in Europe came also from Asia, from Mohandas Karamchand Gandhi who, in 1915, advocated nonviolent resistance to lead the successful campaign for India's independence from British rule, inspiring movements for civil rights and freedom across the world.

He set about organising peasants, farmers, and urban labourers to protest against excessive land-tax and discrimination. Bringing anti-colonial nationalism to the common Indians, Gandhi led them in challenging the British-imposed salt tax with the 400 km (250miles) Dandi Salt March in 1930. He was imprisoned many times and for many years in both South Africa and India.

He undertook several hunger strikes to stop the religious violence and was assassinated by a militant Hindu nationalist on 30 January 1948.



Honouring Ghandi



#### Ghandi march in 1930

It is also important to refer to the role of Martin Luther King, Jr., that on December 21, 1956, after the Supreme Court of the United States had declared unconstitutional the laws requiring segregation on buses, Negroes and whites rode the buses as equals, following a boycott leadered by Luther King.

He directed the peaceful march on Washington, D.C., of 250,000 people to whom he delivered his message, "I Have a Dream, he was arrested upwards of twenty times and became not only the symbolic leader of American blacks but also a world figure.

At the age of thirty-five, Martin Luther King, Jr., was the youngest man to have received the Nobel Peace Prize. On the evening of April 4, 1968, he was assassinated.

To close the loop it is important to mention Nelson Mandela after the massacre of unarmed Black South Africans by police forces at Sharpeville in 1960, abandoned his nonviolent stance, inspired by the strategy of Ghandi in South Africa, from 1893 to 1915, and began advocating acts of sabotage against the South African regime.

From 1964 to 1992 Mandela was incarcerated at Robben Island Prison, off Cape Town.

In 1995, I had the opportunity to visit Mandela's prison.

Throughout his incarceration, Mandela retained wide support among South Africa's Black population, and his imprisonment became a famous cause among the international community that condemned apartheid.

In April 1994 the Mandela-led ANC won South Africa's first elections and became president of the country's first multiethnic government.

In the old times, even without internet the continents Asia, Europe, Africa, and America were connected and unified in their struggle.

After ending the civil engineering course (1965-1971), in the past with 6 years of duration, I and my colleagues initiated a tour of other European countries, namely with technical visits to London, (Imperial College and Institute of Engineers), to Paris (Ecole National de Pont et Chaussées and Laboratoire

Central de Travaux Publics), to Netherlands (Institute of Delft), to Germany (John Deer and other Industry companies).

This was a very rich experience.

Also in the middle of 1971, I initiate working as an engineer in the design company Profabril, in Lisbon. If you are curious to know more about a person that was born in Goa- India, lived in Asia, Africa, Europe, in America, and with short visits to Australasia, that travelled for more than 130 countries (each country with 2-5 visits), and if you do not feel bored by these trivial situations, then you need to read the next chapters.

As I was exposed to many different cultures, exchanged ideas with so many people, active exploring, and continuously engaged in a process of discovery, I learned a lot with so rich experience. When someone asks me where I am, my answer is that I do not know, maybe I am a United Nations citizen.

## **4. INDUSTRY ACTIVITY (1971-1972)**

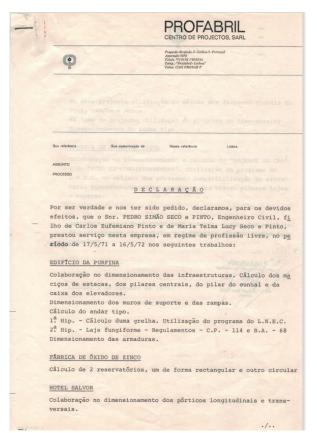
After my graduating, as civil engineer, I joined the industry, during the period 1971-1972, and I began working in Profabril, Lisbon, the largest Portuguese design engineering company.

I was an engineer of the Structures Department and I was involved in the structural design of tanks, silos, viaducts, and buildings.

From my activity, I select the structural design of Purfina building with 25 stories, the Factory of "Oxido of Zinco", the Salvor Hotel and the Cement Factory of Cisul.

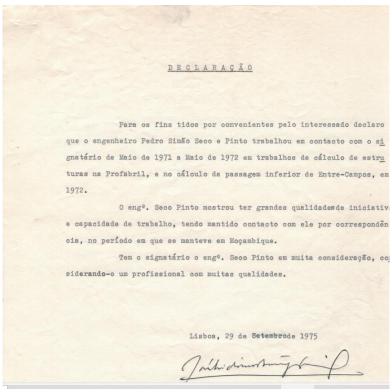
I believe that good judgement come from experience, experience come from making mistakes and mistakes come from bad judgements. As Bernard Shaw said: By the error we reach the truth, but we should not abuse of this practice.

Some statements related my activity in Profabril are presented.





Profabril Board Statement



Ing. Brazão Farinha Statement

My schedule in Profabril company was 9 H to 18H with a break of 1 hour for lunch.

I had an office with 2 desks, but during the whole day I was alone and only at 18.00H was coming Ing Brasão Farinha, Head of Lisbon Metro, to work for Profabril, as a Consultant, to occupy the other desk of my office, during 2 hours.

From the beginning, we developed a friendship and I was lucky enough for the patience and pedagogic qualities of Ing. Brazão Farinha.

He explained to me the metro construction methodology of Lisbon - cut and cover, his role in the design of important structures, and his risky project of Cristo Rei monument in Almada located on the hill facing the Tagus River.

He explained me his concerns about the performance of the structure for wind and seismic actions.

He was stimulating me that the engineer should assume calculated risks and leave the safety zone, if he really wants to progress and to explore the frontiers of engineering knowledge.

So, every day, due to this very interesting interaction, I was leaving the office after 8.00 pm.

One day he informed that he was requested to design a viaduct crossing an important square in Lisbon, but he had no time to assume the commitment, and he was thinking that was a good project to me.

I was surprised by his confident in my capabilities, but he encouraged me to take the challenge.

So, after dinner and during the weekends I worked for 3 months to fulfill this commitment.

One interesting episode was that the engineer chief of the Constructor for the construction of the viaduct was general Vassalo e Silva, the last Governor from Goa, during the period 1958-1961 and had the difficult decision to disobey the dictator Salazar to fight with an army of 3000 military against the Indian army with 30 000 soldiers and the support of aircraft.

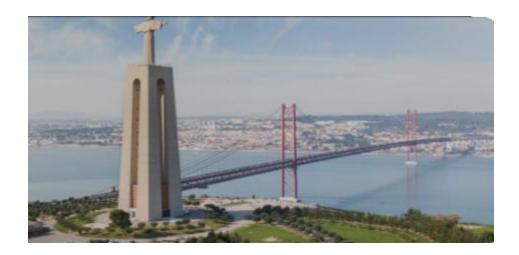
The orders of the Salazar were clear, win or dye, no other option.

So, general Vassalo Silva in spite his brilliant career was punished and his position of general was withdrawal by Salazar, when he returned back to Portugal.

Fortunately, Vassalo Silva was also a civil/military engineer and so to survive he was working as engineer in a contractor company.

So, my conversations with Vassalo Silva were not only about the viaduct design and construction, but also about Goa.

By hazard, the vertices of the triangle Asia-Africa-Europe were much closer in my life, that I could imagine.



Cristo Rei monument

## **5. ARMY SERVICE (1972-1974)**

In 1972, I joined the Army for compulsory military service and after a short period of training, I was placed in Massingir Dam, Mozambique, until the end of 1974, as an engineer of LEM (Laboratório de Engenharia de Moçambique).



Laboratory of Engineering of Mozambique (LEM) (courtesy Americo Dimande)

The laboratory integrates the departments of Geotechnics, Roads, Structures, Materials, Administrative and a Library. In 1972 around 100 persons were working.

As the coordinator of quality control of Massingir dam I was involved in the site investigation, namely borings, in situ tests, study of borrow pits, laboratory tests for the fills and also the concrete studies for the outlet, water intake and spillway structures. In addition, I was involved in the instrumentation and monitoring of the dam.

## **MASSINGIR DAM**

Due to the low degree of compaction of the alluvia and the seismic characteristics of the area, treatment by vibroflotation was adopted in order to avoid eventual liquefaction of sands of foundation alluvium of the main body of Massingir dam in Mozambique.

The total length of the earth dam is 4596 meters, comprising a main body with a maximum height of 48 meters and with a width of 12 meters at the crest. This body extends on either side with embankments which have 32 meters of maximum height and a width of 9 m at the crest.

The valley is partial filled by sands of different grading, varying from fine to coarse, coarse sands prevailing, sometimes with boulders.

Bedrock formation was found at 26 m depth approximately and is formed by a hard limestone.

Average values of penetration resistance from 1 MPa to 2 MPa were obtained in the first 10 m depth; below this depth and up to bedrock formation values from 3 to 4 MPa were recorded. Such penetration resistances correspond to relative densities  $I_d$  of 0.20 and 0.35 respectively.

Due to the low compaction of alluvia existing at the main body of the dam, vibroflotation process was adopted, to improve this characteristic.

The goal was to obtain, in the first 10 meters of the alluvial bed, a relative density  $I_d \ge 0$  0.40 corresponds to the minimum value advised by the designers.

In order to evaluate the efficiency of the process, vibroflotation tests were conducted for influence areas equalling four, five, six, and seven square meters.

Static penetration tests performed before vibroflotation, gave penetration resistance values around 2 MPa. After vibroflotation new penetration resistances were recorded, which only gave satisfactory results below 2 m depth.

The time of the sinking of vibroflot, depth reached by it, and any eventual irregularity in its behaviour were recorded during treatment.

On its way back up the vibroflot was stopped every 50 cm and an attempt was made to regulate pressure readings in the gauge of the vibroflot between 15 MPa to 20 MPa.

Generally, time of ascension was about 50 minutes. After treatment, new cone penetration tests were performed.

Diagrams of penetration resistances given by those tests conducted before and after vibroflotation are shown. Breaks in penetration resistances recorded, after treatment, are due to clayey lenses, existing in alluvial layer.

Results expressed in terms of settlement, of treated area, gave a surface displacement around 0.6 m to 0.7 m. This fact also confirmed the efficiency of vibroflotation process adopted.

Foundation sandy material of the main body of the dam, reaching a volume of 1 million cubic meters, was treated by introducing vibroflots up to 10 m depth, after removing superficial cover of humus.

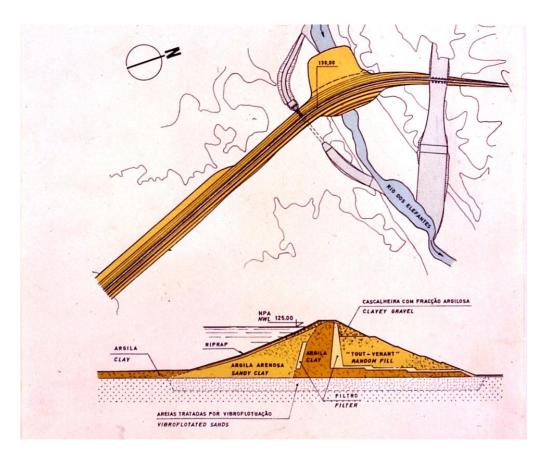
Influenced area of each vibroflot penetration was 6 m<sup>2</sup> (2.63 m x 2.28 m).

The total amount of vibrofloted points was 17635, using six cranes. The average time of each vibroflotation was one hour approximately. Due to the difficulty in defining relative densities, caused by the fluctuation

of maximum and minimum density values, an attempt was made to correlate penetration resistances (Rp) and dry densities ( $\gamma_d$ ).

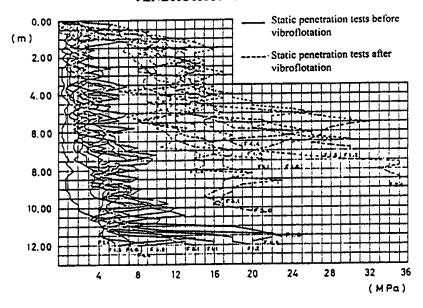
Treatment by vibroflotation at depths from 0.60 m and 2.00 m, was satisfactory once values of  $Rp \ge 70$  MPa, at which no liquefaction of sands is expected, were obtained.

A superficial layer up to 2. 40 m, in which vibroflotation process was not successful, was compacted with six passes of a 5 T vibratory roller, vibrating at a frequency around 1 000 to 1 200 r p m.

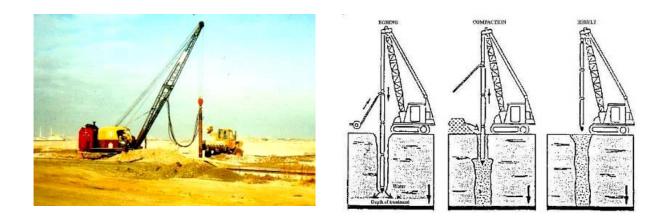


Massingir dam plan and profile

## PENETRATION RESISTANCES



Diagrams of penetration resistances



Equipment and methodology for vibroflotation

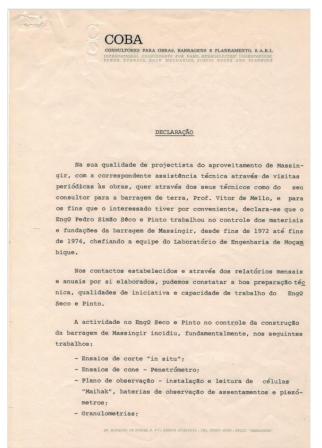
The Massingir dam project was developed by COBA and Prof. Victor de Mello, ISSMGE Past President acted as a Consultant.

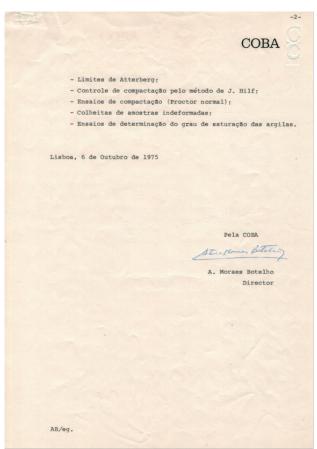
LNEC (National Laboratory of Civil Engineers) with short visits to the dam site, with a frequency of 3 months, was given technical assistance through the advice of Prof. José Folque and Prof. Maranha das Neves.

The discussions about the dam project between Prof. Victor de Mello and Prof. José Folque were fascinating and I was following with mixed sentiments, with frustration because I could only understand around 50% and with the determination that in the future I would improve my knowledge of dam engineering.

The Case Histories projects that I was involved in, described in Volume 4, show that I have respected my commitment.

There were 3500 workers in the dam site, including 3250 native and 250 overseas workers.





**COBA Board Statement** 

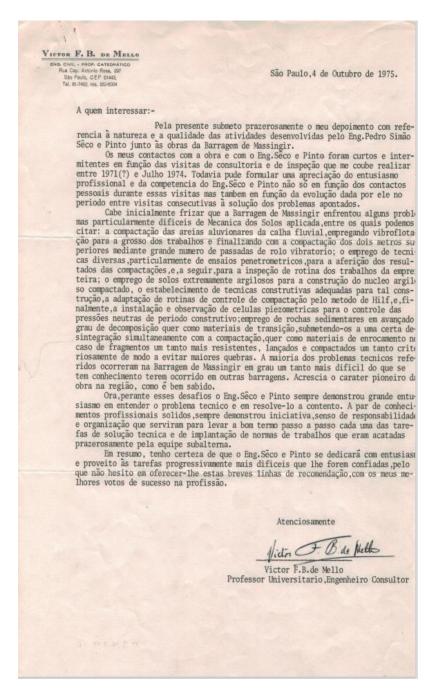
During my stay in Massingir dam I enjoyed hunting crossing the savanna by jeep, absorbing the infinite space and the seduction of the tropics with lovely sunsets, discovering the real hunters of buffalos, lions, and elephants, to catching a kid or antelope for the night barbecue.

## <u>Transportation difficulties</u>

Our work schedule was 2 periods of 10 hours each every day.

One night, I was informed about an accident with a bulldozer with a seriously wounded person. Immediately, communications were established with Lourenço Marques to send a plane to evacuate the person.

We had at the dam site a runway on land, but unfortunately without light.



Prof. Victor de Mello (ISSMGE Past President) Statement

So, we decided to illuminate the runway with the lights of 10 jeeps to allow the plane to land and take off.

The injured person was transported successfully to Lourenço Marques, I am not aware of the final situation, but this episode raised in the spirit of a young engineer the meaning of life and the efforts to preserve it.

## A critical situation

I was travelling to Lourenço Marques from the dam site for a frequency of 2 weeks, in order to make the logistic arrangements related to personal and equipment. I was travelling by jeep (340 Km distance) or by a small plane with a capacity for 5 people.

One day when I was travelling from Lourenço Marques to the dam site by plane, early in the morning, when we arrived Massingir, no visibility due to intense fog, I noticed that the pilot, who was not so familiar with the site, was going to land on the river.

I gave the pilot a scream warning; fortunately, he had time to correct the mistake and we landed on a safe place.

## New runway

Later in June 1974, after the construction of a new runway during the inauguration day and with several planes transporting the authorities coming from Lourenco Marques, I was warning the pilot about the presence of elephants in the runway.

The pilot considered that I was joking with him, but after landing he was surprised by the evidence that I had shown him related to the presence of the elephants.

## Visit to Cabora Bassa dam

I was the representative of LEM (Mozambique Laboratory of Engineering) in Massingir dam and the representative of LEM in Cabora Bassa dam was my colleague Baltazar Gomes, who invited me in June 1973 for a dam visit.

During my stay in Cabora Bassa for 4 days, Baltazar invited me for a ride in the jeep on the second night. Suddenly I noticed that Baltazar was driving out the fence protecting the dam site from the attacks of Frelimo (Mozambique liberation movement).

So, I asked Baltasar to return, and he laughed and told me that, for the last three years, he frequently moved out of the fence for hunting and nothing happened.

Two years later, when Baltasar was coordinating an operation of transportation of large equipment for the dam, trying to cross a bridge, during daylight, planes from Rhodesia bombed the bridge and killed 7 persons, including Baltazar.

Mysterious are the ways of destiny where life and death give the hands.

These 4 anecdotes show the challenges, the risks, the solidarity, the beauty, and the attraction of African continent.

During this second stay in Mozambique and with the talks with some persons it was getting more and more clear in my spirit the wake up of Africa claiming their rights and the respect for their destiny.

I read the Speech about the Source and the Fundamentals related to the Inequalities between the men, and a Lonely World from Wendel Wilkie.

This was the result after the World War with the 2 winners USA and URSS antinominalists in connection with Great Britain and France.

It is important to refer to the Resolutions 1514 and 1542, in 1955, from the United Nations condemning the colonial practice.

The Bandung Conference in 1955 was a milestone for African and Asia emancipation.

1956 is the year of Sudan, Morrocco, and Tunisia's independence.

1957 independence of Ghana and Malaysia and 1958 independence from Singapore and Guine-Conacri.

In 1962 West Samoa, Ruanda, Burundi, Argelia, Jamaica, Trinida-Tobago and Uganda become independents.

1966 is the year of independence of Guiana, Barbados, Botswana, and Lesotho.

A tsunami was swiping Asia and Africa and I was discovering my Road to Damasco.

In December 1961 Goa was liberated by the Indian army (3 years after my departure to Africa), by the same time the role of movements of liberation in Angola and Guinee-Bissau and in 1963 in Mozambique.

It was a matter of time for the revolution of 25<sup>th</sup> April of 1974 in Portugal.

The ironic situation of destiny that after I departed Goa in 1958, feeling and living some evidence, from 1956 to 1958, against the policy of Portuguese government, I lived in Mozambique the effects of the war against Portugal, the revolution of 25<sup>th</sup> April 1974, and the transition period for Mozambique independence that occurred in September 1975, when I had already back in Portugal.

A flashback in my life with a unique, historical and unforgettable experience.

## Massingir Dam – 7<sup>th</sup> September 1974

With the 25<sup>th</sup> April 1974 revolution the Portuguese Government has initiated the conversations with the representatives of the colonies Guinee Bissau, Angola and Mozambique.

On 7<sup>th</sup> September 1974 a group of colonizers occupied the Radio Station in Lourenço Marques claiming against the Portuguese Government policy and this provoked a strong reaction from the natives in the whole country.

In Massingir dam site, we remained 4 days with the construction works suspended, without food (only some biscuits) and with a very critical situation between the native and overseas workers.

Finally, at the 5<sup>th</sup> day a general from the Frelimo (the mozambican movement for liberation) came to the dam site, held a public session with the population, and released the hot situation.

During this period, I made the time to think, plan and reflect. I believe that there is but one failure in life and that is the failure to try. What fun is life without a hint of mystery? What joy is life without a little adventure? I have taken incremental steps, as step by step we get to the goal.

My military service terminated at the end of December 1974 and I returned back to Lisbon.

The following Massingir dam photos are from 2017.



Dam crest



Dam upstream view



Dam downstream view





Outlet structure Spillway



Gates



Operating chamber

#### 6. LNEC ACTIVITIES

In January 1975 the job situation in Portugal was chaotic, the country was paralyzed and the predictions were that would take more than one year to normalize.

My first intention was to return back to Profabril, but the Board informed me that they were dismissed by the Commission of Workers and so could not readmit me, despite the good evaluation from my past activity.

Fortunately, Prof. José Folque understood my situation and in January 1975, I joined LNEC (National Laboratory of Civil Engineering). During the period of 1975/1976, I was involved, as Trainee Research Engineer in the studies related to embankment dams, foundations, tunnelling and slopes stability.

- I was elected Chairman of LNEC Council Workers (1976/77). LNEC had more than 1000 officers (250 Engineers and 750 Technicians).

Opened in 1952, LNEC's <u>Campus</u> covers <u>an area of 22 ha</u>, from Avenida do Brasil to 2<sup>a</sup> Circular. It consists of a set of buildings of great architectural interest, built at different times, under the authorship of some of the most important Portuguese architects such as Pardal Monteiro, author of <u>Arantes e Oliveira Building</u> (LNEC's main building, named after LNEC's first Director, completed in 1952), Januário Godinho and João Andersen, authors of <u>Calouste Gulbenkian Building</u> (completed in 1962), among others. The project of LNEC's gardens is the work of architects Gonçalo Ribeiro Telles and F. Vaz Pinto. These gardens hold some rare and exotic species of trees and plants, some identified.

In December 2012 LNEC's campus was classified as a Monument of Public Interest.

Source: https://www.lnec.pt



LNEC campus

LNEC's mission is to undertake, coordinate and promote scientific research and technological, development, to pursue the public interest, to assist the Government in the public policies, and to provide technical support to the entities that constitute the Authority in the various sectors of Public Administration, namely:

- Quality and safety of works,
- Protection and requalification of the natural and built heritage; and
- Modernisation and technological innovation,

LNEC has been establishing networks and partnerships with national and international entities.

LNEC integrates Concrete Dams Department, Building Department, Structure Department, Materials Department, Hydraulic and Environment Department, Geotechnics Department, Transportation Department and Instrumentation Centre.

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LNEC 1976 – Assignment as Trainee Research Engineer

After my degree of Master on Soil Mechanics was granted by the University Nova de Lisboa (1975-1977), I was nominated Assistant Research Engineer.

In 1977/1978 with a Fullbright scholarship, granted by the USA, I did train periods at MIT (Boston), and USBR (Denver), and later in 1980/1983, at the University of California (Berkeley), with Prof James Duncan, for the preparation of my doctoral thesis.



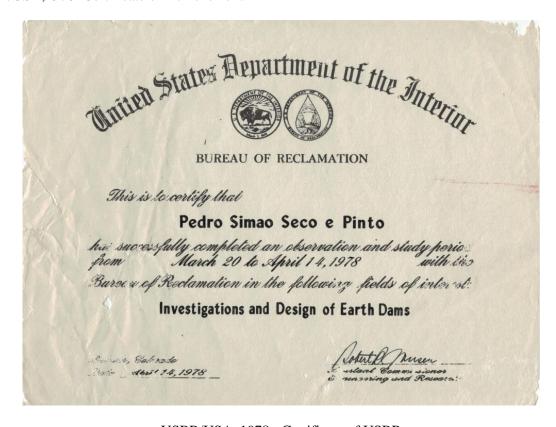
Fulbright scholarship group



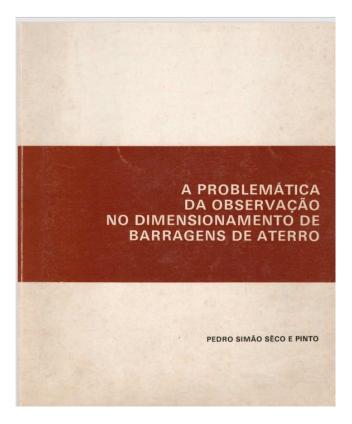
Stay in Washington D.C.



AID /USA,1978- Certificate of Achievement



USBR/USA, 1978 - Certificate of USBR



Master Engineer Thesis

# INFLUENCE OF FIELD MEASUREMENTS ON THE DESIGN OF EMBANKMENT DAMS Abstract

The purpose of this dissertation is to analyse the role of the instrumentation on the design of embankment dams. The coupling of analyses methods, reological knowledge of the materials and an adequate and efficient instrumentation is emphasized in predictions of structures behaviour.

In order to verify the correlation between the physical -mathematical model and
the prototype, the analysis of construction phase of Alvito dam is performed, and predicted
values are compared with field measurements.

The advantages of this procedure for selecting desirable instrument locations and to help in checking the safety of embankment dams are stressed. Several recommendations for future research are given.



Juri for Master Engineering thesis (from left to right Prof. E. Maranha das Neves, Prof. J. Barreiros Martins and Prof. António Mineiro)



Defending the Master Engineering thesis

#### 1978- Lisbon underground

For the extension of the Lisbon underground related the branch that was crossing the Zoo, the old technique of cut and cover could not be applied and a solution on tunnel should be implemented.

Prof. Manuel Rocha who was acting as Lisbon metro consultant, organized a group of 4 persons from the areas of soil mechanics, engineering geology, and rock mechanics to study this project.

I had the privilege and honour to integrate this group, as Manuel Rocha former student in Tunnelling, during my master soil mechanics course.

Manuel Rocha was frequently abroad to deliver courses and for consulting work in dams and tunnels. In the old times we were working at LNEC on Saturdays from 9.00H to 12.30H.

So, with a frequency of a fortnight, by 12.00 H, I received a telephone call from Manuel Rocha secretary informing me that the Professor wanted to speak with me.

So, I was collecting all the tests results and my notes for this meeting, with only both of us, that was normally ending after 15.30 H.

I was surprised, wondering about the lunchtime and the Manuel Rocha family.

To me, was easy, as I was single and nobody was waiting for me.

Later, I commented this situation with Teresa Rocha and she informed that for the meals the family had to adopt their life to Manuel Rocha schedule.

Manuel Rocha was analysing very meticulously all the results from laboratory and field tests, asking several questions and I was lucky because he had always praised my work.

One day Manuel Rocha commented that in my computation I had reached a correct result, but I has committed during the process two mistakes that have compensated. I never forgot this lesson.

In other occasion, Manuel Rocha told me that an engineer is a man of culture and in my life, I try to follow his advice.

Those meetings, with a fortnight frequency, took place for 1 year.

In one Fryday, by 6.00 pm, when I was doing the measurements of in situ stress, inside a hole of 0.7 m x1.10 m size, at 25 m depth, in the field, I was informed by the technician, that was at ground level, for safety reasons, that I had a visited.

I came to the ground level and to my surprise was Prof. Manuel Rocha.

I greet the Professor and he informed me that he came to the site "to feel the difficulties". In all the future teams that I have been coordinated, I followed that practice.

#### 1978- Visiting my roots in Goa

My first visit to Goa, after my departure in 1958, occurred 20 years later, as the book of Alexandre Dumas. I noticed only slightly improvements related the transportation and housing.

Goa with only 1 million inhabitants, very small in comparison with the other 15 states that were integrating India, was preserving its identity.

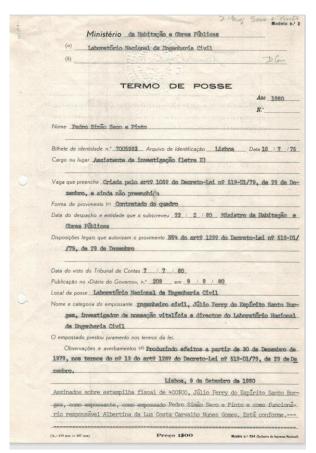
I had the opportunity to re-visit other places in Goa from my childhood, but also in India, Mumbai, New Delhi, Acra, Jaipur, Bangalore, Kolkata (home of Rabindranath Tagore, the Nobel price, 1913), for the first time in my life.

I absorbed the teachings of Sidhartha Gautama, Buda, who 6 century BC, left his palace and devoted his life for the search of spiritual thinking and lightening to reach the pure state of serenity, the nirvana. He rejected the animal sacrifices and the system of the 4 categories brahmans, artists workers, agriculture workers, and untouchables.

Buda never claimed to him the statute of God, so Buddhism can be considered more a practice than a religion.

Buddhism has spread in China, Japan, Korea, Burma, Nepal, Sri Lanka, Thai, Cambodia, and other countries of Asia.

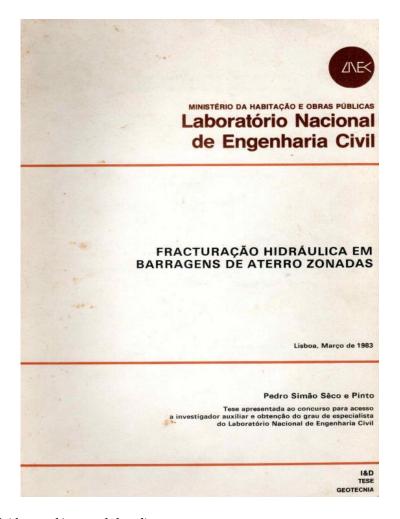
Buda message is currently divulged by Dalai Lama and in the book The Art of Happiness, by Howard, Cutter, 1998, Dalai Lama explains how to face our daily problems and summarizes in a wonderful way how to challenge our own way of thinking, and how to train our mind to achieve happiness.



LNEC 1980 – Assignment as Assistant Research Engineer

In 1979, during a week of holidays in London, I suddenly decided to visit Cambridge University. Prof. Andrew Schofield was kind enough to give a lecture of 1 hour to an unexpected visitor about the cam clay model. I must confess that I absorbed around 50% of the explication, as I had in my master's degree a course of 3 months on constitutive laws.

After my visit, I promised to myself to study better the cam clay model and in my doctoral thesis I developed a modified cam clay model, with nonlinear behaviour, varying the inclination of the virgin curve and incorporating the consolidation of partly saturated soils by extending the Biot theory of consolidation.



Thesis 1983 (doctoral/research level)

# HYDRAULIC FRACTURING IN ZONED EARTH AND ROCKFILL DAMS

#### ABSTRACT

This study is intended as a contribution towards a better understanding of the mechanisms associated with hydraulic fracturing of earth and rockfill dams, and some recommendations to reduce the risk of hydraulic fracturing are presented.

The mechanisms of crack generation are reviewed and the factors related with the cracking of earth and rockfill dams are pointed out and discussed.

Hydraulic fracturing tests in boreholes are analysed, in order to obtain a better understanding of the mechanism by which hydraulic fracturing may occur in cores of embankment dams. The results of hydraulic fracturing tests specially programmed for Alvito dam are presented and compared with the laboratory tests and criteria for hydraulic fracturing proposed by some authors.

The limitations of tensile strength tests performed by several researchers are pointed out and a new procedure is presented. The influence of water content, compactive effort, duration of test, plasticity and stress path on the tensile strength of the clay materials of Alvito and Capinha dams is analysed.

The analytical studies of cracking and hydraulic fracturing of earth and rockfill dams performed by the finite element method are discussed, and the areas where further research is needed are emphasized. A plane strain non-linear finite element computing program is developed to analyse the construction stage and the effects of reservoir filling of earth and rockfill dams. The laboratory tests specially performed to obtain the hyperbolic parameters of core material (dry and wet side) and shell material of Alvito dam are presented. For the purpose of determining under what conditions hydraulic fracturing would occur a parametric study of Alvito dam is performed, varying the water content of the core (below and above optimum Proctor), the thickness of the core, and its position (central and upstream sloping core).

In order to achieve a better approach and the prediction of effective stresses in the core, a plane strain model based on finite element formulation is presented. This model provides an incremental stress-strain relationship (modified cam-clay model) and takes into account the consolidation of partly saturated clay soils with varying permeability and compressibility of the pore fluid. The laboratory and field tests specially programmed to obtain the parameters for this rheological model are described. The same parametric study of Alvito dam is made. The advantages of this procedure, which allows the prediction of the effective stresses, in evaluating the likelihood of hydraulic fracturing after the reservoir filling are stressed.

The results of borehole hydraulic fracturing tests, the values predicted by the two rheological models and the field measurements are correlated in order to evaluate the likelihood of hydraulic fracturing of Alvito dam.

A summary of recommendations to minimize the likelihood of hydraulic fracturing in embankment dams is presented. The areas where further research is needed are pointed out.

In 1983 after the presentation and discussion of the thesis entitled Hydraulic Fracturing of Embankment Dams, I was nominated Research Engineer of LNEC.



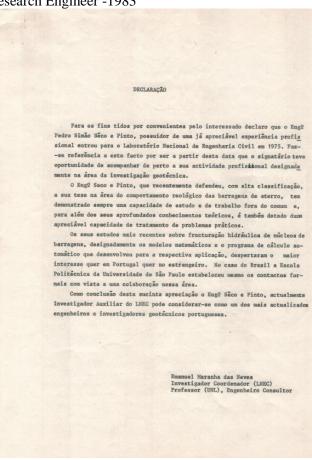
Juri for doctoral(research) thesis (from left to right Prof. E. Maranha das Neves, Prof. Jose Folque, Prof. J. Barreiros Martins, Prof. J. Ferry Borges, Prof. Eduardo Branco and Prof. F. Guedes de Melo)



Defending the doctoral (research) thesis

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LNEC Assignment as Research Engineer -1983



Prof. E. Maranha das Neves (Director of Geotechnical Department) statement

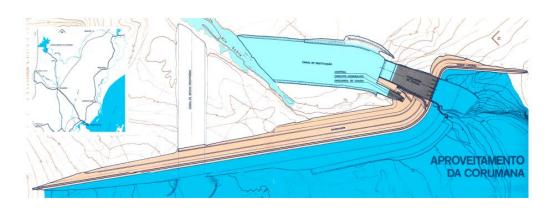
My research topics were Embankment dams, foundations, tunnelling, slopes, and soil dynamics.

#### Involvement with Corumana dam and Pequenos Libombos dam

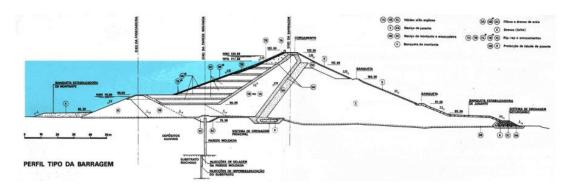
From 1983 to 1986, I coordinated the quality control of the Corumana dam and Pequenos Libombos dam, in Mozambique, and the LNEC-LEM teams displaced in both dam sites. During this period, I had stays of 2 weeks in Mozambique, with a frequency of three months.

The teams were involved in the quality control of the embankment fills, the concrete control, and the dam instrumentation.

Corumana embankment dam is located on river Sabié, in Mozambique, with 46 m high and 3070 m long, a fill material of 7 400 000 m3, a reservoir of 1230 million m³ and the project was developed by Hidrotecnica Portuguesa.



Corumana dam plan (courtesy of Hidrotecnica Portuguesa)



Corumana dam profile (courtesy of Hidrotecnica Portuguesa)

A plastic and flexible diaphragm wall 30 m depth and 0.80 m thick was constructed to control the seepage of the foundations, due to the existence of alluvial sandy materials with high permeability.

The overlapping between primary and secondary panels was 0.30 m, with a minimum 1.0-2.0 m penetration of the panels in bedrock. The accepted vertical deviation of the wall was less than 1:133 =0.0075.

The diaphragm wall slurries have the following composition: Bentonite-liquid limit = 400%, Sand content less 15%, Bentonite/Water = 8%, Cement / Water ratio = 0.25, Admixture NaOH/ Bentonite = 0.6%.

During the excavation the following aspects were monitored: the position of the tool, the verticality and continuity between excavation units, ground profile, depth of excavation, self-hardening slurry level, boulders or obstructions in the ground.

The following parameters were controlled: self-hardening slurry, density =1.2-1.3, Ph value higher 8, Marsh values = 32-35 sec, setting time and bleeding, compressive strength 250-500 kPa for 28 days, permeability less  $10^{-8}$  m/s, axial deformation< 4%, erosion tests for gradients around 75.

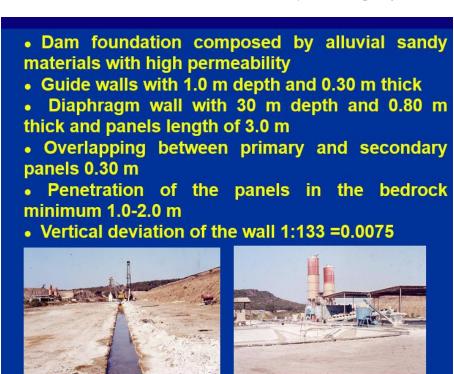
The diaphragm wall specifications have considered for triaxial tests the deviator stress >700 kPa and > 1000 kPa for confining pressures of 100 and 300 kPa.

Uniaxial compression tests for 14 days and 28 days were performed.

Uniaxial compression tests from samples taken during the construction of the panels and also drilling core samples were performed.

To control the diaphragm wall behaviour and efficiency the following types of equipment were installed: (i) hydraulic piezometers on the upstream and downstream sides of the diaphragm wall and with narrow mesh in the downstream side; (ii) inclinometers on the upstream side of the diaphragm wall; (iii) total pressure cells placed in the cap of the diaphragm wall.

In summary: (i) To assess the mixture characteristics careful control of the components was performed; (ii) For the execution of panels, due to the high temperatures, admixtures to increase the setting time were used; (iii) The quality control of the slurries has shown that the design specifications were fulfilled; (iv) The instrumentation has shown the efficiency of the diaphragm wall.



Flexible diaphragm wall



Corumana dam - Detail of diaphragm wall construction



Corumana dam- equipment for the construction of the diaphragm wall



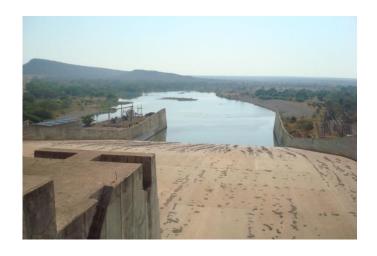
Corumana dam- view of the hammer



Corumana dam – Spillway



Corumana dam - Crest

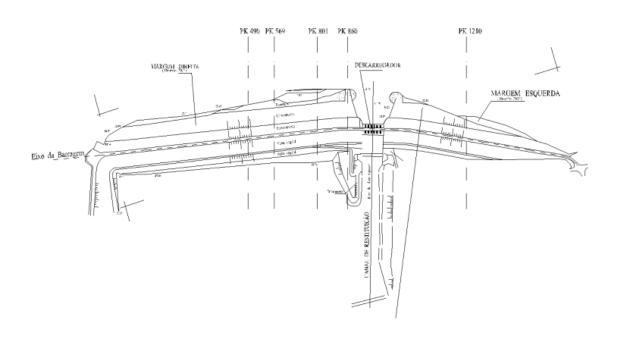


Corumana Dam – Spillway

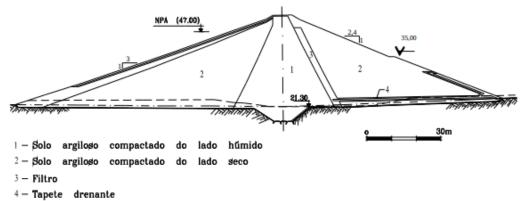


Corumana Dam - dam crest

Pequenos Libombos dam is located in the Umbeluzi river, 1540 m long, and was built to provide water to Maputo city (former Lourenço-Marques city). The reservoir has a maximum capacity of 400 hm<sup>3</sup>. The project was developed by Hidroprojecto.



Pequenos Libombos dam plan



Tapere di citatice

1- Clay material (wet side) 2 - Clay material (dry side) 3 -Filter material 4 -Drainage blanket

Pequenos Libombos dam profile



General view of Pequenos Libombos dam



Pequenos Libombos dam spillway

#### A lucky day

On June 1984, after landing in Maputo airport coming from Lisbon, I travel to Corumana dam site by jeep. The distance is about 130 Km and near 80 Km, I noticed that the driver was almost standing up to drive the jeep.

I questioned him about his strange behavior and he informed me that he was checking the place that few hours before was attached by the opposition movement Renamo that fought with the government army Frelimo. There was evidence of land firing.

When I reached the dam site 50 minutes later, everybody was surprised by my arrival by jeep, as there was an instruction forbidding the traveling by car from Maputo to the dam site for overseas persons, as they should travel by a small plane.

Unfortunately, nobody has informed me and even has sent a jeep with a chauffeur to take me. I was lucky not to be shot.

On the same day, by 6.00 pm, after my supervision at the dam site, I returned to the camping, at a distance of 5 Km, and when I arrived, I noticed that the dam site was being bombed by cannons 122 mm.

Definitely, this was my lucky day for escaping alive, for the second time.

#### Head of Embankment Dams and Foundation Division (1986-1995) -Activity

Technical and economical supervisor in execution of studies under contract covering embankment dams and special foundations (coordinating 9 Engineers and 18 Technicians). Development of research programs, supervision of assistant research engineers, definition and implementation of the scientific policy of LNEC (National Laboratory of Civil Engineer).

In 1987, I was promoted for the position of Principal Research Engineer and my research topics were Embankment dams, foundations, tunnelling, slopes, soil dynamics and earthquake engineering.

Later, in 1987, I had the opportunity to visit for the first time China and to be introduced to the thoughts of Kong Fuzi Kongzi, known as Confucius, who as Buda never claim the statute of God.

#### Now South America - Venezuela -1989

On March 1989, I was requested by the Director of LNEC to travel to Venezuela, to assist with the project of 2 large dams, namely Las Cuevas and Borde Seco, both more than 100 m high.

I arrived on a Saturday evening.

During the night in my hotel in Caracas I heard a lot of noise, I wondered why the feast was very noisy. By 7.30 H on Sunday morning, I went to the restaurant to have my breakfast.

To my surprise the installations were in total darkness and only after 10 minutes I saw a man that informed me that the restaurant was closed, as no employee has appeared, taking into account that during the night there was a revolution commanded by Hugo Chaves against the government.

So, this was the explanation for the last noisy night.

As I was informed that was dangerous to leave the hotel and to circulate in the town, I respected the instructions.

The next day (Monday) at 8.30 H morning, I asked for a taxi and travel to Cadafe (Institute of Water from Venezuela) for my meeting.

The Director of Cadafe informed me about the military and political situation and advise me to return back to Portugal and to come in 3 weeks.

I asked the Director if the critical situation was only in Caracas or in the rest of the country. I was informed that was only in Caracas.

In my way from the airport to the hotel I had the feeling that was only one road and so the Director has confirmed my impression.

In summary, I argue with the Director that the risk to go to the airport to return back to Portugal, was the same if I travelled from the airport to the dam site located near the border with Colombia.

The Director agreed with me, and so I decided to travel to the airport and to take another flight to the dam site.

My travel by car to the airport was an odyssey, as I was lying in the back of the car hearing the shots crossing the road, during the 50 minutes of my itinerary.

Fortunately, I arrived alive at the airport and travelled to the dam site.

After doing the site visits to Las Cuevas dam and Borde Seco dam and taking soil samples to test at LNEC, during 7 days, I return back to Venezuela airport, and had a meeting in the airport with Cadafe officers.

They have shown their recognition by offering me a good dinner and a nice book of Simon Bolivar, and I return back to Lisbon.

In Caracas the military situation was better, but still far from the normal situation.

A summary of the Las Cuevas dam project is shown in Volume 4 - Case History no 9.

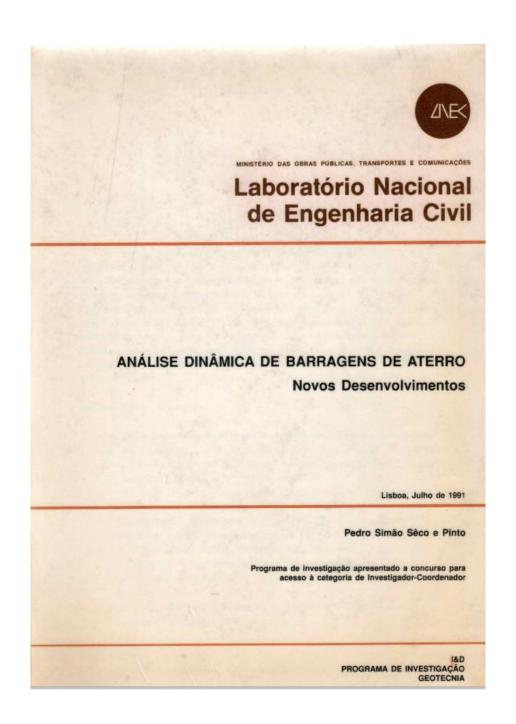
#### Research Director Engineer

In 1992, after the presentation and discussion of the research program entitled Dynamic Analysis of Embankment Dams, I was nominated Research Director Engineer of LNEC and my research topics were

Embankment dams, foundations, tunnelling, slopes, environmental geotechnics, soil dynamics and earthquake engineering.



LNEC team walking for the pile test site



Research Director Programme - 1991

# DYNAMIC ANALYSIS OF EMBANKMENT DAMS New Developments

#### ABSTRACT

This study is a result of a reflection on dynamic analysis of embankment dams and aims to contribute to the development of new methods for the analysis of this problem.

This work is divided into four chapters further to the initial considerations providing an introduction to the research program proposed and to the final remarks where the prospects and benefits of the program are pointed out.

In the first chapter laboratory and field tests for the evaluation of soil dynamic properties are reviewed and their potentialities and limitations are discussed.

In chapter 2 the liquefaction phenomenon is analyzed in order to obtain a better understanding of its mechanism, methods to evaluate the liquefaction potential are presented, and different factors related with this phenomenon are discussed. Models for studying liquefaction are described. Future trends are pointed out.

In chapter 3 studies to analyse the dynamic behaviour of embankment dams during earthquakes are described and the path of experimental methods and mathematical methods is presented.

In order to achieve a better approach, a mathematical model is presented and a comparison between the results of 2D and 3D analyses is done.

A summary of recommendations to minimize the effects of earthquakes in embankment dams is presented. The phenomenon of

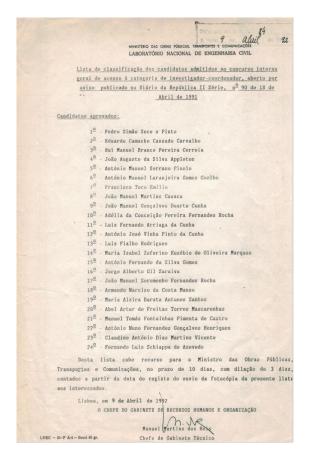
induced seismicity is discussed.

The advantages of field dynamic tests in order to evaluate the behaviour of prototype are stressed.

Finally some reflections on structural safety of embankment dams are presented.

Chapter 4 stresses the need to develop the following open questions: (i) Evaluation of residual post-cyclic strength of cohesive soils; (ii) Evaluation of the maximum shear modulus of soils; (iii) Liquefaction of sands with gravel; (iv) Dynamic analysis with non-linear and effective rheological models; and (v) Development of new models that incorporate the influence of the foundation and the hydrodynamic effects of reservoir on the dynamic analysis of concrete face rockfill dams.

The ultimate purpose of this study is the development of new methods for dynamic analyses of embankment dams.



Classification of the candidates for Research Director Engineer - 1st Position



Assignment LNEC-1992- Director of Research

#### Head of Special Studies Division (1996-2003) – Activity

Technical and economical supervisor in the execution of studies under contract covering landslides, and retaining walls (8 Engineers and 16 Technicians were under my supervision). Development of research programs, supervision of assistant research engineers, definition and implementation of the scientific policy of LNEC (National Laboratory of Civil Engineer).



Working at LNEC office

In November 1995, I requested and early retirement from LNEC to devote in full time to the position of ISSMGE President.

My colleagues help me to remove the blocks I count on them in so very many ways. They support my work to advance my Mission to serve LNEC, to live these highest goals.

#### 7. UNIVERSITY ACTIVITIES

As an Invited lecturer of University Nova de Lisboa (UNL) I delivered for Master Engineering Degree in Soil Mechanics and Geotechnical Engineering courses on Soil Mechanics, Foundations, Embankment Dams and Instrumentation and Monitoring, during the period of 1977-1995.

The NOVA School of Science and Technology (NOVA FCT) is one of the three largest and most prestigious schools of Engineering and Sciences in Portugal. It is located 15 minutes away from Lisbon, is renowned for its excellence in research, for the quality of graduates, masters and doctors.

NOVA FCT, with about 8500 students, all courses are accredited by the A3ES (Agency for Assessment and Accreditation of Higher Education) and all Engineering courses are recognized by the Order of Engineers, FEANI (Federation of Professional Engineers that unites national engineering associations from 33 European Higher Education Area (EHEA) countries) and EUR-ACE (European Accredited Engineer).

NOVA FCT is structured in 13 Departments and 16 Research Centres,

Its scientific production, gives it wide international recognition (the value of the scientific production index - SciVal Citation Impact - is 1.35, NOVA FCT is 35% above the world average). This performance allows the faculty to participate in consortiums with European and US universities, namely MIT, CMU and the University of Texas.



**UNL- Master Engineering Course** 



UNL -Master Engineering Course- Technical visit

In 1992, as a Guest Lecturer, I delivered in University of California, Irvine, a Seminar on Pile Tests for Lateral Loadings and also a Course on Performance and Design of Earth Dams.

As Invited Full Professor of University of Coimbra I delivered courses on Geotechnical Design, Advance Geotechnics, Instrumentation and Monitoring, during the period 1995- 2007.

The University of Coimbra (UC) is a Portuguese public higher education institution with 730 years of experience. The first and the only Portuguese-speaking university until the early 20th century, UC has affirmed its position over the years with a unique mix of tradition, contemporaneity and innovation. With over seven centuries, the University of Coimbra has a unique tangible and intangible heritage, a keystone in the scientific culture of Europe and the World. UC was classified as World Heritage by the UNESCO in 2013 for its role as the center of production of Portuguese language, literature and thinking and for the universal value of its campus. Today, UC is a large complex structure with three campuses, more than 21,000 students from about 100 different nationalities, and academic and non-academic staff members highly active and committed to the quality of research and education as well as to the development of knowledge and technology transfer activities, which target the well-being of the society and the economic enhancement of humanistic, artistic and scientific knowledge.

At the first day of the course, I had the practice to distribute to the students the programme of the course some notes to support the course and some papers published by me.

Also, I provide them with the number of my mobile and my e-mail and informed that we were going to meet at the end of the semester for the final exam.

The students were a lit bit surprise and so I informed them that classes were important as the professor had the duty to transmit his experience and to teach the students where the theory was limited or insufficient to solve real engineering projects based in the lessons learned.

To turn the course more attractive the students had to develop a dam project and a foundations project. I was always questioning the students to participate in the discussion of new solutions.

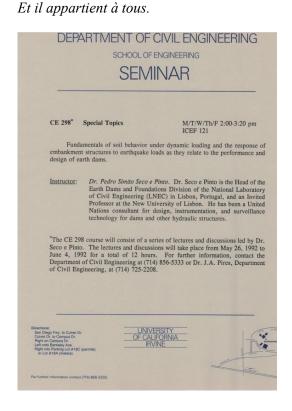
During a discussion I asked one student if he was agreeing with my proposal, and he responded to me that if the professor was saying so, it should be correct.

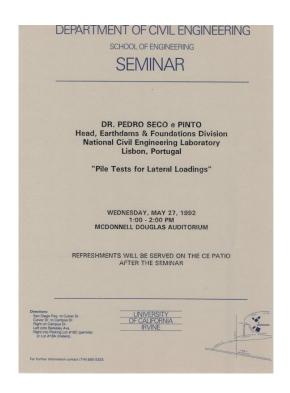
I responded that if even the Pope says something, we should not accept it directly, without a deep analysis.

I was evaluating the interest of the course, if at the end of the semester, the number of students was higher than on the first day.

In July/August 2011, I delivered a Seminar in Kuala Lumpur with 10 lectures on Seismic Design, Unsaturated Soils and Soil Improvements.

In dealing with transference of knowledge we should not forget the memorable lines of Voltaire: Il en est des livres comme du feu dans nos foyers
On va prendre le feu chez son voisin,
On l'allume chez soi,
On le communique à d'autres





Seminar on Pile tests at University of California-Irvine

Embankment Dam course at University of California-Irvine



Lunch in Coimbra with the university professors and families for the occasion of Christmas in 1999

The important role of the Universities is to prepare the students to face the needs and the challenges of the society. The Universities should help the students to develop an independent thinking and the capacity to take decisions, to reduce the gap between theory and practice, to explore the intuition and the importance of engineering judgment. In addition, the hot topics and the case histories of accidents should be addressed.

Within this framework my expectation is that the university curricula should help the students to develop nuclear values, such as freedom, generosity, initiative, creativity, and mutual support. I believe that the capacity and the devotion of the professors will guarantee this purpose.

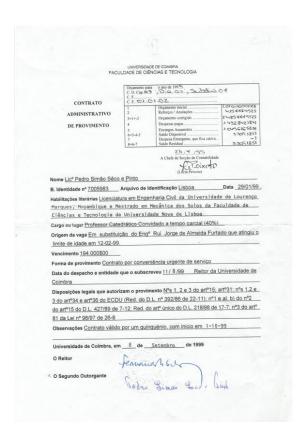


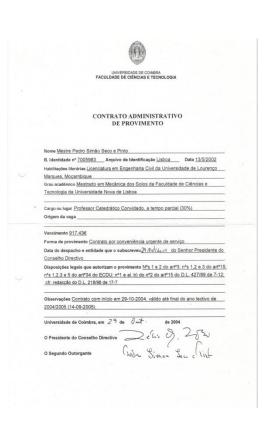
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Assignments with University of Coimbra





Following the received invitations, I delivered lectures, as Guest Lecturer, in the following Universities:

- University Eduardo Mondlane, Mozambique, 1986;
- University of Roorkee, India, 1988;
- University of Goa, India, 1988;
- University of Lima, Peru, 1995;
- Slovenia Technical University, 2003;
- University of Zagreb, Croatia, 2003;
- Tallin University, Estonia, 2004;
- University of Mysore, India, 2005;





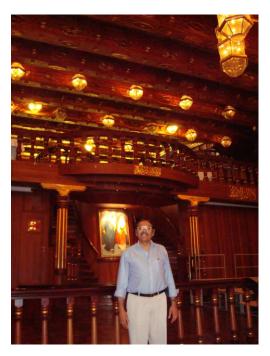
University of Mysore (India)

## - Hong Kong University, 2007;



University of Hong Kong auditorium

### University of Kuwait, 2008;



University of Kuwait auditorium

University of Sharjah, Emirates Arabic United, 2008;



University of Sharjah (Emirates Arabic United)

- Griffith University, Australia, 2008;
- Tonghi University, Shanghai, China, 2008;
- University of Hohai, China, 2008;



University of Hohai



- University of Bangalore, India, 2008;
- University of Cordoba, Argentina, 2009;
- University of Brno, Check Rep., 2009;



University of Cordoba, 2009

- AIT, Thailand, 2009;
- Zhejiang University Education Foundation, China, 2009;
- Singapore University, 2011;
- Norton University, Cambodia, August, 2011;



University of Zhejiang, China, 2009.



Norton University, Cambodia, August, 2011

- University of Theran, Iran, 2011;
- Holy Trinity University, Philippines, 2012;
- University of Tiansing, China, 2012;

- Eurasian University, Astana, 2013;
- University of Texas, USA, 2013.



Holy Trinity University, Philippines, November 2012



University of Texas, April, 2013

### 8. PORTUGUESE INSTITUTE OF ENGINEERS



**Piortbiogn**al

Front view of the Portuguese Institute of Engineers building (Ordem dos Engenheiros)

### http://www.ordemengenheiros.pt/

The Ordem dos Engenheiros (OE) is the entity responsible for the accreditation of engineers and engineering courses in Portugal. It has a goal to foster the development of education and training in engineering and participate in the evaluation of courses that give access to the profession. The organization supports an Admission and Qualification Council comprised of experts in the various fields of engineering to develop processes and overseas program accreditation.

The Ordem dos Engenheiros (OE) is the professional association of all Portuguese engineers. It has around 45,000 members. It is the successor of the Association of Civil Engineers which had been founded in 1869. Legally it is a not-for-profit association.

The members are those who have obtained an engineering degree in a five-year university course that has been approved by OE. The OE also gives other qualification titles (senior, specialist, etc.) to its members, according to their experience. Awarding these titles is performed by internal technical groups of OE

The organization of the Ordem dos Engenheiros comprises a national council and several regional representations including the islands of Madeira and Azores.

The OE is also divided into colleges according to the engineers' specialization. The Civil Engineering College represents around 40% of the total members of OE. The participation of OE in the ECCE is performed by the Civil Engineering college.

The activities of OE include the evaluation of the university courses, activity in preparation of legislation related to engineering, organization of scientific and cultural activities, consultant activities related to professional and technical problems, etc.

It is important to refer the important role of OE related the seismic projects. As Portugal is located in a seismic zone, from the analysis of the incidents and accidents that occurred during the earthquakes we can concluded that all the lessons were not absorbed, in order to avoid the repetition of the mistakes.

We need to implement a global conscience, to develop a better strategy to better serve the society. A better planning, warning system, evacuation plans for extreme events deserve more attention.

Plato (428-348 AC) in his book Timaeus stressed that destructive events that occurred in the past can happen in the future and for prevention and protection we should follow the example of Egyptians and preserve the knowledge by writing.

The implementation of innovative solutions to reinforce the structures needs a joint effort of seismologists, geologists, geotechnical engineers, structural engineers, Industry, Owners and Decision Makers.

We need to recognize that despite the great developments in Engineering, when we look to the past, we feel great admiration for the pearls such as the Pyramids of Egypt, Macchopichu, Mexico pyramids, Roma Coliseum, Acropolis, China Wall, Taj Mahal Tomb, a heritage from ancient engineers. We should not forget this lesson.

Ordem dos Engenheiros has developed a great activity in renewing and updating the knowledge, as we are facing new challenges. The scientific truth is not definitive and demands a continuous and permanent effort.

. The intellect of man is forced to choose perfection of life or of work W.B. Yeats. The Choice.

OE (Ordem dos Engenheiros) had the generosity to grant me several honours and awards:

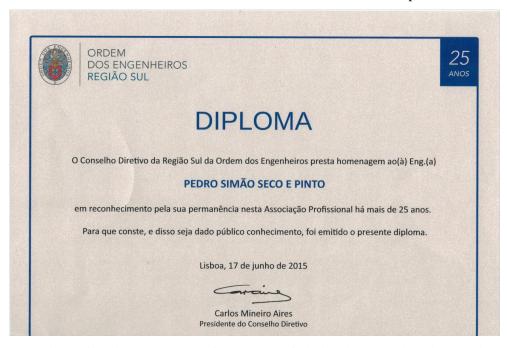
- Member of Portuguese Institute of Engineers, 1972;
- Level C1 Degree;
- Title of Specialist in Geotechnique, 1984;
- 25 years of distinguished engineering services;
- Title of Adviser Member (the highest degree), 2008;
- 50 years of distinguished Engineering services.



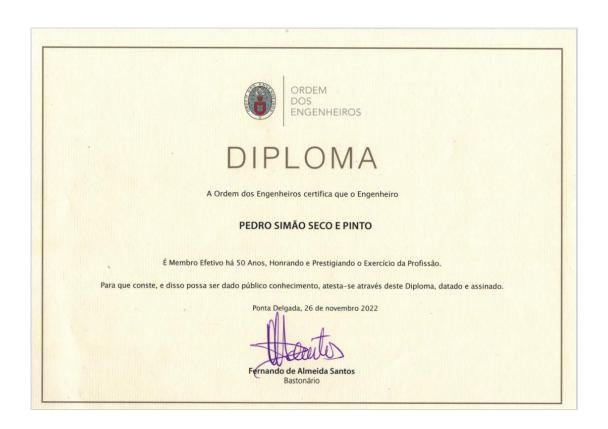
O.E. - Level C1 Degree



O.E. 1984- Specialist in Geotechnique



- Portuguese Institute of Engineers - Honnor for 25 years of Distinguished Engineering Services,



- Portuguese Institute of Engineers - Honnor for 50 years of Distinguished Engineering Services, 2022.

Following the requests of Ordem dos Engenheiros I wrote several reports for the evaluation of the degree of Specialist in Geotechnique, requested by several colleagues, and also, I supervised the training period of several young engineers revising their final reports.

### 9. SPG - PORTUGUESE GEOTECHNICAL SOCIETY

### **History**

The Portuguese Society for Soil Mechanics (PSSM) was created in 1951 and became a member of ISSMFE in 1955. PSSM has changed the name to Portuguese Association for Soil and Rock Mechanics (PASRM) after becoming a member of ISRM in 1962. Later in 1972 PASRM became a member of IAEG and to reflect the international membership the society has changed the name to SPG (Portuguese Geotechnical Society). Finally in 2006 SPG became a member of ITA and has also integrated IGS.

SPG members have been actively participating in several Technical Committees of ISSMGE, ISRM, IAEG, ITA, and IGS.

SPG publishes the journal *Geotecnia*, with a triannual frequency, since 1971. SPG publishes also with ABMS the Journal *Soil and Rocks*.

SPG has organized a number of international conferences, namely:

- 1st ISRM Conference, 1966
- 7<sup>th</sup> IAEG Conference, 1994

- 3<sup>rd</sup> International Conference on Environmental Geotechnics, 1998
- 2<sup>nd</sup> International Conference on Earthquake Geotechnical Engineering, 1999
- 2<sup>nd</sup> International Conference on Site Characterization, 2004
- 11th ISRM Conference, 2007
- 8<sup>th</sup> International Conference of Stress Wave Theory to Piles, 2008
- 3<sup>rd</sup> International Conference on Transportation Geotechnics, 2016

The success of the mentioned events was for us a strong incentive to organize for the first time in Lisbon the XVIII European Conference on Soil Mechanics and Geotechnical Engineering, that will take place in 2024.

### My role with SPG

- Member of Portuguese Geotechnique Society (1976).
- Secretary of Portuguese Geotechnique Society (1983-1987).
- Organizer and Supervisor of 1<sup>st</sup> and 2<sup>nd</sup> National Congress in Geotechnique (1st and 2nd Encontro Nacional de Geotecnia). Responsible for: (1) Program of the Symposium; (2) Revision and edition of Symposium Proceedings; (3) Technical Sessions; (4) Registration and Distribution of Proceedings; (5) Technical Exhibition; (6) Social Program.

The 1st N.C.G. (1985) was attended by 380 delegates.

the 2<sup>nd</sup> N.C.G. (1987) was attended by 450 delegates.

- Co- Organizer of the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4 th Manuel Rocha Lectures.
- Supervisor of the Seminar "Compaction and Paving Theory and Practice, 1989.



Proceedings of the 1st CNG



Proceedings of the  $2^{nd}$  CNG



Dr. Jose Folque (in the middle), in the right L. Fialho Rodrigues and in the left Pedro Sêco e Pinto  $-2^{nd}$  CNG



Opening Ceremony- Main Table



View of the delegates

For the first Manuel Rocha Lecture, in 1984, I thought that was not polite from SPG to send the invitation to the Manuel Rocha family by post office.

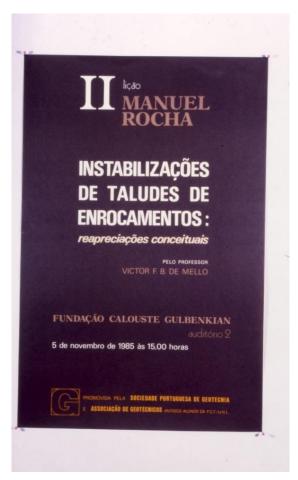
So, I decided to visit personally the widow Teresa Rocha in her home, for the dinner time, to handle the poster and the invitation card prepared by me, as Secretary General of SPG.

Teresa Rocha was very touched and showed me the room with all the prizes and awards that Manuel Rocha has received and currently are exposed in LNEC.

We became friends and on behalf of SPG I invited her to the first and second SPG Congress, taking into account that Manuel Rocha was the Honorary President of SPG, as well for the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Manuel Rocha lectures,



1st Manuel Rocha Lecture



2<sup>nd</sup> Manuel Rocha Lecture



3<sup>rd</sup> Manuel Rocha Lecture

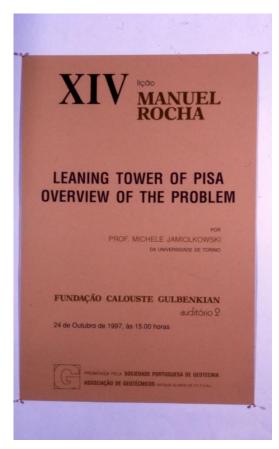
- Supervisor of Workshop "Permeability Tests and Grouting" 4th National Geotechnical Congress, 1991.
- Chairman of Organizing Committee of "Workshop on Seismic Zoning Methodologies for Geotechnical Hazards", 1992.
- Supervisor of the Seminar "Recent Developments, in Ground Improvement Techniques", 1993.
- Member of the Committee for the Award of the Best Master Thesis of the Portuguese Geotechnical Society, 1994.
- Treasurer of the Organizing Committee of the 7<sup>th</sup> Congress of the International Association of Engineering Geology (1994).
- Member of the Committee for the Award of the Revue Geotecnia of the Portuguese Geotechnical Society,1996.
- President of the Organizing Committee of the 25 <sup>th</sup> Anniversary of SPG (Portuguese Geotechnical Society) 1997.
- Member of Scientific Committee for the 6<sup>th</sup> Portuguese Geotechnical Congress, Lisbon, 1997.
- President of Portuguese Geotechnical Society (1996-2000).
- Co-Organizer of the XIV and XV th Manuel Rocha Lectures (1996-1999).
- Member of the Scientific Committee of the 7<sup>th</sup> Portuguese Geotechnical Congress, Porto, 2000.
- Member of the Scientific Committee of 9th Portuguese Geotechnical Congress, Aveiro, 2004
- Member of the Scientific Committee of 10<sup>th</sup> Portuguese Geotechnical Congress, Lisboa, 2006
- Member of the Scientific Committee of 11th Portuguese Geotechnical Congress, Coimbra, 2008
- Member of the Scientific Committee of 12th Portuguese Geotechnical Congress, Guimarães, 2010
- Member of the Scientific Committee of 13th Portuguese Geotechnical Congress, Lisboa, 2012
- Member of the Scientific Committee of 14th Portuguese Geotechnical Congress, UBI, 2014
- Member of the Scientific Committee of 15<sup>th</sup> Portuguese Geotechnical Congress, Porto, 2016
- Member of the Portuguese Committee for the candidature to host XVIII ECSMGE, 2017
- -- Member of the Scientific Committee of 16<sup>th</sup> Portuguese Geotechnical Congress, Ponta Delgada, 2018
- Member of the Scientific Committee of 17th Portuguese Geotechnical Congress, Lisboa, 2021
- President of the Scientific Committee for XVIII ECSMGE, Lisbon, 2021
- Portuguese Geotechnical Society (SPG) Honnor President and Honnor Member, Lisbon, 2022.
- Member of the Scientific Committee of 18th Portuguese Geotechnical Congress, Evora, 2023.



 $Special\ Volume-25\ Years\ of\ SPG$ 



View of the delegates- 25 Years of SPG



XIV<sup>th</sup> Manuel Rocha Lecture



XV<sup>th</sup> Manuel Rocha Lecture



7<sup>th</sup> Portuguese Geotechnical Congress in Porto, 2000 - Opening Ceremony

Some pieces of my Opening Address of 7<sup>th</sup> Portuguese Geotechnical Congress, as President of SPG:

"The knowledge and the deep comprehension of the science stress our responsibility with everybody and with ourselves, and for the need of this responsibility to be used to protect the global family, to support the weak members and to preserve the environment.

We need to raise this conscience, but this goal demands a continuous and permanent effort.

The Portuguese Geotechnical Society (SPG) has a great connection with the International Societies, namely, with the "International Society for Soil Mechanics and Geotechnical Engineering" (ISSMGE), the "International Association of Engineering Geology and the Environment" (IAEG), the "International Society of Rock Mechanics" (ISRM), the "International Tunnelling Association" (ITA) and the International Geosynthetics Society (IGS).

The National Geotechnical Congress organized by SPG and the International and Regional Conferences promoted by ISSMGE have been a great forum of discussion and sharing of experiences.

Within this framework it is important to analyse the role of Geotechnics in our Society and to question: The risk of geotechnical structures has been minimized with success by the geotechnical professions? Has the geotechnical community explored the best directions related the research, design, construction and safety evaluation of geotechnical structures?

It is true that the geotechnical structures are complex and vulnerable to accidents, but as Samuel Butler "Life is the art of drawing sufficient conclusions from insufficient premises".

We should not forget that it is not the lack of knowledge that provoke problems, but our obstinacy in having certainties and that:

"The important thing in science is not So much to obtain new facts, as to discover New ways of thinking about them."

### 10. ISSMGE ACTIVITIES

### **History**

The International Society had its origins in the First International Conference on Soil Mechanics and Foundation Engineering held in Harvard in 1936. A total of 206 delegates attended from 20 countries. In order to ensure continuation of this very successful initiative, an Executive Committee was set up with Karl Terzaghi as President and Arthur Casagrande as Secretary; but war intervened and the Second ICSMFE was not held until 1948 in Rotterdam. Again, this proved to be a great success, with 596 delegates. By the time of the Third ICSMFE in Zurich in 1953, the International Society had become firmly established, with Terzaghi as President and Donald Taylor as Secretary. In 1957 A. W. Skempton became President, and the Secretariat moved to the UK. Since 1965, the Secretaries General have been J.K.T.L. Nash (1965-1981), J.B. Burland (1981), R.H.G. Parry (1981-1999), R.N. Taylor (1999-2023) and A.M. McNamara (2023-date). The quadrennial ICSMFE became an established pattern from 1953 and the Jubilee Conference was held in San Francisco in 1985, attracting 2000 delegates and guests. The first Regional Conference was the Australasian Conference held in Australia in 1952, and quadrennial Regional Conferences have also become an established pattern. In 1981 the Steering Committee was set up to give a better focus to the rapidly expanding Society. It became the Board in 1985, which meets every year, while the Council meets every two years. In 1997, Council approved a change in name to the International Society for Soil Mechanics and Geotechnical Engineering to reflect more accurately the activities of the Society.

ISSMGE has experienced a rapid growth in membership, the 32 Member Societies and 2500 individual members in 1957 increasing to 50/11500 in 1977, 71/16500 in 1998, 89/20800 in 2017, 90/21000 in 2023. The growth in membership has been matched by increasing activities, largely through the establishment of many active Technical Committees and Task Forces.

Source: ISSMGE.org/the-society/history

### **ISSMGE Presidents**

- 1. 1936–1957 Karl Terzaghi (USA)
- 2. 1957–1961 Alain W. Skempton (UK)
- 3. 1961–1965 Arthur Casagrande (USA)
- 4. 1965–1969 Laurits Bjerrum (Norway)
- 5. 1969–1973 Ralf B. Peck (USA)
- 6. 1973–1977 Jean Kerisel (France)
- 7. 1977–1981 M. Fukuoka (Japan)
- 8. 1981–1985 Victor. F. B. de Mello (Brazil)
- 9. 1985–1989 Bent B. Broms (Sweden)
- 10. 1989–1994 Norbert R. Morgenstern (Canada)
- 11. 1994–1997 Mike Jamiolkowski (Italy)
- 12. 1997–2001 Kenji Ishihara (Japan)
- 13. 2001–2005 William Van Impe (Belgium)
- 14. 2005–2009 Pedro Sêco e Pinto (Portugal)
- 15. 2009–2013 Jean L. Briaud (USA)
- 16. 2013–2017 Roger Frank (France)
- 17. 2017–2022 Charles W.W. Ng (Hong Kong SAR, China)
- 18. 2022-2026 Marc Ballouz (USA).

This chapter will give a brief summary how ISSMGE operates, namely the Board meetings (with a periodicity of 6 months), the Council meetings (with a frequency of 2 years) and the Technical Committees.

Also, the International Conferences, the Regional Conferences, the Conferences organized by the Technical Committees and the Young Geotechnical Conferences will be addressed.

The important activity of the Touring Lectures/International Conferences will be referred. Last but not least, the important role of the communications vehicles, such as ISSMGE Bulletin and International Journal of Case Histories will be stressed.

### 10.1. Technical Committees

### 10.1.1. TC – Units, Symbols, and Definitions (1984-1988)

Invited by the President Victor de Mello to be a member.

### 10.1.2. Member of TC4- Earthquake Geotechnical Engineering (1992-1994)

Chaired by Prof. Kenji Ishihara and I was invited to be a member.

I organized in 1992, in Lisbon, a Seminar on Soil Dynamics and Geotechnical Earthquake Engineering.

### 10.1.3. Chairman TC4- Earthquake Geotechnical Engineering (1994-2000)

As Chairman of TC4 my role was the following:

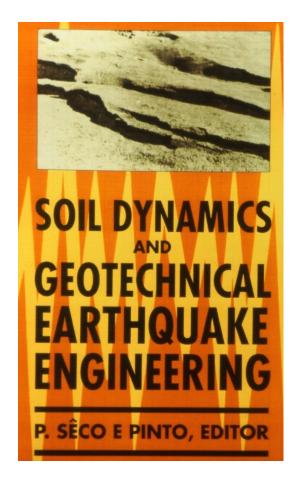
- Chair of the 1st ICEG organized by Japanese Geotechnical Society in Tokyo, 1995;
- Organizer of a Seminar for the occasion of 11th WEEC in Mexico, 1996;
- Organizer and Editor of the Proceedings of a Seminar, for the occasion of the 14<sup>th</sup> ICSMGE in Hamburg, 1997;
  - Discussion of the Manual of Zonation prepared by the Japanese Geotechnical Society;
  - Organizer and Editor of the Proceedings of the 2nd ICEGE in Lisbon, 1999;
- Organizer of a Seminar for the occasion of 12th WEEC in Auckland, 2000;
- Organizer of a Seminar for the occasion of GEO Eng 2000 in Melbourne, 2000.



Seminar on Soil Dynamics and Geotechnical Earthquake Engineering (1992) – View of delegates



Seminar on Soil Dynamics and Geotechnical Earthquake Engineering (1992) – Main Table



Proceedings of the Seminar



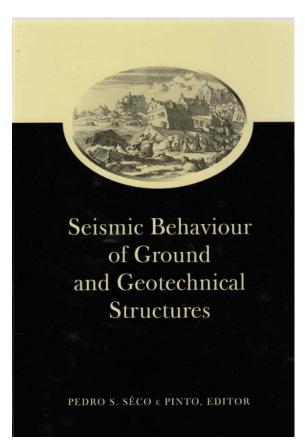
From left to right Prof. E. Maranha das Neves, Júlia Maranha, Pedro Sêco e Pinto and J. Bilé Serra



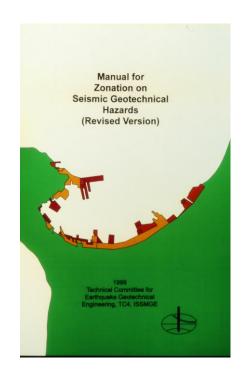
Delegates of the Seminar



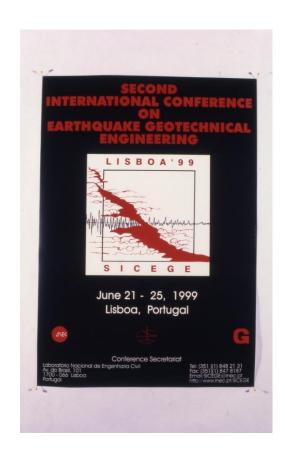
11 th WEEC – Mexico, 1996



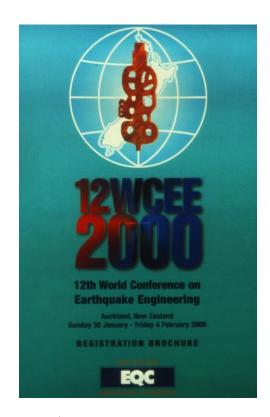
Proceedings of the Seminar in Hamburg, 1997



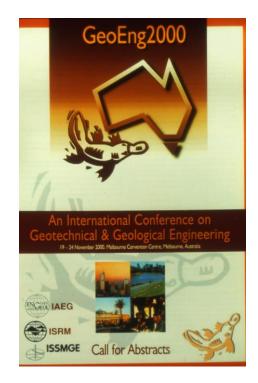
Manual of Zonation



2nd ICEE – Lisbon, 1999



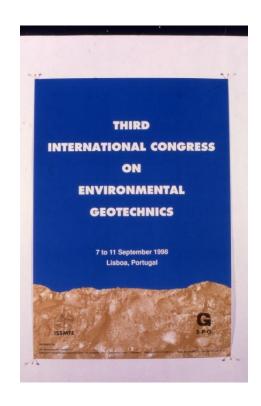
12th WEEC - Auckland Seminar (2000)



GEO ENG Seminar – Melbourne 2000

### 10.1.4. TC5 – Environmental Geotechnics (1997-2001)

As a member of TC5 Environmental Geotechnics, chaired by Jessberg/Van Impe, I participated in the organization of the Manual and in the organization of 3<sup>rd</sup> ICEG (my role was 3<sup>rd</sup> ICEG Secretary General), in Lisbon, 1998.



3<sup>rd</sup> ICEG- Lisbon 1998

### 10.2. Positions

### 10.2.1. ISSMGE VP (for Europe) -2001-2005

### **BOARD MEETINGS**

Following my role as VP for Europe I have participated in the following Board meetings:

Hong Kong (December, 2001) Ghent (June, 2002) South Africa (November, 2002) Prague (August 2003) New Zealand (February, 2004) Costa Rica (July, 2004) – not physically Austin, USA, 2005 Osaka (September, 2005)



Board meeting in Hong Kong (December, 2001)

From left to right- Kenji Ishihara (Immediate Past President), Michele Gambin (Appointed Board Member), Grant Murray (VP for Australasia), Harry Poulos (Appointed Board Member), Neil Taylor (Secretary General), William Van Impe (President), Pedro Sêco e Pinto (VP for Europe), Fumio Tatsuoka (VP for Asia), Luis Guilherme (Appointed Board Member), Dick Woods (VP for North America), Juan Bosio (VP for South America) and Peter Day (VP for Africa).



Board meeting in Ghent (June, 6, 2002) (first row – left to right), Luis Guilherme (Appointed Board Member), Peter Day (VP for Africa), William Van Impe (President), Kenji Ishihara (Immediate Past President), Neil Taylor (Secretary General);

(second row – left to right): Grant Murray (VP for Australasia), Juan Bosio (VP for South America), Harry Poulos (Appointed Board Member), Pedro Sêco e Pinto (VP for Europe), Michele Gambin (Appointed Board Member, Fumio Tatsuoka (VP for Asia) and Dick Woods (VP for North America).



Board dinner in Ghent (June 6, 2002)



ISSMGE Board with other colleagues from South Africa Soil Mechanics Society (November, 2002)



ISSMGE Board in South Africa (November, 2002)



**Board Members and Families** 



Enjoying the lunch (November, 2002)



Board meeting (November, 2002) (first row – left to right: Grant Murray (VP for Australasia), Peter Day (VP for Africa), William Van Impe (President), Neil Taylor (Secretary General), Pedro Sêco e Pinto (VP for Europe), Fumio Tatsuoka (VP for Asia)

(second row – left to right: Michele Gambin (Appointed Board Member), Dick Woods (VP for North America), Luis Guilherme (Appointed Board Member) and Harry Poulos (Appointed Board Member).



Visit of the elephant



Visit of the giraffes

Related the board meeting that took place in South Africa in November 2002, we are grateful to Peter Day invitation to dinner in his farm. It was a very nice evening, with good food and wine and lovely company. In addition, a show of native songs.



Show of native songs

Also, during our stay, we had the opportunity to participate in a very exciting safari,



Safari - zebras

### Prague August (2003)-XIII ECSMGE

As Vice President for Europe, I chaired the Conference Advisory Committee (CAC) for the XIII ECSMGE that would take place in Prague on August 2003.

I had during 2002, 2-3 meetings with the Conference Organizing Committee (COC), chaired by Prof. Ivan Vaniceck.

In the ISSMGE Board (2001-2005) there was a great enthusiasm to support the candidature of Egypt to organize the XV ICSMGE in Alexandria, 2009, as since 1936, Africa has not hold any ISSMGE Conference.

Europe was integrating 45 % of the Member Societies, playing an important role in the result of the voting, and so I have recommended European Member Societies to support Egypt candidature.

The outcome of the Council voting in Prague was: Canada 16, Egypt 29, Mexico 8, so Egypt was declared the winner.



Board meeting in New Zealand (February, 2004)

From left to right- Kenji Ishihara (Immediate Past President), Harry Poulos (Appointed Board Member), Grant Murray (VP for Australasia), Neil Taylor (Secretary General), Peter Day (VP for Africa), Fumio Tatsuoka (VP for Asia), William Van Impe (President), Juan Bosio (VP for South America), Dick Woods (VP for North America), Pedro Sêco e Pinto (VP for Europe), Luis Guilherme (Appointed Board Member).



Board meeting in Austin (USA, 2005) (first row – left to right), Grant Murray (VP for Australasia), William Van Impe (President), Neil Taylor (Secretary General), Fumio Tatsuoka (VP for Asia); (second row – left to right): Juan Bosio (VP for South America), Dick Woods (VP for North America), Luis Guilherme (Appointed Board Member), Harry Poulos (Appointed Board Member), Pedro Sêco e Pinto (VP for Europe) and Peter Day (VP for Africa).



Board meeting in Osaka, (September, 2005) (first row – left to right) Dick Woods (VP for North America), William Van Impe (President), Neil Taylor (Secretary General), Kenji Ishihara (Immediate Past President)

(second row – left to right): Pedro Sêco e Pinto (VP for Europe), Peter Day (VP for Africa), Juan Bosio (VP for South America), Grant Murray (VP for Australasia), Fumio Tatsuoka (VP for Asia), Harry Poulos (Appointed Board Member) and Luis Guilherme (Appointed Board Member).

### **Council Meetings**

### Prague Council Meeting (2003)

Related to the Prague Council Meeting (2003) I have presented, as co-ordinator of the Task Force State of Knowledge of Geotechnical Engineering, the following report:

# TASK FORCE TATE OF KNOWLEDGE OF GEOTECHNICAL ENGINEERING

### TERMS OF REFERENCE

- To offer support to national societies with the purpose to improve geotechnical activities
- To develop strategies for a continuing education activating the lecture tours
- To interact with TC 31 Education in Geotechnical Engineering in order to render compatible the activities
- To establish close contact and give support to the organising committees of the regional YGEC
- To establish links with Thematic Networks on Geotechnical Engineering Education and Training

### MODEL LIBRARY

- English Model Library includes 11 books
- Francophone Model Library includes 8 books and 15 guides
- The future of the Model Library Scheme
- Update of the list of texts (donations of books or subscriptions to journals)
- Policy of distribution

### TOURING LECTURE

- The 1<sup>st</sup> Touring lecture in Lagos on 2001 by the Nigerian Geotechnical Association under the sponsorship of Trevi Foundations Ltd. entitled Geotechnical Site Characterisation and Soil Improvement
- Lectures tours should addressed the real needs of practising engineers and should incorporate a good mix of routine and modern soil mechanics
- Touring lectures should be delivered in all regions of the Society, with strong local support and organisation and by preference in the native language

### INTERACTION WITH ITC31

- How the role of the geotechnical consultant has changed over the last three decades and how these changes are or should be reflected in the present geotechnical engineering teaching curriculum
- To help ISSMGE playing a leading role in the implementation of a renewed education program including the preparation to new challenges
- Related with the future of higher education in Europe is important to mention Sorbonne Declaration –25<sup>th</sup> May 1998 and Bolonha Declaration –19<sup>th</sup> June 1999

# INTERACTION WITH ITC31 AND OTHER ITCS

- To contribute for the issue regarding the weight of codes and regulations in graduate and post-graduate education
- Requesting ITC Chairmen to suggest 5-10 key references related with their particular technical activity to include the information on the website
- The links with Thematic Networks on Geotechnical Engineering Education and Training (e.g. SOCRATES-ERASMUS; EUCEET)

## REGIONAL AND INTERNATIONAL YGEO

- 5 th AYGE Conference in Rotorua (New Zealand) in March 2002 organised by the NZGS, attended by 45 delegates
- 1st AYGE Conference organised by the South African Society in Namibia, from 14 to 16 April 2003, attended by 50 delegates
- 2<sup>nd</sup> IYGE Conference, organised by the Romanian Geotechnical Society in Mamaia, 6 - 11 September 2003
- The 5<sup>th</sup> Asia YGEC will take place in 2004, in Taiwan, organised by SEA society

### **FUTURE ACTIVITIES**

- Model library is suspended and will be reanalysed in a different framework
- To receive comments from the Technical Committees for the diffusion of key publications
- To interact with the Regional Societies, through the Vice Presidents, to promote Touring Lectures
- Continuous interaction with TC 31- Education in Geotechnical Engineering and other ITCs

### **VOLTAIRE**

ll en est des livres comme du feu dans nos foyers On va prendre le feu chez son voisin, On l'allume chez soi, On le communique à d`autres Et il appartient à tous

In addition, I have submitted the following report:

Report of European Region by the Vice President Pedro Sêco e Pinto





## EUROPEAN CONFERENCES SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

1955 London - U.K. -1st ECSMFE 1959 Paris - France -2nd ECSMFE 1963 Wiesbaden - Germany -3rd ECSMFE 1967 Oslo-Norway -4th ECSMFE 1971 Madrid - Spain -5th ECSMFE 1975 Viena - Austria -6th ECSMFE 1979 Brigthon -UK -7th ECSMFE 1983 Helsinki -Finland -8th ECSMFE 1987 Dublin -Ireland -9th ECSMFE 1991 Firenze -Italy -10th ECSMFE 1995 Copehagen -Denmark -11th ECSMFE 1999 Amesterdam -Netherlands -12th ECSMFE 2003 Prague -Check.Rep. -13th ECSMGE

## EUROPEAN AND INTERNATIONAL YOUNG GEOTECHNICAL ENGINEERING CONFERENCES

1987 Copehagen - Denmark - 1st EYGEC 1988 Oxford - UK - 2nd EYGEC - 3rd EYGEC 1989 Raubichi - Russia - 4th EYGEC 1990 Delf - Netherlands 1991 Grenoble - France - 5th EYGEC 1992 Lisbon - Portugal - 6th EYGEC 1993 Stutgart - Germany - 7th EYGEC - 8th EYGEC 1994 Bratislava - Slovakia - 9th EYGEC 1995 Belgium - 10th EYGEC 1996 Izmir - Turkey - 11th EYGEC - 12th EYGEC 1997 Madrid - Spain 1998 Tailin - Estonian 1999 Thira - Greece - 13th EYGEC 2000 Southampton - UK - 1st IYGEC 2001 Plovdiv - Bulgaria - 14th EYGEC 2002 Dublin - Ireland - 15th EYGEC 2003 Mamaia - Romania - 2nd IYGEC

# EUROPEAN DANUBE GEOTECHNICAL CONFERENCES

1964 Viena -Austria -1st EDGC 1968 Viena-Austria - 2nd EDGC 1971 Budapest-Hungary - 3rd EDGC 1974 Bled-Yugoslavia - 4th EDGC 1977 Bratislava - Czechoslovakia - 5th EDGC 1980 Varna - Bulgaria - 6th EDGC 1983 Kishinov -Sovies 1986 Nurember -Germany Issaet -Hungary - 7th EDGC - 8th EDGC - 9th EDGC 1995 Mamaia -Romania - 10th EDGC 1998 Porec - Croatia - 11th EDGC 2002 Passau -Germany - 12th EDGC 2006 Ljublijana - Slovenia -13 th EDGC

## EUROPEAN BALTIC GEOTECHNICAL CONFERENCES

1968 Kaunus -- 1st EBGC 1972 Tallinn-- 2nd EBGC 1975 Riga - 3rd EBGC 1978 Kaunus - 4th EBGC 1982 Minsk - 5th EBGC 1986 Tallinn - 6th EBGC 1991 Riga - 7th EBGC 1996 Vilnius - 8th EBGC 2000 Parnu - 9th EBGC 2005 Riga - 10th EBGC

# EUROPEAN REGIONAL TECHNICAL COMMITTEES

ERTC3 (Belgium)

ERTC7 (Spain)

- Pile Foundations

- Numerical Methods in

Geotechnical Engineering

ERTC10 (UK)

- Evaluation Committee for
the Application of EC7

ERTC12 (Greece)

- Evaluation Committee for
the Application of EC8

ERTC15 (Germany)

- Interaction of Shield
Machines and Soil of Soft

**Rocks** 

## MEETINGS

## **European GeotechnicalSocieties**

SGS (Slovenian)
CSSMGE (Croatian)
SSSMGE (Spanish)
DGGT (Germany)
ISSMGE (Irish)
CFMS (France)
HSSMFE (Greece)
TNC (Turkey)
BGSMGE (Belgium)
CSNCSMGE (Czech and Slovak)

### Council

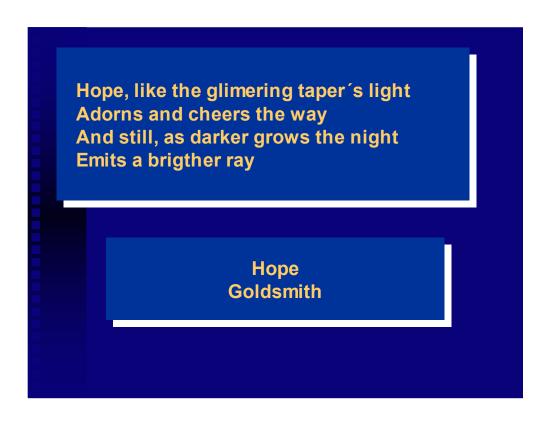
PASSAU - May 2002 PRAGUE-August 2003

## XIII ECSMGE -Prague 2003

- Meetings with Organising Committee (Istanbul, Lisbon, Passau, Rio de Janeiro, Hvar, Nicosia and Prague)
- Congress Facilities
- Opening and Closing Ceremonies
- Scientific Program: Main Sessions, Discussions Sessions and Special Lectures
- Issues of Bulletins
- Conference Proceedings and CD -Rom
- ITCs (9) and ERTCs (5) Workshops
- Poster Sessions
- Geotechnical Exhibition
- Technical Excursions
- Social Program
- Accompanying Program
- Conference budget
- Sponsors
- More than 150 e-mails were generated

## **FINAL REMARKS AND FUTURE ACTIVITIES**

- Tremendeous Breath of Activity of the Member Societies with organisation of several Conferences
- 13th ECSMGE –Prague 2003
- ERTCs and ITCs hosted in Europe activities
- Interaction with new Member Societies
- Visits to Member Societies
- 16 th EYGEC Austria 2004
- 10 th EBGC Riga 2005
- 13 th EDGC Ljublujana 2006
- 14 th ECSMGE Madrid 2007



Osaka Council Meeting -September, 2005



From left to right: ISSMGE President W. Van Impe, ISSMGE Secretary General Neil Taylor and ISSMGE Officer Paloma Peers



View of the audience for Osaka Council meeting

I have submitted the following report:

Task Force Sate of Knowledge of Geotechnical Education - Report by VP for Europe Pedro Sêco e Pinto

## TASK FORCE STATE OF KNOWLEDGE OF GEOTECHNICAL ENGINEERING

#### TERMS OF REFERENCE

- To offer support to national societies with the purpose to improve geotechnical activities
- To develop strategies for a continuing education activating the lecture tours
- To interact with TC 31 Education in Geotechnical Engineering in order to render compatible the activities
- To establish close contact and give support to the organising committees of the regional YGEC
- To establish links with Thematic Networks on Geotechnical Engineering Education and Training

#### MODEL LIBRARY

- The future of the Model Library Scheme
- Update of the list of texts (donations of books or subscriptions to journals)
- Policy of distribution
- The choice of the recipients
- Interaction between Model Library Scheme and Francophone Model Library
- Due the uncertainty on suitable textbooks for the Model Library this policy was suspended. The subscription of journals was discussed by the Board
- From my interaction with the Societies and Publishers it will be
  possible to donate the Soils and Foundation (Japanese Geotechnical
  Society), Journal of Geology and Geotechnical Engineer and Bulletin
  of Earthquake Engineer from Springer, Révue Française de
  Geotechnique for French countries and Boletin de la Sociedad
  Espanola de Mecanica del Suelo e Ingenieria del Geotecnica
  (SEMSC), "Geotecnia" journal (SPG) and "Solos e Rochas" journal
  (ABMS) for South America countries
- Also state-of-the art lectures prepared by ISSMGE would be useful, but copyright issues must be considered

## TOURING LECTURE

- The 1<sup>st</sup> Touring lecture in Lagos on 2001 by the Nigerian Geotechnical Association under the sponsorship of Trevi Foundations Ltd. entitled Geotechnical Site Characterisation and Soil Improvement
- Lectures tours should address the real needs of practising engineers and should incorporate a good mix of routine and modern soil mechanics
- Touring lectures should be delivered in all regions of the Society, with strong local support and organisation and by preference in the native language
- During Prague Council Meeting, on 24 th August 2003, it was stressed the existence of lecture tours and the need of demands from interested Member Societies, through the Regional Vice Presidents
- A very important touring lecture took place in St. Petersburg, on 17-19 June 2004, with the attendance of 163 specialists from 14 cities. The audience included practitioners, namely contractors, consultants, designers, academicians and researchers

## INTERACTION WITH ITC31

- How the role of the geotechnical consultant has changed over the last three decades and how these changes are or should be reflected in the present geotechnical engineering teaching curriculum
- To help ISSMGE playing a leading role in the implementation of a renewed education program including the preparation to new challenges
- To try to solve out the issue regarding the weight of codes and regulations in graduate and post -graduate education
- The links with Thematic Networks on Geotechnical Engineering Education and Training

## ISSMGE Role on a Coherent Education System

- ISSMGE can play an important role with "critical mass" for this discussion and the definition of new education policy
- With the organising of Touring Lectures the "Brain Circulation" can be implemented in order to strength the co-operation with the needed Societies
- Profession Practice Task Force has developed guidelines for general professional ethics and specific issues for geotechnical professional that can be introduced in the new academic curricula
- The actions lunched by Industrial Liaison Task Force can contribute to a cross-sector mobility between academic and industrial research with initiatives to implement collaboration between scientific and technological actors and companies to develop research projects with strong innovation effects
- All this information can be available by exploring communication technologies developed by Information Technology Task Force
- ISSMGE can contribute for a dynamic knowledge based development, an objective shared by all Member Societies, but still not fully implemented through coherent actions. The excellent work performed by the above referred Tasks Forces can be considered pieces of the same chain and contribute for the need of continuous education and to divulge the very fast developments in geotechnical engineering

## FUTURE ACTIONS

- The Model library is suspended and it is now important to analyse the policy of distribution of state of the art lectures prepared by ISSMGE, the material published by Technical Committees and the subscription of journals
- The Touring Lecture that took place in St. Petersburg can be taken as a reference introducing small modifications. It can be noticed that European Member Societies have shown a great interest, but it is important now to extend this interest for other Regions.
- The Young Geotechnical Engineers Conferences, sponsored by the ISSMGE, can be considered a good initiative for the promotion of young geotechnical education
- My report dealing with the implementation of a renewed education program, the graduate and post-graduate education, the synergies between universities and industry that have focussed these activities in Europe and slightly in United States should be extended in order to incorporate the activities in other Regions such as Africa, Asia, Australasia, North America and South America
- The creation of a Joint Technical Committee between ISSMGE, ISRM and IAEG is important to make a survey of undergraduate curricula and education practices in various countries and to suggest new trends for geotechnical education fostering excellence

In addition, the following report was presented:

#### Report of European Region by the Vice President for Europe Pedro Sêco e Pinto



# CONFERENCES IN EUROPEAN REGION

2001 Plovdiv - Bulgaria
2002 Passau-Germany
2002 Dublin - Ireland
2003 Bratislava - Slovakia
2003 Lefkosa - Turkey
2003 Ghent - Belgium
2003 Prague - Check. Rep.
2003 Mamaia - Romania
2004 Munchen - Germany
2004 Vienna - Austria
2004 Porto- Portugal
2005 Riga - Latvia
2006 Ljublijana - Slovenia
2006 Cardiff - UK

2007 Madrid - Spain

- 12th EDGC
- 15th EYGEC
- 6th IGNMGE
- ICNDSMGE
- 4th BAP
- 13th ECSMGE
- 2nd IYGEC
- 3rd EGC
- 16th EYGEC
- ISC2
- 10th EBGC
- 13 th EDGC
- V ICEG

- 14th ECSMGE

- 14th EYGEC

## EUROPEAN REGIONAL TECHNICAL COMMITTEES

ERTC3 (Belgium) ERTC7 (Spain) - Pile Foundations

ERICI (Spain)

- Numerical Methods in Geotechnical Engineering

ERTC10 (Ireland)

- Evaluation Committee for the

Application of EC7

ERTC12 (Greece)

- Evaluation Committee for the

**Application of EC8** 

ERTC15 (Germany)

- Interaction of Shield Machines and Soil of Soft Rocks

Also 15 of a total of 24 ISSMGE Technical Committees are hosted in Europe

#### FINAL REMARKS

#### **Current Situation**

It is extremely encouraging to note the tremendous breadth of activity of the Members Societies in the European Region. The visits for different societies gave the opportunity to exchange some ideas contributing for a better knowledge of these Societies

#### **Difficulties**

It was difficult to interact with 6% of European societies due some problems with communication and also because they are less active

## **FINAL REMARKS**

## Needs

- The experience has shown that European technical committees in order to develop their work need some financial support
  - The developing countries need financial support to attend conferences
- Some actions should be taken in order to waive the registration fee and to find sponsors through international organisations namely EC, NATO and UNESCO

## **Future Activities**

- Implementation of Touring Lectures
  - Distribution of Model Library
    - ERTCs activities
- The meetings with the Societies are important to address their needs
  - The European Young Geotechnical Conferences are very important and should continue

#### FINAL REMARKS

- Last but not least I should like to address to all European
  Member Societies a word of praise and gratitude for your
  contributions and support during these 4 years, which have
  allowed me to overcome my limitations. It was a very rich
  experience for me
- Coming to the end of my tenure I should like to kindly request you to give all your support to the incoming Vice President for Europe Prof. Roger Frank whom with his vision, fine intellect and prodigious energy will find the best ways to conduct European Region. I wish him all the happiness
- Having devoted my heart and passion to the European Region during the last four years I should like to ask you to forgive my errors, as they were due to my intention to set right. I humbly recognise that the duty fulfilled gives us a feeling of guilty, as we never have done absolutely everything

At the end of my mandate, as ISSMGE Vice President for Europe (2001-2005), I have received a certificate issued by ISSMGE.



Certificate of ISSMGE

#### 10.2.2. ISSMGE President (2005-2009)

It is important to recall that in my programme of candidature for ISSMGE president, submitted in 2005, in item Motivation I have stated:

"To deal with ISSMGE activities using not only my knowledge, but also my heart and passion to keep the fire burning. I will assume the responsibility to act with efficiency, honesty, judgement and equilibrium and to be able the "resonant box" of all the requests, wishes, proposals and expectations of 76 Geotechnical Societies that integrate the ISSMGE. The time demands all arise as we are now on the brink of a new era for ISSMGE. Over the past years, a number of developments have taken place and we need to mould the ISSMGE for this momentum to capitalise on the potential benefits. I know what I do not know, I seek available knowledge, acknowledging my limitations, but I am confident that joining our efforts we will reach our goals and targets and develop our capacity to transform the projects in actions. These actions will increase the hope and will show that new changes are going to be implemented reaching consensus solutions and contributing for the unity and strength of ISSMGE. The Societies with large number of members shall feel that their proposals will contribute for the decisions of ISSMGE, but all the Societies shall feel that their voice can contribute for the role of ISSMGE. The diversity of all 76 ISSMGE Societies is our great richness and a source of inspiration. It is our great challenge, but also a unique opportunity to rethink ISSMGE, in order to reach a new model, to give our hands and to work together. ISSMGE is complex

and we need to recognise the importance of dialogue and pursue perfection to reach the optimum solution. I hope that my proposals will find an echo in your ideas and with the advice and support of the seventy six Societies and the Board Members, I am confident to overcome the difficulties working together with enthusiasm to reach our common goal of serving better our Society".

Following by election for ISSMGE President I have presented the following Address:

## Closing Address in Osaka Conference – September, 2005, by Pedro Sêco e Pinto - Elected ISSMGE President





#### **OUTGOING ISSMGE BOARD**

- □ I should like to take this opportunity to thank the Outgoing Board members
- Prof. William Van Impe -President
- Prof. Kenji Ishihara Immediate Past President
- **Mr. Peter Day- Vice President for Africa**
- Prof. Fumio Taksuoka Vice President for Asia
- □ Prof. Pedro Sêco e Pinto Vice President for Europe
- Prof. Richard Woods- Vice President for North America
- Prof. Juan Bosio Vice President for South America
- Prof. Luiz De Mello Appointed Board Member
- **Dr. Michel Gambin Appointed Board Member**
- Prof. Harry Poulos-Appointed Board Member
- Prof. Neil Taylor Secretary General
- **a** It was for me a great honour and privilege to be a member of this Board. My dear friends I have learned a lot with this rich experience. Many thanks for your support

#### THE ROLE OF TECHNICAL COMMITTEES

The ITCS are the spine of ISSMGE, a forum of discussion contributing to the advancement of knowledge in geotechnical engineering.

The ITCS should disseminate their work, during ISSMGE Conferences, e.g. a Workshop, or Satellite conference.

At the end of each tenure each committee should produce an ISSMGE bulletin.



Creation of Joint Technical Committees ISSMGE, ISRM and IAEG on Professional Practice, Environmental Geotechnics, Education in Geo-Engineering, Geo Hazards and Transportation Systems.





# COOPERATION BETWEEN ISSMGE AND INDUSTRY

- Role of Industry in ISSMGE Technical Committees
- Industry participation in ISSMGE Conferences
- Case Histories
- Visits to large projects
- ISSMGE Newsletter with new geotechnical projects
- Participation of Industry in Touring Lecturers to address the real needs of practising engineers

• Package of benefits for Corporate members (Designers Contractors and Suppliers)



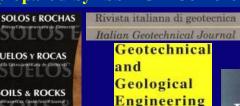
## **EDUCATION**

- ISSMGE can play an important role with "critical mass" for discussion and definition of University programmes (e.g Bologna Declaration), new methodologies and professional requirements
- Continuous education and training exploring synergies between Universities and Industry

#### **MODEL LIBRARY**

Model Library integrating journals and also state-of-the art lectures prepared by ISSMGE Conferences





REVUE FRANÇAISE DE GÉOTECHNIQUE

SOILS AND FOUNDATIONS

## YOUNG GEOTECHNICAL ENGINEERS -The ISSMGE FUTURE

• ISSMGE should prepare the Young Geotechnical Engineers to face the real needs and the new challenges of Society, to reduce the gap between theory and practice, to help them explore their intuition and to teach them the importance of engineering judgement

• From a balance of the Young Geotechnical Engineers

Regional Conferences organised in Africa (1), in Asia (5), in Australasia (3) and in Europe (16), it was recognised the great interest for the education of young geotechnical engineers



#### ENVISACING THE FITTIRE

- It is my profound desire to bring a better balance and harmonisation of geotechnical activities for the different Regions and more visibility for ISSMGE
- It is important to explore a new format to the Conferences in order to turn them more attractive not only for academics, but also for practioners that should be invited to deliver lecturers
- There is a need to explore the sponsorship of international organisations e.g. ONU, EC, UNESCO, etc, Authorities, Owners and Corporate Members, to help the attendance of members of development countries, and Young engineers to the Conferences and to the Touring Lectures
- The diversity of all 76 ISSMGE Societies is our great richness and a source of inspiration. It is our great challenge, but also a unique opportunity to rethink ISSMGE, due the changes of basic societal, to reach a new model. We need to recognise the importance of dialogue to give our hands, to work



together and pursue perfection to reach the optimum solution

I would like to address to all Member Societies a word of praise and gratitude for your contributions for the debate of my program of candidature and a message of hope that my ISSMGE knowledge, my devotion, heart and passion to keep the fire burning and your support will allow us to overcome the difficulties, to develop a feeling of universal responsibility and to create the ambition to better serve our beloved ISSMGE.

I assume to be the "resonant box" of all the requests, wishes, proposals and expectations of 76 ISSMGE

**Geotechnical Societies** 

"We should act as a man of thought
And think as a man of action"
Henry Bergson

# INTERNATIONAL SOCIETY OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (ISSMGE)

1948-1957 Karl Terzaghi-USA	-1st
1957-1961 Alain Skempton -UK	-2nd
1961- 1965 Artur Casagrande- USA	- 3rd
1965-1969 Laurits Bjerrum-Norway	- 4th
1969-1973 Ralf Peck-USA	- 5th
1973-1977 Jean Kerisel- France	- 6th
1977-1981 Masami Fukuoka-Japan	- 7th
1981-1985 Victor de Mello-Brazil	- 8th
1985-1989 Bengt Broms -Sweden	- 9th
1989-1994 Norbert Morgenstern-Canada	- 10th
1994-1997 Mike Jamiolkowski-Italy	- 11th
1997-2001 Kenji Ishihara -Japan	- 12th
2001-2005 William Van Impe -Belgium	- 13th

I should like to profit this opportunity to pay tribute to the Past ISSMGE Presidents quoting "Psalm of Life"- Footprints

Lives of great men all remind us We can make our lives sublime, And, departing, leave behind us Footprints on the sands of time

I should like to greet Dr. Suzanne Lacasse and Mr. Max Erwin and to thank for their contributions for the debate related the new challenges of ISSMGE

#### INCOMING ISSMGE BOARD

- $_{\mbox{\tiny II}}$  I should like to take this opportunity to introduce you the Incoming Board members
- De Prof. Pedro Sêco e Pinto President
- □ Prof. William Van Impe Immediate Past President
- □ Prof. Mounir Bouassida Vice President for Africa
- De Prof. Madhira Madhav Vice President for Asia
- Prof. John Carter Vice President for Australasia
- Prof. Roger Frank Vice President for Europe
- **Mr. John Seychuk Vice President for North America**
- <sup>a</sup> Prof. Waldemar Hachich Vice President for South America
- Dr. John Christian Appointed Board Member
- De Prof. Osamu Kusakabe Appointed Board Member
- Dr. M. Lisyuk Appointed Board Member
- Prof. Neil Taylor Secretary General
- □ It is for me a great honour and privilege for the opportunity to work together. Many thanks for your support

## INTERNATIONAL SOCIETY OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (ISSMGE) INTERNATIONAL CONFERENCES

The geotechnics torch from Cambridge in 1936, place took the 1st International Conference of Soil Mechanics and Foundations Engineering, has already cross the following cities: Rotterdam, Zurich, London, Paris. Montreal, Mexico, Moscow, Tokyo, Stockholm, S. Francisco, Rio de Janeiro, New Deli, Hamburg and Istanbul, with a periodicity of four years, until this wonderful city of Osaka, for the 16 th International Conference of Soil Mechanics and **Foundations Engineering in 2005** 

## XVI ICSMGE -OSAKA 2005

- This Conference has been the meeting place of people with different professional practices and backgrounds namely practioners and researchers but sharing the same interest in geotechnical engineering
- Research, education, design, construction techniques, quality control, monitoring and operation applied to the many engineering works have been extensively discussed and have led to new solutions and new approaches to the problems
- On behalf of ISSMGE I would like to thank the Advisory Committee, the ISSMGE Geotechnical Societies, the Technical Committees the Special Lecturers, the State of the Art Lecturers, the Discussion Leaders, the Panelists and the Workshops chairmen
- The valuable contributions of the chairmenthe secretaries, the authors, the delegates are also greatly acknowledged
- The contributions of the sponsors and the exhibitors are highly appreciated

#### FINAL REMARKS

- I would like to take this opportunity to express my sincere appreciation and deep gratitude to the Japanese Geotechnical Society to the Organising Committee and particularly to Profs T. Adachi, T. Matsui, F. Tatsuoka and M. Kamon who have devoted their time and effort without which this Conference could not have become true. Let us show our gratitude giving them a big hand
- I hope we shall all meet again in XVII th ICSMGE 2009, or in other Regional Conference in 2007
- We are coming to the end and I wish you all a safe journey back to your countries the best success in your professional and family life hoping that all of you through a continuous and permanent effort will serve better our Society Je vous souhaite un bon retour pour vos pays, grand succés pour votre vie professionnelle et familière et que vous avec un effort permanant et continue peut servir meuilleur notre Société

Long, long be my hearth with such memories Filled

Like the vase, in which roses have once been distilled

You may break, you may shatter the vase, if you will.

But the scent of the roses will hang round still,

**Memories T. Moore** 

## **Board Meetings**

## Period 2005-2009

The list of the Board meetings is the following: - Board meeting in Rome, on 15th March 2006; - Board meeting in Curitiba, on 1st September 2006; - Board meeting in Tunis, on 15th March 2007; - Board meeting in Brisbane, on 20 th October 2007; - Board meeting in St Petersburg, on 15 June 2008; - Board meeting in Bangalore on 19th December 2008; - Board meeting in Orlando on 14th March 2009; and Board meeting in Alexandria on 3rd October 2009.

#### Board Meeting to be held in Rome, Italy, March 2006

## University of Rome "La Sapienza"

Seminar Room, Dipartimento di Ingegneria Strutturale e Geotecnica via dell'Arancio 66, 00186 - Roma

09:00 - 17:00, Wednesday 15 March 2006

#### **AGENDA**

	1. President	Opening and Welcome: (5')
2.		E: Member Societies, Corporate Members, Newsletter, Membership card, st: Secretary General, Board (20')
	3. President	Technical Committees: (30')
4.	Regional Reports (Interaction with Region Societies, Regional Conferences, Regional Technical Committees, Balance of the situation: Current situation, Concerns, Difficulties, Needs, Actions to be implemented: <i>Vice Presidents</i> (45')	
	5. General	Manual for ISSMGE Conferences: Secretary (10')
	6. Seychuk	Task Force: Industrial Liaison: <i>John</i> (15')
	7. Carter	Task Force: IT: <i>John</i> (15')
	8. Bouassida	Task Force: Geo-Engineering Resources/Education: Waldemar Hachich, Mounir (15')
	9. Kusakabe	Task Force: Communications: <i>Osamu</i> (15')
	10. Madhav	Task Force: Professional Practice and Policy Documents: <i>John Christian, Madhira</i> (15')

11. Frank	Task Force: Role and Format of International Conferences: <i>John Carter, Roger</i> (15')
12. Lisyuk	Finance and Budget Committee: <i>Michael</i> (15')
13.  President 13.1 13.2 13.3	Federation of International Geo-engineering Societies: (40') Meetings between Presidents IAEG, ISRM, ISSMGE Joint Technical Committees FIGS Constitution
14. General	ISSMGE Website, TC websites: Secretary (15')
15. President	Office of the Secretary General (ISSMGE Statutes and Bylaws 10, 10B.1, 10B.2): (15')
16. General	5ICEG: Progress report. Secretary (5')
17. President	XVII ICSMGE-Alexandria: (5')
18. General	Accounts: Secretary (10')
19. Business	Any Other (10')
20. ABMS).	Date and Venue of Next Meeting, 27 August 2006, Curitiba, Brazil (invitation from (5')

The President has submitted reports for the Board meetings.

Below is given an example:

#### Report by the President to the Board meeting in Tunis-15 th March 2007

#### Meetings with Member Societies and Sister Societies

## 1) Meeting with Hellenic Society

This meeting took place on 24th September 2005 in Athens with the attendance of Andreas Anagnostopoulos, Christos Tsatsanifos, Stavros Bandis, Roger Frank and Pedro Sêco e Pinto.

The following topics were discussed:

- (i) ISSMGE Technical Committees
- (ii) European Technical Committees
- (iii) 15th European Conference of Soil Mechanics and Foundations Engineering, 2011, a proposal to be submitted by Hellenic Society in Madrid, September 2007.

(iv) 4<sup>th</sup> International Conference on Earthquake Geotechnical Engineering, June, Greece, Thessaloniki 2007.

#### 2) Meeting with Baltic Geotechnical Societies

This meeting took place on 13 October 2005 in Riga, with the attendance of Presidents of the 3 Baltic Geotechnical Societies: Walter Celmins (Latvia), Hardi Torn (Estonia) Liudas Furmanavicius (Lithuania), Pedro Sêco e Pinto (President ISSMGE), Roger Frank (VP for Europe) and representatives of other Societies of Baltic Region, Eugeniusz Dembicki (Poland), Matti Lojander (Finland), Sergey Sotnikev (Russia), Jorgen Steenfelt (Denmark), Georg Herten (Germany), Mait Mets(Estonia) and Sigita Dislere (Latvia).

The ISSMGE President has submitted for discussion his proposal to extend the organization of Baltic Conferences to other Societies of Baltic Region, in order to turn these Conferences more attractive and to increase the participation. Also, to avoid conflicting with ISSMGE International Conference, with European Regional Conference and Danube Conferences, ISSMGE President has proposed that the XI Baltic Conference should take place in 2008, with a periodicity of 4 years.

This proposal was extensively discussed and was approved unanimously.

#### 3) Meeting with French Society

This meeting took place on 22th October 2005 in Paris with the attendance of Michel Gambin, Jean Launay, Roger and Pedro Sêco e Pinto.

The following topics were discussed:

- i) La Lettre de la Géotechnique (actions to turn more attractive, the inclusion of case studies, interviews with key persons of ISSMGE, etc.)
- ii) 14 CRA- Cameron, 2007
- iii) Regional Technical Committees for Africa
- iv) Young Engineers Geotechnical Conferences
- v) Touring Lectures
- vi) Education in Geotechnique
- vii) Model Library (new model)
- viii) Role of Task Force Francophone (positives and negative aspects)

#### 4) FIGS Meeting

A meeting with the Presidents of IAEG, ISRM and ISSMGE, Immediate Past President of ISSMGE and General Secretaries took place in Paris, on 11 November 2005, to discuss FIGS. Rome Board Meeting Item 19 – Any Other Business Page 2 of 4

#### 5) Meeting in Paris

This meeting took place on 12th November 2005 in Paris with the attendance of Jean Pierre Magnan, Mounir Bouassida and Pedro Sêco e Pinto.

The following topics were discussed:

- i) 14 CRA- Cameron, 2007 and issued of Bulletin 1
- ii) Regional Technical Committees for Africa
- iii) Young Engineers Geotechnical Conferences.

#### 6) Meeting with Netherlands Society

This meeting took place on 15th November 2005 in Delft with the attendance of Loius Quelerij, Frans Barends, Peter van den Berg, Henkjan Beukema, Roger Frank and Pedro Sêco e Pinto.

The following topics were discussed:

- i) ISSMGE Technical Committees
- ii) FIGS Joint Technical Committees

- iii) Proposal of Netherlands Society to host JTC Geological and Geotechnical Heterogeneity
- iv) European Technical Committees
- v) Touring Lectures.

#### 7) Meeting with Indian Geotechnical Society

This meeting took place on 18th December November 2005 in Ahmedabad with the attendance of Madhira Madhav, Gen Mukarjee (IGS President), K. Rao (IGS Secretary), V.V. Rao, Gautam Ghandi and other officers of IGS and Pedro Sêco e Pinto.

The following topics were discussed:

- i) ISSMGE Technical Committees
- ii) FIGS Joint Technical Committees
- iii) 13 th Asian Geotechnical Conference, December 10-14 Kolkata
- iv)Touring Lectures.

#### 8) Meeting with the President of CTGA

This meeting took place in Dakar on 17th January 2006 in Dakar with the President of CTGA Mame Amar Faye

The following topics were discussed:

- i) CTGA meeting in Bamako
- ii) 14 CRA- Cameron, 2007
- iii) Regional Technical Committees for Africa
- iv) Geotechnical activities in Senegal.

#### 9) Meeting with the Hungarian Soil Mechanics Society

This meeting took place on 17th February 2006 in Budapest with the attendance of Gabor Telekes, Emoke Imre, representatives of Industry and Pedro Sêco e Pinto.

The following topics were discussed:

- i) ISSMGE Technical Committees
- ii) FIGS Joint Technical Committees
- iii) European Technical Committees
- iv) Touring Lectures.

#### 10) Meeting in Dakar

This meeting took place on 2 March 2006 in Dakar with the President of CTGA

Mame Amar Faye and I. Cissé President of Senegal Committee

The following topics were discussed:

- i) CTGA General Assembly in Bamako (23-26 February)
- ii) 14 CRA- Cameron, 2007 and issued of Bulletin 1
- iii) Regional Technical Committees for Africa
- iv) Creation of Senegal ISSMGE Committee

#### 11) Meeting with the Italian Geotechnical Society

This meeting took place in Rome, on 15 March 2006 by 19.00 H, with Mario Manassero, Roger Frank and Neil Taylor. The following items were discussed:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) XVIII Young Geotechnical Engineering Conference
- (vi) A.O.B.

#### 12) Meeting with the Korean Geotechnical Society

This meeting took place in Seoul, on 25 March 2006 with the Board of KGS and other Members that are supporting the Technical Committees. The following items were discussed:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) A.O.B.

#### 13) Meeting with DGGT

This meeting took place on 29 March 2006 in Stuggart with President Nusbaumer, Vice Presidents Hertlem, Rolf Katzenbach and Secretary

The agenda has included the following items:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) XI Baltic Region Conference-2008

#### 14) FIGS Meeting

A meeting with the Presidents of IAEG, ISRM, and ISSMGE, the Immediate Past President of ISSMGE and General Secretaries took place in Amsterdam on 11 May 2006 to discuss FIGS.

## 15) Meeting with Slovenian Geotechnical Society

This meeting took place on 28 May 2006 in Ljubljana with the SGS President Janko Logar, Vice President, Roger Frank and Neil Taylor. The agenda has included the following items:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) AOB

#### 16) CAC Meeting for XIV ECSMGE in Ljubljana

This meeting took place on 29 May 2006 in Ljubljana with CAC members of XIV ECSMGE. The agenda has included the following items:

#### 17) Meeting with IGS in Ljubljana

This meeting took place on 29 May 2006 in Ljubljana with the President of IGS Dr. Daniele Cazzuffi. The agenda has included the following items:

- (i) 8 th IGS Yokohama
- (ii) Mercer Lecture
- (iii) Co-operation IGS with ISSMGE

#### 18) Meeting with BGA

This meeting took place in Cardiff on 30 May during 5<sup>th</sup> International Congress on Environmental Geotechnics 26-30 June in Cardiff, with the following agenda.

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers

- (v) XVII EYGEC
- (vi) ISSMGE Secretariat
- (vii) AOB

#### 19) Meeting related Alexandria Conference in London

This meeting took place on 1<sup>st</sup> July with the attendance of El Gamwary, Pedro Sêco e Pinto and Neil Taylor.

The minutes of meeting is given in XVII ICSMGE -Alexandria report

#### 20) Meeting with ITA in Lisbon

This meeting with the President of ITA took place in Lisbon on 5<sup>th</sup> July. The agenda has included the following items:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) AOB

#### 21) Meeting with Croatia Soil Mechanics Society

This meeting took place on 20 th July 2006 in Zagreb with the members of CGS. The agenda has included the following items:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) ISSMGE Secretariat
- (vi) XVII EYGEC-Madrid
- (vii) ERTCs
- (viii) AOB

#### 22) Meeting with Chile Soil Mechanics Society

This meeting is scheduled on 22 th August in Santiago. The following Agenda was proposed.

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lectures
- (v) XIV PAM-Isla de Margarita
- (vi SARTCs
- (vii) AOB

## 23) Meeting with Paraguay Geotechnical Society

This meeting is scheduled for 26 August 2006 in Asuncion. The following Agenda was proposed.

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lectures
- (v) XIV PAM-Isla de Margarita
- (vi SARTCs
- (vii) AOB

#### 24) Meeting with ABMS (Brazilian Soil Mechanics Association)

This meeting is scheduled during XIII Brazilian Geotechnical Congress 28-31 August 2006, in Curitiba. The following Agenda is proposed:

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) XIV PAM-Isla de Margarita
- (vi) SARTCs
- (vii) ISSMGE Secretariat
- (viii) AOB

#### 25) Meeting with CAC Pan American Conference on 31 August 2006

The agenda will be received soon

#### **Planning of Future Meetings**

#### 26) Attendance to IAEG Council 6th September, Nottingham

ISSMGE was invited to attend this meeting as an observer.

## 27) FIGS meetings 7, 8th September, Nottingham

- (i) Opening and approval of the agenda
- (ii) Minutes of the meeting in Amsterdam on 12 May 2006
- (iii) FIGS agreement
- (iv) Joint Technical Committees
- (v) Joint conferences by the 3 Societies
- (vi) International Year of Planet Earth
- (vii) Any Other Business
- (viii) Date and Venue of next meeting

#### 28) Meeting with JGS on 20 September, Yokohama

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) ARC -Kolkata
- (vi) ARTCs
- (vii) ISSMGE Secretariat
- (viii) AOB

#### 29) CAC meeting for XIV ECSMGE, on 29 September, Madrid

- (i) Plenary Sessions;
- (ii) Discussion Sessions;
- (iii) Nomination of key persons
- (iv) Proposal for Technical Tours;
- (v) Proceedings (paper version, CD-ROM)
- (vi) Social Program;
- (vii) Proposal for Registration Fee;

(viii) Schedule with dates for distribution of Bulletin 2,

#### 30) Meeting with the Ukraine Society

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) XVII EYGEC-Madrid
- (vi) ERTCs
- (vii) AOB

#### 31) Meeting with the Indonesian Society

- (i) ISSMGE Technical Committees
- (ii) FIGS
- (iii) Joint Technical Committees;
- (iv) Touring Lecturers
- (v) ARC -Kolkata
- (vi) ARTCs
- (vii) AOB

## 32) Attendance to ISRM Council 7th November, Singapore

ISSMGE was invited to attend this meeting as observer.

## 33) Meeting with Singapore Group 8th November, Singapore

- (i) Future of EAGS
- (ii) ISSMGE Technical Committees
- (iii) Touring Lecturers
- (iv) ARC -Kolkata
- (v) ARTCs
- (vi) AOB

#### 34) Meeting with Egyptian Society 19 November, Alexandria

- (i) Composition of the Conference Organising Committee and the role of each member;
- (ii) Themes for the Plenary Sessions;
- (iii) Themes for the Discussion Sessions;
- (iv) Proposal for Technical Tours;
- (v) Proposal for Proceedings (paper version, CD-ROM)
- (vi) Proposal for Social Program;
- (vii) Proposal for Registration Fee;
- (viii) Schedule with dates for distribution of Bulletin 1, Submission of abstracts, Notification to the author of abstract acceptance, Distribution of Bulletin 2, Final submission of full papers, etc
- (ix) IV IYGEC
- (x) A.O.B

July 27, 2006

Pedro Sêco e Pinto

#### Board meeting St Petersburg, on 15 June 2008



Board meeting St Petersburg, on 15 June 2008



ISSMGE Board: Roger Frank (Vice President for Europe), Bob Holtz (Appointed Board Member), Madhira Madhav (Vice President for Asia), Waldemar Hachich (Vice President for South America), John Carter (Vice President for Australasia), Osamu Kusakabe (Appointed Board Member), Neil Taylor (Secretary General), Pedro Sêco e Pinto (President), Mounir Bouassida (Vice President for Africa) and Michael Lysuk (Appointed Board Member).



ISSMGE Board member and families

## Board meeting in Orlando, on 14th March 2009



From left to the right- Neil Taylor (Secretary General), Pedro Sêco e Pinto (President), Osamu Kusakabe (Appointed Board Member), Dennis Becker (Vice President for North America), Mounir Bouassida (Vice President for Africa), Bob Holtz (Appointed Board Member), Waldemar Hachich (Vice President for South America), John Carter (Vice President for Australasia) and Roger Frank (Vice President for Europe).



Enjoying the lunch- Michael Lysuk, Roger Frank, Osamu Kusakabe and Pedro Sêco e Pinto

## Board meeting in Alexandria, on 3<sup>rd</sup> October 2009.



ISSMGE Board: Michael Lysuk (Appointed Board Member), William Van Impe (Immediate Past President), Waldemar Hachich (Vice President for South America), Roger Frank (Vice President for Europe), Neil Taylor (Secretary General), Pedro Sêco e Pinto (President), John Carter (Vice President for Australasia), Madhira Madhav (Vice President for Asia), Bob Holtz (Appointed Board Member), Dennis Becker (Vice President for North America), Osamu Kusakabe(Appointed Board Member) and Mounir Bouassida (Vice President for Africa).

#### **Council Meetings**

#### Brisbane Council Meeting- Sunday 21st October 2007

The Australian Geotechnical Society recently held the 10<sup>th</sup> ANZ CSMGE in Brisbane, Queensland, and also hosted the 2007 ISSMGE Council Meeting.

The full Council Meeting Minutes (and Appendices) have been sent to all Member Societies, but the following is a short summary outlining the main points of discussion and any decisions taken. New Member Societies representing Cuba, El Salvador, Georgia, Mozambique and Uzbekistan were welcomed to ISSMGE.

The total membership was now 18,032 in 81 Member Societies. A CD version of the ISSMGE List of Members had been distributed recently to all Member Societies. A revised CD is planned for the next Council Meeting in Alexandria in 2009; Member Societies should ensure that updated lists of members are submitted to the Secretariat in good time.

Task Force: Geo-Engineering Resources/ Education: Steps were being taken to make available selected State-of-the-Art reports and keynote lectures presented at previous ICSMGE by the password protected intranet of the ISSMGE website.

A new Model Library scheme was being considered. A revision of the Lexicon of Symbols and Definitions was planned. The number of languages would be increased from the present eight and an online database was being investigated.

Communications: The ISSMGE Bulletin has been launched and Member Societies are encouraged to submit articles and other items for publication.

ISSMGE International Seminars: Guidelines for the ISSMGE International Seminars (previously known as Touring Lectures) were proposed and accepted. They will be made available via the ISSMGE website.

Guidelines for Young Geotechnical Engineers' Conferences: Guidelines for organizing Young Geotechnical Engineers' Conferences were proposed and accepted. They will be made available via the ISSMGE website.

6th International Congress on Environmental Geotechnics: The 6ICEG will be held in New Delhi, India, in October or November 2010.

Young Member Award: Member Societies were reminded of the Award, which was given to three ISSMGE members and decided on the basis of a paper submitted to the forthcoming ICSMGE or the immediately preceding ISSMGE Regional Conferences.

Relationships with Sister Societies ISRM and IAEG: Council agreed by voting to proceed with the Federation of International Geoengineering Societies as described in the Cooperation Agreement that had been circulated with the Council Meeting papers. ISSMGE Member Societies have been asked, should they so want, to submit by 19<sup>th</sup> December 2007 their nominations for the position of President of FIGS.

Office of the Secretary General: The President confirmed the reappointment of Professor Neil Taylor as Secretary General to 2011.

Budget 2008-2009: The budget, as circulated with the Council Meeting papers, was approved.

Date and Venue of Next Meeting: The next Council Meeting will be held on Sunday 4th October 2009, at the Bibliotheca Alexandrina, in Alexandria, Egypt Alexandria Council meeting (2009).

Short notice published in ISSMGE Bulletin, Vol.1, Issue 4.

#### Alexandria Council Meeting- 4th October 2009



Alexandria Council meeting- from left to right ISSMGE President Pedro Sêco e Pinto, ISSMGE Secretary General Neil Taylor and ISSMGE Officer Paloma Peers



Delegates attending Alexandria Council meeting- left side of the auditorium



Delegates attending Alexandria Council meeting- centre of the auditorium



Delegates attending Alexandria Council meeting- right side of the auditorium

#### My Address to the Alexandria Council

Since my election in the Osaka Council meeting on 11 September 2005, followed by my Message in ISSMGE News, N°4, November 2005, until the Alexandria Council meeting, 4 October 2009, I feel that it is my duty to make a balance of this period of 4 years and to submit to your knowledge, in order to receive your comments and suggestions to improve ISSMGE activities that are our main purpose.

To all ISSMGE members, I express a word of praise and gratitude for your contributions, wishing that ISSMGE continues to be a space of scientific interaction, sharing of experiences and launching of innovative ideas to open new avenues.

The present ISSMGE membership is 18530 integrating 86 Member Societies with the following regional distribution: *Africa*: 11 Member Societies, 695 Individual Members; *Asia*: 23 Member Societies, 3431 Individual Members; *Australasia*: 2 member Societies, 1163 Individual Members; *Europe*: 35 Member Societies, 8067 Individual Members; *North America*: 3 Member Societies, 3976 Individual Members; and *South America*: 13 Member Societies, 1196 Individual Members.

It is also important to mention the existence of 21 Corporate Members.

From 15 September 2005 in Osaka to 9 October 2009 in Alexandria, where this Board ends his mission, we can notice an increase of 10 Member Societies from 76 to 86, i.e. an 11,3% increase in the Membership and an increase of Individual Members from 16330 to 18530, i.e. an 11.1% increase.

I have treated you with the highest respect. Please forgive the mistakes that I have made with the intention to be right.

I believe that good judgement come from experience, experience come from making mistakes and mistakes come from bad judgements.



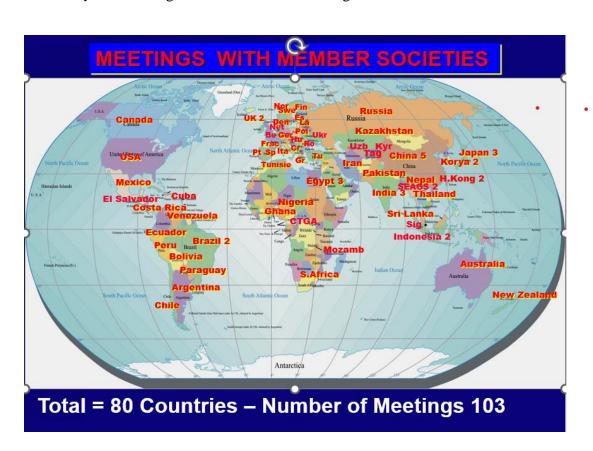
President Pedro Sêco e Pinto closing the ISSMGE Alexandria Council meeting

#### IMPLEMENTATION OF ISSMGE ACTIVITIES

#### Tasks Forces

During the Board meeting in Rome the Terms of Reference of Task Forces were discussed and the following TFs were created: TF Industrial Liaison leadered by John Seychuk, TF Information Technology leadered by John Carter, TF Geo-engineering Resources/Education leadered by Waldemar Hachich and co-leadered by Mounir Bouassida, TF Communications leadered by Osamu Kusakabe, TF Professional Practice and Policy Documents leadered by John Christian and co-leadered by Madhira Madhav, TF Role and Format of International Conferences leadered by John Carter and co-leadered by Roger Frank.

Michael Lisyuk was charged of the Finance and Budget Committee.



#### Coordination of TCS activities during my Presidential ship

ISSMGE wants to play an important role in helping the geotechnical community to explore the best ways for research, design, construction, and assessment of geotechnical structures safety in order to reach the expectations and targets of our Society during the third Millennium.

Since September 2005 I worked in all TCs, based in the Technical Committees Administrative Reports (2001-2005), proposals from Member Societies and suggestions from key persons. I have also interacted with the potential Chairpersons, Host Members Societies, Regional Vice Presidents and Secretary General, with whom I worked closely in these matters.

In my letter addressed to the presidents of Member Societies on 7 February 2006 I attached a summary of this work, and informed about the current state of TCs, the appointed chairpersons, the host Member Societies, the Core Members, Terms of Reference and Planning of Activities. For a better clarification of my proposal, I informed that:

- i) Some TCs were re-activated with up-dated ToRs;
- ii) The chairpersons were requested to put considerable efforts in the Planning of Activities, dissemination of the work and the out coming technical reports;
- iii) Some TCs were discontinued due the creation of new JTCs;
- iv) Some new TCs were created, in order to innovate;
- v) A better involvement of Member Societies and geographical distribution has deserved considerable attention;
- vi) Participation of young engineers was requested;
- vii) Cooperation between ISSMGE and Industry was encouraged.

I have requested to the Member Societies confirmation related the appointment of Chairpersons, Host Member Societies and Core members.

Through our 24 Technical Committees and our Conferences we have the responsibility to interact with the Society.

Very recognisable topics, such as: transportation, environmental, geo hazards, preservation of historic sites, education, professional practice and safety evaluation are a good opportunity.

The TCs are the spine of ISSMGE, a forum of discussion contributing for the advancement of knowledge in geotechnical engineering. The TCs should disseminate their work, during ISSMGE Conferences, e.g. a Workshop, or Satellite conference. At the end of each tenure each Technical Committee should produce an ISSMGE report.

Within this framework, a great contribution came from the role of 24 ICSMGE Technical Committees, e.g.

- For Transport Systems (TC3 "Geotechnics of Pavements", TC17 "Ground Improvement", TC18 "Deep Foundations", TC28 "Underground Construction in Soft Ground Conditions", TC33 "Geotechnics of Soil Erosion", TC36 "Foundation Engineering in Difficult Soft Soil Conditions", TC37 "Interactive Geotechnical Design", TC 38 "Soil-Structure Interaction", TC 40 "Forensic Geotechnical Engineering");
- To support Environmental Policy (TC1 "Coastal Engineering and Dike Technology", TC5 "Environmental Geotechnics", TC 41 Mega Cities);
- For natural disasters (TC4 "Earthquake Geotechnical Engineering and Associated Problems", TC19 "Preservation of Historic Sites", TC 39 "Geotechnical Engineering for Coastal Disaster Mitigation and Rehabilitation");
- Education in Geo-Engineering (TC 23 "Limit State Design in Geotechnical Engineering", TC32 "Engineering Practice of Risk Assessment and Management",
- For basic sciences, e.g. TC2 "Geotechnics of Physical Modelling", TC6 "Unsaturated Soils", TC8 "Frost Geotechnics", TC16 "Ground Properties from in-situ Testing", TC 29 "Laboratory Stress Strain Strength Testing of Geomaterials", TC34 "Prediction Methods in Large Strain Geomechanics", TC35 "Geotechnics of Particulate Media".

In a world that moves in the global village's direction, the universality of knowledge and the need for a permanent renewal is very important. It is important to communicate, share experiences, compare methodologies, and monitor the results. The benefits of an open dialogue between academicians, researchers, practitioners, contractors and owners are huge.

We should not forget that it is not the lack of knowledge that provoke problems, but our obstinacy in having certainties and that:

"The important thing in science is not So much to obtain new facts, as to discover New ways of thinking about them."

I have appreciated very much the continuous and regular contacts through my Messages in ISSMGE News and ISSMGE Bulletin and my letters, my attendance to several meetings and Conferences organized by the Technical Committees.

We should not forget that failure is an essential ingredient for high achievement. We cannot win without leaving our safety zone and taking calculated risks. The most risks we take to pursuit our dreams, the more we are going to fail. But we should not forget there is nothing so useless as doing efficiency that which should not be done.



Implemented actions for the organization of XIII ICSMGE in Alexandria, 2009

#### Meeting in Cairo 2007 - dinner in Cairo

As I was chairing the CAC (Conference Advisory Committee) for the XV ICSMGE, in Alexandria 2009, I took the initiative for the first meeting of CAC-COC. Due to the difficulties to compatibilize the agendas, the final decision was a dinner/meeting.

So, I had a dinner in a terrace of a restaurant with a magnificent view for the two mosques in Cairo.

I made a PP presentation about the ISSMGE activities and Dr. Hamza presentation has covered the details about the organization of the Conference.

The dinner was honoured by the presence of 5 Ministers, namely Minister of Education, Minister of Foreign Affairs, Minister of Interior, Minister of Housing and Minister of Tourism.

I had the opportunity to thank the Minister of Housing for offering his house for my stay to visit Assuan dam.

For moments I was thinking about the safety conditions due to the presence of 5 important Ministers.

#### 2007- Council meeting in Brisbane and visit to the Great Barrier Reef

During my stay in Australia for the Board and Council meeting in Brisbane in 2007, as well for 10<sup>th</sup> Australian-New Zealand SMGE Conference, I took the opportunity to visit the Great Barrier Reef, the world's largest coral reef system can be seen from outer space and is the world's biggest single structure made by living organisms, considered it one of the Seven Natural Wonders of the World.

The Great Barrier Reef used by the Aboriginal Australian and Torres Strait Islander peoples, is an important

part of local groups' cultures and spirituality.





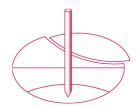
Enjoying the diving



Coral Reef System

## International Society for Soil Mechanics and Geotechnical Engineering

## Société Internationale de Mécanique des Sols et de la Géotechnique



#### A problem for visas

#### President

Professor Pedro S. Sêco e Pinto LNEC Av. do Brasil, 101 1700-066 Lisboa PORTUGAL

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25 th June 2009

#### Mr. Minister of Foreign Affairs

#### **Excellency**

1) On 24 August 2003 during the Prague Council meeting Egypt Geotechnical Society (EGS) was bidding to host XVII ICSMGE in 2009 in Alexandria. I was requested by you to support this proposal. Taking into account my role as ISSMGE Vice President for Europe, integrating 45 % of the Member Societies, I have recommended European Member Societies to give the opportunity to organize for the first time an International Conference in Africa and namely in Egypt.

It was a great challenge, but I believed that we need to leave our safety zone and to take some calculated risks. No risk, no reward.

The outcome of the voting was: Canada 16, Egypt 29, Mexico 8.

- So, Egypt was declared the winner.
- 2) Following my official letter to the Egyptian Geotechnical Society on 22 January 2006 and my meeting with EGS on 1<sup>st</sup> July 2006, I have received official letters of support from the Minister of Higher Education & Scientific Research, from the Minister of Tourism, from the Governor of the City of Alexandria and from the Director of the Bibliotheca of Alexandria.

These positive references points pulled me into a new way of seeing the things and introduced me in a new set of possibilities. New doors began to open for XVII ICSMGE.

3) On 18 November 2006 for the meeting in Cairo with representatives of sponsors of XVII ICSMGE I had the opportunity to introduce ISSMGE activities and to give a vision of the Conference, also the president of the Organizing Committee introduced the XVII ICSMGE. We were honoured by the presence of 4 Ministers, namely Minister of Housing, Minister of High Education, Minister of Irrigation and Minister of Transport. Also, the Chairman of Housing and Building National Research Centre has attended the meeting.

This was a window of opportunity to push forward XVII ICSMGE, as I believe that our destiny will ultimately be defined by how we respond to these windows of opportunity.

Subsequently, on 19 November I have chaired the first Conference Advisory Committee (CAC) meeting.

4) During 2007 Conference Bulletin 2 was distributed to all Member Societies and XVII ICSMGE was promoted by myself and yourself for the occasion of the 5 Regional Conferences that took place in 2007 in Isla de Margarita (Venezuela), Madrid (Spain), Brisbane (Australia), Yaoundé (Cameroun) and Kolkata (India).

This was done with great enthusiasm, as we live our days, so we can craft our life.

- 5) Subsequently CAC meetings took place in Brisbane (21 October 2007), St. Petersburg (16 June 2008), and Cairo (27 February 2009). We have worked very hard for the success of XVII ICSMGE, as a mind once stretched by a new idea can never return to its original dimension.
- 6)
- 7) On November 2008 I was invited by Iranian Geotechnical Society (IGS) for a meeting with IGS in Teheran and also to deliver lectures in University of Teheran and in Isfahan. I have encouraged IGS members to participate in XVII Conference and I was requested to transmit to the Organizing Committee and particularly to the president of the Organizing Committee the request of their visas, what I have done during the CAC meeting in February 2009.

I believe to better serve ISSMGE the humbler and more devoted to our customers I need to be.

8) On 17 June 2009 I have received an e-mail/letter from the President of the Organizing Committee informing the difficulties of visas to our 61 colleagues from Iran. On 20 June I have received an e-mail/letter from the IGS president.

I have immediately responded to both expressing to you my sadness and my concerns about this situation and transmitting to IGS my solidarity. Also, I have informed ISSMGE Board and CAC.

I believe that being a leader is not about being liked. It's about doing what is right.

9) This notice of no visa to 61 IGS delegates has developed in the Board members and some ISSMGE Member Societies a feeling of uncomfortable and concern related the success of XVII ICSMGE.

Listening intently to someone is one of the best ways I know to honour that person and forge a deep human connection.

- 10) I strongly believe that your understanding, generosity and support will play an important role to turn XVII ICSMGE in a very successful event, as greatness arrives from those who are never satisfied with what is and seeks perfection, in order that all delegates with no exceptions, including our Iranian colleagues, will bring lovely souvenirs from Alexandria and Egypt.
- 11) Egypt, where all has begun, is the birth of civilization and for thousands of years has illuminated the shadows and appointed new ways for several civilizations.

Nasser was one of the Founders of Non-Allied Countries showing that respect, freedom, equality and fraternity are the core values of the Society. Nasser was a great reference point on reinvention, on courage and humanities. I am grateful to this Master that teaches us that there are no limits to our vision and to the world.

- 12) It is my duty and responsibility, as ISSMGE President, following ISSMGE Statutes and By-Laws, to concentrate all my energies to revert this situation. It is not my style to blame others, because I do not want to excuse myself. I need to take my personal responsibility.
  - I am not a person to give up with the difficulties. On the contrary the difficulties give me more energy to contribute for the solution of the problem. This is my commitment that I have assumed with IGS.
- 13) On behalf of ISSMGE I would like to take this opportunity to address a word of praise and gratitude to you and to the Organizing Committee for your devotion and skill to overcome many difficulties to organize XVII ICSMGE, in order to turn it in a very successful event.
- 14) My plea to everybody is to maintain the serenity, because it is important to give our hands, to join our efforts to contribute for the solution of the problem, as I still believe that the tolerance and understanding will prevail.
- 15) I challenge Member Societies to dream, to shine, to dare, because to me a life well lived is all about reaching for your highest and your best. In my mind the person who experiences the most wins.
- 16) I believe that if wishes would prevail with me, my purpose of world peace dream should not fail with me, taking into account your great support and the well-known Egyptian hospitality. Many thanks for both.
- 17) My message is of hope that, in spite all the difficulties that ISSMGE ship is facing, we will reach Port of Alexandria with all the members on 3<sup>rd</sup> of October, due to the devotion, hard work and co-operation of all the crew.

It is important to remember:

"We should act as a person of thought

And think as a person of action."

I am looking forward to hearing from you.

#### With my personal regards

Godino Seco ellinto

Pedro Sêco e Pinto President

Copy: XVII ICSMGE CAC

ISSMGE Board

Iranian Geotechnical Society

Egypt Geotechnical Society

Prof. Gholamreza Mesri

ISSMGE Secretariat, City University, Northampton Square, London EC1V 0HB UK Tel: +44 20 7040 8154; Fax: +44 20 7040 8832; E-mail: secretariat@issmge.org

ISSMGE Board Members

President Secretary General P Sêco e Pinto R N Taylor

Vice-President Africa Vice-President Asia Vice-President Australasia M Bouassida M Madhav

Vice-President Europe Vice-President N America Vice-President S America

R Frank J Sevchuk

Appointed Member R D Holtz Appointed Member O Kusakabe Appointed Member

#### Difficulties Faced

In implementing some actions, I have faced some difficulties:

- To create the Gulf Society i)
- ii) Interaction to create the South Arabia Society
- To create the Jordan Society iii)
- To create the Central America Society integrating Guatemala, Honduras, Nicaragua and iv) Panama.

I did not succeed, but we should not forget the harder you try a change the longer it takes.

Last but not least, I would like to address to all Member Societies a word of praise and gratitude for your contributions and a message of hope that your support will allow us to overcome the difficulties, to develop a feeling of universal responsibility and to create the ambition to better serve our beloved ISSMGE.

Please remember that:

When you get back to doing those Things that lifted your spirit and sent you soaring, You reconnect with that state of happiness That you may have lost.

We made the time to think, plan and reflect. We believe that there is but one failure in life and that is the failure to try. We have devoted to ISSMGE considering what fun is life without a hint of mystery? What joy is life without a little adventure? We have taken incremental steps, as step by step we get to the goal.

#### Simple thoughts and Wishes

I believe that we, as human beings, have an enormous amount of choice to create the beautiful lives of our dreams. Fate and our choices work in concert to sculpt the look of our lives.

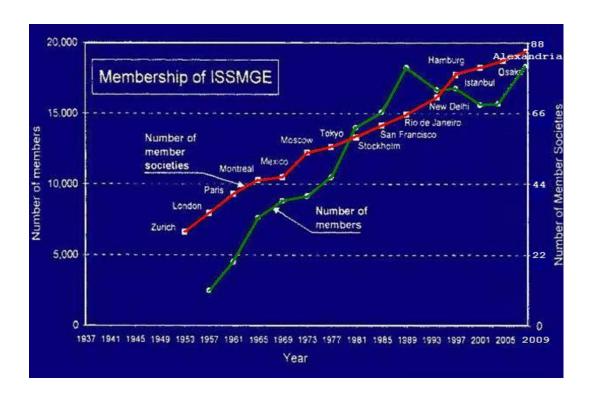
In my interaction with the Member Societies and Individual Members I have listened twice as I have spoken, as I strongly believe that listening intently to someone is one of the best ways, I know of to honour that person and forge a deep human connection.

I wish to the Member Societies, to the Corporate Members and to the Individual Members immense blessings along this voyage called a life.

Opening Address in XVII ISSMGE Conference in Alexandria – 5th October 2009 from ISSMGE President Pedro Sêco e Pinto

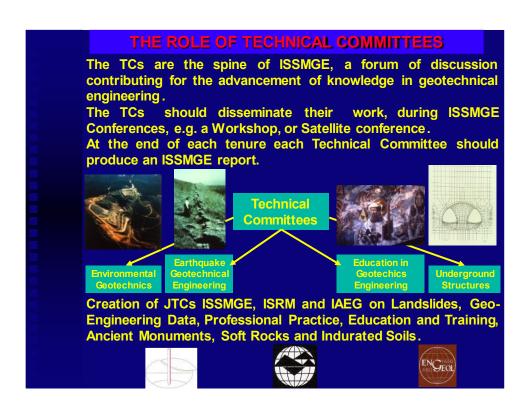


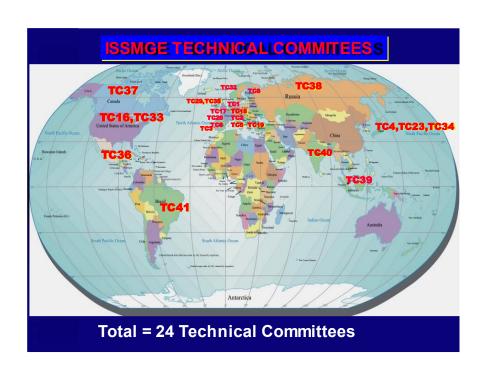




# International Society Soil Mechanics Geotechnical Engineering Technical Committees

- ISSMGE wants to play an important role helping the geotechnical community to explore the best ways for research, design, construction and assessment of geotechnical structures safety in order to reach the expectations and targets of our Society during the third Millennium
- Through our 24 Technical Committees and our Conferences we have the responsibility to interact with the Society
- Very recognisable topics, such as: transportation, environmental, geo hazards, preservation of historic sites, education, professional practice and safety evaluation are a good opportunity







## **BOARD MEETINGS**

- Board meeting of Rome 15th March 2006
- Board meeting of Curitiba 1st September 2006
- Board meeting of Tunis 15th March 2007
- Board meeting, Brisbane 20 th October 2007
- Board meeting St Petersburg -15 June 2008
- Board meeting Bangalore 19th December 2008
- Board meeting Orlando 14th March 2009
- Board meeting Alexandria 3rd October 2009
- -We made the time to think, plan and reflect. We believe that there is but one failure in life and that is the failure to try. We have devoted to ISSMGE considering what fun is life without a hint of mystery? What joy is life without a little adventure?

## TASK FORCES

- **□ TF1 Geo-Engineering Resources/Education**
- TF2 ISSMGE Industrial Liaison and Professional Practice
- TF3 Role and Format of ISSMGE Conferences
- TF4 Communications, Information and Information Technology

Following the memorable words of Anatole France: "To accomplish great things we must not only act, But also dream, not only plan, but also believe, And the belief in a thing makes it happen".

#### **Touring Lectures-International ISSMGE Seminars**

- To address a topic selected by the Host Society
- To address the interests of practitioner engineers
- To attract young geotechnical engineers
- To incorporate a good mix of routine and modern soil mechanics and to cover case histories
- To allocate after each lecture a period for discussions, in order to stimulate questions and to share experiences from the participants
- To have a strong local support and by preference in the native language (english, french or spanish)
- To have the support of Industry
- 2 days of lectures delivered by 4 international experts appointed by the Co-ordinator and 2 lecturers appointed by the Host Society
- In the 3rd day a technical visit (optional)
- All the written versions of the lectures should be sent to the Host Society with 2 months in advance in order to be prepared a Seminar Volume/CD-Rom



**Total = 21 Touring Lectures/International Seminars** 



## **ISSMGE JOURNAL**International Journal of Geoengineering Case Histories Issue # 3 Table of Contents ISSN#1790-2045 Papers: Paper ID; IJGCH 1 3 1 Title: Discussion of: "Design Process of Deep Soil Mixed Walls for Excavation Support" by Casandra J. Rutherford, Giovanna Biscontin, Demetrious Koutsoftas, and Jean-Louis Briaud, Volume 1, Issue #2, pp. 56 -72. Authors: Thomas D. Richards Jr. Page: 154 -155 Title: Leaning Tower of Pisa: Behaviour after Stabilization Operations Authors: John B. Burland, Michele B. Jamiolkowski, Carlo Viggiani Page: 156 Title: The Washington Monument Case History Authors: Jean-Louis Briaud, Brad Smith, Keun -Young Rhee, Hugh Lacy, Jennifer Nicks Page: 170-188 Title: Reconstruction of Konstantinovsky Palace in a Suburb of Saint Petersburg Authors: Vladimir M Ulitsky, Alexey G. Shashkin, Constantin G. Shashkin, Michael B. Lisyuk Page: 189 -206. Let us discover our destiny provided we have done the preparation and inner work required to seize this opportunity and to contribute for the success of IJGCH and certainly for the unity and strength of ISSMGE

## ISSMGE ELECTIED PRESIDENTAMDVICEE PRESIDENTS FOR THE PERIOD 2009 -2013

**President: Prof. Jean-Louis Briaud** 

V. President for Africa: Dr. Samuel Ejezie

V. President for Asia: Prof. Zuyu Chen

V. President for Australasia: Prof. Michael Davies

V. President for Europe: Prof. Ivan Vanicek

V. President for North America: Prof. Miguel Romo

V. President for South America: Prof. Jorge Bonifazi

## INTERNATIONAL SOCIETY FOR SOIL MECHANICS AND GEOTECHNICAL ENGINEERING ((SSWEE)) INTERNATIONAL CONFERENCES

The geotechnics torch from Cambridge in 1936, where took place the 1st International Conference of Soil Mechanics and Foundations Engineering, has already cross the following cities: Rotterdam, Zurich, London, Paris, Montreal, Mexico, Moscow, Tokyo, Stockholm, S. Francisco, Rio de Janeiro, New Deli, Hamburg, Istanbul and Osaka, with a periodicity of four years, and reached Alexandria for the 17 th International Conference of Soil Mechanics and Geotechnical Engineering on 5-9 October 2009



I would like to express on behalf of the ISSMGE my deep gratitude to the Egyptian Geotechnical Society, to the Government of Egypt and Governor of Alexandria.

The valuable contributions of the SOA Lecturers, Invited Lecturers, and General Reporters are also greatly acknowledged.

My gratitude to the Chairpersons and Panelists for their important role.

The contributions of the Sponsors and Exhibitors deserve our recognition.

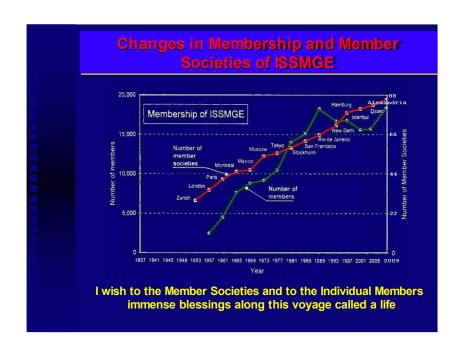
I would like to take this opportunity to express my sincere appreciation to the Organising Committee and particularly to Dr. Mamdouh Hamza, Dr. Marwan Shahin, Mrs Yvonne and Mrs Kathia Broadhurst for their devotion and skill to overcome the difficulties to organise this Conference.

Last but not least I would like to address to all delegates a word of praise and gratitude for your contributions and a message of hope that this Conference will allow us to develop a feeling of universal responsibility and with the joint cooperation of Decision-Makers, General Public, Researchers, Professors, Designers and Contractors to create the ambition to serve better our Society, quoting T.W. Huxlex memorable lines:

"The known is finite
The unknown is inflitte
Intelectually we are in the middle of anisket
Surrounded by animenses ocean oblies phiability.
Our business in each generation is to
Reclaim a little more land
To add something to the extent and solitude of our
possessions".

Closing Address in Alexandria Conference, 9 October 2009, by the President Pedro Sêco e Pinto

#### On behalf of the International Society for Soil Mechanics and Geotechnical **Engineering** (ISSMGE) it is for me a great honour and pleasure to address the delegates, in this Closing Ceremony of XVII th INTERNATIONAL CONFERENCE ON SOIL MECHANICS **GEOTECHNICAL ENGINEERING** Au nom da la Société Internationale de Mécanique des Sols et de la Géotechnique c'est pour moi un grand honneur et plaisir de vous accueillir à l'occasion de la Clôture du **XVII** ième CONGRÈS **INTERNATIONAL** DE MÉCANIQUE DES SOLS ET LA **GÉOTECHNIQUE**



## YOUNG GEOTECHNICAL ENGINEERS The ISSMGE FUTURE

2008 Bangalore - India - 6 th AYGEC 2008 Wellington - Australia - 8 th AYGEC 2008 Gyor - Hungary - 19 th EYGEC 2007 Tunis - Tunisie - 2 th AYGEC

2009 Cordoba - Argentina - 3rd SAYGEC

2000 Southampton - UK - 1 th IYGEC

2003 Mamaia – Romania – 2 th IYGEC

2005 Osaka – Japan - 3 th IYGEC

2009 Alexandria - Egypt - 4 th IYGEC

We have learned from Abe Lincoln, Mahatma Ghandi, Mother Teresa and Nelson Mandela that nothing focuses the mind than a future ideal that moves the hearth.



### **RELATIONSHIP WITH OTHER SOCIETIES**

- I have attended IAEG Council meeting in Nottingham, on September 2006
- Also I had the opportunity to attend the following Council meetings of ISRM in Singapore, 7 November 2006, in Lisbon, 12 July 2007, in Tehran, 23 November 2008, in Hong Kong, 18 May 2009
- I have exchanged several letters with other International Societies, namely IGUS, ITA, IGS and IACMAG.
- The Chinese say it so well: "A little fragrance always clings to the hand that gives roses."
   I believe that before anyone will lend you a hand, you must touch their heart.

#### **FINANCIAL SITUATION**

- •The overall Cash Balance –Final Balance on December 2004 received by this Board was GBP 307166
- The overall Cash Balance –Final Balance on December 2008 transferred by this Board is GBP 421113.
- In summary, in spite of all the geotechnical activities implemented during this term ISSMGE financial situation is healthy with an increased of 37% of overall Cash Balance.
- We should not forget Einstein's definition of insanity: "Doing the same things and expecting different results". If we want new results in our life we know we have to behave in new ways. Other wise our life would look the same, until our end.

## INTERNATIONAL SOCIETY FOR SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (ISSMGE) PRESIDENTS

1948-1957 Karl Terzaghi-USA	-1st
1957-1961 Alain Skempton -UK	-2nd
1961- 1965 Artur Casagrande- USA	- 3rd
1965-1969 Laurits Bjerrum -Norway	- 4th
1969-1973 Ralf Peck-USA	- 5th
1973-1977 Jean Kerisel- France	- 6th
1977-1981 Masami Fukuoka-Japan	- 7th
1981-1985 Victor de Mello-Brazil	- 8th
1985-1989 Bengt Broms -Sweden	- 9th
1989-1994 Norbert Morgenstern-Canada	- 10th
1994-1997 Mike Jamiolkowski-Italy	- 11th
1997-2001 Kenji Ishihara -Japan	- 12th
2001-2005 William Van Impe -Belgium	- 13th
2005-2009 Pedro Sêco e Pinto-Portugal	-14th
2009-2013 Jean Louis Briaud-USA	- 15 th

I would like to profit this opportunity to pay tribute to the Past ISSMGE Presidents quoting "Psalm of Life"- Footprints

Lives of great men all remind us We can make our lives sublime, And, departing, leave behind us Footprints on the sands of time



Thanking for your co-operation I would like to transmit a message of hope remembering the lines of Seneca. "It is not because the things are difficult that we do not dare; it is because we do not dare that they are difficult". I would like to add that there is no medicine like hope, no incentive so great, no tonic so powerful as expectation for something better tomorrow.



#### **OUTGOING ISSMGE BOARD**

- **I take this opportunity to thank the Outgoing Board members**
- □ Prof. Pedro Sêco e Pinto President
- De Prof. William Van Impe-Immediate Past President
- De Prof. Mounir Bouassida Vice President for Africa
- De Prof. Madhira Madhay Vice President for Asia
- Prof. Roger Frank Vice President for Europe
- Mr. John Seychuck and Dr. Dennis Becker Vice Presidents for North America
- <sup>1</sup> Prof. Waldemar Hachich Vice President for South America
- Dr. John Christian & Prof. Bob Holtz Appoint. Board Members
- Dr. Michael Lysuk Appointed Board Member
- Prof. Osamu Kusakabe Appointed Board Member
- Prof. Neil Taylor Secretary General

They help me to remove the blocks

I count on them in so very many ways.

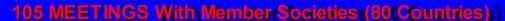
They support my work to advance my

Mission to serve ISSMGE, to live this highest goals

#### INCOMING ISSMGE BOARD

I would like to take this opportunity to introduce you the Incoming Board members

- De Prof. Prof. Jean Louis Briaud President
- De Prof. Pedro Sêco e Pinto Immediate Past President
- De Prof. Samuel Ejezie Vice President for Africa
- □ Prof. Zuyu Chen Vice President for Asia
- De Prof. Michael Davis Vice President for Australasia
- Prof. Ivan Vanicek Vice President for Europe
- Prof. Miguel Romo Vice President for North America
- Dr. Jorge Bonifazi Vice President for South America
- Prof. Roger Frank Appointed Board Member
- Prof. Ikuo Towhata Appointed Board Member
- Prof. Askar Zhusupbekov Appointed Board Member
- Prof. Neil Taylor Secretary General
- My sincere congratulations and wishes of great success





Your wisdom, patience and kidness have shaped me that words can not express

## REGIONAL CONFERENCES

2011 (May) - Hong Kong - XIV ARCSMGE -China 2011 (June, 13-16) - Maputo - XV ARCSMGE -Mozambique

2011 (September, 13-18) - Athens - X V ECSMGE - Greece 2011 (October, 2-6) - Toronto - XIV PCSMGE - Canada 2012 (July, 15-18) - Melbourne - XI ANZSMGE - Australia.

- I have participated in CAC meeting of XIV PCSMGE in Toronto (March 2009) and CAC meeting of XV ARCSMGE in Maputo (July 2009) and CAC meetings of XIV PCSMGE, XIV ARCSMGE, XV ARCSMGE and XV ECSMGE in Alexandria
- In addition I have interacted with the Organizing Committees of Hong Kong, Toronto, Athens and Maputo Regional Conferences, during the stage of preparation of Bulletin 1.

#### **ISSMGE 75 ANNIVERSARY**

 Special Session during 6 ICEGE, New Delhi, November 2010 (1 hour)
 Presentations:
 Selected Senior Member
 Young Geotechnical Engineer

Young Geotechnical Engineer
ISSMGE President

Special Session during Regional Conferences

 (1 hour)
 Presentations:

Selected Senior Member Young Geotechnical Engineer Regional Vice President

Bernard Shaw said: "The reasonable man adapts himself to the world; the unreasonable one tries to adapt the world to himself. Therefore, all progress depends on the unreasonable man".

#### XVII ICSMGE -ALEXANDRIA 2009

- This Conference has been the meeting place of people with different professional practices and backgrounds, namely practioners and researchers, but sharing the same interest in geotechnical engineering
- Ground Characterization, Design and Analysis, Construction Techniques, Monitoring and Operation, Education and Training applied to the many engineering works have been extensively discussed and have led to new solutions and new approaches to the problems
- On behalf of ISSMGE I would like to thank the Advisory Committee, the ISSMGE Member Societies, the Technical Committees, the Special Lecturers, the State of the Art Lecturers, the General Reporters, the Panelists and the Workshops chairmen
- The valuable contributions of the Chairpersons, the Secretaries, the Authors, the Delegates are also greatly acknowledged
- The contributions of the Sponsors and the Exhibitors are highly appreciated

#### FINAL REMARKS

• I would like to take this opportunity to express my sincere appreciation and deep gratitude to the Egyptian Geotechnical Society, to the Organising Committee and particularly to Dr. Mamdouh Hamza and Dr. Marwan Shahin who have devoted their time and effort, without which this Conference could not have become true. Let us show our gratitude giving them a big hand.

gratitude giving them a big hand.

• I hope we shall all meet again in XVIII th ICSMGE 2013, or in other Regional Conference in 2011

 We are coming to the end and I wish you all a safe journey back to your countries, the best success in your professional and family life, hoping that all of you through a continuous and permanent effort will serve better our Society.

Je vous souhaite un bon retour à vôtre pays un grand succès dans votre vie professionnelle et familiale et que vous puissiez, avec un effort permanant et continu, servir au mieux notre Société.

Please remember that:
When you get back to doing those
Things that lifted your spirit and sent you soaring,
You reconnect with that state of happiness
That you may have lost.
Trust that the winter of your sorrow will yield to the

summer of your joy, just as the brilliant rays of the morning always follow the darkest part of the night.

Many thanks for your encouragement. You have offered me a foundation of inspiration and unforgettable support.

This journey was an unforgettable experience.
I always remember Goethe lines:

"The duty accomplished leaves always
A feeling of guilty, as we never did
Absolutely everything"

I received a certificate from ISSMGE in Alexandria related my role as ISSMGE President.



Certificate from ISSMGE

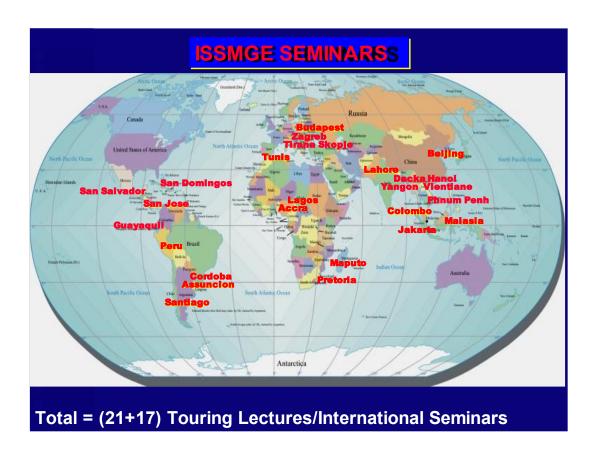
## 10.2.3. IMMEDIATE PAST PRESIDENT (2009-2013)

During this period, I was involved in the following activities:

- Touring Lectures/International Seminars

During this period, I have co-ordinated 17 Seminars.

The places where ISSMGE Seminars were organized during the period 2005-2009 (21 Seminars) and during the period 2009-2013 (17 Seminars) are shown subsequently.



#### **Board Meetings**

The followings Board meetings took place:

New Delhi, India (December 2010)

Toronto, Canada (1st October 2011)

Lagos, Nigeria (29th April, 2012)

Auckland, New Zealand (2012)

Texas, USA (27 April, 2013)



Board meeting in New Delhi- 7 November, 2010 - From left to the right- Askar Zussuphekov (VP for Asia), Mike Davies (VP for Australasia), Neil Taylor (Secretary General), Jean Louis Briaud (President), Pedro Sêco e Pinto (Immediate Past President), Gabriel Auvinet (VP for North America);

2<sup>nd</sup> row – Samuel Ezejie (VP for Africa), Ikuo Towhata (Appointed Board Member), Ivan Vanicek (VP for Europe), Roger Frank (Appointed Board Member), Charles Ng and Roberto Terzariol (VP for South America).



Board meeting in Texas (27 April, 2013)

From left to the right- David Pinto, Pedro Sêco e Pinto (Immediate Past President), Ikuo Towhata (Appointed Board Member), Roberto Terzariol (VP for South America), Roger Frank (Appointed Board Member), Ivan Vanicek (VP for Europe), Mike Davis (VP for Australasia), Neil Taylor (Secretary General), Gabriel Auvinet (VP for North America), Mrs Auvinet, Mark Ballouz (Appointed Board Member), Dimitrios Zekkos, Askar Zhussuphekov (VP for Asia), Jean Louis

Briaud (President) and Charles Ng



Board members enjoying the dinner (27 April, 2013)

#### **Council Meetings**

I have attended Council meetings in Toronto (October, 2011) and Paris (September, 2013).

#### **Toronto Council Meeting**



Toronto Council meeting, October, 2011

My PP presentation in Toronto Council meeting (2011) to keep the name of ISSMGE. Following the different presentations to keep ISSMGE or to change for ISG, the Council voting has favoured to keep the name ISSMGE.



ISSMGE has a Rich and Great History of 75 Years

### **ISSMGE**

- Soil Mechanics represents our Roots, the History our Society that was created in 1936 by Terzaghi and Co-Workers, our Memories and also incorporates the activities of several individual members that cover only Soil Mechanics
- Geotechnical Engineering integrates all the applied disciplines, this was the reason that we have changed in 1997 the name of ISSMFE (International Society for Soil Mechanics and Foundations Engineering) to ISSMGE (International Society for Soil Mechanics and Geotechnical Engineering) to cover a large spectrum of disciplines
- ISSMGE is easy to pronounce, has the adequate size, we feel Proud and more important makes a clear difference with other Societies names e.g. IAEG, ISRM, ITA, IGS.
  - **ISGE** can provoke some confusions. What is it? A new Society?

#### ISSMGE

- The diversity of our Technical Committees is our great Richness and our source of Inspiration and we benefit a lot from the Synergies between Theory (Soil Mechanics TC101-TC107) and Practice (Geotechnical Engineering TC201-TC 216)
- The Theory without Practice is a Waste and the Practice without Theory is a Trap
- SM (Beauty, Love, History, Light) and GE (Logic, Wisdom, Analysis, Knowledge) are two hemispheres of our Brains Yin&Yang totally linked
- We should maintain this Bridge between SM and GE, give our hands and work together to pursuit perfection of the life and the optimum solution

## **ISSMGE**

- The Change of the name of ISSMGE should not be a Obsession. There are other Priorities in our Society
- Redundancy of SM is not a problem
- Co-operation with ISRM, IAEG, IGS and ITA is Important, but we should preserve our Autonomy, History and Identity and avoid Merging. The life is Multi-Dimensional
- When we change in our Life is something for Better, not to move Backwards
- Your Wisdom, Patience and Kindness have shaped the Heart and the Soul of ISSMGE acting as a SM (Soil Mechanics) foundation of Inspiration and unforgettable Support
- As we live our Life we Craft our Destiny. To built a brilliant Future and make Life Sublime we should not forget our Roots

Let us Keep our name ISSMGE

#### **Paris Council Meeting (2013)**

During the period 2009-2013, I acted as Editor in Chief from the International Journal of Case Histories.

Subsequently, my report to the Council is presented:



#### **ISSMGE JOURNAL**

- The International Journal of Geoengineering Case Histories (http//casehistories.geoengineer.org) can make a difference to the profession since it is a non-profit effort and is suited to the needs of geoprofessionals worldwide.
- It is a high quality, refereed publication, and is available at no cost online so that it can be easily accessible globally by practitioner and research engineers that may not afford another journal subscription.
- The journal also focuses on the practice of the profession and the promotion of useful field data that typically do not get published.
- It allows the use of color photos, and papers are accompanied by digital data and online supplemental databases.
- All projects are included in a google earth database. The journal is also indexed by the Georef database.



#### **ISSMGE JOURNAL**

- On March 2009 ISSMGE Board has taken the decision to consider IJGCH a journal of ISSMGE.
- A volume was issued on September 2009 and a second volume on December 2009.
- From January 2010 to the end of 2012 IJGCH was not so active.
- Following my appointment for IJGCH Editor-in-Chief, I am trying to activate the Journal.
- The Editorial Board was refreshed with new members covering different topics of Geotechnical Engineering and looking for a better geographical distribution and a better balance between males and females.
- A letter was sent to the TCs chairpersons, as I believe that the role of the Technical Committees is important for the success of IJGCH.



### **ISSMGE JOURNAL**

- Communication, transfer of experiences and information, discussions of the methodologies and results are the key words. In this geotechnical world that always change and progress we are facing new challenges. The scientific truth is not definitely achieved, demands from all of us a permanent and continuous effort.
- A link was established between ISSMGE website and International Journal of Geoengineering Case Histories and the following information is given:
  - Mission and Areas of Interest
  - Characteristics of the Journal
  - Procedures to submit manuscripts and to review
  - Editorial board membership
  - Present impact to the Professional.
- ISSMGF award for the best paper of the journal.



## International Journal of Geoengineering Case Histories ©, Vol. 3, Issue 1, p. i http://casehistories.geoengineer.org

- Following the invitation of the Editor-in-Chief Prof. PedroSeco Pinto, a proposal was submitted by TC 212- Deep Foundations to bring out this present special issue of IJGCH related to deep foundations case histories
- Deepankar Choudhury, Secretary of TC 212; Prof. Dept. of Civil Engg., Indian Institute of Technology Bombay, IIT Bombay, Mumbai 400076, India; e-mail: dc@civil.iitb.ac.in

Rolf Katzenbach, Chairman of TC 212, Prof., Technical University Darmstadt, TU Darmstadt, D -64287, Germany; email: katzenbach@geotechnik.tu -darmstadt.de

- Prof. Harry G. Poulos, Australia, Prof. Ikuo Towhata, Japan, Prof. M. R. Madhav, India, Prof. Tatsunori Matsumoto, Japan, Prof. Subhamoy Bhattacharya, UK, Prof. Limin Zhang, Hong Kong, Prof. Deepankar Choudhury, India, Dr. Michael Lisyuk, Russia, Prof. Andrey Ponomaryov, Russia, Prof. Pedro Seco Pinto, Portugal, Prof. Dimitrios Zekkos, USA, Prof. Chih-Wei Lu, Taiwan.
- Prof. Dimitrios Zekkos, and the journal office staff, Ms. Marietta Zarogiannopoulouand Mr. Kostis Tsantilas deserve our gratitude



#### ISSMGE JOURNAL

- The support from the President, Regional Vice Presidents and TCs Chairpersons is crucial for the success of the Journal. Joining our efforts we will reach our goals and targets and we will contribute for the success of IJGCH and certainly for the unity and strength of ISSMGE.
- Thanking in advance for your co-operation, I would like to transmit a message of hope remembering Aristotle:

"We are what we do Consistently, So the excellence Is not an act But a practice."

#### Touring Lectures-International ISSMGE Seminars

- The Touring Lectures were planned by ISSMGE to disseminate the current state-of-the art/practice amongst geotechnical engineers involved in the design and practice in developing countries.
- To address a topic selected by the Host Society.
- To address the interests of practitioner engineers.
- To attract young geotechnical engineers.
- To incorporate a good mix of routine and modern soil mechanics and to cover case histories.
- •To allocate after each lecture a period for discussions, in order to stimulate questions and to share experiences from the participants.
- To have a strong local support and by preference in the native language (english, french or spanish).
- To have the support of the Industry.

## Touring Lectures-International ISSMGE Seminans

- 2 days of lectures delivered by 4 international experts appointed by the Co-ordinator and 2 lecturers appointed by the Host Society.
- In the 3rd day a technical visit (optional).All the written versions of the lectures should be integrated in a Seminar Volume/CD-Rom.
- During the period (2006-2009) 21 Touring Lectures -International Seminars were organized.
- During the period (2010-2013) 17 Touring Lectures -International Seminars were organized namely in:
  - In 2010 in Dominican Republic, Philippines, Pretoria, Cordoba and Bangladesh.
  - In 2011 in Peru, Malasya, Laos and Cambodia.
  - In 2012 in Singapore, Malaysia (Kuala Lumpur), Philippines (Los Angeles and Puerto Princesa)













# **ISSMGE SEMINARS**

I will summarize the organization of these Seminars in the following words:

- I am blessed to be accompanied by many extraordinary people. Without them, it would not be possible for me to advance this mission of serving ISSMGE.
- It is important to express my gratitude to the ISSMGE Board, to the Lecturers and to the Member Societies. Many thanks for your encouragement. You have offered me a foundation of inspiration and unforgettable support.
- We want all of you to make part of our community, to promote your growth and to make you feel that you are contributing for our dream come true.
- This journey was an unforgettable experience. The Seminars are important, but need some improvements.

Haiti Earthquake, January 13, 2010





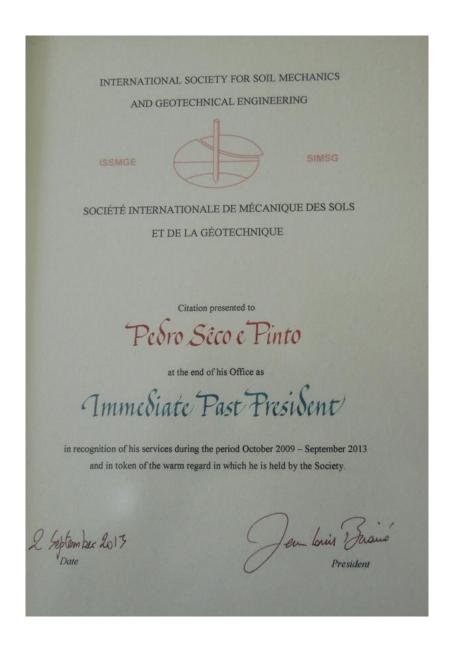


# **FedIGS Meetings**

I have attended the following FedIGS meetings:

- In Stockholm on 23 May 2012
- In Paris on 3 September 2013.

I received a ISSMGE certificate in Paris related my services during this period.



**ISSMGE** Certificate

#### **10.2.4 Appointed BOARD MEMBER (2017-2022)**

The Board that was elected in Seoul, September 2017.

In Seoul a folder, prepared by SPG (Portuguese Geotechnical Society), was distributed by the group of the next photo showing the interest to host the XVIII ECSMGE.



Alexandre Pinto, Pedro Sêco e Pinto and António Cristovão (from left to the right)

During this period, I was involved in the following activities:



Elected President Charles Ng - Introduction of all Board members and some BLC chairs at the Closing Ceremony of the 19<sup>th</sup> ICSMGE (from right to left: Neil Taylor, Pedro Pinto, Kok Kwang Phoon, Mounir Bouassida, Alejo Sfriso, Timothy Newson, Mario Manassero, Gavin Alexander, Eun Chul Shin, Marcelin Kana, Roger Frank, Pierre Delage, Lucy Wu, Sukumar Pathmanandavel, Peter Day and Ikuo Towhata

## **Board Meetings**

The followings Boards meeting took place: 6<sup>th</sup> June 2018 in Skopje, 10<sup>th</sup> March 2019 in Singapore, 5<sup>th</sup> September 2019 in Cape town.

Due to Coronavirus situation the meeting on 8th March 2020 was done by Skype, the meeting on 29 January 2021 by Zoom, the meeting on 19 May 2021 by Zoom and the meeting on 30 April 2022 in

Sydney.



# Board Meeting in Skopje (June 2018)

From left to right: Pedro Sêco e Pinto (Appointed Board Member), Neil Taylor (Secretary General), Charles Ng (President), Roger Frank (Immediate Past President), Lucy Wu, Timothy Newson (Vice President for North America), Alejo Sfriso (Vice President for South America), Roberto Terzariol, Pierre Delage, Peter Day, Sukumar Pathmanandavel, Mario Manassero (Vice President for Europe), Eun Chul Shin (Vice President for Asia), Kok Kwang Phoon (Appointed Board Member), Mounir Bouassida (Appointed Board Member) and Gavin Alexander (VP for Australasia)

#### Board Meeting in Cape town (September 2019)



Board meeting in Cape town: 1<sup>st</sup> row- Roberto Terzariol, Etienne Kana (Vice President for Africa), Alejo Sfriso (Vice President for South America), Charles Ng (President), Roger Frank (Immediate Past President), Pierre Delage, Mounir Bouassida (Appointed Board Member), Peter Day,

2<sup>nd</sup> row- Neil Taylor (Secretary General), Timothy Newson (Vice President for North America), Ikuo Towhata, Mario Manassero (Vice President for Europe), Lucy Wu, Eun Chul Shin (Vice President for Asia), Philip Robbins (Vice President for Australasia), Pedro Sêco e Pinto (Appointed Board Member), Dimitrios Zekkos, and Sukumar Pathmanandavel.

# **Council Meetings**

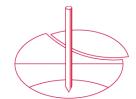
I have attended the Council meeting in Cape town (2019) and the Sydney (2022) Council meeting by ZOOM.



Council meeting in Cape town

# International Society for Soil Mechanics and Geotechnical Engineering

# Société Internationale de Mécanique des Sols et de la Géotechnique



#### **Touring Lecture/International Seminars**

I have co-ordinated 6 Seminars.

Unfortunately, due to Corona virus, several other Seminars that were programmed during 2020 and 2021. had to be cancelled.

#### ISSMGE Seminars- Report to Cape town Council meeting (2019)

#### 1 Seminar in Belarus, 27-28 April 2018

The theme of the International Seminar that took place in Belarus has covered <u>"Foundations Design-Theory and Practice of implementing Eurocodes in European countries and Republic of Belarus"</u>. The idea was given the utmost attention by Belarus Society to develop geotechnical activities in Belarus. The Seminar held during 27 and 28 April 2018 and took place at the University of Brest.

The following lecturers have participated:(i) from overseas: Prof. Roger Frank, Dr. Liudas Furmanovich and Prof. Pedro Seco e Pinto; (ii) from Belarus: Prof. Nikitenko Mikihail and Prof. Sernov Vyacheslav. The lectures have covered Piles Design based in Eurocode 7 "Geotechnical Design" and Eurocode 8 "Design Structures for Earthquakes" and applications for Baltic countries and Belarus.

The written versions of the lectures were collected in a Volume that was distributed to all the participants.

Each lecture had a duration of 45 minutes followed by a period of discussion of 20-30 minutes. The participants were actively engaged in questions, answers and comments on the content of the materials presented during the seminar.

Special thanks are due to Dr. Tamara Ulasik, Secretary of BELGS, and to Prof. Petr Poita, Rector of Brest State Technical University, for their great support for the organization of the Seminar and the warm hospitality.

The co-operation of the lecturers was highly appreciated.



View of Seminar audience

Main table

## 2. Seminar in Asuncion, 12-13 November 2018

The theme of the International Seminar that took place in Asuncion has covered "Active Design by Codes".

The Seminar was held on 12-13 November 2018.

The following lecturers have participated: (i) Prof. Roger Frank, Prof. Alejo Sfrisio, Prof. Roberto Terzariol and Prof. Pedro Seco e Pinto.

The written versions of the lectures were distributed to all the participants.

Each lecture had a duration of 45 minutes followed by a period of discussion of 20-30 minutes. The participants were actively engaged in questions, answers and comments for the content of the materials presented during the seminar.



View of Seminar audience



General view of the participants

Special thanks are due to Eng. Jose Pavon and Organizing Committee for their great support for the organization of the Seminar and for the warm hospitality.

The co-operation of the lecturers was highly appreciated.

## 3. Seminar in Buenos Aires, 15-16 November 2018

The theme of the International Seminar that took place in Asuncion has covered "Active Design by Codes".

The Seminar was held on 15-16 November 2018.

The following lecturers have participated:(i) Prof. Roger Frank, Prof. Alejo Sfrisio Prof. Roberto Terzariol and Prof. Pedro Seco e Pinto;

The written versions of the lectures were distributed to all the participants.

Each lecture had a duration of 45 minutes followed by a period of discussion of 20-30 minutes. The participants were actively engaged in questions, answers, and comments on the content of the materials presented during the seminar.



Main Table- from left to right Alejo Sfrisio, Roger Frank and Roberto Terzariol



View of Seminar audience

#### 4. Seminar in Mexico, 19-20 November 2018

The theme of the International Seminar that took place in Leon has covered <u>"Foundations Design"</u>. The Seminar held on 19-20 November 2018.

The following lecturers have participated:(i) Prof. Tim Newson, Prof. Roger Frank, Prof. Alejo Sfrisio, Dr. Sukumar Pathmanandavel, Prof. Eun Schin, Prof. Gabriel Auvinet and Prof. Pedro Seco e Pinto; The written versions of the lectures were distributed to all the participants.

Each lecture had a duration of 45 minutes followed by a period of discussion of 20-30 minutes. The participants were actively engaged in questions, answers, and comments for the content of the materials presented during the seminar.

## 5. Seminar in Leon, 21 November 2018

The theme of the International Seminar that took place in Leon covered <u>"Dam Engineering"</u>. The Seminar was held on 21 November 2018.

The following lecturers have participated:(i) Prof. Tim Newson, Prof. Roger Frank, Prof. Alejo Sfrisio, Prof. Roberto Terzariol and Prof. Pedro Seco e Pinto;

The written versions of the lectures were distributed to all the participants.

Each lecture had a duration of 45 minutes followed by a period of discussion of 20-30 minutes. The participants were actively engaged in questions, answers, and comments on the content of the materials presented during the seminar.

#### 6. Seminar in Maputo in 2, 3 October 2019

The theme of the International Seminar that will take place in Maputo will cover "Geotechnical Engineering".

The Seminar will occur on 2-3 November 2018.

The following lecturers will participate:(i) Dr. Etienne Kana, Prof. Roger Frank, Dr. Sukumar Pathmanandavel, Prof. Ikuo Towhata, Prof. Mounir Bouassida, Prof. Roberto Terzariol and Prof. Pedro Seco e Pinto.

The written versions of the lectures will be distributed to all the participants.

Each lecture will have a duration of 45 minutes, followed by a period of discussion of 20-30 minutes. Some short presentations of local colleagues are expected.

#### 7. Final Comments

I would like to take this opportunity to thank the President, the Regional Vice Presidents, Host Member Societies, the Technical Committees, the Invited Lecturers, and the Sponsors for their contributions and support.

I will summarize this rich experience in the following words:

- We want all of you to make part of our community, to promote your growth and to make you feel that you are contributing for our dream come true.
- Interaction with people is important, because I believe this experience will help us with new ideas and interesting insights.

Last but not least I would like to address to all of you a word of praise and gratitude for your contributions and a message of hope that these Seminars will allow us to develop a feeling of universal responsibility and to create the ambition to serve better our Society,

Gedno Seco elinto

Pedro Sêco e Pinto International Seminars Coordinator

# **Visit to Cape of Good Hope**

Portuguese explorer Bartolomeu Dias was the first known European to discover the cape in 1488, and named it 'Cape of Storms'. However, renamed it the Cape of Good Hope to attract sailors to the Route that passes the southern coast of Africa.

Portuguese poet Luís de Camões personified the Cape of Good Hope in his epic poem Os Lusíadas, which was first printed in 1572. He created a mythological giant called Adamastor to symbolise the dangers that Portuguese sailors faced to round the Cape of Storms.

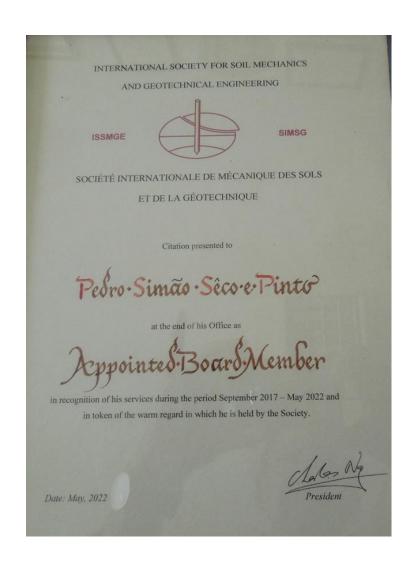


Cape of Good Hope



The connection cape-sea and beach

I received a ISSMGE certificate in Sydney related to my services during this period.



ISSMGE Certificate - Sydney

# 10.3. INTERNATIONAL CONFERENCES

List of the International Conferences that I have participated:

- 12th ICSMGE Rio de Janeiro 1989
  - 13th ICSMGE New Delhi 1994
- 14th ICSMGE Hamburg 1997
- 15th ICSMGE Istanbul 2001
- 16th ICSMGE Osaka 2005
- 17th ICSMGE Alexandria 2009
- 18th ICSMGE Paris 2013
- 19th ICSMGE Seoul 2017

20th ICSMGE – Sydney 2022.

As ISSMGE President, I had to chair the CAC of 17th ICSMGE in Alexandria.

There has been considerable effort in making sure that good progress is made with the arrangements for the 17 ICSMGE, Alexandria, 5-9 October 2009. In addition to an extensive exchange of correspondence, Conference Advisory Committee meetings took place in Cairo and Alexandria on 19<sup>th</sup> November 2006 and subsequently in Madrid, Brisbane, Kolkata during 2007, in St. Petersburg on 17<sup>th</sup> June 2008 and in Cairo on 28 February 2009.

Bulletin 2 was printed on June 2007 and distributed at all the ISSMGE Regional Conferences (13<sup>th</sup> Pan-American Conference in Isla Margarita 16-20 July 2007; 14<sup>th</sup> European Conference in Madrid 24-27 September 2007; 10<sup>th</sup> Australasia Conference in Brisbane 21-24 October 2007; 14<sup>th</sup> African Conference in Yaoundé 26-28 November 2007; 13<sup>th</sup> Asian Conference in Kolkata 10-14 December 2007. The Bulletin 2 is available on the conference website: http://www.2009icsmge-egypt.org/

After consulting CAC and COC members ISSMGE President has appointed SOA Lecturers and Co-Authors, Invited Lecturers and Terzaghi Oration Lecturer and General Reporters.

The President sent a letter to the Technical Committees chairpersons inviting them to organise a Satellite Conference or a Seminar for the occasion of XVII ICSMGE.

The following TCs have responded positively: TC2, TC 4, TC 5, TC 6, T C8, TC 17, TC 23, TC 28, TC 29 and TC 38.

News



17<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering Bibliotheca Alexandrina, Alexandria, Egypt 5-9 October 2009

AHLAN WA SAHLAN (Welcome to Egypt)

The International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), the Egyptian Geotechnical Society, the Government of Egypt, and the city of Alexandria cordially invite you to attend the 17<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering (17<sup>th</sup> ICSMGE) from 5 to 9 October 2009. This quadrennial event, which ranks annote premier events in the field of geotechnical and ground engineering worldwide, is being held at the spectacular, international award-winning Bibliotheca Alexandrian on the coast of the deep blue Mediternaena Sea. A technical exhibition, a major comment of the event, will be held in parallel to the conference (5-8 October) to provide companies in the field of geotechnical and ground engineering an opportunity to present their products and services and build business relationships with conference attendees.

The geotechnical challenges the world faces are becoming increasingly more complex and interrelated. Geotechnical engineers have had to expand their thinking and develop new technologies to better integrate socio-economic and environmental issues into engineering solutions at the surface and below ground in our cities and towns, coastal areas and sea beds, and in a global context for the health of the earth. To prepare for the more challenging changes to come, closer collaboration among those who study, research, and practice geotechnical engineering in requisite. Thus, The Academia and Practice of Geotechnical Engineering has been chosen as the main theme of the 17° ICSMGE.

The 17<sup>th</sup> ICSMGE will provide a forum for academics and practitioners in the geotechnical engineering field to explore the future of our profession and what we must do to assure that we meet society's needs and expectations, interactive discussions, led by preeminent leaders in the field, will address the research required to meet ever changing global issues. We will also explore case studies that we can all learn from, and identify the means and value in strengthening relationships among the engineering and construction communities, as well as the general public.

On conference Days 1 and 2, invited lecturers will address each of the frive main conference themes: Material Behavior and Testing; Analysis and Design; Prediction, Monitoring and Evaluation of Performance; Construction Process; and Management, Training and Education. On Days 3 and 4, the 17° ICSMG offers three Technical Sessions and three Paper Presentation/Poster Discussions that will present a range of views and ideas on each of the five main conference themes. Session presenters will be selected by the Conference Organizing Committee from among the nearly 1,000 papers submitted by interested authors.

We invite all geotechnical academics and practitioners to join us in Alexandria in 2009. Egypt, the place where geotechnical engineering essentially began, is the ideal setting to determine our field's future directions.

We hope that you will join us.

P. Sēco e Pinto

M. Hamza

For additional information:

17th ICSMGE Conference Organizing Committe 17th ICSMGE Exhibition

Email: exhibiticsmge2009@hamza.org www.icsmge2009-egypt.org I had the opportunity to attend the 5<sup>th</sup> International Congress on Environmental Geotechnics ICEGE in Cardiff on June 26-30, 2006 and delivered messages for the Opening Ceremony and Closing Ceremony.

The 6 th ICEGE will take place in New Delhi - India, on 8-12 November 2010,

The president chaired the CAC meeting that took place on 18<sup>th</sup> December 2008, in Bangalore. I have interacted with the Organizing Committee during the stage of preparation of Bulletin 1.

We should never forget the words of T.S. Elliot "Where is the life we lost in living? Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information"?

#### 10. 4. REGIONAL CONFERENCES

The Regional Conferences take place with a periodicity of 4 years.

I had the opportunity to participate during 2006 and 2007 in CAC meetings of Isla de Margarita, Madrid and Yaoundé Regional Conferences.

I have also attended and delivered Messages at Opening Ceremonies and Closing Ceremonies, chaired sessions in the following Regional Conferences:

2007 (July 16-20) - Isla Margarita 2007 (September 24-28) - Madrid 2007 (October, 20-24) - Brisbane 2007 (November 26-30) - Yaoundé2007 (December, 10-14) - KolkataXIII PCSMGE - Venezuela
XIV ECSMGE - Spain
X ANZCG - Australia
XIV ARCSMGE - Cameroon
XIII ARSMSGE - India

I have participated in CAC meetings of XIV PCSMGE 2011 (October, 2-6) - Toronto and XV ARCSMGE 2011 (June, 13-16) - Maputo - Mozambique.

In addition, I have interacted with the Organizing Committees of XIV ARCSMGE May, 23-27, 2011 Hong Kong, XV ARCSMGE, Maputo, June, 13-16 2011, XV ECSMGE Athens September, 13-18, 2011 and XV ARCSMGE Toronto, October 2011, during the stage of preparation of Bulletin 1.

We need to make Regional Conferences more attractive to have the courage to address hot topics and case histories with failures. We should not forget that courage is not the absence of fear but the willingness to walk through our fear in pursuit of a goal that is important to us. Remember, on the other side of our fears you will discover our fortune.

#### 10.5. YOUNG GEOTECHNICAL ENGINEERS - The ISSMGE FUTURE

#### 10.5.1. Introduction

ISSMGE should prepare the young geotechnical engineers to face the real needs of society and the new challenges. So, it is important to help them to develop independent thinking and decision-making skills through practice, to reduce the gap between theory and practice, to help them explore their intuition and teach them the importance of engineering judgment.

I would like to transmit the young geotechnical engineers the following message from Kahlii Gibran, The Prophet

"The hidden well-spring of your soul must need rise and run murmuring to the sea;
And the treasure of your infinite depths would be revealed to your eyes.
But let there be no scales to weigh your unknown treasure;
And seek not the depths of your knowledge with staff or sounding line".

Teaching of soil mechanics and geotechnical engineering was first addressed by Terzaghi, during the 1st ICSMFE in Cambridge (USA), in 1936, who emphasized the importance of observation and physical phenomena to support empirical procedures.

Casagrande emphasized the need to train the students to develop an active attitude, to be critical and think about the topic application to solve the problems.

Burland (1987) in his Nash Lecture: "The teaching of soil – A personal view" stress again the importance of the following four aspects:(i) The ground profile; (ii) Soil behaviour; (iii) Applied mechanics;(iv) Empiricism.

ISSMFE has set-up a Task Force on Education in Geotechnics in 1990, in co-operative effort with (ISRM) and (IAEG) in order to conduct a survey of undergraduate curricula and education practices in various countries and to suggest new trends for geotechnical education.

- ISSMGE has also contributed to the discussion and recommendations related to education, geohazards, environmental, industrial liaison, information technology, and professional practice
- Conferences organized by ISSMGE TC n° 31 Education in Geotechnical Engineering; TC n° 4 Earthquake Geotechnical Engineering; TC n°5- Environmental Geotechnics
- Board Task forces on Education, Industrial Liaison, Information Technology and Professional Practice.

ISSMGE needs to prepare the young geotechnical engineers to face the real needs of society and the new challenges. So, it is important to help them to develop independent thinking and decision-making skills through practice, to reduce the gap between theory and practice, to help them to explore their intuition and to teach them the importance of engineering judgment.

#### 10. 5.2. Civil Engineering Education

The civil engineering profession is undergoing significant, rapid, and revolutionary changes making the baccalaureate civil engineering degree an entry level degree that is inadequate preparation for the practice of civil engineering at the professional level.

Many civil engineers must increasingly assume a different primary role from that of designer to that of team leader. This changing market and role for the civil engineer can be addressed by appropriate, formal post-baccalaureate education among other fundamental requirements.

Currently engineering education in Europe is based in two systems: - the "continental" (or binary) system characterised by an engineering education: of long duration (5 years) and of short duration, with a nominal duration of 3- 4 years; - the "anglo-saxon" (or two-tier) system, with undergraduate courses leading to Bachelor of Engineering degree after 3 years (in England and Ireland) and 4 years (in Scotland), followed by postgraduate studies leading to a Master of Sciences degree (1-2 years).

The introduction of a larger number of Master's degree programs, building on Bachelor's degrees, will no doubt make European Engineering Education more attractive for non-European students, especially if the programs are run entirely or partly in English. It will also facilitate student mobility within Europe. SEFI (European Society for Engineering Education) therefore welcomes a large-scale introduction of separate 1-2 year Master's Programmes in Engineering.

SEFI is convinced that this existing European system for Engineering Education has much merit, that the system is quite compatible with the vision of a European Higher Education Area and that it should not be sacrificed.

This does not, of course, exclude the creation of a two-tier Bachelor/Master system also in Engineering Education, whenever this is judged appropriate. The Master's degree should, in such cases, be equivalent to the existing 5-year degrees.

#### 10. 5.3. Young Geotechnical Engineers Conferences

From a balance the Young Geotechnical Engineers Regional Conferences organised in Africa (2), in Asia (6), Australasia (8), in Europe (19) and in South America (3) it was recognised the great interest for the education of young geotechnical engineers.

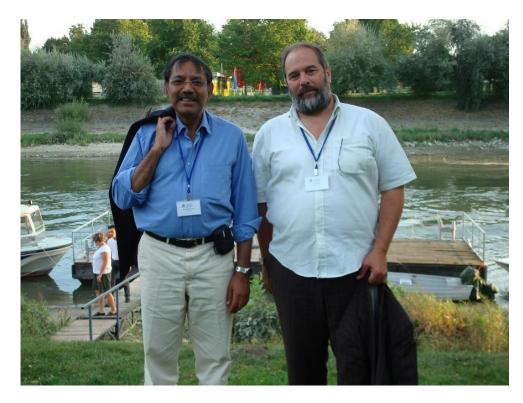
Related to the International Young Geotechnical Engineers Conferences (1<sup>st</sup> IYGEC was in UK and 2<sup>nd</sup> IYGEC took place in Romania) whether they should be linked or not with ICSMGE became a topic of debate. The organising of 3<sup>rd</sup> IYGEC in conjunction with the 16 th ICSMGE in Osaka provide some lessons about this new experience.

The list of the recent Regional Young Geotechnical Conferences and International Young Geotechnical Conferences is the following:

```
2007 Tunis
                   Tunisie
                               2<sup>th</sup> AYGEC
2008 Bangalore –
                   India
                               6th AYGEC
2008 Wellington – Australasia 8th AYGEC
                               19th EYGEC
                   Hungary
2008 Gyor
2009 Cordoba-
                    Argentina 3rd SAYGEC
                               1st IYGEC
2000 Southampton - UK
2003 Mamaia -
                    Romania
                              2<sup>th</sup> IYGEC
2005 Osaka -
                                3<sup>th</sup> IYGEC
                    Japan
                               4th IYGEC
2009 Alexandria -
                    Egypt
```

I was invited to deliver lectures and also messages for the occasion of the Opening and Closing Ceremonies of 2nd AYGEC (Tunis, 2006), 6<sup>th</sup> AYGEC (Bangalore, 2008), 17<sup>th</sup> EYGEC (Zagreb, 2006), 18<sup>th</sup> EYGEC (Ancona, 2007), 19<sup>th</sup> EYGEC (Gyor, 2008) and 3<sup>rd</sup> SAYGEC (Cordoba, 2009),

# 19th EYGEC (Gyor, 2008)



Pedro Sêco e Pinto and Roger Frank in Gyor



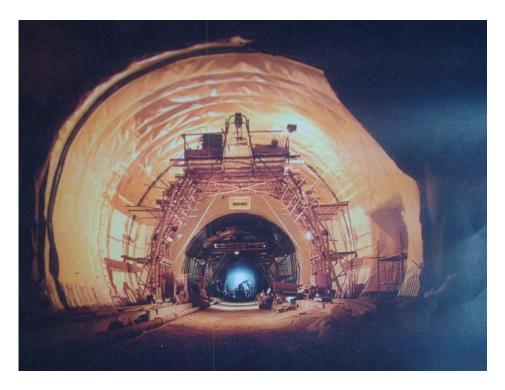
Delegates for 19th EYGEC



Enjoying the dinner



Musical moment



Technical visit

The President has interacted with the Chairperson of 4 IYGEC Dr. Fatma Baligh mainly to discuss the letter of invitation, the conference programme and the instructions for the authors.

By e-mail 26 November 2008 the invitations were sent by the Organising Committee to all ISSMGE Member Societies.

A CAC meeting of 4IYGEC took place in Alexandria on 26 February 2009.

Intensive interaction took place between myself and the Chairperson of 4 IYGEC to discuss several technical and administrative issues.

10. 5.4. My thoughts expressed during IYGEC and RYGEC

i) The Engineer

Engineering is an ambigous word, in some languages, an engineer is a man mastering engines, in Latin, he is a man with genius, something like art, that is skill plus intelligence. If the Earth is viewed as a big engine, a set of parts linked into intricate mechanisms, the first acceptance is right, but a bit of genius is required to master its complexity.

Nature to be mastered, must be obeyed Francis Bacon (1620)

É necessário o vibrato emocional mergulhar sem receio num mundo de emoções e penetrar no íntimo de uma solidão no acto de decisão.

As novas gerações devem cultivar o mesmo vibrato emocional que me animou toda a vida,

Foi na filosofia, aprendida nos livros mas, sobretudo, tão socraticamente, que descobri a importância de olhar para além das aparências e fazer perguntas cuja resposta, iriam suscitar novas perguntas. E, finalmente, foram os poetas que me ensinaram a experiência humana"

In Latin, Engineer is a man with genius, something like art, that is skill plus intelligence. A bit of genius is required to master Earth complexity.

- An engineer shall not offend the truths of the theory of material strength and the definition of the actions.
- In spite of our efforts to improve the image of the Engineer we still remain behind our colleagues of Medecine or Physics, due to the New High Tec Medecine, or Fligths to the Moon that are more spectacular.
- Geotechnical Engineers that operate below the ground surface can not compeat with Architects that are admired for their visible structures.
- We should not feel frustrated as we should explain to the Society that the concern for man and fate has been always the core interest of the geotechnical engineer.
- Remember that each day, life will send little windows of opportunity. Our destiny will ultimately be defined by how we respond to these opportunities.
- As we live our days, so we craft our life.

#### The Good Geotechnical Engineer

The good geotechnical engineer is one who knows the limits of his experience on problems and soil conditions comparable with his current assignement and makes appropriate extrapolations. He knows what he knows and uses it confidently. More importantly, he knows what he does not know, seeks available knowledge, and then proceeds fully, acknowledging his limitations and uncertainties.

But my great concern is that this New Engineering supported by the Science and seduced by the Technology does not benefit totally the Human Life and our Core Values.

The New Engineering has:

- News Horizons with the purpose to reach
- A better knowledge of the Problems and Solutions that Nature offers
- A better management of the resources.
- Aims with the purpose:
- To minimize the asymmetries between Regions
  To avoid costly solutions for problems solved with old
  and cheap solutions
- To face the social and economical challenges.

# The challenge of this New Engineering is: How to select and how to educate women and men devoted and honest with the spirit of duty and sacrifice, courage during the fight, humble in the victory, refusing the defeat, devoted to the truth and intellect excellence, with sense of humour, capable to work in team in harmony with everybody, respecting our similarities and differences, with a great love for the human body and a sharp curiosity to understand the Nature. This is for me the secret of a Good Engineer. The New Engineering demands a New Engineer.

- It is important to notice that true innovators have a mantra. They are constantly daring to make things better. They challenge the commonly accepted. They see no limits. We should not forget that growth, evolution and invention sustain the life.
- So we need to keep challenging ourselves to think better, do better and be better. Confront our limitations. Failure is a gift anyway. It takes us closer our dreams, equips us with more knowledge. Success and failure go hand to hand.
- In dealing with Geotechnical Design we should not forget:
- Improve: Always be getting better;
- Observe: We need to keep our eyes open to absorb the changes;
- Adapt: The conditions are different, so we need to keep monitoring the process:
- Connect: We need to receive different inputs.

Through this dialog ISSMGE has stressed the importance from study of alternative solutions, that different interests and opinions should be considered and past lessons should not be forgotten.

Geotechnics is simultaneously complex and a great challenge, but we need to recognize that uncertainties exist, recognise the importance of dialogue, and pursue perfection to reach the optimum solution

The challenge is to cross the threshold between uncertainty and certainty and to find the right answers to these questions.

#### Case Histories

One of the best ways to enhance learning with Case Histories is by means of classroom discussion. The structure can be (1) Review of the case content, (2) Statement of the problems, (3) Collection of the relevant information, (4) Development of alternatives, (5) Evaluation of alternatives, (6) Selection of a course of action, and (7) Scheduling of recommended solutions

Following K. R. Andrews, the instructor's most difficult job is to avoid the "seven pedagogical sins of condescension, sarcasm, personal cross-examination, discourtesy, self-approval, self-consciousness and talkativeness"

A Case History to be useful should include the following information:

- Geology of the site
- Seismicity of the area
- Purpose and scope of the geotechnical investigation
- Procedures for sampling
- Description of field equipment
- Data on variation of ground water table
- Results of field and laboratory tests
- Design geotechnical parameters
- Design methodology
- Construction procedures
- Observational data

#### Aristotle Memorable Lines

"We are what we do Consistently, So, the excellence Is not an act But a practice."

#### 10.6. OTHER INTERNATIONAL CONFERENCES

The ISSMGE President has submitted for discussion his proposal in Riga meeting on 13 October 2005 for the occasion of 10 th Baltic Conference to extend the organization of Baltic Conferences to other Societies of the Baltic Region, in order to turn these Conferences more attractive and to increase the participation. This proposal was extensively discussed and was approved by unanimously.

13<sup>th</sup> Danube European Conference on Geotechnical Engineering organized by the Slovenian Geotechnical Society was held on 29 to 31 May 2006 in Ljubljana, with 300 participants from 29 countries. The proceedings have integrated 187 papers from 34 countries.

16<sup>th</sup> SEAGS Conference took place in Kuala Lumpur from 8-11 May 2007. This Conference was attended by 500 participants from 23 countries. The Conference Proceedings integrate Opening Keynote Address, Chin Fung Kee Lecture, 8 Keynote Lectures, 9 Special Lectures and 130 papers.

The 11<sup>th</sup> Baltic Sea Geotechnical Conference took place in Gdansk on 15-18 September 2008, with 280 participants from 30 countries. The Conference Proceedings integrate 124 peer-review papers in 2 Volumes and a CD-Rom.

### TCs Conferences

1st TC 4 Conference -Tokyo 1995

2<sup>nd</sup> TC4 Conference -Lisbon 1999

3<sup>rd</sup> TC4 Conference – Berkely 2004

4th TC4 Conference -Thessaloniki, 2007

5<sup>th</sup> TC4 Conference, Santiago de Chile, 2011

In the great majority of these Conferences, I was invited to chair Sessions and to deliver Lectures.

Troubles can transform, if we choose to allow them to do so. As Joseph Cambell wrote: "Where you stumble, there your treasures lie".

I appreciate very much the message of Bernard Shaw "Some men see things as they are and say "why"? I dream things that never were, and say "why not".

More details of these Conferences are presented in **Volume 2.** 

#### 10.7. MEETINGS WITH MEMBER SOCIETIES and GEOTECHNICAL GROUPS

During my tenure as President (2005-2009), I had 83 meetings with Member Societies and other Geotechnical Groups.

The issues discussed included Technical Committees, the Federation of International Geo-engineering Societies, National or Regional Conferences linked to ISSMGE, 17<sup>th</sup> ICSMGE, Alexandria, 2009 and any other items of local interest.

Remember that each day, life will send little windows of opportunity. Your destiny will ultimately be defined by how you respond to these opportunities.

As you live your days, so you craft your life.

#### 10.8. ISSMGE BULLETIN

For the occasion of the ad-hoc Board meeting that took place in Osaka, 13 September 2005, I proposed the establishment of a Task Force on Communications to launch the ISSMGE Bulletin as the upgrade version of Newsletter. I have invited Osamu Kusakabe, ISSMGE Board Member to chair this Task Force.

In my message for the occasion of Volume 1, Issue ISSMGE Bulletin, March 2007, first issue, I have expressed my great pleasure to address to all the members. To make ISSMGE News more attractive to all ISSMGE Bulletin has been devised to include a message from the president or vice presidents, current TC activities, reminiscences, views of young members, case histories, activities of members societies, other news and event diary. Osamu Kusakabe was appointed co-ordinator of ISSMGE Bulletin.

I have stressed that my interaction with Member Societies was helping me to lead the Society with hope exploring the windows of opportunity and creativity whilst considering the past lessons and preparing the future with respect and attention to the Member Societies activities. I always had in mind the best interests of all Member Societies particularly supporting weaker members, hopefully contributing to the strengthening and cohesion of our Society. We are on the right path, but there is still a long way to go.

To reinforce the editorial capacity of Bulletin a network of young geotechnical engineers in representative geographical areas of Africa, Asia, Australasia, Europe, and America was established.

An extract of this Message is given below.

# A Message from the President – Bulletin February 2008 By Professor Pedro Sêco e Pinto

Related the recent developments of FIGS the first meeting between the Presidents of the Sister Societies with the attendance of the IAEG Secretary General took place in Paris on 6 February 2003.

Since than several other meetings have taken place between the 3 Presidents and 3 Secretary Generals in Prague on 22 August 2003, in Lisbon on 28 January 2004, in Paris on 6 September 2004 and in Ghent on 18 February 2005.

A Joint European Working Group on Professional Practice, Responsibilities and Cooperation in Ground Engineering was established in June 2002, with 3 representatives of each Sister Society, and produced a report by June 2004 in which as a first step defined the professional competences and expertise of the Sister Societies and a diagram illustrating the relationship between Soil Mechanics, Rock Mechanics and Engineering Geology within the broader field of ground engineering.

On January 2004, for the occasion of Lisbon meeting, a Joint Task Force (JTF) was created, with 3 representatives of each Sister Society, to analyse the mutual benefits from the establishment of an umbrella association to be also open to other allied societies. The Terms of Reference were drafted by the Presidents of the 3 Societies. The Secretaries General of the 3 Societies have participated in the Task Force as observers.

The JTF has considered the following key areas of cooperation:

- *i)* The promotion of the geo-engineering profession;
- ii) Relevant technical issues, for which joint technical committees or commissions would be formed;
- iii) Education in geo-engineering;
- *iv)* The development of jointly sponsored conferences;
- *v) Other initiatives of co-operation (publications, awards).*

The JTF has delivered an interim report by the end of July 2004 and the final report by mid-February 2005.

At the Council Meeting in Osaka, 11 September 2005, it was agreed to continue developing the idea of a Federation of International Geo-Engineering Societies.

Subsequently meetings between the 3 Presidents and the 3 Secretaries General took place in Paris on 11 November 2005, in Amsterdam on 12 May 2006, in Nottingham on 6 September 2006, with also the attendance of the Immediate Past president of ISSMGE.

For the occasion of the meetings in Paris and in Amsterdam the Cooperation Agreement was discussed.

Meetings between the 3 Presidents and the 3 Secretaries General took place in Lisbon on 22 January 2007 and in Paris on 9 June 2007, with the attendance of the Immediate Past Presidents of ISSMGE and IAEG and in London on 22 January 2008 with the attendance of the 3 Immediate Past Presidents.

In these meetings, the process of approval of Cooperation Agreement by IAEG, ISRM and ISSMGE, the drafting of the Cooperation Agreement Sub-Clauses, the Joint Technical Committees and the International Year of Planet Earth activities were discussed.

I would like to stress the excellent spirit of co-operation during these meetings.

It is important to recall that in the preamble of the Cooperation Agreement is stated: "The presidents of ISSMGE, ISRM, and IAEG propose to start up FIGS in an informal way and only take the decision to modify it to a full legal status (including a set of By-laws) after one or two periods (of 2 years each) if it shows that such a formal status is indispensable for proper functioning of FIGS. Such formalization will then need the explicit approval of the Councils of the three organizations.

The present approval of FIGS Statutes by the three associations will formally commit the three associations to the existence and functioning of FIGS as outlined in the statutes. This means that FIGS has an "internal" legality. FIGS Statutes will, for the time being, only play a role in the relation between

the three Members (and any newly admitted and/or Associated Members if these also approve the statutes) and describe and define the structure of cooperation.

Due to the presently proposed informal status no decisions will have to be taken yet on compliance with any national legal system".

The Federation is founded so that each of the participating associations/societies will retain its identity and autonomy.

FIGS Agreement also defines the guidelines of Joint Technical Committees their terms of reference, how and where they shall meet and how they shall report.

A proposal for the installation of a Joint Technical Committee shall contain the following items:

- proposed title;
- the technical question(s) to be addressed;
- justification: how important is it that the questions are answered and why is this a task for FIGS;
- terms of reference: definition of the broad terms of reference, with a list of the tasks to be performed, reports to be presented and a well-defined schedule;
- suggestion with one or more names for the chairperson of the JTC.

The Federation Board may appoint Joint Technical Committees for a maximum term of office of 4 years. Joint Technical Committees are composed of a chairperson, core members (together with the chair forming the core-group), co-opted members and corresponding members.

The following Joint Technical Committees were established:

JTC1- Landslides and Engineered Slopes, JTC2- Representation of Geo-Engineering Data, JTC3- Education and Training, JTC4- Professional Practice, JTC5- Sustainable Use of Underground Space, JTC6- Ancient Monuments/Historical Sites, TC7- Soft Rocks and Indurated Soils.

JTC1, JTC2, JTC4 are hosted by ISSMGE, JTC3, JTC5 and JTC6 are hosted by IAEG and JTC7 is hosted by ISRM.

Since Osaka Council meeting the Member Societies were kept informed about FIGS by: (i) my messages in ISSMGE News and Bulletin and La letter de la Géotechnique; (ii) my meetings with the Member Societies; (iii) my letters to the Member Societies; (iv) trough Regional Vice Presidents; and (v) through the documents sent and particularly for the occasion of ISSMGE Council meeting in Brisbane.

The IAEG Council meeting took place in Nottingham on 6 September 2006 for the occasion of the 10 IAEG Conference and the FIGS Agreement was approved by 43 votes in favour, 10 votes against and 1 abstention.

The ISRM Council meeting took place on 7 November 2006 in Singapore and the FIGS Agreement was approved by unanimity.

The ISSMGE Council meeting took place in Brisbane on 21 October 2007 for the occasion of 7<sup>th</sup> ANG Conference and the FIGS Agreement was approved by 49 votes in favour, 4 votes against and 1 abstention.

In this meeting, I have also informed the Council that Prof. William Van Impe was a candidate for FIGS president, but respecting the democratic principles the Societies were invited to put forward nominations for the candidacy of the President of FIGS, until 21 December 2007. As I have received from several Societies a letter of support to William candidature and no other candidature, I have informed the Board by end of December 2008 and William Van Impe was declared the official candidate of ISSMGE for FIGS president.

For FIGS president election there were 2 candidates Prof. Ricardo Oliveira proposed by IAEG and ISRM and Prof. William Van Impe. As in January 2008 an e-mail ballot had been held which resulted in a tied vote of 3 votes for each candidate, a second voting took place in February. The six ballot papers were

returned in sealed envelopes. The opening and counting were done in a manner that ensured complete anonymity.

The result of the ballot was:

Ricardo Oliveira - 2 votes William Van Impe - 3 votes.

There was one ballot paper with no preference expressed (blank paper). William Van Impe, having received the majority of votes was duly elected as President of FIGS.

On behalf of ISSMGE I have congratulated William Van Impe for his election as FIGS president and wished him all the success.

Knowing him as well as we do, we expect William to bring to the position, unrestrained energy, devotion and new vision for the development of FIGS.

Two very important Joint Technical Conferences organised by ISSMGE will take place in 2008: (i) the First International Conference on Education and Training in Geo-Engineering Sciences in Constanza, Romania, 2-4 June 2008, organized by the Romanian Society for Soil Mechanics and Geotechnical Engineering in cooperation with JTC 3 Education and Training and ETC 16; and (ii) the 10<sup>th</sup> International Symposium on Landslides and Engineered Slopes, in Xian, China, June 30-July 4, under the auspices of JTC1- Landslides and Engineered Slopes.

I strongly believe that these events will be an opportunity to better explore the synergies between ISSMGE, ISRM and IAEG and will bring a new vision and strategy for the developments of these themes.

The excellent contributions from the 3 Societies can be considered pieces of the same chain and will contribute for a better divulgation of the very fast developments in geotechnical engineering.

In a world that moves in the direction of the global village, it is very important the universality of the knowledge and the need for a permanent renewing. It is important to communicate, to share experiences, to compare methodologies and to monitor the results. The benefits of an open dialogue between the academicians, the researchers, the practitioners, contractors and owners are huge.

We should not forget that it is not the lack of knowledge that provokes problems, but our obstinacy in having certainties.

Over the past years a number of developments have taken place and FIGS will be an opportunity and momentum to capitalise on the potential benefits. Joining our efforts, we will reach our goals and targets and develop our capacity to transform the projects in action. But we should always recognise the importance of dialogue, and the benefits of consensus and pursue perfection to reach the optimum solution.

In a geotechnical world that every day transforms and advances we face new challenges that demand great care and rigour, the role of ISSMGE is to explore new ways, supporting the Core values and models for excellence and being a continuous source of inspiration for today and tomorrow.

To all ISSMGE members, I express a word of praise and gratitude for your contribution, wishing that ISSMGE continues to be a space of scientific interaction, sharing of experiences, and launching of innovative ideas to open new avenues.

I would like to transmit a message of hope remembering the lines of Aristotle. "We are what we do
Consistently,
So, the excellence
Is not an act
But a practice."

Thank you very much for your kind attention and co-operation.

Gedno Seco e Sinto

**ISSMGE** President

It is very important the universality of the knowledge and the need for a permanent renewing. In my letter of invitation to young members on 6 March 2009, I wrote:

"It is important to communicate, to share experiences, to compare methodologies and to monitor the results. The benefits of an open dialogue between the academicians, the researchers, the practitioners, contractors and owners are huge. Through our ISSMGE Bulletin we have the responsibility to interact with the Member Societies and also with the individual members. In a geotechnical world that every day transforms and advances we face new challenges, the role of ISSMGE is to explore new ways and to be a continuous source of inspiration for today and tomorrow. I am confident that ISSMGE Bulletin will contribute for a synergy between academicians and practitioners and will implement co-operation between scientific and technological actors. Joining our efforts we will reach our goals and targets and contribute for the success of ISSMGE Bulletin and certainly for the unity and strength of ISSMGE. I strongly believe that your role in your Region to serve as a contact person for collecting the contributions and your interaction with the Regional Vice President is of crucial importance for the success of ISSMGE Bulletin. I hope to receive a positive response for your nominations for a period of 4 year. Thanking in advance for your co-operation

Our common goal is to build a new ISSMGE, providing a space of co-operation and solidarity, emphasizing the core values of liberty, generosity, respect, initiative, creativity and mutual support. My belief was that Bulletin would certainly become a vehicle for a better approach and interaction among all ISSMGE members.

"The intellect of man is forced to choose perfection of the life or of the work" W.B. Yeats. The Choice.



International Society for Soil Mechanics and Geotechnical Engineering www.issmge.org

# A Message from the President

By Professor Pedro Sêco e Pinto

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Following my past policy of informing all ISSMGE Members about the main ISSMGE activities through my messages in the ISSMGE Newsletters, it is for me a great pleasure to address all of you in this first issue of the new ISSMGE Bulletin. Our goal is to make ISSMGE News more attractive to all of you and the ISSMGE Bulletin has been devised to include a message from the president, current TC activities, reminiscences, views of young members, case histories, activities of member societies, other news and an event diary. Osamu Kusakabe, ISSMGE Board Member, has kindly accepted to co-

Bearing in mind that when you receive this message, about 18 months will have passed since my election in Osaka, 11 September 2005, and it is timely to review the progress made, to analyze the present situation, and to think of the future. The visits and meetings with Member Societies of Latvia, Estonia, Lithuania, Greece, France,

with Member Societies of Lativia, Estonia, Lithiuania, Greece, France, Netherlands, India, CTGA (Senegal), Hungary, Italy, Korea, Germany, Slovenia, United Kingdom, Croatia, Chile, Paraguay, Brazil, Japan, Spain, Ukraine, Indonesia, SEAGS (Singapore) and Egypt have been a great opportunity to become acquainted with their achievements, needs and expectations. I should like to stress that the generous reception, the warm hospitality, the enthusiastic attendance to the lectures that I have delivered, have left me with wonderful memories and were a balsam for the tiring trips. Also, during 2007 I am planning to visit Member Societies from Tunisia, Albania, Vietnam, SEAGS (Malaysia), Croatia, Italy, Poland, Greece, Venezuela, Nigeria, Spain, Mexico, Indonesia, Australia, China, CTGA (Cameroon), SEAGS (Thalland), India and Sri Lanka.

This interaction with Member Societies helps me to lead the Society with hope by exploring the windows of opportunity and creativity whilst considering the past lessons and preparing for the future with respect and attention to the Member Societies activities. I always have in mind the best interests of all Member Societies and particularly supporting weaker members, hopefully contributing to the strengthening and cohesion of our Society. I believe that we are on the right path, but there is still a long way to go. We are living in a world of great change and complexity and ISSMGE needs to face these challenges, to continue our efforts in order to build the future and to turn our dreams into reality. Twenty three Technical Committees were set up based on a policy of innovation, with better involvement of Member Societies and greater geographical distribution of core members, the inclusion of young engineers, and the cooperation between ISSMGE and Industry. The chairpersons were requested to put considerable efforts in the Planning of Activities, and the dissemination of the TCs work and deliverables. Their mid-term report will be submitted for Brisbane Council meeting. Also it is important to stress that the success of the TCs requires the combined efforts of TC Chairpersons, Core Members, appointed Members and Host Member Societies. The TCs will contribute to the advancement of knowledge in geotechnical engineering.

EDITORIAL BOARD

#### 10.9. ISSMGE JOURNAL

ISSMGE Board, on March 2009, has taken the decision to consider IJGCH a journal of ISSMGE, following my proposal.

I believe that this journal can make a difference to the profession since it is a non-profit effort and is suited to the needs of geo-professionals worldwide. It is a high quality, refereed publication, and is available at no cost online so that it can be easily accessible globally by practicing and research engineers that may not afford another journal subscription. The journal also focuses on the practice of the profession and the promotion of useful field data that typically do not get published. It allows the use of colour photos, and papers are accompanied by digital data and online supplemental databases. Finally, all projects are included in a google earth database. The journal is also indexed by the Georef database.

A link was established from the ISSMGE website and the International Journal of Geoengineering Case Histories and the following information is given:

-Mission and Areas of Interest

This e-journal can be easily accessed by all ISSMGE individual members.

- Characteristics of the Journal
- Procedures for review and publication of submitted manuscripts
- Editorial board membership

- Present impact to the Professional.

Within this framework a volume will be issued on September 2009 and a second volume on December 2009, followed by issues with a frequency quaternary.

Let us discover our destiny provided we have done the preparation and inner work required to seize the opportunity when it presents itself.

The role of the Technical Committees is important for the success of IJGCH. This e-journal can be easily accessed by all ISSMGE individual members.

I am confident that IJGCH with the TCs support will contribute for a synergy between academic and industrial research and will implement co-operation between scientific and technological actors and companies to develop research projects with strong innovation effects. Joining our efforts, we will reach our goals and targets and contribute for the success of IJGCH and certainly for the unity and strength of ISSMGE.

I was appointed on 2013, IJGCH Editor-on-Chief and I strongly believe that IJGCH can be a space of scientific interaction, sharing of experiences and launching of innovative ideas to open new avenues.

The following actions were taken or are programmed for the period 2014-2015:

1. New Editorial Board Members for the tenure 2013-2017.

A letter was sent to refresh the EB, in order to have a better regional distribution and also to cover the different fields of Geotechnical Engineering;

- 2. A letter was sent to TCs chairpersons to encourage their committee members to contribute for IJGCH. This letter was co-signed by Prof. Pierre Delage;
- 3. New Journal website to be launched by August 2015;
- 4. A new Journal Paper Review system, with a better interaction between the authors and the reviewers, to be launched by August 2015;
- 5 Funding for the journal: New Supporting Organizations: Shamsher Prakash Foundation and Dar Al-Handasah group (need two more);
- 6. Letter to Member Societies to host a special issue of the journal with case histories from their country (to be sent in June).

#### 1. Next programmed issues

I would like to edit IJGCH with a quaternary frequency, but to reach this target, it is crucial to receive TCs papers with good quality and a strong support from the President, Regional Vice Presidents and TCs chairpersons. Also, we are favouring the publication of Special Issues covering specific topics, Guest Editors have been invited to coordinate these issues.

- Within this framework the following Special Issues are programmed:
- i) Case Histories from Greece, organized by the Hellenic Society for Soil Mechanics and Geotechnical Engineering.
  - Guest Editors: Pahakis, Bardanis and Tsatsanifos. Target publication date: December 2015;
- ii) "Geotechnical Engineering Case Histories for use in Education."

Guest Editor: Marina Pantazidou. Target Publication Date: 1st trimester 2016.

Bernard Shaw said: "The reasonable man adapts himself to the world; the unreasonable one tries to adapt the world to himself. Therefore, all progress depends on the unreasonable man".

#### 10.10. ISSMGE - 75 Years Celebration

I have reminded the Board in Orlando, on 14<sup>th</sup> March 2009, that the International Society for Soil Mechanics and Geotechnical Engineering had its origins at the 1936 International Conference held in Cambridge - Massachusetts. Thus, the 75th Anniversary would be in 2011, and I suggested that there

could be special sessions at each of the Regional Conferences that year as a mark of celebration. Also, a Special Session should take place during the 6<sup>th</sup> International Congress on Environmental Geotechnics in New Delhi, November 2010.

The celebrations of the 75<sup>th</sup> Anniversary would then take place during 1 full year from November 2010 to November 2011.

A Special Number of Case History Journal should also be prepared to integrate special contributions made for the occasion and individuals who had had an active role within ISSMGE could be asked to write a short paper giving their views on ISSMGE and the history and/or future of the geotechnical engineering profession.

Bernard Shaw said: "The reasonable man adapts himself to the world; the unreasonable one tries to adapt the world to himself. Therefore, all progress depends on the unreasonable man".

This proposal was materialized with a **Special ISSMGE Bulletin** covering all the contributions.





1<sup>st</sup> Celebration of ISSMGE 75 th Anniversary for the occasion of 6ICEG 2010 Main Table: Prof. Pedro Pinto (Immediate Past President) and Prof. Madhira Madhav (Immediate Past Vice President for Asia)

# ISSMGE 75 years Anniversary Address of Prof. Pedro Sêco e Pinto (Immediate Past President)

For the occasion of Orlando Board meeting on March 2009 the President Prof. Pedro Sêco e Pinto reminded that the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) had its origins at the 1936 International Conference held in Cambridge, Massachusetts. So, the 75th Years Anniversary would be in 2011.

During this unforgettable journey the geotechnics torch from Cambridge in 1936, which took place during the 1st International Conference on Soil Mechanics and Foundations Engineering, has already crossed the following cities: Rotterdam, Zurich, London, Paris, Montreal, Mexico, Moscow, Tokyo, Stockholm, San Francisco, Rio de Janeiro, New Delhi, Hamburg, Istanbul, Osaka and Alexandria (17th International Conference on Soil Mechanics and Geotechnical Engineering), with a periodicity of four years.

The diversity of all 84 ISSMGE Societies, distributed over 6 Regions (see Figure 1) is our great richness and a source of inspiration. It is our great challenge, but also a unique opportunity to re-design ISSMGE, due to the changes of basic societal structure, in order to reach a new model. We need to recognise the importance of dialogue to give our hands, to work together and to pursue perfection to reach the optimum solution. Figure 2 presents the changes in Membership and Member Societies of ISSMGE.

Prof. Pedro Sêco e Pinto submitted a proposal at the Orlando Board meeting that there could be Special Sessions at each of the Regional Conferences during 2011, as a mark of celebration. This proposal was unanimously supported by the Board. Also, a Special Session should take place during the 6<sup>th</sup> International Congress on Environmental Geotechnics (ICEGE) in New Delhi, 8 -12 November 2010. International Society for Soil Mechanics and Geotechnical Engineering

The celebrations of the 75<sup>th</sup> Anniversary would then take place during a one full year from November 2010 to November 2011 - For the Special Session during 6 ICEGE, New Delhi, November 2010 (1 hour of duration), it was proposed to organize presentations such as i) A selected Senior Member to speak about the Past ii) ISSMGE President to speak about the Present iii) A Young Geotechnical Engineer to speak about the Future.

For the Special Sessions during Regional Conferences (1 hour of duration), similarly, it was proposed to organize presentations such as i) A selected Senior Member from the Region to speak about the Past; ii) ISSMGE Regional Vice President to speak about the Present; iii) A Young Geotechnical Engineer from the Region to speak about the Future.

The involvement of young engineers is very important as ISSMGE has the responsibility to prepare the Young Geotechnical Engineers to face the real needs and the new challenges of Society, to reduce the gap between theory and practice, to help them explore their intuition and to teach them the importance of engineering judgement.

The tentative Conference dates were: <sup>6th</sup> ICEGE, 8-12 November 2010, New Delhi XIV Asian Regional Geotechnical Engineering, 23-27 May 2011, Hong Kong XV African Regional Geotechnical Conference, 13-16 July 2011, Maputo XV European Regional Geotechnical Conference, 13-18 September 2011, Athens XIV Pan American Geotechnical Conference, 2-6 October 2011, Toronto XI Australasia Geotechnical Conference, 8-11 November 2011 (later it was postponed to 15-18 July 2012), Melbourne.

In Orlando, Prof. Pedro Sêco e Pinto also proposed the publication of a Special Volume that would integrate the contributions of the Presidents, of the Regional Vice Presidents, of the Secretaries General, of the young geotechnical engineers, of the TCs chairpersons and of other International Societies, e.g. IAEG, ISRM, ITA, IGS, IACMAG, ICOLD, IUGS and photos from special events.

Later for the occasion of the Board meeting in New Delhi, on 7th November 2010, the Board proposed to publish a Special Issue of ISSMGE Bulletin in place of a Special Volume. It is for me a great honour and pleasure to submit this short note to ISSMGE Bulletin summarizing the background of ISSMGE 75 Years Anniversary and I would like to profit this opportunity to express to all ISSMGE members a word of praise and gratitude for your contribution, wishing that ISSMGE continue to be a space of scientific interaction, sharing of experiences and launching of innovative ideas to open new avenues.

I believe that we, as human beings, have an enormous amount of choice to create the beautiful lives of our dreams. Fate and our choices work in concert to sculpt the look of our lives.



Figure 1: ISSMGE Membership

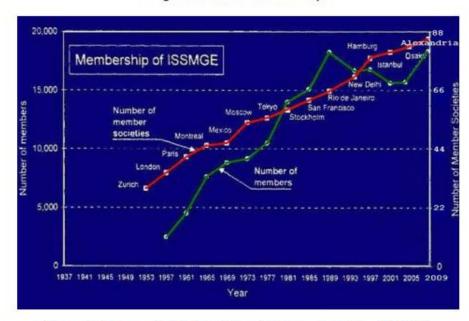


Figure 2: Changes in Membership and Member Societies of ISSMGE

# THE ISSMGE FROM 1936 TO 2011 A RETROSPECTIVE ON THE OCCASION OF THE 75TH PLATINUM JUBILEE ANNIVERSARY

By Kenji Ishihara and Michele Jamiolkowski

ISSMGE – The State of the Society – 2009 - 2013 SIMSG – Etat de la Société – 2009 - 2013 J.L. Briaud, President of ISSMGE.



1st Celebration of ISSMGE 75 th Anniversary for the occasion of 6ICEG 2010 Main Table: Prof. Jean Louis Briaud (President), Prof Kenji Ishihara (Past President), Dr Imen Said

#### **FUTURE OF ISSMGE**

Dr. Imen Said from Tunisia (North Africa) Member of SYMPG North Africa coordinator of ISSMGE Bulletin Member of Tunisian Society for Soil Mechanics.



Geotechnical Activities in the Asian Region 1936-2009 - The PAST Za-Chieh Moh President of MAA Group, Taipei Founding President of the Southeast Asian Geotechnical Society.

Future Challenges in Geotechnical Engineering in the Asian Region N.H. Priyankara Senior Lecturer, University of Ruhuna, Sri Lanka.

#### ISSMGE AFRICA REGION ISSMGE AFRICA REGION "THE PAST

Dr Peter Day (South Africa) assisted by Dr Mustafa El-Ghamrawy (Egypt) and Prof Mounir Bouassida (Tunisia).

ACTIVITIES OF GEOTECHNICAL ENGINEERING IN AFRICA, PRESENT Professor Samuel U. Ejezie Vice President for Africa.

FUTURE of Geotechnical Engineering in Africa Trevor Green Verdi Consulting Engineers.

#### EUROPE. THE PAST

H. Brandl Vienna University of Technology, Austria.

#### GEOTECHNICAL ENGINEERING IN EUROPE, THE PRESENT

I. Vaníček Vice-President ISSMGE for Europe Czech Technical University in Prague. Czech Republic.

Future Position of Geotechnical Engineering – From the European Perspective Joost Breedeveld - Deltares, the Netherlands.

#### REFLECTIONS ON ISSMGE PAST

Norbert R. Morgenstern Distinguished University Professor (Emeritus) University of Alberta.

# REFLECTIONS ON THE PRESENT STATE OF ISSMGE AND GEOTECHNICAL ENGINEERING IN NORTH AMERICA

Gabriel AUVINET ISSMGE Vice-President for North America (2009-2013) Laboratorio de Geoinformática, Instituto de Ingeniería, UNAM, Mexico.

The PRESENT of ISSMGE and Geotechnical Challenges in South America R.E. Terzariol ISSMGE Vice President for South America.

The FUTURE of ISSMGE in North America

Jennifer E. Nicks, Ph.D. Federal Highway Administration, McLean, VA, USA.

THE AUSTRALASIAN REGION THE AUSTRALASIAN REGION – THE PAST Harry G. Poulos Senior Principal, Coffey Geotechnics, Sydney, Australia.

ISSMGE in the Australasia Region: The PRESENT

Michael C R Davies Vice President for Australasia and First Vice President of the ISSMGE.

SOUTHESAST ASIAN GEOTECHNICAL SOCIETY, THE PAST, SEAGS – AIT Partnership A.S. Balasubramaniam Griffith University, Gold Coast, Australia Formerly at Asian Institute of Technology, Thailand.



The afternoon knows what the morning \

#
never suspected #
#
Robert Frost #

#### 10.11. TOURING LECTURES/INTERNATIONAL SEMINARS

In my Message for ISSMGE News, N°6, November 2006, I have stressed that Touring Lectures Program was planned by ISSMGE to disseminate the current state-of-the art/practice amongst geotechnical engineers involved in the design and practice in developing countries.

Touring Lectures/International Seminars have the following purposes and requirements:

- To address a topic selected by the Host Society;
- To address the interests of practitioner engineers;
- To attract young geotechnical engineers;
- To incorporate a good mix of routine and modern soil mechanics and to cover case histories;
- To allocate after each lecture a period for discussions, in order to stimulate questions and to share experiences from the participants;
- To have a strong local support and organization and by preference in the native language (english, french or spanish);
- To have the support of Industry;
- 2 days of lectures delivered by 4 international experts appointed by the Co-ordinator;
- In the 3rd day (optional) a technical visit can be organized.

The Host Society should also propose 2-3 lecturers including 1-2 lecturers from Industry.

• All the written versions of the lectures should be sent to the Host Society with 2 months in advance in order to be prepared a proceedings volume to be distributed to all participants.

The first Touring Lectures took place in Lagos, 2000, organized by the President Prof. Kenji Ishihara and the second one in St. Petersburg, in 2004, organized by the President Prof. William Van Impe.

During the tenure 2005-2009, 21 Touring Lectures/International Seminars were organized, namely:

- In 2006 took place in Chile, in Paraguay and in Tunisia;
- In 2007 Touring Lectures took place in Vietnam, in Albania, in Croatia, in Costa Rica, in El Salvador, in Indonesia, in China and in Sri Lanka;
- In 2008 took place in Nigeria, in Ecuador, in Pakistan and Macedonia;
- In 2009 took place in Cambodia in Laos, in Myanmar, in Hungary, in Ghana and in Mozambique.

From the collected experience to organize a Touring Lecture/International Seminar there is a need of 4-6 months of preparation and to exchange around 60 e-mails with the Host Society and the Lecturers.

The countries where Touring Lectures/International Seminars took place is shown.

I will summarize this rich experience in the following words:

There is still much darkness in the world. But trust me, there is also more light in it than ever. So many people have come to realize that you can curse the darkness or you can have the courage to be one who lights a candle.



Touring Lectures/ISSMGE Seminars

A detailed description of the Touring Lectures/International Seminars is given in Volume 3.

# 10.12. Some Challenges

### 10.12.1. Seminar in Lahore

An ISSMGE Seminar on *Tunnelling and Underground Structures* was programmed by myself in Lahore (Pakistan) on 9-10 October 2008. On 6<sup>th</sup> October we were informed by TV that Hotel Marriot in Lahore was attached by a car bomb and 16 persons were killed.

I have received a telephone call from Prof. Madhira Madhav, ISSMGE VP for Asia, asking me if it was not more prudent to postpone the Seminar. I have explained him that I was a believer of the theory of probabilities and that this was the best occasion to travel to Lahore. In addition, a lot of participants were expecting us and our absent would be a great disappointment.

I have arrived Lahore on 8 th October evening and on 9<sup>th</sup> October morning I have opening the Seminar with more 300 delegates that were very grateful to the Foreign Lecturers Prof. In. Mo-Lee (South Korea), Prof. Wei Lee (Taiwan) and myself. I must confess that I was very concerned with the safety of my invited Foreign Lecturers, but fortunately, the event was a great success and everything ran perfectly.

# 10.12.2. Alexandria Conference

On April 2008 I received a telephone call from Dr. Hamza, President of the Organizing Committee 17 th ICSMGE, scheduled to Alexandria, 5-9 October 2009, very concerned related the attack that took place in Cairo with the deaths of several tourists and additional detrimental situation with only 5-6 registrations for the moment. Dr. Hamza was very concerned with the attendance and asked me to postpone the 17<sup>th</sup> ICSMGE to April-May 2010.

This was really a very difficult question and I informed Dr. Hamza that my first reaction was to maintain the date of the Conference because several delegates had already initiated the preparation of the trip, certainly, we knew by past experience that the number of registrations would increase exponentially in the coming months and that postponing the Conference would turn the term of the next Board 7-8 months shorter.

Anyway, I was going to have second thoughts and I was going to telephone him next day.

I did it and I maintained my initial impression of not postponing the date of the Conference.

On July I was informed about the difficulties of Iran delegates to get the visas to Egypt and I wrote letters to the Prime Minister of Egypt and to the Minister of Foreign Affairs requesting them to solve this issue.

I have received a positive response and about 50 delegates from Iran have attended the Conference.

Fortunately, no more attacks occurred in Egypt until September and the Conference was a great scientific, social, and financial success, with more than 1300 delegates.

It is important to join the human resources of our geotechnical society, to catalyse our energies to overcome inertias, to feed our dream, to obtain answers to our questions and to open new horizons following the memorable lines of Montaigue "C'est un grand ouvrier de miracles l'esprit humain".

#### 10.12.3 Simple thoughts

I made judgements based in my intuition, without sound basis, as the events progressed very past, without information.

I transmitted my thoughts to minimize the dilemma of discussions and the knowledge of history is important to help to take a decision and to establish a bridge between the past and the future.

# 11. RELATIONSHIP WITH SISTER SOCIETIES AND OTHER SOCIETIES

We should not forget Einstein's definition of insanity: "Doing the same things and expecting different results". If I wanted new results in my life, I knew I had to behave in new ways. Otherwise, my life would look the same, until my end.

## **FEDIGS**

Following the Council Meeting in Osaka, there have been 9 meetings with the Presidents, Immediate Past Presidents and Secretaries General of IAEG, ISRM and ISSMGE, namely: Paris - 11 November 2005; Amsterdam - 11 May 2006; Nottingham - 8 September 2006; Lisbon - 22 January 2007; Paris - 9 June 2007; London- 25 January 2008; Ghent-12 May 2008; Madrid – 19 September 2008; and Cairo – 28 February 2009.



FEDIGS meeting in Ghent-Belgium – 2008



FEDIGS meeting in Ghent-Belgium – 2008



FedIGS meeting in Cairo- 26 February 2009 with representatives from ISSMGE, ISRM and IAEG

My communications with ISSMGE Members were established, namely by: (1) My letter to the Member Societies giving information about FIGS, July 2006; (2) Correspondence exchanged with Member Societies (my letter November 2007); (3) My meetings with the Member Societies; (4) My messages in ISSMGE News N°4, ISSMGE Bulletin Issue 1, my Message for ISSMGE Bulletin, Volume 2, Issue 1. March 2008 and La Lettre de Geotechnique N° 41 and N° 44; (5) Documents sent to Brisbane Council meeting (2007) and Alexandria Council meeting (2009).

It was agreed by the Presidents that the respective Councils should discuss the Cooperation Agreement and take a decision by voting whether or not to accept this formal cooperation.

The Councils of the IAEG (6 September 2006), ISRM (7 November 2006) and ISSMGE (21 October 2007) have approved the Cooperation Agreement.

Report prepared by Pedro Sêco e Pinto, ISSMGE President for the

# ISSMGE BOARD MEETING-TUNIS 15 March 2007

#### Item 6 – Federation of International Geo-engineering Societies

# IAEG Council meeting, 6th September 2006 in Nottingham

Item 13- Cooperation with the ISRM and the ISSMGE –

The proposal for a cooperation agreement between the IAEG, the ISRM and the ISSMGE to create a Federation of International Geo-Engineering Societies was voted:

Cast votes: 54

Votes in favour of the co-operation agreement: 43 Votes against the cooperation agreement: 10

Abstentions:1

With 79,6% of the votes in favour the cooperation agreement was approved by IAEG Council,

# ISRM Council meeting, 7th November 2006 in Singapore

ISRM Council had unanimously approved the Agreement of Cooperation for the FIGS creation.

In order to facilitate the discussions of item 6 a summary of the most important documents is presented:

**Document 1** - Minutes of the meeting with IAEG, ISRM, and ISSMGE that took place on 8 September 2006 in Nottingham.

**Document 2** – Minutes of the meeting with IAEG, ISRM, and ISSMGE that took place on 22 January 2007 in Lisbon

**Document 3** – FIGS Agreement

**Document 4** – Joint Technical Committees

**Document 5** – Guidelines for Joint Technical Committees

#### **DOCUMENT 1**

#### MEETING OF THE SISTER SOCIETIES IAEG, ISRM and ISSMGE

#### held in:

Nottingham, UK

08:00 – 12:30, Friday 8 September 2006

#### **Present:**

Professor Pedro Sêco e Pinto - President, ISSMGE (Meeting Chairman)

Professor William Van Impe - Immediate Past President, ISSMGE

Professor R Neil Taylor - Secretary General, ISSMGE
Professor Nielen van der Merwe - President, ISRM
Dr Luis Lamas - Secretary General, ISRM

Dr Niek Rengers - President, IAEG

Dr Michel Deveughèle - Secretary General, IAEG

Dr Fred Baynes - President-elect, IAEG (present for Item 1 only)

Dr Ed de Mulder - Present for Item 6 only

### 1. Opening and approval of Agenda.

Pedro Sêco e Pinto welcomed everyone to the meeting. The agenda had been circulated previously and was now approved. Niek Rengers apologised for not having prepared sub-clauses for the Draft Cooperation Agreement and suggested that these might be discussed under Item 3.

Dr Fred Baynes was elected as the incoming President of IAEG in January 2007. He took this opportunity to make a brief address to the meeting, stating that he was looking forward to future meetings with the presidents of the Sister Societies. He recognised the importance of the proposed Federation of Geoengineering Societies and looked forward to participating fully as the future president of the IAEG.

Dr Baynes had a prior commitment and left the meeting at this point.

# 2. Minutes of the Meeting in Amsterdam, 12th May 2006

The Minutes had been circulated previously by Michel Deveughèle. There were no further amendments and the Minutes were approved.

## **3.FIGS Agreement**

The Draft Agreement circulated after the Amsterdam Meeting had been presented to the IAEG Council as a Proposal for a Cooperation Agreement (included here as Appendix 1). The Council had met on the 6<sup>th</sup> September 2006, and had approved the Proposal with an 80% vote in favour.

Niek Rengers tabled a summary of sections of the Proposal that the members of this group considered may require sub-clauses. It was felt that drafting sub-clauses in the near future would be beneficial to the proposal and Niek Rengers undertook to do this. He indicated that it would be helpful if the sections could be reviewed in turn to clarify exactly what sub-clauses were required.

#### a) Section 2 – Definition of geo-engineering

Pedro Sêco e Pinto had suggested that a sub-clause would be beneficial. Niek Rengers stated that in the recent IAEG Council Meeting he had had to explain that the FedIGS is only concerned with the areas of overlap between the three Sister Societies and that other activities remained the concern of IAEG. Neil Taylor mentioned that in the recent ISSMGE Board Meeting a comment had been made that the FIGS should be all-embracing with the next logical step being the formation of a single society. Nielen van der Merwe suggested that there needed to be clarity on both the areas of overlap and the areas of non-overlap. Niek Rengers recognised that there could be confusion since there was no willingness at this stage to form a single unifying society.

# b) Section 3 – Languages

The Sister Societies included other languages besides English in their Statutes, and there was consideration as to whether or not whether this should be extended towards the FedIGS. Niek Rengers reported that the issue had not been raised in discussion at the recent IAEG Council Meeting. After a brief discussion, it was agreed that a sub-clause was not necessary.

#### c)Section 5 – Membership

Section 5.2 concerns approval for new Members and, as written, the Section implies "all", i.e. 100% of existing Members need to agree. William Van Impe wondered if this would always be the case since, as the membership grew, a reduced vote in favour, e.g. 75% might be seen as adequate and possibly more appropriate. Luis Lamas pointed out that Section 5.6, which concerns admission to the FedIGS, already refers to a sub-clause and this might also be suitable for Section 5.2. Michel Deveughèle pointed out that there was no mention within the FedIGS agreement of how a member could be dismissed. Also, it was noted that in Section 5.8 the time period in which subscription fees should be paid was not specified leading to uncertainty on when a Member might "automatically cease to receive benefits of membership". It was agreed that a single sub-clause should be drafted for all of Section 5 which clarified the terminology

of "Founding Member", "Member" and "Associated Member" and how they join, remain part of, leave, or are dismissed from the FedIGS.

#### d)Section 6 – Finances

It was agreed that a sub-clause was needed to clarify the mechanism by which the Board approved spending, the budget, and the financial report. For example, do the Board need to meet in person or is an exchange of e-mails adequate? Also, it should be recognised that approval of the budget for the FedIGS could have consequences for the budgets of the members which may then affect the timing of any approval. Finally, it was noted that a sub-clause may be needed to clarify that documents would be copied to members of the Board (Section 6.9) and it would be left to those Board Members to decide how to further distribute documents within their society.

#### e) Section 8 – Board

Pedro Sêco e Pinto asked for clarification on allowing industry to participate in the FedIGS. For example, a company would not necessarily have officers with titles as indicated in Section 8.1, and consequently, there may need to be a sub-clause indicating equivalent representation. Also, it should be clarified in a sub-clause that a wide range of different organisations could become Members of the FIGS.

#### f) Section 9 – President

It was agreed that a sub-clause was needed to clarify the timing and procedure for nomination and election of the President that also took into account the likely growth in numbers of Members. Nielen van der Merwe pointed out that the ISRM Council had been assured that the founding members must be unanimous on the choice of candidates and election of the President.

## g) Section 10 – Secretariat

William Van Impe stated that the Secretariat provided continuity and there should be provision for the existing Secretariat to be re-instated rather than renewed when a new President took office. Pedro Sêco e Pinto requested clarification regarding the cost of the Secretariat especially in the context of the operating budget of the host Member.

# h) Section 11 – Meetings, decision making

The issues requiring clarification are:

- the definition of "simple majority" in Section 11.2, and whether this relates to the votes cast or the votes available:
- whether or not proxy votes are to be allowed, and if so, how proxy votes can be held;
- the mechanism by which additional Board Meetings can be requested, and whether or not these should be in person, by video conference, or e-mail meetings;
- the need or otherwise for secret ballots and whether or not these could be conducted using postal votes.

#### i)Section 12 – Liaison Committee

The following points were discussed:

- The term of office of the representative of the Liaison Committee on the FedIGS Board should be specified;
- for Section 12.1, it should be clarified that the list of organisations that might be involved in the Liaison Committee is not exhaustive;
- the mechanism by which Liaison Committee meetings are called should be specified, which should include details of the necessary quorum of Liaison Committee Members needed to call additional meetings;

• if the Board were not unable to meet on the day after the Liaison Committee, what alternative arrangements would be acceptable?

j)Section 13 – Joint Technical Committees

It was noted that the Guidelines for Joint Technical Committees required some amendment to clarify the mechanism by which Core-Members were determined by either the Presidents of the Sister Societies or by the Chairmen of the JTCs. Nielen van der Merwe undertook to amend the Guidelines which could then be included as a sub-clause.

k) Section 14 – Amendments to Clauses and Sub-clauses

Nielen van der Merwe noted that amendments to the Clauses of the FedIGS agreement effectively required approval of the Councils of the Sister Societies. It was felt that a simpler procedure would be sufficient for amendments to sub-clauses. In addition, amendments to sub-clauses could be approved by a qualified majority rather than require unanimous approval. Finally, the meaning of "unanimous" when referring to changes in the clauses may need clarification as discussed in point c) above.

#### **4.Joint Technical Committees**

A summary of Joint Technical Committees JTC1 to JTC7, their Core-Membership, Terms of Reference and Planned Activities had been circulated prior to the meeting. These were reviewed in turn and it became clear that the Core Membership as listed for some of the TCs were not current. In addition, the Terms of Reference for JTC7 were missing and Nielen van der Merwe agreed to supply these. The Secretaries General agreed to circulate the information available to produce one single correct document; this is given in Appendix 2.

The remaining JTCs (JTC8 to JTC14) that had been discussed previously had not started work, and their circumstances were considered. JTC8: Coastal Engineering and Dyke Technology was seen as not falling within the remit of ISRM. As a consequence, Pedro Sêco e Pinto had restarted the former ISSMGE TC1, which had dealt with offshore and nearshore issues. The Chairman of this TC would be Meindert Van of the Netherlands. Nielen van der Merwe indicated that JTC9: Geophysical Methods could start work after July 2007 when a report for ISRM on which their present commission was working is to be completed.

The JTC10: Geoenvironmental Engineering was to be hosted by ISSMGE with William Van Impe as Chairman. Pedro Sêco e Pinto pointed out that the ISSMGE TC5: Environmental Geotechnics had been restarted in 2005, in part because of the importance of their International Congress on Environmental Geotechnics that was held in June 2006. William Van Impe stated that an important decision was whether TC5 should become joint with JTC10 or remain separate. The suggestion was made that if the FIGS were approved at the ISSMGE Council Meeting in October 2007, JTC10 could start at that time. Pedro Sêco e Pinto thought there could be difficulties since TC5 had 8 Core Members whereas on JTC10 there were only 3 Core Members from ISSMGE. This change may disappoint some individuals. Neil Taylor pointed out that TC5 had a large membership that would probably wish to be involved with JTC10 but their numbers might then swamp the Committee. Nielen van der Merwe stated that ISRM would probably wish to continue its own Environmental Engineering Commission beyond 2007. William Van Impe suggested that JTC10 could perhaps offer a more managerial or coordinating role with the principle on implementing scientific ideas into practice. This was generally agreed.

JTC11: Case Histories, hosted by ISRM, was in a similar situation to JTC9 and could start work after July 2007 when the present ISRM commission had completed its report. JTC12: Geological and Geotechnical Heterogeneity still required the nomination of Core Members by the Sister Societies. JTC13: 3D Terrestrial Laser Scanning Technology in the Geosciences was seen as important to IAEG and ISRM but ISSMGE were unable to think of individuals or groups who might contribute from their side and therefore it may not be suitable as a JTC. JTC14: Research on Active Tectonics and

Environmental Hazards had been suggested by the China National Group of IAEG. However, it was agreed that this was not an obvious topic for a JTC.

# **5.Joint Conferences by the Three Societies**

It was noted that JTC1 was planning their next joint conference International Symposium on Landslides to be held in China in July 2008, and that JTC3 was also planning a conference in June 2008. It was decided that at this stage no further joint conferences should be planned until a clearer idea of the best format to follow had been devised.

#### 6.International Year of Planet Earth

The limited availability of Dr. Ed de Mulder resulted in this item being discussed earlier in the meeting, but is minuted here to reflect the order of the agenda.

Ed de Mulder gave a brief report on the present status of the International Year of Planet Earth (IYPE) initiative; the latest published report is included in Appendix 3 for information. There were 25 national committees supporting the initiative and China, Brazil and Russia were expected to join soon. The major activity at present was in collecting sponsorship money, and USD300,000 has already been committed to the project. Oil companies and mining companies were the major sponsors being approached and it was hoped that these could each contribute USD500,000 to USD1,000,000. It had been found that a personal approach was necessary to get these companies committed to the IYPE. In general, the IYPE was well received and it was recognised that involvement would add to the company profile and hopefully the outreach activities would encourage more people to study Earth Sciences. This was important since it was generally recognised that more experts are needed in the area of oil and mineral extraction and also in environmental geo-engineering for the problems of mine waste, tailings, and general sustainability.

The Sister Societies were one of the founding partners of IYPE and as such had a seat on the Management Team. The Board of Officers were planning to meet on 9-10 January 2007 in London and the official launch was scheduled for 10<sup>th</sup> January. Ed de Mulder hoped that a representative of the Sister Societies would attend the launch. At present, nominations for the Chairman of the Board of Officers were being sought and it was noted that William Van Impe had been put forward as a candidate. IUGS and UNESCO would appoint the Chairman of the Board, and they would also retain power of veto over the Board but would not expect to use this.

It was hoped that the Science Implementation Team members would be defined by the end of September 2006. The leaders of the teams were already known (see Appendix 3) and the plan was to have a membership that had a good geographical distribution.

The working of the IYPE would depend on the sponsorship money received, though in general 50% of the sponsorship money would be spent on Science Programmes and the remainder on Outreach Activities. It was also expected that National Committees would organise related Science and Outreach programmes to complement the IYPE.

Nielen van der Merwe commented that when approaching mining companies, the selling point should be that the company could not afford not to be involved in IYPE. Also, he felt that it would be best to approach companies with some specific projects in mind, as it would then be easier to persuade individuals and companies to get involved. Ed de Mulder thanked him for his comment.

Niek Rengers asked what the Sister Societies could be doing to ensure they remain properly involved. Ed de Mulder implied that it would be useful if appropriate activities could be labelled with the IYPE logo. Also, it would be helpful if the Sister Societies approached companies or other organisations to get involved. Niek Rengers then asked what the Sister Societies might expect from IYPE, for example, if

there might be seed money for small projects. Ed de Mulder indicated that it might be possible to offer limited financial support to facilitate meetings that were in the spirit of IYPE.

## 7. Any Other Business

Neil Taylor mentioned that he had met recently with Professor Chen, Chairman of the Organising Committee for the 10<sup>th</sup> International Symposium on Landslides and Engineered Slopes. He had enquired about the percentage of registration fees that would need to be remitted to the Sister Societies. The Presidents confirmed that each Society should receive 1.5% of registration fee income. Neil Taylor undertook to communicate this to Professor Chen.

Neil Taylor stated that during the recent Conference on Physical Modelling in Hong Kong he had met with Professor Kyoji Sassa who was promoting his ideas for establishing the World Landslide Forum. He had prepared a draft brochure indicating societies and organisations (including the Sister Societies) that would be approached for support. The support expected was help in promotion rather than financial. In discussion it appeared that none of the Sister Societies had received a request for any support and it was also felt that the Sister Societies should promote JTC1 rather than any alternative or competing group. Neil Taylor undertook to write to Professor Sassa indicating that ISSMGE would not be able to support his initiative.

Regarding membership of the FedIGS, Nielen van der Merwe stated that at a recent meeting with officers of the International Tunnelling Association, he had gained the impression that they were interested in the FIGS but were unlikely to want to become a full member at this stage. It was noted that International Geosynthetics Association would probably wish to join as an Associated Member in the first instance, and then transfer this to full membership at a later stage. William Van Impe stated that the DFI–Europe had now been officially launched and was a separate organisation from the American DFI. It was likely that this European group would wish to join the FedIGS. William Van Impe then asked the three Presidents if they could approach the International Commission on Large Dams with a view to their joining the FIGS. Nielen van der Merwe thought that it would be better to establish the FedIGS first and worry about the additional members at a later stage. William Van Impe agreed but asked if interested societies could at least be kept informed of progress. Pedro Sêco e Pinto could see the benefit in this but thought that it would be best to hold discussions with interested parties rather than simply communicate by e-mail.

Pedro Sêco e Pinto asked Nielen van der Merwe what majority voting would be needed at their upcoming Council Meeting to confirm their support of the FedIGS Agreement. Nielen said that in his view, although the FedIGS was an agreement there could be long-term implications for the ISRM Statutes and as a consequence he considered a two-thirds majority vote in favour as a requirement to confirm support of the FedIGS. Pedro Sêco e Pinto agreed that since the FedIGS could lead to changes in statutes then it was best to use a voting requirement consistent with that needed to change the statutes. In the case of ISSMGE this would require a vote of 75% in favour.

#### 8. Date of Next Meeting

The next meeting would be hosted by ISRM and would take place in Lisbon in January 2007. Possible dates were Thursday 25<sup>th</sup>, or Monday 29<sup>th</sup> January. Neil Taylor undertook to contact Fred Baynes, incoming President of IAEG, to see if he had any preference.

For FedIGS presidential election there were 2 candidates Prof. Ricardo Oliveira proposed by IAEG and ISRM and Prof. William Van Impe proposed by ISSMGE. In January 2008 an e-mail ballot had been

held which resulted in a tied vote of 3 votes for each candidate, a second voting took place in February. William Van Impe, having received the majority of votes was duly elected as President of FedIGS.

On August 2008, ISSMGE president wrote a letter to the chairpersons of JTC 1, JTC2 and JTC4, hosted by ISSMGE, recognizing their important role, thanking their co-operation and informing them that since then these JTCs were transferred to Fed IGS.

"We shall not cease from exploration. And the end of All our exploring will be to arrive where we started and know the place for the first time".

#### Relationship with other Societies

I attended <u>IAEG Council meeting in Nottingham, on September 2006</u>. - Address

#### IGS Conference in Yokohama 2006 - Address

Also, I had the opportunity to attend the following Council meetings of <u>ISRM</u>: in <u>Singapore</u>, 7 <u>November</u> 2006, in <u>Lisbon</u>, 12 July 2007, in <u>Tehran</u>, 23 <u>November</u> 2008, in <u>Hong Kong</u>, 18 May 2009. - Address

I have exchanged several letters with other International Societies, namely IGUS (International Union of Geological Science), ITA (International Tunnelling Association) and IGS (International Geosynthetics Society).

Related with co-operation with IGS, Joint Sessions were organized for the occasion of Conferences.

I also attended <u>ITA</u> Council meeting in Budapest on 24 May 2009 and I have signed with the ITA president an agreement of co-operation between ITA and ISSMGE.

In addition, I participated in the meetings of IAEG and 12 th IACMAG- Goa 2008 (Address and Award).

#### Other meetings:

#### DFI -Viena

WEES-Mexico 1996 Auckland -2000

#### **ICOLD**

Chile (1995)

Turkey (1999) - Antalya

The Chinese say it so well: "A little fragrance always clings to the hand that gives roses" I believe that before anyone will lend you a hand, you must touch their heart.



 $8^{\text{th}}$  IGS Conference in Yokohama 2006-Address



8<sup>th</sup> IGS Conference in Yokohama 2006 – Sake Ceremony: Daniele Cazzuffi, Jean Giroud, Pedro Pinto, Fumio Tatsuoka, Richard Bathurst



12th IACMAG- Goa 2008 - Opening Ceremony



ISRM Council meeting - Hong Kong, 18 May 2009



Council meeting of ITA (Budapest, 24 May 2009)

# 12. HTC (HERITAGE TIME CAPSULE) ACTIVITIES

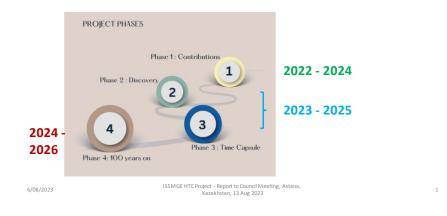
The HTC (Heritage Time Capsule) group was created in 2021 and I was invited by the Co-ordinator Sukumar Pathmanandavel to be an Adviser.

I have participated in several meetings, with a monthly frequency, to discuss the structure of HTC.

The current ISSMGE President Mark Ballouz endorsed a mandate to HTC continue with the activity. To give an idea about the aims of HTC, I am quoting the excellent and very comprehensive presentation of Sukumar to Astana Council Meeting.

# **ISSMGE HTC Project Update**

Presentation to the Council Meeting, Astana, Kazakhstan, 13 August 202



# Phase 1 - Contributions

12 Past Presidents (70%)

# 58 Member Societies (65%)

18 Technical Committees (50%)9 Corporate Associates (20%)

Other invited contributions

https://www.issmge.org/thesociety/time-capsule

# This material is being transferred to a dedicated website,

https://xyzhtc.issmge.org/

Next steps include

- review and authorisation of transferred contents
- · Additions and new contributions
- · update of prefilled key words
- release dedicated website for general use in 2023/2024

6/08/2023

ISSMGE HTC Project - Report to Council Meeting, Astana, Kazakhstan, 13 Aug 2023

# Phase 2 – (individual) Discovery

#### Contributions to be discovered by individuals (Discoverers)

- 1. Discoverers' are individual members of the ISSMGE
- 2. Discoverer reports need to cover contents of one or more of the contributions
- 3. Discoverer reports will be showcased in the dedicated HTC website

Invitations for discoverers will be in late 2023

We invite Member Societies, Corporate Associates and Technical Committees to be advocates of individual discovery by their members.

6/08/2023

ISSMGE HTC Project - Report to Council Meeting, Astana, Kazakhstan, 13 Aug 2023

# Phase 2 – (collective) Discovery

# HTC Sessions to initiate collective discovery

- Cairns, Australia, July 2023 (parallel)
- Astana, Kazakhstan, Aug 2023 (plenary)
- Lisbon, Portugal, Aug 2024 (plenary)
- Algiers, Algeria, Oct 2024 (in planning
- La Serena, Chile, Nov 2024 (confirmed)

Thursday 17<sup>th</sup> August 2023, 16.30 — 18.00

1530-1550

Meritage Time Capoule Session

Grandfell

Culvis Mingling 2700, 16/67 Regional Last Alla
And 16000; Chin Mingling
1300 to 15.00 Introduction to the ISMGE HTC

The Development of ISSMGE HTC program, by Albert Show, ISSMGE Vice President Alia
Message from the ISSMGE Firsdent, by Agric Hallowy, ISSMGE President
The virtual HTC, by Minglings Zhou, VMPG Regional Last Alia & Agric Cooper, Chair YMMG
15.00 to 1750 Heritage Time Coule Project by Adm Region & Project In Asian Region & prospective projects for "Tuture Geotechnical Engineering"

In Signature Committee of 13 Novel Project Project Agric Thurson Anderson

Introduction on Kazarbitan's HTC contribution, by Asian Zhousuphdov, Chairman of Organization Committee of 13 Novel Project Phase

Plans at 1 - Contributions, by Intel® Day, Chair, Corporate Associates Presidential Group (CAPG)

Plans at 2 - Discovery, by Ashe Cooper, Chair, Young Member Presidential Group (YMPG)

Plans at 2 - Time Capoule, by Chairdo Doublais Helph Fully, Appointed Board Member

Plans at 1 - Time Capoule, by Chairdo Doublais Helph Fully, Appointed Board Member

17:30 to 18.00 Open discoustors from the floor

Closser by Meter Shap, ISSMG Vice President Asia

ISSMGE HTC Project - Report to Counc**Extract from, conference program booklet**Kazakhstan, 13 Aug 2023

6/08/2023

# Phase 3 – (physical) Time Capsule

#### To be showcased at the 21st ICSMGE, Vienna, Austria (2026)

- A wall of shelves housed in a museum
- Contributions are to be documents or small objects, accompanied by abstract

#### In 2024/2025

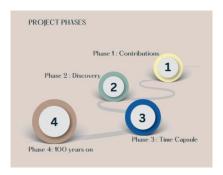
- Contributions invited from Member Societies, Corporate Associates, and Technical committees
- A subcommittee set up to review and manage contributions

6/08/2023

SSMGE HTC Project - Report to Council Meeting, Astana Kazakhstan, 13 Aug 2023

# Phase 4 - 100 Years on (in planning stage)

- Phases 1, 2 and 3 may engage with about 1,000+ individual members, including participation at HTC sessions
- Engagement with a much larger cohort of individual members is desired in Phase 4 (2024 – 2026)
- How this can be achieved, and securing approval to engage with this cohort are not yet resolved.



6/08/2023

ISSMGE HTC Project - Report to Council Meeting, Astana,

# Thank you

Further details are in the HTC Booklet, which can be downloaded from both

https://www.issmge.org/thesociety/time-capsule

https://xyzhtc.issmge.org/



6/08/2023

ISSMGE HTC Project - Report to Council Meeting, Astana, Kazakhstan, 13 Aug 2023

# 13. HONNORS AND AWARDS

This item is addressed in Annex 2.

## 14. CONSULTING ACTIVITIES

# AGAIN ASIA (1987), SOUTH AMERICA (2013) AND AFRICA (2016)

# United Nations assignment, 1987

In 1987, I had an assignment with the United Nations, as a Dams consulting, and I delivered several courses in India, namely in New Delhi, Rourkee, Bangalore and Mumbai, covering dam engineering, static and seismic analysis, construction issues, monitoring and safety evaluation.

In addition, during one month my mission was to visit several dams, under construction, and to discuss the projects.

So, I visited Theri dam, construction has initiated in 1976 and due to several situations only ended in 2006, a rockfill dam with 260.5 m height and 575 m long, with a spillway capacity of 15,540 m3/s,



Theri dam - downstream view of the spillway



Final view of Theri dam

The Sipu Reservoir Project comprises of an earthen dam 6.86 km long and masonry spillway, for irrigation purposes.

Godavari dam located in Maharashtra state is an earth dam for irrigation purposes with 3900 m long and 36.6 m height.

Thoubal earth dam is 1074 m long and 66 m high with two irrigation canals.



View of Thoubal dam

In my short stays in Theri dam, Sipu dam, Godavari dam and Thoubal dam, I discussed the issues related the design and construction.

#### World Bank- safety of Dams in Brazil – 2013-2015

In 2013, under an assignment signed by COBA with the World Bank, I was invited to participate in the safety evaluation of Dams in Brazil, and ANA was the Owner. COBA has also invited LNEC to participate in this assignment.

I have inspected several dams with moderate heights and lengths.

The following recommendations were given:

- cleaning of the vegetation,
- instrumentation of the dams (installation of hydraulic piezometers, bench marks and limnimetres scales);
- implementation of drainage systems in the crest and downstream slope;
- cleaning of the upstream and downstream sites of the reservoir;
- signing of the dam sites.

At the end of this assignment, with 2.5 years of duration, 5 Manuals were produced, covering the Design, Construction, Safety Evaluation and Instrumentation.



. Baião dam crest



Direito dam crest and reservoir



Santa Rosa dam downstream slope



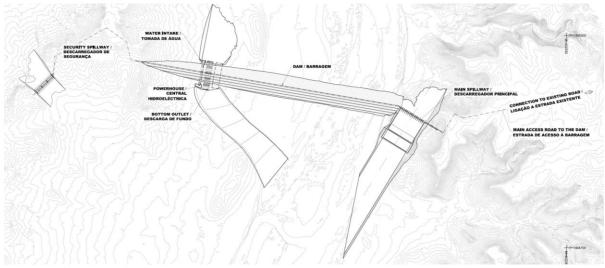
San Mamede – crest and reservoir

World Bank - Mapai dam project in Mozambique -2016

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In 2016, COBA assigned with the World Bank the studies of Mapai dam and I was the head of the geotechnical design group. Mapai dam consists in a 52 m high earthfill dam, with a total crest length of 3 360 m (main spillway included) at 173.0 m.a.s.l. The dam, with full supply water level at elevation at 156.4 m.a.s.l., impounds a reservoir of 3 000 hm<sup>3</sup> capacity (total storage capacity) and with an inundated area of 228 km<sup>2</sup>. The layout is shown in Figure 6.1.

The typical section of the dam indicates a crest with a 9 m width, the outer upstream facing of the dam has a 1 / 2.4 (V/H) slope, and the downstream one, 1 / 2.2 (V/H). 3 m-wide berms are provided on the downstream facing, spaced 10 m apart.



Layout of the Mapai dam

A careful balance will be performed to optimize the dam profile solution. The following parameters will be weighted: (i) topographical conditions; (ii) materials available; (iii) needed volumes; (iv) permeability of the reservoir; (v) storage capacity; (vi) time schedule; (vii) costs.

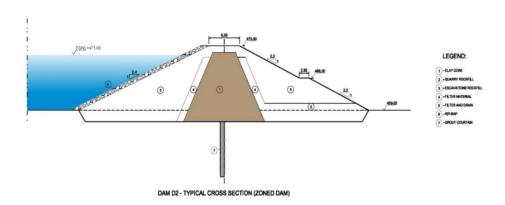
During 2016 and 2017 I did several visits to Mozambique to the dam site and for meetings with the Owner, due to development of the project.

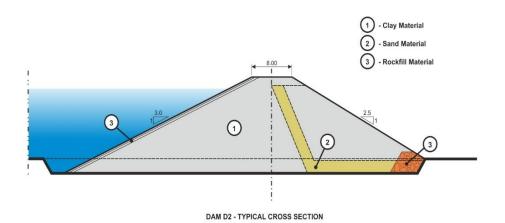


Clay materials in the vicinity of the river



Crossing Limpopo River





Dam profiles

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#### **Argelia Dams**

As you can noticed from my curriculum, I was involved in several dam projects in Argelia.

Due to the political situation in Argelia, it was very risky to travel to the dam sites, during the beginning of 2000, as there were fights between the army and the rebellions.

Even in Argel the rebellions have attached the police headquarters during one of my stays in Argel.

So, the overseas experts had to travel with the support of the army.

I was always wondering if my situation was safer, traveling with the army protection, or in a private car without so much show-off.

Fortunately, in more than 20 trips that I did to different dam sites in Argelia, I did not face problems.

More details about these activities are addressed in **Volume 4**.

#### 15. SELECTED PAPERS

From the papers published I have selected 17 papers that cover the following topics: Ground Characterization, Embankment Dams, Bridge Foundations, Buildings Foundations, Landslides, Tunnelling, Earthquake Engineering, Solid Waste Landfills, Port Structures, Eurocodes and Education.

These 17 papers have received interest that justify larger divulgation.

I asked the opinion of my friends which critical sense that I appreciate very much. They have all encouraged me.

There is a common ground for these papers and I feel happy for this modest contribution.

These papers, integrated in **Volume 5**, reflect my way of being engineer inspired by a professional philosophy that I wanted to share with others and gave me a feeling of happiness.

For the professional is important the knowledge that needs to maintain updated and also a general culture that integrates history, literature, arts and philosophy. All these disciplines are linked with geotechnical engineering. Certainly, I failed in my purpose and following Rousseau "Half-life of a man is not sufficient to write a book, neither the second half to correct our mistake".

I learned a lot with you and your friendship was also a great lesson to me.

It is important to think about what we have done and write about what we think.

# 16. Family Episodes

I have selected some photos from my family life, from thousands of photos, to avoid boring you. These photos with short legends describe several situations of my life, my wedding with Teresa, the gemales Isabel, David and Jorge, my mother and sisters, some trips done for Mozambique, Italy, China and USA.



My spouse Teresa playing piano



My sister Claudette playing piano



Wedding with Teresa



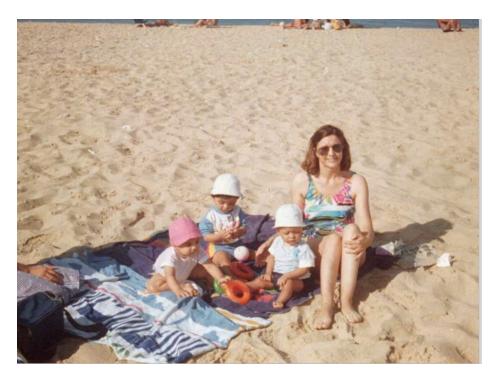
Wedding with Teresa



My nephew Dani with David, my spouse Teresa with Isabel and my sister Ivonne with Jorge



I am with Jorge, my mother with Isabel and my sister Claudette with David



On beach my spouse Teresa with Isabel, David and Jorge



The gemales David, Isabel and Jorge



Family enjoying cycling - Isabel, Teresa, myself and Jorge



Preparation for diving in Great Rift in Australia (2007)



Bazaruto Island – Mozambique (2008)



Bazaruto Island- a toast



Enjoying dinner at Bazaruto island beach



Our lodge at Bazaruto island



Family enjoying Venice (August, 8, 2008) – Isabel, David, Teresa, Jorge and myself



In Venice (August, 2008)



In Venice boat trip



In Florence (August, 2008)



In Rome (August 2008) – Isabel, Jorge, David and Teresa



Terminal of Hong Kong-2009 – David, Isabel, Jorge, Teresa and myself



In Macau fort (2009)



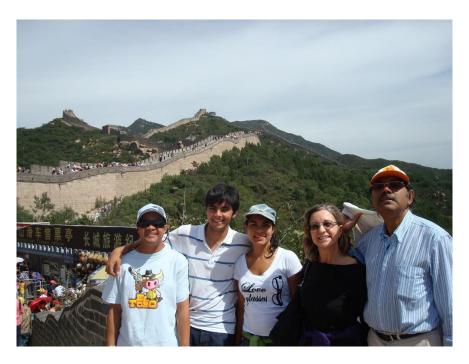
In Shanghai (2009)



In Hangzhou- near the lake -2009 – myself, David, Isabel, Teresa and Jorge



Tiananmen square (2009)



China Great Wall (2009)



China Great Wall (2009)



My daughter Isabel at the end of the graduation in pharmacy



My son David at the end of graduation in medicine



Myself and my son David crossing by helicopter the Grand Canyon (USA)



View of the Grand Canyon



Grand Canyon



Boat crossing the Grand Canyon



River level



Plateau of the Grand Canyon

## 17. CLOSING REMARKS and THANKS

Let me pay tribute to the Past ISSMGE Presidents in spite of their physical absent they are still with us (see Annex 4), following Psalm of Life-Footprints:

"Lives of great men all remind us We can make our lives sublime, And departing, leave behind us Footprints on the sands of time".

It is important to join the human resources of our geotechnical society, to catalyse our energies to overcome inertias, to feed our dream, to obtain answers to our questions and to open new horizons following the memorable lines of Montaigue"C'est un grand ouvrier de miracles l'esprit humain".

We need to humble recognize that we have not yet achieve our goals related the progress of the knowledge and we have not been capable to communicate with important sectors of our Society. We need to hear the voice of the youth, to renew the old practices and to promote innovation and new findings. Following William Hazlitt memorable lines.

"A great passion for the object will assure success because the wish for the purpose will show the means".

Please remember that:
When you get back to doing those
Things that lifted your spirit and sent you soaring,
You reconnect with that state of happiness
That you may have lost.

Trust that the winter of your sorrow will yield to the summer of your joy, just as the brilliant rays of the morning always follow the darkest part of the night.

I am blessed to be accompanied by many extraordinary people. Without them, it would not be possible for me to do what I do and to advance my mission of serving ISSMGE.

It is important to express my gratitude to the Board members in different periods, namely 2001/2005, 2005/2009, 2009/2013 and 2017 /2022. Many thanks for your encouragement, kindness and friendship. You have offered me a foundation of inspiration and unforgettable support.

My profound thanks to my teachers, to my family, to my friends who have enriched my life in so many ways.

I was blessed by my Family, my wife Teresa and children Isabel, David and Jorge whose wisdom, patience and kindness have shape me that words cannot express.

Special thanks to the colleagues of LNEC (National Laboratory of Civil Engineering), to the colleagues and students of UNL and FEUC and for all the colleagues living in the 5 Continents that I have the privilege to interact and for their invaluable support.

My profound gratitude to Harry G. Poulos for writing the Preface.

I would like to thank the comments and encouragement received from Roger Frank, Roberto Terzariol, José Brito, Paulo da Venda, John Burland, Ivan Vanicek, Alexandre Pinto, Alberto Sayão, Francisco Salgado, Charles Mac Robert, Ikuo Towhata, Madhira Madhav and Joaquim Tavares.

For the friends whom I may have failed to mention here my apologies and I stress the sentiment that I hold them in my heart and spirit.

This journey, not be possible without your support and your devoted time and effort, has been an unforgettable experience. We tried to reach the fifth dimension where the knowledge is raised to a level of the unity of vibration.

But I do not forget that in spite of I have tried to make a lot of things, still a lot of things have remained and need to be done.

I love Bono, lead singer of U2, statement: "I used to think that one day I'd be able to resolve the different Drives I have in different directions, the tensions between the Different people I am. Now I realize that who I am. I do feel, I'm Getting closer to the song in my head. I wasn't looking for grace. But luckily grace was looking for me".

I always remember Goethe lines: "The duty accomplished leaves always A feeling of guilty, as we never did Absolutely everything".

## **Bibliography**

Plato / Timaeus Aristoteles/ Ethics Raphael / School of Athens Vitruvio / books Hammurabi Code Antonio Damasio / Erro de Descartes Kerisel Book Terzaghi / Godman Book Dich Parry Book

Websites > LNEC, OE, SPG, UNL, UC

## **ANNEX 1. CURRICULUM VITAE**

## Une homme est la somme de Ses actes de ce qu`il fait, De ce qu`il peut faire. Rien d`autre

André Malraux



Marital Status: Married Nationality: Portuguese

Years of Experience: 52 years

#### Education

1965 - 1971 - Licentiate in Civil Engineer (6 years course, with honours).

1975 - 1977 - Master of Soil Mechanics by University Nova de Lisboa with the Thesis "The Role of the Instrumentation in the Design of Embankment Dams" (1st Master of Portugal, with high honours).

1977-1978 – Fulbright scholarship granted by USA with training periods in MIT (Boston, USA), United States Bureau of Reclamation (Denver), and University of California (Berkeley).

1980-1983- preparation of doctor thesis at University of California (Berkeley) under the supervision of Prof. James Duncan.

1983 - Specialist in Geotechnique (Ph.D level) from National Laboratory of Civil Engineering, with the Thesis "Hydraulic Fracturing of Earth and Rockfill Dams" (with high honours)

1991 - Director of Research (Full Professor level) from National Laboratory of Civil Engineer with the Research Program "Dynamic Analysis of Embankment Dams" with the classification of 19.2 in 20 grades maximum (1<sup>st</sup> ranked in 24 candidates) (with high honours).

## **Knowledge of Languages:**

Mother Tongue: Portuguese

Other Languages: English and French (good)

Spanish (fair)

## **Recent Positions**

- -ISSMGE (International Society for Soil Mechanics and Geotechnical Engineering) Board member (2017-2021)
- Member of European Academy of Sciences
- Consulting of World Bank for Safety of Dams in Brazil 2013-2015)
- Full Invited Professor of University of Coimbra (1995-2013).
- Immediate Past President of International Society for Soil Mechanics and Geotechnical Engineering (2009-2013) and Member of ISMGE Board.
- President of International Society for Soil Mechanics and Geotechnical Engineering (2005-2009) (ISMGE), co-ordinating the activities of 82 Geotechnical Societies distributed by 6 Regions, namely Asia, Africa, Australasia, Europe, North America and South America, with a total of 18 300 members.
- Vice President of ISSMGE for Europe (2001-2005) coordinating the activities of 34 Societies with 7500 members.
- -- European Commission Expert for Research Programmes
- Director of Research of National Laboratory of Civil Engineer (1991-2005)
- Head of Special Geotechnical Studies Division (National Laboratory of Civil Engineer) (1996-2005).
- President of Portuguese Geotechnical Society (1996-2000).
- Head of Earth and Rockfill Dams Division (National Laboratory of Civil Engineer) (1986-1996)
- Invited Professor of Master Courses "Soil Mechanics" and "Engineering Geology" of University Nova de Lisboa (New University of Lisbon) (1983-1995).
- Chairman of TC4 "Earthquake Geotechnical Engineer "Committee of ISSMFE (1993-1997) and (1997-2000).
- Geotechnical Consulting for the New Tagus Bridge (1994-1998). A project of \$ 1.5 billion dollars (COBA was the leader of Design Consortium).
- Consulting of the Portuguese Geotechnical Institute of Quality to certificate the Geotechnical Laboratories (1999-2003).
- Guest Lecturer of University of California (Irvine) in Earthquake Geotechnical Engineering (USA) (1992-1994).
- United Nations Consulting for Design, Instrumentation and Surveillance Technology for Dams and other Hydraulic Structures (1987-1989).

<u>Note 1</u>: On December of 2005 I have requested an early retirement from LNEC due to my election as President of International Society for Soil Mechanics and Geotechnical Engineering has requested a huge amount of traveling to participate in Conferences in 5 continents.

Note 2: On July 2013 I have requested the end of my commitment with University of Coimbra.

## Referees

- Prof. Harry Poulos, Emeritus Professor of Sydney University (Australia)

e-mail: "Harry Poulos" harry poulos@coffey.com.au

Mobile phone number is +61 420 960 248, direct office number is +61 2 9406 1091

Active interaction since International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) Conference, Rio de Janeiro, 1989

- Prof. Mike Jamiolkowski, Emeritus Professor of University of Torino (Italy), President of ISSMGE (1994-1997) (deceased).

e-mail: <m.jamiolkowski@studiogeotecnico.it>,

Mobile is +39 335 292350

Active interaction since International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) Conference, Rio de Janeiro, 1989.

- Prof. Kenji Ishihara, Emeritus Professor of University of Tokyo (Japan) and ISSMGE President (1997-2001) e.mail: <kenji-ishihara@e-mail.jp>,

Office mostly between 11:00-16:00 in Japan time.

Call number +81-3-6861-8808.

Active interaction since European Conference for Soil Mechanics and Geotechnical Engineering (ECSMGE), Firenze, 1991.

- Prof. William Van Impe, Emeritus Professor of Ghent University (Belgium) and President of ISSMGE (2001-2005)

e-mail: William Van Impe william.vanimpe@ugent.be

Mobile number is +32 475 470789

Active interaction since International Conference on Soil Dynamics and Earthquake Engineering, in Lisbon, 1992.

- Prof. Braja Das, Emeritus Professor of University of California (Sacramento) (USA) (deceased)

e-mail: brajamdas@gmail.com

Better to contact by home telephone number is + 1-- 702 -- 616 -- 2161

Cell phone number is + 1 -- 702 -- 686 -- 8024 (difficult to contact due the surrounding mountains)

Active interaction since International Conference on Soil Dynamics and Earthquake Engineering, in Lisbon, 1999. Organized by Technical Committee no 4 on Earthquake Geotechnical Engineering.

- Prof. Norbert Morgenstern, Emeritus Professor of University of Alberta (Canada) and President of ISSMGE (1989-1994)

e-mail: norbert.morgenstern@ualberta.ca,

Cell number is + 1-780-907-8717. (often not on), office number is 1-780-492-5127

Active interaction since International Conference on Environmental Geotechnics in Lisbon, 1998. Organized by Technical Committee no 5 on Environmental Geotechnics.

- Prof. Shamsher Prakash, Emeritus Professor of Missouri Rolla University (USA)

e-mail: prakash@mst.edu

Cell number +1 573 578 3215

Active interaction since International Conference on Recent Developments on Soil Dynamics and Earthquake Engineering, St. Louis, 1984.

- Prof. Bala Balasubramanian, Adjunct Professor Griffith University

e-mail: bala.b.balasubrmaniamriffith.edu.au

As Prof. Bala belongs to the staff of Griffith University the contact can be directly

## **Professional Experience**

Feasibility studies, cost-benefit analyses, field and laboratory testing, design, soil dynamics, earthquake engineering, numerical analyses, preparation of tender documents, supervision of construction, soil improvement, instrumentation, safety evaluation of the dams, foundations, harbours, tunnels, retaining walls, slope stability, environmental studies and other civil engineering works.

#### Outstanding Experience in Soil Dynamics and Earthquake Geotechnical Engineering

- Chairman of TC4 "Earthquake Geotechnical Engineer "Committee of ISSMFE (1993-1997) and (1997-2000). During this period of 7 years coordinator of earthquake activities of representative members of more than 50 prone seismic countries and producing Manuals, proposing Standards and Procedures to deal with soil dynamics and earthquake engineering problems.
- From 1987 to 2004 Coordinator of the Geotechnical Laboratory of National Laboratory of Civil Engineer where geophysical tests were performed such as shear wave refraction tests, shear wave downhole tests, shear wave uphole tests, shear wave cross-hole tests and laboratory tests such as reasonant column tests, cyclic simple shear tests, cyclic triaxial test and cyclic torsional shear tests,
- American Biographical Institute "As most admirable and whose Excellent Performance in the Field of Earthquake Geotechnical Engineering will be recognized globally in the 1000 World Leaders of Scientific Influence", as a permanent record for research, history and inspiration, USA, 2001.
- Biography sketch published in "Special Volume in recognition for the Contributors of Earthquake Engineering".

- Strong participation in the World Earthquake Conferences.

- Member of the Committee "Earthquake Predictions" of Portuguese Academy of Engineering.

- Supervisor of several PHD theses covering Soil Dynamics and Earthquake Geotechnical Engineering

- Guest Lecturer of University of California (Irvine) in Earthquake Geotechnical Engineering (USA) (1992-

- Member of the Committee "Seismic Aspects of Dam Design" of the International Commission on Large

Dams.

- Contribution for the draft of Eurocode 8- Design for Earthquake Resistance

- Earthquake Geotechnical Consulting for the New Tagus Bridge (1994-1998). This was a bridge with 18 Km

long in a high seismicity zone where the Lisbon earthquake of 1755 has occurred.

- Responsible for seismic design of dams, underground structures, powerplants, quay walls, bridges, building

special foundations in countries of high seismicity, such as Portugal, Ecuador, Argelia, Morocco, Mozambique,

Venezuela.

**Relevant Experience in Geotechnical Projects** 

Involvement in the design and technical assistance of the following civil engineering projects with the outcome

of more than 350 Technical Reports.

**Earth and Rockfill Dams** 

ANGOLA: GOVE AND JAMBI-OMA

ARGELIE: HARREZA, SOUANI, LADRAT, KEDDARA, ALI - IZDIHAR, GARGAR, BOUKOURDANE,

FOUM EL KHANGA, KOUDIAT – ACERDOUNE, DERMOUN, SEKLAFA, KERRADA AND BEM AIDA

BRAZIL: INHUÇU, PASSAUNA, PIRAQUIA AND LONTRAS

CABO VERDE: Small Dams

**DOMINICAN REPUBLIQUE:** 

TAVERA, SABANA YEGUA, SABANETA, HATILLO AND BAO

ECUADOR: BABA

GUINÉ-BISSAU: SALTINHO

INDIA:

THOUBAL PROJECT AND SIPU RESERVOIR PROJECT

**LEBANO**: KFAR SIR

**MALAWY: KHOLOMBIBZO** 

**MORROCCO:** M'JARA

MOZAMBIQUE: MASSINGIR, PEQUENOS LIBOMBOS, CORUMANA, MOAMBA-MAJOR AND

**MAPAI** 

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PORTUGAL: MIRA, ODIVELAS, ALVITO, TOULICA, ST<sup>a</sup> MARIA DE AGUIAR, CAPINHA, CRATO, COIMBRA, CRESTUMA, AZIBO, MARVÃO, COVA DA BEIRA, ODELEITE, MARANHÃO, S. DOMINGOS, FREIXEIRINHA, ALIJÓ, ODELOUCA, ABRILONGO, SABUGAL, RIBEIRADIO, PEGO DO ALTAR, VALE DO GAIO, PISCO, TEJA, MARZELONAS, BOA VISTA, VALE DA SERRA, ENXOÉ, CORTE BRIQUE SENEGAL: SAMBAGALOU AND KALETA

TUNISIE: AL DIAR

UGANDA: ORIANG

**VENEZUELA: BORDE SECO AND LAS CUEVAS** 

ZAMBIA: Kundwika e Kabwelume

<u>Tailing Dams</u> - URGEIRIÇA AND SINES

## **Special Geotechnical Projects (Foundations Design)**

**<u>Bridges</u>**: GUADIANA, ARADE, ALCÁCER DO SAL, VASCO DE GAMAS BRIDGE AND LEZIRIA

**Powerplants:** FERREL, MURANZEL, SINES, TAPADA DE OUTEIRO, CARREGADO AND LARES

<u>Buildings and others</u>: VIANA DE CASTELO AND CIDADE DA PRAIA (REPUBLIC OF CABO-VERDE), FORTALEZA DO MONTE (MACAU)

<u>Special Structures</u>: TANKS AND RESERVOIRS OF LA GUAIRA PORT(VENEZUELA); SHELL RESERVOIRS (BANÁTICA); WATER STATION (RUIVO); PETROGAL RESERVOIRS (PORTO BRANDÃO); RESERVOIRS OF SETUBAL POWERPLANT; RESERVOIRS OF TAPADA DE OUTEIRO POWERPLANT; AND TANKS AND RESERVOIRS OF SEVERAL WATER TREATMENT AND SEWAGE TREATMENT STATIONS.

## **Harbours**

LA GUAIRA (VENEZUELA) AND PRAIA DE VITÓRIA (AZORES). MARINA EXPO AND OLHÃO, BATA (GUINE ECUATORIAL)

#### **Tunnelling**

LISBON UNDERGROUND; COIMBRA TUNNEL, E GARDUNHA TUNNEL, ROSSSIO TUNNEL, SABUGAL TUNNEL, PORTO UNDERGROUND, ALFÂNDEGA TUNNEL, PENALVA TUNNEL, ODELOUCA TUNNEL, PORTINHO TUNNEL AND LISBOA UNDERGROUND.

#### **Environmental Geotechnics**

Waste Landfills

## **Landslides**

La Josefina (Equator)

## **Dikes**

Mondego river (60 km), Marina Expo, Olhão port, Tagus river upstream and downstream cofferdam of Jambi-o-ma dam, upstream and downstream cofferdam of Moamba Major dam, Leixões port, upstream and downstream cofferdam of Apertadura dam, Arade bridge, Tapada de Outeiro powerplant, Beirolas landfills, Setubal port.

## **Others**

Site Investigation, Earthworks and Roads, Retaining walls, Ground improvement, Excavation, Slopes stability, Drainages, Channels and Investigation of failures.

## Membership in Professional Societies and Scientific Committees

- Adviser Member (the highest degree) of Portuguese Institute of Engineers.
- Member of Portuguese Geotechnical Society.
- Member of International Society for Soil Mechanics and Foundations Engineering.
- Member of International Society for Rock Mechanics.
- Member of International Association of Engineering Geology.
- Member of Earthquake Engineering Research Institute.
- Head of Special Geotechnical Studies Division (1996-2004).
- Head of Embankment Dams and Foundations Division (1987-1996).
- Affiliate Member of Eurocode n°7 Part 2 Laboratory Tests.
- Secretary of Portuguese Geotechnical Society (1983-1987).
- Specialist in Geotechnique by Portuguese Board of Engineers.
- Member of Committee "Symbols, Units and Definitions" of the International Society for Soil Mechanics and Foundation Engineering (1981-1985).
- Portuguese Delegate for European Conference for Numerical Methods in Geomechanics (Stuttgart, 1986).
- Member of European Committee of "Laboratory Tests" (1989 1993).
- Member of TC4 "Earthquake Geotechnical Engineering" of the International Society for Soil Mechanics and Foundation Engineering (1989-1993).
- SPRINT PROGRAM "Quality Assurance in Geotechnical Testing, Member of the following Working Groups:

- Strength Tests (TG2)
- In situ Geotechnical Tests (TG6)
- Test Pits Deep Shaft Boring & Sampling (TG7).
- Member of Portuguese Committee of Foundations.
- Member of the Technical Committee 164/165 /JWG1 "Structural Design of Buried Pipelines under Conditions of Loading.
- Member of TG 6 Earthquake Geotechnical Engineering of European Association of Earthquake Engineering.
- Head of the Group "Evaluation of Geoenvironmental Risk" of TC5 of the International Society of Soil Mechanics and Geotechnical Engineering.
- Member of the Committee "Seismic Aspects of Dam Design" of the International Commission on Large Dams (since 1989).
- Member of "Judging Committee" of Shamsher Prakash Foundation" for Awards for Young Scientists and Engineers (since 2004).
- Member of the Committee "Earthquake Predictions" of Portuguese Academy of Engineering.
- -Member of Portuguese Committee on Large Dams (since 2002).
- -Member of the Portuguese Committee involved in writing Dams Codes on "Design", Monitoring and Instrumentation", "Construction and Quality Control", and "Operation and Maintenance" (since 2002).
- Member of NATO Programme "Seismic Analysis of Tunnels" (Portugal Russia) (2001-2004).
- LNEC member in the Education Programme EUCEET of European Union (2001-2004).
- LNEC member in the Programme "New Methods for Mitigation of Seismic Risk of Existing Foundations" NEMISREF- of European Union (2002-2004).
- LNEC member in the Programme "Geotechnical Network for Research and Development "GEOTECHNET-of European Union (2002-2005).

## **Management and Scientific Activity**

- Head of Embankment Dams and Foundation Division technical and economical supervisor in execution of studies under contract (9 Engineers and 18 Technicians were under my supervision). Development of research programs, supervision of assistant research engineers, definition and implementation of the scientific policy of LNEC (National Laboratory of Civil Engineer) (from 1987-1996).
- Head of Special Geotechnical Studies Division technical and economical supervisor in execution of studies under contract (8 Engineers and 16 Technicians were under my supervision). Development of research programs, supervision of assistant research engineers, definition and implementation of the scientific policy of LNEC (National Laboratory of Civil Engineer) (from 1996-2004).
- Technical and economical supervisor of several teams performing civil engineer works at overseas countries.
- Supervisor of several Master Engineering theses.

- Supervisor of several PHD theses.
- Member of several Boards for assessment of Master Engineering theses and PHD theses.
- Chairman of LNEC Council Committee (1985/86). LNEC has more than 1000 officers (250 Engineers and 750 Technicians).
- Organizer and Supervisor of 1<sup>st</sup> and 2<sup>nd</sup> National Congress in Geotechnique. Responsible for: (1) Program of the Symposium; (2) Revision and edition of Symposium Proceedings; (3) Technical Sessions; (4) Registration and Distribution of Proceedings; (5) Technical Exhibition; (6) Social Program.

The first National Congress in Geotechnique (1985) was attended by 380 delegates and the 2<sup>nd</sup> N.C.G. (1987) was attended by 450 delegates.

- Responsible for "Technical Sessions" of the International Ibero-American Conference on Hydraulic Developments, Lisbon, 1987.
- Supervisor of the Seminar "Compaction and Paving Theory and Practice, 1989.
- Supervisor of Workshop "Permeability Tests and Grouting" 4th National Geotechnical Congress, 1991.
- Chairman of Organizing Committee of "Workshop on Seismic Zoning Methodologies for Geotechnical Hazards", 1992.
- Chairman of Organizing Committee of "Seminar on Soil Dynamics and Geotechnical Earthquake Engineering", 1992.
- Supervisor of the Seminar "Recent Developments, in Ground Improvement Techniques", 1993.
- Member of the Committee for the Award of the Best Master Thesis of the Portuguese Geotechnical Society, 1994.
- Treasurer of the Organizing Committee of 7<sup>th</sup> Congress of the International Association of Engineering Geology (1994).
- Member of the Organizing Committee of the First International on Earthquake Geotechnical Engineering, IS-Tokyo, 1995.
- Member of the Committee for the Award of the Revue Geotecnia of the Portuguese Geotechnical Society, 1996.
- Portuguese Member of the TEMPLUS Program sponsored by the European Community (1995-1998).
- General Report for the Session "Embankment and Tailing Dams" of the International Symposium on Seismic and Environmental Aspects of Dams Design, Chile.1996.
- President of the Organizing Committee of the 50 th Anniversary of LNEC (National Laboratory of Civil Engineer, 1996-1997.
- President of the Organizing Committee of the 25 th Anniversary of SPG (Portuguese Geotechnical Society) 1997.
- Member of Scientific Committee for the 6th Portuguese Geotechnical Congress, Lisbon, 1997.
- Member of the Organizing Committee for the 4th International Conference on Cases Histories in Geotechnical Engineering, St. Louis, 1998.
- Secretary General of the Organizing Committee for the 3rd Environmental Conference on Geotechnical Engineering, Lisbon, 1998.

- Member of the Scientific Committee of the 2nd International Conference of Soil Improvement, Singapore, 1998.
- Chairman of the Organizing Committee for Second International on Earthquake Geotechnical Engineering, Lisbon, 1999.
- Member of the Revised Committee of the 7<sup>th</sup> International Conference of Computation Methods on Engineering and Science, Macau, 1999.
- Portuguese Member of the Program EUCEET-ERASMUS of the European Community (1999-2000).
- Member of the Advisory Scientific Board of the International Conference on Earthquake hazard s and Risk in the Mediterranean Region, 1999.
- Member of the Scientific Committee of the International Conference on Civil Engineering and Environmental \_ New Challenges, Bancok, 1999.
- Member of the International Review Committee of the 12 th World Conference on Earthquake Engineering, New Zealand, 2000.
- Member of the Scientific Committee of the 7th Portuguese Geotechnical Congress, Porto, 2000.
- Member of the Scientific Committee of the 3<sup>rd</sup> International Conference of Soil Improvement, Singapore, 2000.
- Member of the Organizing Committee of the 4<sup>th</sup> International Conference of Recent Methods on Earthquake Engineering and Soil Dynamics, San Diego (USA), 2001.
- Member of the Scientific Committee of the Ghent Environmental Geotechnics Specialty Conference, Ghent, 2001.
- Member of the Scientific Committee of the 4<sup>th</sup> International Congress on Environmental Geotechnics, Rio de Janeiro, 2002.
- Member of the Advisory Committee for International Symposium on Identification and Determination of Soil and Rock Parameters, Paris, 2002
- Co-ordinator of NATO Program with Russia on "Seismic Analysis of Tunnels". (1999-2002).
- Member of the Scientific Commission on "Forensic Geotechnical Engineering Workshop", India, 2003.
- Member of the Scientific Committee of 13th ECSMGE, Prague, 2003.
- Member of the Scientific Committee of 13th ACSMGE, Marrakech, 2003.
- Member of the Scientific Committee 4<sup>th</sup> International Geotechnical Seminar in Deep Foundations and Piles, 2003.
- Member of "Steering Committee" 3<sup>rd</sup> International Conference on Earthquake Geotechnical Engineering, Berkeley, USA, 2004.
- Member of Revision Panel of "Extended Abstracts" 13 th World Earthquake Engineering Conference, Canada, 2004.
- Member of the International Advisory Committee of 5<sup>th</sup> International Conference on "Ground Improvements Techniques", Kuala Lumpur, 2004.
- Member of the Scientific Committee of 9 th Portuguese Geotechnical Congress, Aveiro, 2004.
- Member of the Advisory Committee of EuroGeo 3 Geosynthetics Conference, München, 2004.

- Member of the Organising Committee of 5 th International Conference on Case Histories in Geotechnical Engineering, New York, 2004.
- Member of the International Advisory Committee of 2<sup>nd</sup> International Conference on "Site Characterization", Porto, 2004.
- Member of the Scientific Committee 10<sup>th</sup> European Baltic Conference, Riga, 2005.
- Member of the International Advisory Committee 6<sup>th</sup> International Conference "Ground Improvements Techniques", Coimbra (Portugal), 2005.
- Member of the Scientific Committee on 5th International Congress on Environmental Geotechnics, Cardiff, 2006.
- Member of the Scientific Committee for 13th European Danube Conference, Slovenia, 2006.
- Member of the Advisory Committee for 16 Southeast Asian Geotechnical Conference, Kuala Lumpur, Malaysia, May, 2007.
- Member of the Advisory Committee for 13th Pan American Conference, Venezuela, June, 2007.
- Member of the Advisory Committee for 4<sup>th</sup> International Conference on Earthquake Geotechnical Engineering, Salonica, Greece, June, 2007.
- Member of the Advisory Committee for International Symposium Geotechnical Engineering for Disaster Prevention & Reduction, Sakhalin's, Russia, July, 2007.
- Member of Advisory Committee of First Sri Lankan Geotechnical Society- 20 Anniversary, Colombo, August, 2007.
- Member of the Advisory Committee for 14th ECSMGE, Madrid, September, 2007.
- Member of Advisory Committee for 4<sup>th</sup> International Conference on Disaster Prevention and Rehabilitation, Indonesia, September, 2007.
- Member of the Advisory Committee for 10th ACSMGE, Brisbane, October, 2007.
- Member of the Advisory Committee for 14th ACSMGE, Yaoundé, November, 2007.
- -- Member of the Advisory Committee for 13th Asia CSMGE, Kolkata (India), December, 2007
- Member of the Advisory Committee for 3<sup>rd</sup> International Conference on Geotechnical Site Characterization, Taipei, April, 2008.
- Member of the Advisory Committee for 2<sup>nd</sup> International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation, Nanjing, May, 2008.
- -President of the Scientific Committee for the First International Conference on Education and Training in Geo-Engineering Sciences-: Soil Mechanics and Geotechnical Engineering, Engineering Geology, Rock Mechanics, Constantza, June, 2008.
- Member of the Advisory Committee for International Geotechnical Conference on Development of Urban Areas and Geotechnical Engineering, Saint Petersburg, Russia, June, 2008.
- Member of the Advisory Committee for 8 th International Conference on Application of Stress Wave Theory to Piles Lisbon, Portugal, September, 2008.
- Member of the Advisory Committee for 11th European Baltic Conference, Gdansk (Poland), September, 2008.

- Member of the Advisory Committee for International Conference on Numerical Computation in Geotechnical Engineering, Skikda, Algeria, October, 2008.
- Member of the Advisory Committee for International Conference Performance-Based Design in Earthquake Geotechnical Engineering, Tokyo, June, 2009.
- Member of the Advisory Committee for 17<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering Alexandria (Egypt), October, 2009.
- Member of the Scientific Committee for 14th Danube European Conference, Bratislava, September 2010.
- Member of the Scientific Committee for 6th International Congress on Environmental Geotechnics, New Delhi, India, October, 2010.
- Member of the Advisory Committee for 14th Asia CSMGE, Hong Kong, China, May, 2011
- Member of the Advisory Committee for 15th ACSMGE, Maputo, Mozambique, August, 2011.
- -- Member of the Advisory Committee for 15th ECSMGE, Athens, Greece, September, 2011.

Member of the Advisory Committee for 14th Pan American Conference, Toronto, Canada, October, 2011.

- Member of the Scientific Committee of 2<sup>nd</sup> Performance Based Design in Taormina, Italy, May 2012.
- --Member of the Advisory Committee of 3<sup>rd</sup> International Geotechnical Conference in North Cyprus, June, 2012.
- -Member of the Advisory Committee for 18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering, Paris, September 2013.
- Member of the Advisory Committee of Baltic Conference, Vilnius, 2015.
- -Member of the Scientific Committee of Recent Advances in Soil Dynamics and Earthquake Engineering Conference, New Delhi, 2016.
- Member of the Advisory Committee Geotechnical International Conference, Tunis, 2020.
- Member of the Scientific Committee International Conference "20 Anniversary of Albania Geotechnical Society", Tirana, 2020.
- Member of the Commission ISSMGE Past Presidents for selection "Kevin Nash Award", Sydney, 2022.
- President of the Commission for selection "ISSMGE Technical Committees Award, Sydney", 2022.
- Member of the Advisory Committee do 5th International Geotechnical Conference, North Cyprus, 2022.

#### **Editorial Boards and Reviewer**

- Editor on Chief of Case Histories Journal (2010-2014)
- Co-Editor of Geotechnical and Geological Engineering Journal. Springer Publisher (2005-2011)
- Member of Editorial Board of Geotechnical and Geological Engineering Journal. Springer Publisher.
- Member of the Editorial Board of Journal of Geotechnical Engineer.
- Member of Acta of Geotecnia Journal.
- Member of Editorial Board of the International Journal of Geotechnical Earthquake Engineering
- Member of the Editorial Board of Journal "Geotecnia" from Portuguese Geotechnical Society.

- Member of the Editorial Board of "Bulletin of Earthquake Engineering" from European Association for Earthquake Engineering. Kluwer Academic Publishers.
- Reviewer of the Engineering Computations: International Journal for Computer-Aided Engineering and Software.
- Reviewer of Italian Geotechnical Journal.
- Reviewer of PAGEOPH Pure and Applied Geophysics.
- Reviewer of European Water Management Online.

#### **Publications**

He is author or co-author of 350 technical and scientific reports and more than 180 papers for national and international conferences and journals.

More than 3500 citations.

## He is the editor of:

- Proceedings of 1st Portuguese Geotechnical Congress (2 volumes), 1985.
- Proceedings of 2nd Portuguese Geotechnical Congress (3 volumes), 1987.
- -Proceedings of the Seminar on Soil Dynamics and Geotechnical Earthquake Engineering (1 volume). Publisher A. Balkema, 1993.
- -Eurocode 7- Geotechnical Design, 25 th Anniversary of Portuguese Geotechnical Society, 1997.
- Seismic Behavior of Ground and Geotechnical Structures. Proceedings of Special Technical Session on Earthquake Geotechnical Engineering during 14 th ICSMFE (1 volume), Hamburg, 1997. Publisher A. Balkema, 1997.
- Proceedings of the Third International Congress on Environmental Geotechnics 4 volumes and 1 CD-ROM. Publisher A. Balkema, 1998.
- Proceedings of Second International Conference on Earthquake Geotechnical Engineering -3 volumes and 1 CD-ROM. Publisher A. Balkema, 1999.
- Innovative Solutions for Deep Foundations and Retaining Structures, Springler International Book, 2019. Editor.

## **Books (Contributions to 14 books)**

- "Instrumentation of Embankment Dams" (in portuguese). Laboratorio Nacional de Engenharia Civil, 1982.
- "Dynamic Characterization of Soils. In situ and Laboratory Tests". Chapter 4. Natural Hazards and Engineering Geology Prevention and Control of Landslides and other Mass Movements". European Union Course, Lisbon, March, 1990.

- "Dynamic Analysis of Embankment Dams". Soil Dynamics and Geotechnical Earthquake Engineering, published by Balkema, 1993.
- "Liquefaction Assessment. (in portuguese). Chapter of "Natural Hazards" Book. Published by the Portuguese Institute of Engineers, 1994.
- --"Geotechnical Lessons Learned from Northridge and Kobe Earthquake ". Special Technical Session. Eleventh World Conference on Earthquake Engineering, 1996,
- "Seismic Behaviour of Ground and Geotechnical Structures". Special Technical Session on Earthquake Geotechnical Engineering, published by A. A. Balkema, 1997.
- "Pile Foundations" (in portuguese) Eurocode 7". "25° Anniversary of the Portuguese Society for Geotechnique, Special Book, 1997.
- "Dynamic Analysis of Solid Waste Landfills and Lining Systems". Chapter 9 of Environmental Geotechnics Manual, prepared by ITC5, 1998.
- "Soil Constitutive Laws"- Chapter 6 of the book Rheology of Materials, 2000.
- "Seismic Behaviour of Geotechnical Structures What Lessons were Learned?" Special Volume no 100, Portuguese Society for Geotechnique, 2004.
- "Dynamic Analysis of Solid Waste Landfill and Lining Systems" Chapter 9 of the book "Recent Advances in Earthquake Geotechnical Engineering and Microzonation", Earthquakes", Kluwer Academic Publishers, 2004.
- . "Rehabilitation of Old Rossio Railway Station Building: Enlargement and Underpinning" (with Joao Barradas & Arlindo Sousa). Chapter 12 of the book Geotechnical Predictions and Practice in Dealing with Geozards. Springler Publisher, 2012.
- . "Lessons Learned from Dams Behavior Under Earthquakes" Chapter 9 of the book Perspectives 0n Earthquake Geotechnical Engineering, Springler International Publisher (in press), 2015.
- "Understanding Pile Foundations Design through Case Histories of New Tagus Bridge and Leziria Bridge". Chapter of the book "Innovative Solutions for Deep Foundations and Retaining Structures", Springler International Publisher, 2019.

#### State-of-the Art Lectures and Special Lectures

He has delivered more than **350 State-of-the Art Lectures and Special Lectures in more than 80 countries in the 5 Continents.**, namely in Albania, Argelia, Australia, Austria, Brazil, Bulgaria, Cabo-Verde, Cambodia, Cameroun, Chile, China, Costa Rica, Croatia, Cuba, Czech Republic, Cyprus, Denmark, Dominican Republic, Egypt, El Salvador, Estonia, France, Germany, Ghana, Greece, Guinea, Hong Kong, Hungary, Italy, India, Indonesia, Iran, Ireland, Japan, Jordanian, Kuwait, Laos, Latvia, Lebanon, Libya, Macau, Malaysia, Mexico, Morocco, Mozambique, Myanmar, Nepal, New Zealand, Nigeria, Pakistan, Paraguay, Peru, Poland, Portugal, Romania, Russia, Senegal, Serbia, Singapore, Slovenia, South-Africa, South Korea, Spain, Sri Lanka, Taiwan, Thailand, The Netherlands, Tunisia, Turkey, Ukrainian, United Arabic Emirates, United Kingdom, USA, Venezuela and Vietnam.

He chaired more than 60 sessions of International Conferences and Symposia.

**Visits:** The Institute Torroga, the Imperial College of London, Laboratoire Central de Ponts et Chaussées, Laboratoire de S. Rémy la Chevreuse, Building Research Station, Cambridge University, Institute of Delft, University St. Louis (USA), University of México, University of New Delhi and University of British Columbia.

**Training periods:** Institute of Delft; M.I.T. (Massachusetts Institute of Technology); Bureau of Reclamation (Denver); N.G.I. (Norwegian Geotechnical Institute) and University of California (Berkeley).

#### Other Interests:

Music: Classical and songs.

Sports: bicycle, tennis, swimming and jogging.

Literature: philosophy, history.

Arts.

#### REPORTS

## EMBANKMENT DAMS (PARTIAL LIST OF PROJECT REPORTS)

"Construction control of Massingir dam", (24 monthly reports), to the Mozambique Department of Water Resources, (1973-1974).

"Laboratory tests of M'Jara dam", (with E.M. Neves), to the Hidrotécnica Consulting Engineers, LNEC 1977.

"Earthquakes effects on the stability of Crato dam", (with E.M. Neves), to the PDWR, LNEC 1977.

"Construction control of Alvito dam" (with E.M. Neves), to the PDWR, LNEC (1<sup>st</sup> report, August, 1975; 2<sup>nd</sup> report, October, 1975; 3<sup>rd</sup> report, October, 1976; 4<sup>th</sup> report, March, 1979; 5<sup>th</sup> report, April, 1979).

"Construction control of Toulica dam", to the PDWR, LNEC, November 1978.

"Field measurements of Alvito dam", (with E.M. Neves), to the PDWR, LNEC (1st report, November 1975; 2nd report, October 1979).

"Field measurements of Mira dam" (with J.B. Folque and E.M. Neves, to the PDWR, LNEC.

"Construction control of S. Maria de Aguiar dam", (with F.G. Melo), to the PDWR, LNEC, March 1979.

"Field measurements of S. Maria de Aguiar dam", (with F.G. Melo), to the PDWR, LNEC, March 1979.

"An experimental study of hydraulic fracturing". Report to Prof. J. Duncan of Berkeley University, 1981.

"The role of observation in design of embankment dams", LNEC, 1982.

"Pequenos Libombos Dam - Laboratory and situ tests" (with E.M. Neves), to Hidroprojecto, Consulting Engineers, LNEC, 1982.

"Cova da Beira Development - Design of 5 earth dams" (Monte do Bispo, Peraboa, Pero Viseu, Fatela and Scarigo), to COBA, Consulting Engineers, 1983.

"Harreza Dam - Stability analyses" (with F. Guedes de Melo) to the Department of Water Resources (Argelia), 1983.

"Odeleite Dam - Dynamic analyses" (with F. Guedes de Melo) to the Hidroprojecto Consulting Engineers, 1983.

"Marvão Dam - Structural analyses static and dynamic", to the PDWR, 1983.

"Tailing Dam - Preliminary design" (in collaboration), to the Uranium Company, 1984.

"Saltinho Dam (Guiné-Bissau)" - in collaboration with other specialists of COBA to the Guiné-Bissau Government, 1984.

"Patudos Dam" - Stability Analyses, to the Municipality of Santarém, 1984.

"Field measurements of Alvito dam" to the PDWR, 3<sup>rd</sup> report LNEC, 1985.

"Pequenos Libombos Dam" - Stability analyses (with E.M. Neves), to the Hidroprojecto Consulting Engineers, LNEC, 1985.

"Instrumentation of Mira Dam" to the PDWR, LNEC 1985.

"Keddara Dam (Argelia)" - Seepage Analyses (with E. M. Neves) to the Department of Water Resources (Argelia), 1985.

"Al-Izdihar Dam (Argelia) - "Geotechnical Studies", "Static and dynamic Analyses", "Seepage Analyses", "Instrumentation" - Studies performed in collaboration with other specialists of COBA to the Department of Water Resources, (Argelia), 1985-1986.

"Maranhão Dam - Stability analyses to the PDWR, LNEC, 1985.

"Instrumentation of Azibo Dam" to the PDWR, LNEC, 1985.

"Instrumentation of Crestuma Dam" to the PCE, LNEC, 1986.

"Gargar Dam - Geotechnical Studies", to the Department of Water Resources (Argelia), LNEC, 1986.

"Souani Dam (Argelia) - Geotechnical Studies" "Stability Analyses" - studies performed in collaboration to the Department of Water Resources (Argelia), 1986.

"Ladrat Dam (Argelia) - Stability Analyses" (in collaboration). Study to the Department of Water Resources (Argelia), 1986.

Dominican Republic - "Safety Analyses of Tavera, Sabana Yégua, Sabaneta, Hatillo and Bao Dams", (in collaboration). Study to the Federal Commission of Electricity, 1986.

São Domingos Dam - "Static and Dynamic Analyses" (in collaboration) to the Municipality of Peniche, 1987.

"Instrumentation of Capinha Dam" to the PDWR, LNEC, 1987.

"Quantities to be Monitored and Measuring devices in Embankment dams" to the Portuguese Board of Engineers, 1987.

"An Experimental Study for Cohesive Filters" (with Teresa Santana) to the PDWR and PCE, 1987.

"Dynamic Analysis of Earth and Rockfill Dams" - Lectures book for Design of Large Earth and Rockfill Dams. Prepared for United Nations, 1987.

"Instrumentation of Coimbra Dam" (with E.M. Neves) to the PDWR, 1988.

- "Inspection of Pego do Altar and Vale do Gaio dams" (in collaboration). Study to the PDWR, LNEC, 1988.
- "Observation Plan of Alijó Dam" (with Mateus da Silva) to the PDWR, LNEC, 1988.
- "Construction Control of Alijó Dam" (with Mateus da Silva) to the PDWR, LNEC, 1989.
- "Las Cuevas Dam Stability Analysis" (with Ana Quintela) to Inginieria Lasvil, LNEC, 1989.
- "Las Cuevas Dam Seepage study" (with Mateus da Silva) to the Inginieria Lasvil, LNEC, 1989.
- "Borde Seco Dam Laboratory Tests" (with Mateus da Silva) to Inginieria Lasvil, LNEC, 1989.
- "Las Cuevas Dam Laboratory Tests" (with Mateus da Silva) to Inginieria Lasvil, LNEC, 1989.
- "Borde Seco Dam Static Analysis by FEM" (with Mateus da Silva) to Inginieria Lasvil, LNEC, 1989.
- "Instrumentation of Alvito Dam (4th report) (with João Portugal) to the PDWR, LNEC 1989.
- "Instrumentation of Mira Dam (7th report)" (with João Portugal) to the PDWR, LNEC 1989.
- "Borde Seco Dam Cyclic Laboratory Tests" (with Laura Caldeira and Bilé Serra) to Inginieria Lasvil, LNEC, 1990.
- "Las Cuevas Dam Static Analysis by FEM" (With Mateus da Silva) to Inginieria Lasvil, LNEC, 1990.
- "Las Cuevas Dam Cyclic Laboratory Tests (with Laura Caldeira and Bilé Serra) to the Inginieria Lasvil, LNEC, 1990.
- "Borde Seco Dam Dynamic Analysis by FEM" (with Bilé Serra) to the Inginieria Lasvil, LNEC, 1990.
- "Las Cuevas Dam Dynamic Analysis by FEM" (with Bilé Serra) to Inginieria Lasvil, LNEC, 1990.
- "Monitoring of Maranhão Dam" (in collaboration) to the PDWR, LNEC, 1991.
- "Instrumentation of St<sup>a</sup> Maria de Aguiar Dam" (in collaboration) to the PDWR, LNEC, 1991.
- "First filling of Freixeirinha Dam Reservoir" to the PDWR, LNEC, 1992.
- "Drawdown Monitoring of Maranhão Dam Reservoir" (with J. Portugal) to the PDWR, LNEC, 1992.
- "Instrumentation of Freixeirinha Dam" (with J. Portugal) to the PDWR, LNEC, 1992.
- "Revision of the Instrumentation of Enxoé Dam". Technical Note 1 / 96.
- "Revision of the Instrumentation of Vale do Serra Dam". Technical Note 3 / 96.
- "Revision of Instrumentation Plan and First Filling Plan of Boavista Dam". Technical Note 4/96.
- "Revision of the Instrumentation of Marzelonas Dam". Technical Note 5 / 96.
- "Revision of the Instrumentation of Teja Dam". Technical Note 8 / 96.
- "Report of Visit to Pisco Dam" (with Matias Ramos, C.) Report no 78/96-NF/NHE.
- "Sambagalou and Kaleta Dams" (Senegal)-Basis Design, 1997-2000.
- "Koudiat Acerdoune Dam" (Argelia)- Design Revision, 2001-2002
- "Inhuçu, Passauna, Piraquia and Lontras Dams" (Brazil) Instrumentation and Monitoring, 2003-2004.
- "Odelouca Dam". Technical Assistance, 2005-2007
- Al Diar Dam (Tunisie). Review of Dam Design, 2009.
- "Moamba Major Dam (Mozambique) Preliminary Studies, 2010.
- "Ben Aida Dam (Argelia)- Preliminary Studies, 2013.
- "Moamba Major Dam (Mozambique)- Basis Design, 2013.
- "Kundwika and Kabwelume Dams" (Zambia)- Preliminary Design, 2014.

"Safety Evaluation of Brazilian Dams", 2013-2014.

## **FOUNDATIONS (Partial List of Project Reports)**

"Geotechnical studies for the future Nuclear Power Plant in Ferrel" (with, E.M. Neves, G. Castro), to the PCE, LNEC, 1976.

"Geotechnical studies for the International Bridge of Guadiana river", (with, G. Castro; E.M. Neves; S.D. Rodrigues, L.F. Rodrigues to the Portuguese Highway.

"Permeability tests in Coimbra dam alluvial foundation" (with E.M. Neves), to the PDWR, LNEC, 1978.

"Geotechnical studies for the International Bridge of Guadiana river, 2<sup>nd</sup> report" (with J.B. Folque; R. Oliveira; L.F. Rodrigues; S.D. Rodrigues), to the Portuguese Highway Administration, LNEC, 1978.

"Laboratory dynamic tests on sands of la Guaira Harbour" (Venezuela) (with J.B. Folque) to the Somage Associates, LNEC, 1979.

"Load pile tests at Coimbra Dam", (with E.M. Neves), to the PDWR LNEC, 1979.

"Geotechnical studies of Muranzel power plant", (with M. Esteves and F. Rodrigues), to the PCE, LNEC, 1980.

"Geotechnical studies of Sines power plant" (with F. Rodrigues and F.G. Melo), to the PCE, LNEC, 1981.

"Foundation study of Portugal Bank (with F.G. Melo), LNEC, 1983.

"Geotechnical studies of Guadiana Bridge", to the Portuguese Highways Department, Fev. 1985.

Azores Harbor - "Static and Dynamic Analyses" (in collaboration). Study to the Azores Government, 1987.

"Geotechnical studies for Portugal Bank" (with Bilé Serra) LNEC,1989.

"Foundation of a building located at Viana de Castelo" (Preliminary Studies) to the Municipality of Viana de Castelo LNEC, 1989.

"Foundations of a building located at Viana de Castelo" (Complementary Studies) to the Municipality of Viana de Castelo, LNEC, 1990.

"Observation of the access embankments over Arade and Boinas Rivers" (with João Portugal), to Conduril, LNEC, 1990.

"Guadiana Bridge - Horizontal load test of piles 32 and 33" (in collaboration) to the Portuguese Highways Department, LNEC, 1990.

"Guadiana Bridge - Horizontal load tests of a pile group" (in collaboration) to the Portuguese Highways Department. LNEC, 1990.

"Arade Bridge - Horizontal load test of a single pile" (in collaboration) to the Portuguese Highways Department, LNEC, 1990.

"Arade Bridge - Horizontal load test of a pile group (in collaboration) to the Portuguese Highways Department, LNEC, 1990.

"Alcácer Bridge - Horizontal load test of a single pile" (in collaboration) to the Portuguese Highways Department, LNEC, 1990.

- "Geotechnical Study of SEISMIER" (in collaboration), LNEC, 1991.
- "Setúbal LNG Terminal (Portugal)". Seismic Risk and Dynamic Response of Superficial Soils" (in collaboration with others Research Officers of LNEC and Geodynamique et Structure), LNEC, 1992".
- "New Bridge on Tagus River". Laboratory tests", to GATTEL, LNEC, 1993.
- "Pile Load Tests for EDP Powerplant, Setubal". Technical Note 1/94 N.F.
- "Dynamic Pile Tests for the New Tagus Bridge "(in collaboration with Pina, C.A, Oliveira, S. B Gomes, J.P) Report .69/95 NDE/NEE/NF.
- "Analysis of the Foundation for the Central de Cogeração". Technical Note 1/95. NF.
- "Analysis of the Foundation for the Building located at Street S. José, n°41, in Lisboa." (in collaboration with Mary Mun). Technical Note 2/95.NF.
- "Analysis of the Building against of Abade de Baçal em Bragança". Technical Note 3 / 95 NF.
- "Plate Load Tests Metrexpo- Estação Olivais Sul" (with Felix J.). Technical Note 5/95.
- "Olympic swimming pools. Analysis of the proposals". (with Marecos, H.) Technical Note 6/95.
- "Pile Load Test Alameda Station" (in collaboration with Barros. A). Technical Note 2/96.
- "Design of Vasco de Gama Bridge Foundations (1995-1998).
- "Design of Tapada Outeiro Powerplant Structures Foundations (1996-1998)
- -Design of Foundations for Porto Underground (1999-2002)
- "Design of Carregado Powerplant Structures Foundations (2002-2005) –several reports.
- "Incidents for a swimming Pool (with Sousa, A. and Pipa, M.) Technical Note 15 /2004-NFTOS.
- "Design of Lares Powerplant Foundations" (2005-2007) -several reports
- "Analysis of Leziria Bridge Foundations" (2008).
- "Portaria de Leixoes"- Foundations Design. Ground Improvement. Design of retaining walls. (2010-2011).
- "Estação de Barcarena" Anchors tests. Instrumentation. (2011-2012)
- "Estação de Barcarena"-Buildings Risk Analysis (2011-2012)
- "Estação de Barcarena" Retaining Wall Design (2011-2012).
- "Analysis of a Building Foundations with 25 stories in Luanda (Angola)".2011.
- "Analysis of a Tall building Foundation in Algarve (Portugal)"2012.

## **TUNNELING (Partial List of Project Reports)**

"Geotechnical studies of Lisbon underground", (with J.D. Rodrigues), to the Lisbon Underground Company. LNEC, 1978.

This work was performed under the supervision of Prof. Manuel Rocha.

- "Geotechnical studies of Coimbra drainage tunnel", (with E.M. Neves), to the PDWR, LNEC, 1979.
- "Geotechnical studies of Lisbon underground", to the Lisbon Underground Company, LNEC, 1983.

Geotechnical Studies of Porto Underground – Revision of the Design. 18 Reports. 1999-2002.

Analysis of Mendonça Palace Safety Evaluation. Lisbon underground. Red Line. Report 63/03, 2003.

Analysis of Oriente - Airport Station. Lisbon underground. Red Line. Reports, 2005

- -Almada Tunnel. Design -SMAS. 2011.
- Alfandega Tunnel. Safety analysis. Edifer, 2012.
- -Aguas Santas tunnel. Pre-design, 2012.

## **SLOPES AND RETAINING WALLS (Partial List of Project Reports)**

- "Geotechnical Studies for the Stabilization of Alfange and Santiago Slopes (Final Report), Report 338/2002. Plan of Activities of NEGE for 2003.
- Report of Activities of NEGE for 2002.
- "Santarém Wall- Slope facing Calçada do Alfange. Instrumentation, December 2000. Anchors-Results of Detailed and Simplified tests (with Sousa, A) Report no 375/2002.
- "S. Filipe Castle in Setúbal Instrumentation of Southeast Slope (with Sousa, A). Technical Note 3/2003-NFTOS.
- "Actions Implemented for Santarém Walls. List of documents", LNEC 2003.
- "Santarém Wall. Slope facing Calçada do Alfange –Analysis of Stability (with Sousa, A). Technical Note 11 /2003-NFTOS.
- "Santarém Wall. Slope facing Calçada do Alfange. Analysis of the Behavior. Interpretation of the monitoring devices Technical Note, 2003.
- "Countermeasures for Santarém Walls. List of documents", 2003, LNEC.
- "Santarém Wall. Slope facing Calçada do Alfange. Analysis of the Behavior. Technical Note 13/2003, Sêco e Pinto, P. e Sousa A.M.G.
- "Santarém Wall. Slope facing Calçada do Alfange and Santiago Road. Actions to be implemented. Report for the Minister of Public Works, 2003, LNEC e DGEMN.
- -Report of Activities of NEGE for 2003 and 2004.
- "Geological and Geotechnical Studies for Alfange and Calçada de Santiago Slopes (with Roque, A. e Sousa, A. Report 338/2002.
- "Castle S. Filipe in Setúbal- Instrumentation of South East Slope. (with Sousa, A.) Technical Note 3/2003-NFTOS.
- Failure at 137+400 EN 222 between Régua and Pinhão (Report LNEC, DRATM, IEP e DRAOTN), 2003
- "Alfange and Calçada de Santiago Slopes. Instrumentation. Anchors Tests (with Sousa, A.) Technical Note 11 /2003-NFTOS.
- "Alfange Slope. Analysis of behaviour Instrumentation. Anchors Tests (with Sousa, A.) Technical Note 13 /2003-NFTOS.
- "Slope stability of a dyke in Colombia", 2007.
- "Slope stability in Monsanto area", 2010.

## **PUBLICATIONS** (papers submitted)

"Vibroflotation process in compaction foundation sands of the main body of Massingir dam", (with J. Gouveia). Laboratory of Engineer of Mozambique, 1972.

"Laboratory tests". Notes for graduate course in Geotechnical Engineering. New University of Lisbon, 1975.

"Shallow and deep foundations". Notes for graduate course in Geotechnical Engineering. New University of Lisbon, 1975.

"Field measurements of earth and rockfill Dams". Notes for graduate course in Geotechnical Engineering. New University of Lisbon, 1976.

"Influence of Field Measurements on the Design of Embankment Dams" (Ms. Engin. Thesis), 1977.

"Load Tests on Pile Foundations". Key note. Geotecnia nº 29, 1977.

"Pumping tests in Coimbra dam Alluvial Foundation" (with E.M. Neves and R. Correia), 10<sup>th</sup> International Conference on Soil Mechanics and Foundations Engineering Stockholm, 1981.

"Cracking of earth dams" - 1st Portuguese - Brazilian Geotechnical Meeting, Lisbon, 1981.

"Instrumentation of Earth and Rockfill Dams" - Course 281, LNEC, 1982.

"The role of instrumentation in safety control of embankment dams". Portuguese Symposium of Engineering Structures, 1982.

"Hydraulic Fracturing in Earth and Rockfill Dams". Research Thesis (equip. to Doctor degree), 1983.

"Cracking and Hydraulic Fracturing in embankment dams". Conference on Safety Dams. Coimbra, Portugal, 1984.

"Hydraulic Fracturing in Zoned Earth and Rockfill Dams". A paper submitted for XI International Society for Soil Mechanics and Foundation Engineering, S. Francisco, 1985.

"Characterization of Dispersive Clays of Corumana Dam". A paper submitted to the 2nd Symposium of Engineer and Sciences, Maputo, Mozambique, 1986.

"Evaluation of liquefaction potential of soils". A paper submitted for the 2<sup>nd</sup> National Symposium of Geotechnique, Lisbon, 1987.

"Study of interface materials of Corumana Dam". Ibero - American Conference on Hydraulic Developments, Lisbon, 1987.

"Control of materials placed in Corumana Dam". Ibero - American Conference on Hydraulic Developments, Lisbon, 1987.

"Analysis of the foundations of Crestuma and Coimbra Dams". IX European Conference on Soil Mechanics and Foundation Engineering, Dublin, 1987.

"Finite elements analysis of consolidation of embankment dam cores". 2nd Int. Conf. on Education, Practice and Promotion of Computational Methods in Eng. Using Small Computers, Guangzhou China, 1987.

"Applications of Mechanical Computation in Geomechanics. LNEC Experience 1st National Conference in Mechanical Computation, Troia, 1988.

"Soil Liquefaction Potential of a Highway Bridge Foundation". Second Int. Conf. on Case Histories in Geotechnical Engineering. June 1988.

"Evaluation of Pile Integrity for Boina Bridge (with Fialho Rodrigues) 3<sup>rd</sup> National Symposium in Geotechnique. Vol 2, Porto, March 1989.

"Pile Tests under Lateral Loads (with Guedes de Melo and Sousa Coutinho). 3<sup>rd</sup> National Symposium in Geotechnique. Vol 2, Porto, March 1989.

"Filters for Clay Cores of Embankment Dams" (with Teresa Santana). 3<sup>rd</sup> National Symposium in Geotechnique. Vol 1, March, 1989.

"Safety Control of Azibo Dam" (with Moura Esteves). 3<sup>rd</sup> National Symposium in Geotechnique. Vol 2, Porto, March, 1989.

"Filters for Clay Cores of Embankment Dams" (with Teresa Santana) Proc. XII International Conf. on Soil Mechanics and Foundation Engineering. Vol 3. Rio de Janeiro, August 1989.

"Pile Group Test under Lateral Loads performed at Arade Bridge" (with Sousa Coutinho). 2<sup>nd</sup> National Symposium on Experimental Analysis of stress. Lisbon, March, 1990.

"Dynamic Characterization of Soils. In situ and Laboratory Tests". Natural Hazards and Engineering Geology - Prevention and Control of Landslides and other Mass Movements". European Union Course, Lisbon, March, 1990.

"Single Pile and Pile Group Tests under Lateral Loads performed in Guadiana Bridge" (with Sousa Coutinho). Proc. X European Conference on Soil Mechanics and Foundation Engineering, Florença, Vol. 2, pp. 539-542, 1991.

"Characterization of Permeability of Alluvia Foundation of Coimbra Dam by Pumping Tests". 4th National Geotechnical Congress, 1991.

"Dynamic Analysis of Las Cuevas Dam" (with Bilé Serra, R. Câmara and S. Oliveira). 10 WCEE, 1991.

"Interpretation of simple shear tests and triaxial tests by endocronic theory" (with Laura Caldeira and Atila Ansal), 4<sup>th</sup> National Geotechnical Congress, 1991.

"Dynamic Analysis of Las Cueva Dam" (with Bilé Serra, R. Câmara and Martins de Oliveira) Tenth World Conference on Earthquake Engineering, 1992.

"Dynamic Analysis of Embankment Dams" Seminar on Soil Dynamics and Geotechnical Earthquake Engineering, 1992.

"Analysis of Pile Load Tests in the Foundation of Soporcel Factory" (with J. Portugal), IV Congress of Engineering and sciences in Mozambique, 1992.

"Analysis and Design of Piles under Lateral Loads" (with J. Portugal), 2<sup>nd</sup> International Seminar. deep Foundations on Bored and Auger Piles, Ghent, Belgium, 1993.

"Assessment of Liquefaction Potential and Consequent Damaging Effects of a Sand Deposit (with J.P. Bilé Serra). Special Volume for 13<sup>th</sup> ICSMFE, 1993.

"Analysis of Seismic Behavior of Gravity Retaining Walls." (in portuguese) (with Bilé Serra, J. P. and Caldeira L.) X Brazilian Conference on Soil Mechanics and Foundation Engineering, 1994.

"Soil Constitutive Laws". Chapter of the book "Material Constitutive Laws". (in portuguese).1994.

"The Effect of the Position and Size of Clay Core in the Dynamic Response of Embankment Dams" (with Caldeira, L. and Bilé Serra. J.P.) Third International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics.1995.

"Seismic Response of Embankment Dams "(with Caldeira, L., and Bilé Serra. J. P), (in portuguese) V Geotechnical National Congress, Coimbra. 1995.

"3D Analysis of a Dynamic Pile Test "(with Oliveira, S. B. Gomes, J. P. and Pina, C. A.) (in portuguese) IV National Mechanical Computation Congress. Lisboa.1995.

"Correlations between Index Parameters and Geotechnical Properties of Clay Soils," (in collaboration with Pinho, A. B.) (in portuguese). 5th Geotechnical National Congress, Coimbra.1995.

"Stability of Slopes and Earth Dams under Earthquakes "(in collaboration) General Report for 3rd International Conference on Recent Methods in Geotechnical Earthquake Engineering and Soil Dynamics, St. Louis, USA.1995.

"Use of Soil/ Soft Rock Properties" (with By, T. L. and Yufin, S). Theme Report 3. XI European Conference on Soil Mechanics and Foundation Engineering, Copenhagen, Denmark.1995.

"Seismic Behaviour of Gravity Retaining Structures". First International Conference on Earthquake Geotechnical Engineering. IS - Tokyo'95. Japan.1995.

"Dynamic Tests Performed on Large Piles" (with Oliveira, S. B. Gomes, J.P. and Pina, C.A.) Eleventh World Conference on Earthquake Engineering, México.1996.

"Geotechnical Lessons Learned from Northridge and Kobe Earthquakes". Key Note. Eleventh World Conference on Earthquake Engineering. México.1996.

"Seismic Analysis of Concrete Face Rockfill Dams". International Symposium on Seismic and Environmental Aspects of Dams Design, Chile.1996.

"Seismic Design of Earth and Concrete Dams". General Report. Session 5. International Symposium on Seismic and Environmental Aspects of Dams Design, Chile.1996.

"Improvement Techniques of Cohesionless Materials". Special Conference for the International Conference "Ground Improvements Techniques", Macau, 1997.

"Evaluation of Liquefaction Potential of a Site Located in the South of Portugal" (with Jorge Correia e Ana Vieira). Proc. of the Special Technical Session on Earthquake Geotechnical Engineering, 14 th International Conference on Soil Mechanics and Foundation Engineering, Hamburg, 1997.

Editor of the book "Seismic Behaviour of Ground and Geotechnical Structures" Proc. of the Special Technical Session on Earthquake Geotechnical Engineering, 14 th International Conference on Soil Mechanics and Foundation Engineering, Hamburg, published by A. A. Balkema, 1997

"Pile Foundations" (in portuguese) Eurocode 7". "25° anniversary of the Portuguese Society for Geotechnique, 1997

"Geotechniques Aspects for Water Storage Systems (in portuguese), Seminar System Quality of Water Storage, 1997.

- "Local Effects of Seismic Action (in portuguese) (with Jorge Correia e Ana Vieira), 3rd National Conference on Earthquake Engineering, Lisboa, 1997.
- "Liquefaction Assessment of New Tagus Bridge, Second Japan Turkey Workshop on Earthquake, Istanbul, 1998. Special Lecture.
- "A Recent Difficult Foundation Problem. The Case of New Tejo Bridge", 4<sup>th</sup> International Conference on Case Histories and Geotechnical Engineering, St. Louis, 1998. Special Lecture.
- Keynote for the session "Environmental" 7 th International Conference "Exhibition on Piling and Deep Foundation", Vienne, 1998.
- "Instrumentation of Embankment Dams. Portuguese Experience.", Special Lecture for the International Conference on Large Dams, México, 1998.
- "Seismic Behaviour of Solid Waste Landfills" (with A. Mendonça, A. Vieira and L. Lopes), Proceedings of the 3<sup>rd</sup> International Congress on Environmental Geotechnics, Lisboa, 1998.
- "Dynamic Analysis of Solid Waste Landfills and Lining Systems". Proceedings of the 3<sup>rd</sup> International Congress on Environmental Geotechnics, Lisboa, 1998.
- "Environmental Geotechnics". Editor. Proceedings of the 3<sup>rd</sup> International Congress on Environmental Geotechnics, Lisboa, 1998 (4 volumes), A. Balkema Publishers.
- "The Relation between Eurocode 8 and Eurocode 7". Panelist of Workshop Eurocodes" Proc. XII European Conference on Soil Mechanics and Geotechnical Engineering, The Netherlands, 1999.
- "The Vasco de Gama Bridge over the River Tagus in Lisboa". (with Rui Correia). Proc. XII European Conference on Soil Mechanics and Geotechnical Engineering, The Netherlands, 1999.
- "Seismic Behaviour of Solid Waste Grândola Landfill" (with A. Mendonça, A. Vieira and L. Lopes), Proc. of the Second International Conference on Earthquake Geotechnical Engineering, Portugal, 1999.
- "Slopes and Embankments", General Report. Proc. of the Second International Conference on Earthquake Geotechnical Engineering, Portugal, 1999.
- "Earthquake Geotechnical Engineering". Editor. Proceedings, Proc. of the Second International Conference on Earthquake Geotechnical Engineering, Portugal, 1999 (3 volumes), A. Balkema Publishers.
- "Landslide La Josefina, Ecuador (with Raul Pistone e Medardo Ochoa), XI Panamerican Conference on Soil Mechanics and Geotechnical Engineering, Brazil, 1999.
- "Eurocode 8- Geotechnical Aspects" (Lecture)- Conferência Internacional sobre a Casualidade Sismica e Risco na Região Mediterrânea, Chipre, 1999
- "Soil Constitutive Laws"- Chapter of a book Rheology of Materials, 2000.
- "Third International Congress on Environmental Geotechnics CD-ROM with 4 Volumes of the Proceedings of the Congress and the Discussions of the Sessions. "Education in Earthquake Geotechnical Engineering"-Practice and Needs (Lecture). First International Conference on Geotechnical Education, Romania, 2000.
- "Soil Improvement for Cohesionless Materials" (Key-Note Lecture). Third International Conference for Soil Improvement. Singapore, 2000.

- "Dam Engineering-Earthquake Analysis" (Special Lecture). Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, 2001.
- "Dynamic Analysis of Solid Waste Landfill and Lining Systems" (Special Lecture). Satellite Conference "Lessons on Recent Earthquakes", Istanbul, 2001.
- "Some Reflections on Geotechnical Aspects of Eurocode 8" (Theme Lecture). XIV European Young Geotechnical Engineers Conference, Bulgaria, 2001.
- "Some Reflections on Instrumentation of Geotechnical Structures" (in portuguese) 8<sup>th</sup> Portuguese Geotechnical Congress, 2002.
- "Some Reflections on Risk Analysis for Geotechnical Structures", European Danube Conference in Passau (Germany), 2002.
- "Eurocode 8- Geotechnical Aspects" (Special Lecture) 3rd Croatia Geotechnical Conference (Hvar (Croatia), 2002.
- "Design Methods of Pile Foundations". 6 th Slovak Geotechnical Conference. Keynote Lecture, Bratislava, 2003.
- "Geohazards- Earthquakes report", GEOTECHNET, 2003.
- "European Geotechnical Networking" XIII th European Conference on Soil Mechanics and Geotechnical Engineering, Prague, 2003
- "Recent Developments in Earthquake Geotechnical Engineering, (Special Lecture) 13 th Regional Conference for Africa, Marrakech, 2003.

# "Control of Vibrations Caused by Underwater Blasting". 3<sup>rd</sup> International Conference on Earthquake Geotechnical Engineering, Berkeley, 2004.

- "General Report Session 2". 5<sup>th</sup> International Conference on Case Histories on Geotechnical Engineering, 2004. "Project NEMISREF- Some notes related with settlements of buildings during earthquakes", 2004.
- "The Role of the ISSMGE in the Process of Teaching and Learning in Geotechnical Engineering". III Congresso Panamericano de Ensenanza-Aprendizaje de Ingenieria Geotécnica, (with Van Impe, W, and Juan Bossio), Costa Rica, 2004,
- "An unusual Case of Underpinning and Reinforcement of Huge Retaining Walls in an Old Central Railway Station". (with Barradas, J.). XVI European Young Geotechnical Engineers Conference, Vienna, 2004.
- "Recent Developments on Pile Foundations Design". International Conference on Geotechnical Engineering. Unit Arab. Emirates. 2004.
- "Seismic Design of Solid Waste Landfills and Lining Systems" (with Maugeri, M.). Chapter 5 of Environmental Geotechnics Manual, prepared by ITC5, 2005.
- "Settlements of Buildings during earthquakes"- Technical Note for NEMISREF Project, 2005.
- "Corumana Dam Diaphragm Wall "Ground Improvement" Technical Session. XVI ICSMGE, Osaka, 2005.
- "Seventh Report of the Activities of the European Member Societies of ISSMGE", Osaka, 2005.
- "ISSMGE Task Force State of Knowledge of Geotechnical Education" (7th report), Osaka, 2005.

"Evaluation of Selected Methods for Mitigation of Horizontal ground shaking, Liquefaction and Slope Effects. Report for NEMISREF Seminar, Athens, 2005.

"Dam Engineering-New Developments". Special Lecture. Indian Geotechnical Congress, Ahmedabad, 2005.

## XIII Schezy Lecture. Invitation of Sciences Academy, Budapest, February, 2006.

"Interaction between Eurocode 7 and Eurocode 8"- Special Lecture. South Korea Geotechnical Congress. March, 2006.

"Ground Improvement"-General Report X European Danube Congress, Ljubljana, May, 2006

"New Developments in Ground Improvements Techniques" – Special Lecture XVII Young Geotechnical European, Zagreb, July, 2006.

Series of Conferences delivered for ISSMGE Touring Lectures in Chile and in Paraguay, August, 2006.

## Tunnelling Engineering- New Challenges. VII Nonveiller Lecture, Opatja (Croácia), October, 2006.

Series of Conferences delivered in Kiev, Invitation of Geotechnical Society of Ukraine, Kiev, Octobre, 2006.

"Future of Higher Education in Europe". Special Lecture. IV Congresso Panamericano de Ensenanza-Aprendizaje de Ingenieria Geotécnica, Havana, July 2007.

"New Developments in Tunnelling Engineering". Invited Lecture. Conferência comemorativa dos 50 anos da Sociedade Mexicana de Mecânica de Solos e Engenharia de Fundações. October, 2007.

"Dam Engineering. New Challenges". Key Note Lecture. International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Human Security and Environmental Preservation. Bangkok, Thailand, December, 2007.

"Geotechnical Aspects of Eurocode 8". Special Lecture. Disasters Mitigation Conference, Nanjing, 2008.

## "Landslides Analysis under Static and Seismic Conditions". 9th Suklje Lecture, Ljubljana. 2008.

"Pile Foundations Design of New Tagus Bridge and Guadiana Bridge". Special Lecture. International Geotechnical Conference on Development of Urban Areas and Geotechnical Engineering, Saint Petersburg, 2008.

"Lessons Learned from Two Case Histories of Retaining Structures". State of Art Lecture.6<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, Washington., August 2008.

"Seismic Behaviour of Geotechnical Structures. What Lessons were Learned?" Special Conference 60 th Anniversary of IGS, Bangalore, December, 2008.

"Interaction between Eurocode 7 - Geotechnical Design and Eurocode 8 – Design for Earthquake Resistance of Foundations". Key Note Lecture. IS Gifu Conference, 2009.

"Seismic Behavior of Geotechnical Structures. Past, Present and Future". Special Lecture. International Conference on Performance Based Design in Earthquake Geotechnical Engineering, IS Tokyo, 2009.

"Static and Seismic Analysis of Solid Waste Landfills". Special Lecture. Huanzhou Conference, 2009.

- "Understanding Seismic Embankment Dam Behaviour through Case Histories". State of the Art Lecture. 5<sup>th</sup> International Conference on Recent Advances on Soil Dynamics and Earthquake Geotechnical, San Diego, 2010.
- "Railway Old Station Building: Enlargement and Underpinning". Key Note Lecture. Moscow Conference, 2010.
- "New Trends in Pile Foundations Design.". Quian Jia Huan Lecture. Nanjing Conference, 2010.
- "Dam Engineering: State of the Art and Practice, Observed Behaviour and Future Challenges". The 20th Professor Chin Fung Kee Memorial Lecture, 2010.
- "New Trends in Static and Seismic Landslides Analysis". Special Conference. Cordoba Conference on Geotechnical Engineering, 2010.
- "New Developments in Design Methods of Pile Foundation". Technology Updates Journal, Vol. 4, pp.87-128. June 2010.
- "Static and Dynamic Analysis of Solid Waste Landfills ". State of the Art Lecture. 5<sup>th</sup> Earthquake Geotechnical Conference. Santiago de Chile, 2011.
- "Lessons Learned from Two Case Histories on Landslides", Key Note Lecture, Semarang Conference, Indonesia, 2011.
- "Lessons Learned from Landslides Case Histories". Special Lecture, Proc. of Symposium of Landslides and Environments, pp. 37-54, Tirana, Albania, 2011.
- Seismic Response Analysis of Kerrada Dam" (with Monica Monteiro). Proc. Of the 2<sup>nd</sup> International Conference on Performance-Based Design in Earthquake Geotechnical Engineering, Taormina, Italy, 2012.
- "Kilamba Building Foundation. A New Challenge". Key Note Lecture. Proc. of 3<sup>rd</sup> International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Nicosia, North Cyprus.2012.
- "Applications of Ground Improvement Techniques to Embankment Dams", Proc. of International Conference on Ground Improvement and Ground Control, Wollongong, 2012.
- "The Case of the New Tagus River Leziria Bridge". (State of The Art Lecture). Proc. 7th International Conference on Case Histories in Geotechnical Engineering, Chicago, USA. 2013
- "Soil Liquefaction. Case Studies". Key Note Lecture. Proc. Twin International Conferences on 2<sup>nd</sup> Civil Engineering & 5<sup>th</sup> Concrete Future, Covilha, Portugal, 2013.
- -." Lessons Learned from Dam Behavior Under Recent Earthquakes". Key Note Lecture. Proc. The International Conference on Earthquake and Geotechnical Engineering –From Case History to Practice, Istanbul, 2013.
- "Understanding Dam Behavior through Case Histories". Invited Lecture. Hydro Power Conference, Advancing Policy and Practice, Bordeaux, 2015.
- "Understanding the Performance of Geotechnical Structures Through Case Histories". Invited Lecture. A Conference in Honour of Michele Maugeri. Associazone Geotecnica Italiana, Catania, 2016.

- "Lessons Learned from Seismic Performance of Underground Structures". State of Art and Practice Lecture, 6<sup>th</sup> International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, New Delhi, 2016.
- "Tagus River Leziria Bridge". Invited Lecture. 13th Baltic Sea Region Geotechnical Conference. Historical Experience and Challenges of Geotechnical Problems in Baltic Sea Region, Vilnius, 2016.
- "Seismic behaviour of geotechnical structures. Past, Present and Future". Symposium International, State of The Art Lecture, Hong Kong, 2017
- "Leziria Tagus Bridge- Ground Challenges". Special Lecture 50 Anniversary Conference of South East Asia Geotechnical Society" Bangkok, 2017.

## **CONFERENCES AND SYMPOSIA (role and lectures delivered)**

- **1981** First Portuguese Brazilian Geotechnical Meeting, Lisbon, Portugal, with presentation of the papers "Cracking of Earth Dams" and "Design Parameters for Lisbon Underground".
- 1982 Supervisor and Lecturer of Course 281 "Instrumentation of Earth and Rockfill Dams". Lisbon.
- 1983 International Symposium on Engineering Geology and Underground Construction. Lisboa, Portugal.
- **1984** International Conference on Safety Dams, Coimbra, Portugal, with presentation of the paper". Cracking and Hydraulic Fracturing in Embankment Dams".
- **1982 1985** Member of committee "Symbols, Units and Definitions" of International Society of Soil Mechanics and Engineering Foundations. Contributions.
- **1986** Lecture at University Eduardo Mondlane (Mozambique) entitled "Quality Control of Embankment Dams".
- **1987** Second National Symposium on Geotechnique, Lisbon, with presentation of the paper "Evaluation of liquefaction potential of soils".
- International Ibero American Conference on Hydraulic Works, Lisbon, with presentation of the papers "Quality Control of Corumana dam materials" and "Study of interface materials of Corumana dam".
- 9<sup>th</sup> International European Soil Mechanics and Foundations Engineering Conference, Dublin, with presentation of the paper "Filters for silt and clay materials for embankment dams".
- Lecture at Board of Engineers, Lisbon, entitled, Instrumentation for Geotechnical Structures.
- 2<sup>nd</sup> International Conference on Small Computers at Guangzhou (China) with presentation of the paper "Finite Element Analysis of Consolidation of Embankment Dam Cores".
- **1988** Lectures at Central Water Commission (New Delhi), University of Roorkee, Irrigation Centre of Ahmadabad on the topic "Dynamic Analysis of Earth and Rockfill Dams" acting as a United Nations Consulting, during a period of two months.

- First National Symposium on Computation Methods, with presentation of the paper "Application of computation Methods to solve Geotechnical Problems".
- Second International Conference on Case Histories in Geotechnical Engineering with presentation of the paper "Soil Liquefaction Potential of a Highway Bridge Foundation".
- Two Lectures at Cabo Verde entitled "Foundation Design" and "Slope Stability".
- **1989** Third National Symposium on Geotechnique, Porto with presentation of four papers "Pile Tests Under Lateral Loads"; "Evaluation of Pile Integrity for Boina Bridge"; "Safety Control of Azibo Dam"; "Filters for Clay Cores of Embankment Dams".
- Twelfth International Conference on Soil Mechanics and Foundation Engineering (Rio de Janeiro) with a presentation for the Technical Session "Piles of Large Diameters".
- Lecture at Board of Engineers, Lisbon, entitled "Piles under Lateral Loads"
- Lecture at University of Porto entitled "Design of Embankment Dams".
- **1990** Second National Symposium on Experimental Analysis with presentation of the paper "Horizontal Tests on a group of piles at Arade Bridge".
- Lecture at the Course "Natural Hazards and Engineering Geology Prevention and Control of Landslides and other Mass Movements" of European Community entitled "Dynamic Characterization of Soils. In situ and Laboratory Tests".
- Nato Course "Advances in Rockfill Structures".
- **1991** 10th European Conference in Soil Mechanics and Foundation Engineering with presentation of the paper "Single Pile and Pile Group Tests under Lateral Loads performed in Guadiana Bridge".
- Meeting of the Committee "Earthquake Geotechnical Engineering" of ISSMFE.
- 4<sup>th</sup> National Geotechnical Congress with the presentation of 3 papers: "Dynamic Analysis of Las Cuevas Dam", "Characterization of permeability of Alluvia Foundation of Coimbra Dam by Pumping Tests" and "Interpretation of simple shear tests and triaxial tests by endocronic theory".
- 1992 Lecture at University of California, Irvine (USA) entitled "Pile Tests for Lateral loading".
- 10<sup>th</sup> World Earthquake Engineering Conference with the presentation of the paper: "Dynamic analysis of Las Cuevas Dam".
- Lecture for the Seminar Soil Dynamics and Geotechnical Earthquake Engineering entitled "Dynamic Analysis of Embankment Dams".
- IV Congress of Engineering and Sciences in Mozambique with the presentation of the paper: "Analysis of Pile Load Tests in the Foundation of Soporcel Factory".
  - Lecture at CSIR- Pretoria (South Africa) entitled "New Developments in Geotechnical Engineering".
  - IV National Congress of Pre-Stressed Structures entitled "Load Tests in Large Diameter Piles", Lisboa.

**1993** - Third International Conference on Case Histories in Geotechnical Engineering at St. Louis (USA) Co-Chairman of the session" "Case Histories of Slopes, Dams and Embankments".

Symposium on Natural Hazards. Supervisor of the session "Earthquakes". Presentation of the paper "Assessment of Soil Liquefaction Potential", Lisboa.

- 1994 Thirteen International Conference on Soil Mechanics and Foundation Engineering (New Delhi)
- -Treasurer of the Seventh International Conference of International Association of Engineering Geology, Lisboa.
- Coordinator of the Theme "Earthquakes "for the Seminar Natural Hazards. Lisboa.
- **1995** Third International Conference on Recent Methods in Earthquake Geotechnical Engineering and Soil Dynamics, St. Louis, USA.
- General Reporter and Discussion Leader of Session VI "Stability of Slopes and Earth Dams under Earthquakes "
- Chairman of the First Meeting of the ISSMFE Technical Committee Earthquake Geotechnical Engineering, St. Louis.
- XI European Conference on Soil Mechanics and Foundations Engineering. C0-Reporter of Theme Session "Use of Soil/ Soft Rock Properties." Copenhagen.
- Chairman of the Second Meeting of the ISSMFE Technical Committee Earthquake Geotechnical Engineering, Copenhagen.
- -First International Conference on Earthquake Geotechnical Engineering. (IS Tokyo, 95). Member of the Organizing Committee.
- First International Conference on Earthquake Geotechnical Engineering. Chairman of the Special Session "Geotechnical Hazards of Kobe Earthquake"-Tokyo.

First International Conference on Earthquake Geotechnical Engineering. Addresses for the Opening and Closing Ceremony. Tokyo "

Chairman of the Third Meeting of the ISSMFE Technical Committee Earthquake Geotechnical Engineering Tokyo.

- **1996 -** Eleventh World Conference on Earthquake Engineering, Mexico. Member of the Panel for the Revision of Summaries of the Papers.
- Eleventh World Conference on Earthquake Engineering, Mexico- Chairman of the Special Session Geotechnical Lessons Learned from Northridge and Kobe Earthquakes.
- Chairman of the Fourth Meeting of the ISSMFE Technical Committee Earthquake Geotechnical Engineering Mexico.

- Lecturer for the Seminar "Dynamic Analysis of Embankment Dams". College of Engineers of Peru, Lima.
- General Report and Discussion Leader of "Dynamic Analysis of Embankment and Tailing Dams "for the International Symposium on Seismic and Environmental Aspects of Dams Design Earth, Concrete and Tailing Dams, Santiago de Chile.
- **1997** Special Lecturer "Improvement Techniques of Cohesionless Materials" for the International Conference "Ground Improvements Techniques", Macau.
- Editor of the book "Seismic Behaviour of Ground and Geotechnical Structures" published by A. Balkema.
- Chairman of the Special Session "Seismic Behaviour of Ground and Geotechnical Structures", 14<sup>th</sup> International Conference of Soil Mechanics and Geotechnical Engineering.
- Coordinator of Theme 3 "Cases Histories" of the 6th National Geotechnical Congress
- Coordinator of Theme "Pile Foundations "author of the paper "Pile Foundations –Design "following the Eurocode no 7." 25 th Anniversary of Portuguese.
- Invited Lecture "Geo environmental Aspects of Solid Waste Landfills".
  - Author of the paper "Geotechnical Aspects of Water Systems. Seminar of Quality of Water Systems.
- Co-Autor of the paper with Jorge Correia e Ana Vieira Local Effects of Seismic Action. 3<sup>rd</sup> National Congress of Earthquake Engineering.
- Coordinator of a course on Earthquake Geotechnical Engineering. Has presented two lectures "Dynamic Analysis of Embankment Dams and "Assessment of Liquefaction Potential of the New Tagus Bridge".
- **1998** Special Lecturer "Liquefaction Assessment of New Tagus Bridge" for the Second Japan Turkey Workshop on Earthquake, in Istanbul.
- Special Lecturer "A Recent Difficult Foundation Problem. The Case of New Tejo Bridge", 4<sup>th</sup> International Conference on Geotechnical Histories Cases, St. Louis.
- -Discussion Leader for the Session "Environmental" 7 th International Conference "Exhibition on Piling and Deep Foundation", Vienne.
- -Special Lecturer "Instrumentation of Embankment Dams. Portuguese Experience", Dams International Conference, México.
- -Lecturer "Dynamic Analysis of Solid Waste Landfills and Lining Systems" 3<sup>rd</sup> International Congress on Environmental Geotechnics, Lisboa.
- **1999** Panellist of the" Workshop on Eurocodes" with the paper The Relation between Eurocode 8 and Eurocode 7", XII European Conference on Soil Mechanics and Geotechnical Engineering, The Netherlands.
- Co- Chairman of the Plenary Session "General Aspects of Transportation Infrastructure", XII European Conference on Soil Mechanics and Geotechnical Engineering, The Netherlands.

- General Report of the Session" Slopes and Embankments", Second International Conference on Earthquake Geotechnical Engineering, Lisbon, Portugal.
- Chairman of the Workshop "Recent Earthquakes", Second International Conference on Earthquake Geotechnical Engineering, Lisbon, Portugal.
- Chairman of the Session "Environmental Geotechnics and Land Contamination Assessment and Remediation", XI Pan-American Conference on Soil Mechanics and Geotechnical Engineering, Brazil.
- **2000** Chairman of the Special Session "Seismic Behaviour of Quay Walls". 12 th World Earthquake Engineering Conference, New Zealand.
- "Keynote address" Opening and Closing Sessions, 7<sup>Th</sup> Portuguese Geotechnical Congress, Porto.
- Panellist of Structural Eurocodes Sessions 7<sup>Th</sup> Portuguese Geotechnical Congress, Porto.
- President of the Session Environmental Geotechnics 7<sup>Th</sup> Portuguese Geotechnical Congress, Porto.
- Lecturer for the First International Conference on Geotechnical Education, Romania.
- Keynote Lecturer for the Third International Conference for Soil Improvement. Singapore.
- President Session 8 and Closing Session Third International Conference for Soil Improvement. Singapore.
- President Plenary Session Earthquakes of GEO ENG 2000 Conference, in Melbourne.
- Co-Organizer Symposium "Estimating flow deformations and their effects on structures and foundations" of the TC4 Committee Earthquake Geotechnical Engineer in Melbourne.
- **2001 -** organizer of the meeting of the Committee TC5 "Environmental Geotechnics" of the International Society on Soil Mechanics and Geotechnical Engineering.
- -Keynote Lecturer of Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, USA.
- -President of Session III "Synergies between university, research, industry and public authorities in the construction sector of Europe" of the International Conference Challenges to the Civil Engineering Profession in Europe at the Beginning of the New Millenium, Romania
- -Special Lecturer for the Satellite Conference "Lessons on Recent Earthquakes", Istanbul.
- President of the Session "Underwater Geoenvironmental Issues", da XV International Conference on Soil Mechanics and Geotechnical Engineering, Istanbul.
- Theme Lecturer for XIV European Young Geotechnical Engineers Conference, Bulgaria.
- Lecturer for the 14 th South Asian Geotechnical Conference, Hong Kong.
- Special paper for 14th Southeast Asian Geotechnical Conference, Hong Kong, 2001.
- **2002-** General Report for Workshop "Instrumentation and Safety Analysis of Geotechnical Structures 8 th Portuguese Geotechnical.
- Lectures in Zagreb and Ljubljana. Invitation from Croatia Soil Mechanics Society and Slovenia Geotechnical Society, 2002.

- Opening Address and Closing Address for 12<sup>th</sup> "European Danube Conference", and presentation of special paper "Some Reflections on Risk Analysis for Geotechnical Structures", Passau (Germany), 2002.
- Chairman of Special Session for "4th International Congress in Environmental Geotechnics", Rio de Janeiro,
- Opening Address and Closing Address for XV European Young Geotechnical Engineering Conference and also Discussion Leader, Dublin.
- Discussion Leader for the projects CLOUTERRE and FOREVER, Paris.
- Opening Address and Closing Address and Special Lecture "Eurocode 8- Geotechnical Aspects", 3rd Croatia Geotechnical Conference in Hvar (Croatia).

# 2003 - Lecture "Geotechnical Design". Portuguese Academy of Engineer

- Opening Address and Closing Address and special lecture New Trends on Piles Foundations Design. International Conference New Developments in Soil Mechanics and Geotechnical Engineering, Cyprus.
- Opening Ceremony BAP 4 "Deep Foundations on Bored and Auger Piles" and Discussion Session 4 "Bored and Auger Pile Testing", Ghent.
- Opening Address and Closing Address and Special Lecture "Design Methods on Pile Foundations" 6 th International Geotechnical Conference New Methods in Geotechnical Engineering, Bratislava.
- XIII European Conference on Soil Mechanics and Geotechnical Engineering "Opening Address" and "Closing Address". Chairman of Plenary Session 6 "European Geotechnical Networking"; Co-chairman for Workshop of Committee ERTC 15 "Interaction of Shield Machines and Soil or Soft Rocks"; Panellist for Workshop of IT Committee no 5 Environmental Geotechnics with the presentation of "Seismic design of solid waste landfills and lining systems", Prague.
- Lecture on Eurocode n°8 Geotechnical Aspects, Firenze.
- Opening Address" and Closing Address and Special Lecture Dam Engineer for 2<sup>nd</sup> International Conference Young Geotechnical Conference and discussion of three sessions
- Lecture "Seismic design of solid waste landfills and lining systems", Zagreb.
- Inaugural Lecture "Recent Developments in Earthquake Geotechnical Engineering", Marrakech, Morocco.
- **2004 -** Special Paper "Control of Vibrations Caused by Underwater Blasting" and chairman of a session. 3<sup>rd</sup> International Conference on Earthquake Geotechnical Engineering, Berkeley, USA.
- Panellist of Session "Hot Topics- Earthquakes" 9th Australasia Regional Conference, New Zealand.
- Opening Address and Closing Address 3<sup>rd</sup> European Geosynthetic Conference, Munch.
- General Report "Dams, Slopes and Embankments". 5 th Conference on Case Histories in Geotechnics, New York.
- Lecture "The Role of the ISSMGE in the Process of Teaching and Learning in Geotechnical Engineering". III Congresso Panamericano de Ensenanza-Aprendizaje de Ingenieria Geotécnica, Costa Rica.
- -Special Lecture "An unusual Case of Underpinning and Reinforcement of Huge Retaining Walls in an Old Central Railway Station" XVI European Young Geotechnical Engineers Conference, Vienna.

- Special Lecture "Recent Developments on Pile Foundations Design". International Conference on Geotechnical Engineering. Unit Arab. Emirates.
- **2005-** Seismic Design of Solid Waste Landfills and Lining Systems" (with Maugeri, M.). Chapter 5 of Environmental Geotechnics Manual, prepared by International Technical Committee on Environmental Geotechnics.
- Settlements of Buildings during earthquakes- Technical Note for NEMISREF Project
- Evaluation of Selected Methods for Mitigation of Horizontal ground shaking, Liquefaction and Slope Effects. Report for NEMISREF Project.
- Dam Engineering-Special Lecture. Indian Geotechnical Congress.

# 2006- Special Lecture in Budapest, February.

- Chair of the ISSMGE Board meeting, Rome, March.
- South Korea Geotechnical Congress. Opening and Closing Ceremony and Invited Lecture, March.
- X European Danube Conference, Ljubljana, -Opening and Closing Ceremony and General Report, May.
- V International Congress on Environmental Geotechnics, Opening and Closing Ceremony, Cardiff. June.
- XVII European Young Geotechnical Conference Opening and Closing Ceremony and Invited Lecture, Zagreb, July.
- ISSMGE Touring Lectures in Chile and Paraguay, August.
- Brazilian Geotechnical Congress. Opening and Closing Ceremony, August
- 7th IAEG, Nottingham, September.
- -8th International Geosynthetics Conference. Yokohama, Opening Ceremony and chairing a Special Lecture, September.
- 3rd Croatia Geotechnical Congress. Opening and Closing Ceremony, Opatjia, October.
- Series of Conferences in Kiev. Invitation of Ukraine Geotechnical Society, October.

#### **2007** - Lectures for ISSMGE Touring Lectures in Tirana, April,

- Lectures for ISSMGE Touring Lectures in Vietnam, May.
- Lectures for ISSMGE Touring Lectures in Croatia, May.
- -Lecture for ISSMGE European Young Geotechnical Conference in Croatia, May.
- Lecture for Education and Training Conference in Havana, July.
- Lectures for ISSMGE Touring Lectures in Costa Rica, August.
- -Lectures for ISSMGE Touring Lectures in El Salvador, August.
- Lecture in Ravello (Italy) for International Course for Slopes, September.
- -Lectures for ISSMGE Touring Lectures in Indonesia, October.
- -Lectures for ISSMGE Touring Lectures in Beijing, China, October.
- -Lecture for Chinese Geotechnical Conference in Chogging, China, November.

- -Lecture for International Geotechnical Conference in Bangkok, Thailand, December,
- Lectures for ISSMGE Touring Lectures in Colombo, Sri Lanka.

### **2008 -** Lectures for ISSMGE International Seminar, Lagos, Nigeria, January.

- -Lectures in Brisbane (Australia), March.
- -Lecture in Tonghi University (China)-Shanghai, April.
- -Lecture in Hong Kong, April.
- -Lecture in Hangzhou University (China), May.
- -Lecture in Nanjing University (China), June.
- Lecture in Belgrade (Serbia), June.
- -Lecture in Nova Gorica (Slovenia), June.
- -Lecture in St. Petersburg for Soil-Structure Conference, June.
- "Lessons Learned from Two Case Histories of Retaining Structures". State of Art Lecture.6<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, Washington. August.
- "Seismic Behaviour of Geotechnical Structures. What Lessons were Learned?" Special Conference 60 th Anniversary of IGS, Bangalore, December,
- **2009.** "Interaction between Eurocode 7 Geotechnical Design and Eurocode 8 Design for Earthquake Resistance of Foundations". Key Note Lecture. IS Gifu Conference,
- "Static and Seismic Analysis of Solid Waste Landfills". Special Lecture. Huanzhou Conference.
- "Seismic behavior of geotechnical structures. Past, Present and Future". Special Lecture. International Conference on Performance Based Design in Earthquake Geotechnical Engineering, IS Tokyo,
- **2010** "Understanding Seismic Embankment Dam Behaviour through Case Histories". State of the Art Lecture. 5<sup>th</sup> International Conference on Recent Advances on Soil Dynamics and Earthquake Geotechnical, San Diego.
- "Railway Old Station Building: Enlargement and Underpinning". Key Note Lecture. Moscow Conference.
- "New Trends in Pile Foundations Design.". Quian Jia Huan Lecture. Nanjing Conference.
- "Dam Engineering: State of the Art and Practice, Observed Behaviour and Future Challenges". The 20<sup>th</sup> Professor Chin Fung Kee Memorial Lecture.
- "New Trends in Static and Seismic Landslides Analysis". Special Conference. Cordoba Conference on Geotechnical Engineering.

- **2011** "Static and Seismic Analysis of Solid Waste Landfills".\_State of the Art Lecture. 5<sup>th</sup> Earthquake Geotechnical Conference. Santiago de Chile.
- "Lessons Learned From Two Case Histories on Landslides", Key Note Lecture, Semarang Conference, Indonesia.
- "Lessons Learned from Landslides Case Histories". Special Lecture, Proc. of Symposium of Landslides and Geoenvironment, Tirana, Albania.
- **2012** "Seismic Response Analysis of Kerrada Dam". (Special presentation). 2<sup>nd</sup> International Conference on Performance-Based Design in Earthquake Geotechnical Engineering, Taormina, Italy.
- "Kilamba Building Foundation. A New Challenge". Key Note Lecture. 3<sup>rd</sup> International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Nicosia, North Cyprus.
- Applications of Ground Improvement Techniques to Embankment Dams". Key Note Lecture. International Conference on Ground Improvement and Ground Control, Wollongong.
- **2013** "The Case of the New Tagus River Leziria Bridge". (State of The Art Lecture). Proc. 7th International Conference on Case Histories in Geotechnical Engineering, Chicago, USA.
- "Soil Liquefaction. Case Studies". Key Note Lecture. Proc. Twin International Conferences on  $2^{nd}$  Civil Engineering &  $5^{th}$  Concrete Future, Covilha, Portugal.
- -International Seminar in Sudan (Khartoum)-2 Keynote Lectures.
- -" Lessons Learned From Dam Behavior Under Recent Earthquakes". Key Note Lecture. Proc. The International Conference on Earthquake and Geotechnical Engineering –From Case History to Practice, Istanbul.
- 2014 "Instrumentation and Dam Safety. Lecture in Brasília.
- **2015** "Understanding Dam Behavior through Case Histories". Invited Lecture. Hydro Power Conference, Advancing Policy and Practice, Bordeaux.
- 2016 "State of Art and Practice Lecture".  $6^{th}$  International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, New Delhi.
- "Understanding the Performance of Geotechnical Structures Through Case Histories". Invited Lecture. A Conference in Honour of Michele Maugeri. Associazone Geotecnica Italiana, Catania.
- "Tagus River Leziria Bridge". Invited Lecture. 13th Baltic Sea Region Geotechnical Conference. Historical Experience and Challenges of Geotechnical Problems in Baltic Sea Region, Vilnius.
- **2017** "Seismic behaviour of geotechnical structures. Past, Present and Future". Symposium International, State of The Art Lecture, Hong Kong.
- "Leziria Tagus Bridge- Ground Challenges". "State of Art and Practice Lecture". 50 th Anniversary International Conference, Bangkok,

- **2018** Belorussia Soil Mechanics Society, in recognition of "International Seminar Eurocodes 7 & 8", Belorussia.
  - -"International Seminar Eurocodes 7 & 8", Assuncion.
  - "International Seminar Eurocodes 7 & 8", Buenos Aires.
  - "International Seminar "Dam Design", Leon, 2018.
- 2019 "International Seminar on "Harbour Structures", Lithuania, 3 Lectures.
  - Lecture in Mozambique for the International Seminar
  - 3<sup>rd</sup>. Victor de Mello Lecture "Static and Seismic Pile Foundations Design. Case Histories of New Tagus Bridge and Leziria Bridge", India.
  - 3<sup>rd</sup> Braja Das Lecture "Understanding Pile Foundations Design through Case Histories of New Tagus Bridge and Leziria Bridge ". Cairo.

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### ANNEX 2/A - Awards and Honors

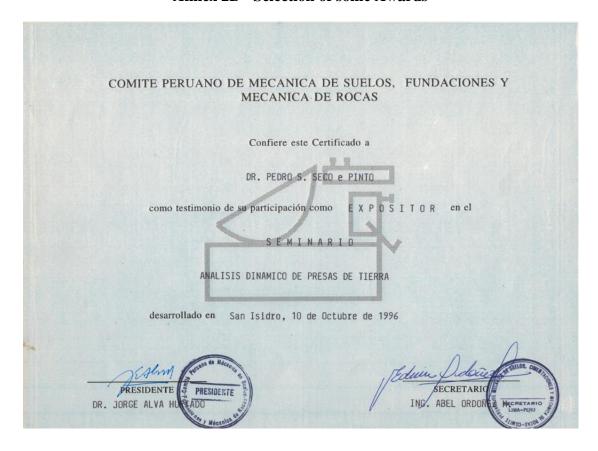
- Portuguese Institute of Engineers, 1986.
- Institute of Water Resources (New Delhi), in recognition of Notable Contribution for Embankment Dam Engineering, India, 1987.
- University of California (Irvine), in recognition of Excellent Contribution in Earthquake Geotechnical Engineering, USA, 1990.
- University of Peru in recognition of Excellent Contribution for Dam Engineering, Peru (Lima), 1995.
- 11<sup>th</sup> World Earthquake Conference in recognition for the organisation of the Seminar "Lessons Learned from Recent Earthquakes", Mexico, 1996.
- University of Missouri Rolla in recognition of Special Lecture 4<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, USA, 1998.
- Second International Conference on Earthquake Geotechnical Engineering in recognition as Discussion Leader, Portugal, 1999.
- University of Singapore in recognition of Notable Contribution in Ground Improvement, Singapore, 2000.
- University Missouri Rolla in recognition of Notable Contribution to the International Conference on Case Histories for Geotechnical Engineering, USA, 2000.
- Honourable Member of International Committee on "Earthquake Geotechnical Engineering" International Society for Soil Mechanics and Foundations Engineering, 2000.
- University of Missouri Rolla in recognition of Special Lecture 4<sup>th</sup> International Conference on Recent Advances on Geotechnical Earthquake Engineering and Soil Dynamics, USA., 2001.
- American Biographical Institute "As most admirable and whose Excellent Performance in the Field of Earthquake Geotechnical Engineering will be recognized globally in the 1000 World Leaders of Scientific Influence", as a permanent record for research, history and inspiration, USA, 2001.
- University of Bratislava in recognition of Special Lecture, Bratislava, 2003.
- Biography Sketch in "Special Volume in recognition for the Contributors of Earthquake Engineering, 2004.
- International Society for Soil Mechanics and Geotechnical Engineering Recognition of Notable Services as ISSMGE Vice President for Europe (2001- 2005).
- Nagadi Lecture- Awarded by Indian Geotechnical Society, Mysore, 2005.
- 12 Széchy Lecture Award by Hungarian Soil Mechanics Society and Hungarian Academy of Sciences, Budapest, 2006
- South Korea Geotechnical Society in recognition of Special Lecture, Seoul, 2006.
- -Brazilian Soil Mechanics Society in recognition of Special Lecture, Curitiba, 2006
- 7<sup>th</sup> Nonveiller Lecture- Award by Croatia Geotechnical Society, Zagreb, 2006.
- Albania Geotecnhical Society in recognition for the Touring Lectures on Dam Engineering, Tirana, 2007

- -Vietnam Soil Mechanics Society in recognition for the Touring Lectures on Ground Improvement, Hanoi & Ho Chi Minh, 2007
- Croatia Geotechnical Society in recognition for the Touring Lectures in Eurocodes 7 & 8, Cavtat, 2007
- Cuba Geotechnical Society in recognition of the Special Lecture, Havana, 2007
- Costa Rica Geotechnical Society in recognition for the Touring Lectures in Soil Dynamics and Earthquake Engineering, San Jose, 2007
- San Salvador Soil Mechanics Society in recognition for the Touring Lectures in Special Foundations, El Salvador, 2007
- Mexico Soil Mechanics Society in recognition of the Keynote Lecture, Mexico, 2007
- Indonesia Geotechnical Society in recognition for the Touring Lectures on Soil Structure Interaction, Jakarta 2007
- China Institute for Soil Mechanics and Geotechnical Engineering in recognition for the Touring Lectures in Environmental Geotechnics, Beijing, 2007
- South East Geotechnical Society in recognition of the Keynote Lecture, Bangkok, 2007
- Sri Lanka Geotechnical Society in recognition for the Touring Lectures on Soil Improvement, Colombo, 2007.
- Nigeria Geotechnical Society in recognition for the ISSMGE International Seminar on Environmental Geotechnics, Lagos, Nigeria, 2008
- Hangzhou University in recognition of Special Lecture, Hangzhou, China, 2008.
- -GEDMAR 08 –International Conference on Geohazards in recognition of Keynote Lecture, Nanjing, China, 2008.
- -9<sup>th</sup> Suklje Lecture Award by Slovenia Geotechnical Society, Ljubljana, 2008.
- 6<sup>th</sup> Case Histories Conference in recognition for Exceptional Contributions for Geotechnics, Washington, USA, 2008.
- Ecuador Soil Mechanics Society in recognition for the ISSMGE International Seminar in Special Foundations, Guayaquil, Ecuador, 2008.
- ABMS in recognition of the Special Lecture, Búzios, Brazil, 2008.
- Hungary Soil Mechanics Society in recognition for the Special Lecture, XIX EYGEC, Gyor, Hungary, 2008.
- IACMAG in recognition for the Special Presentation, Goa, India, 2008.
- Nepal Geotechnical Society in recognition for the Special Lecture, Kathmandu, 2008.
- Pakistan Soil Mechanics Society in recognition for the ISSMGE International Seminar in Tunneling, Lahore, 2008.
- Institute of Engineers of Portugal –The title of Adviser Member, 2008.
- Iran Geotechnical Society in recognition of the Special Lecture, Teheran, 2008.
- Isfahan University in recognition of the Keynote Lecture, Isfahan, Iran, 2008.
- Indian Geotechnical Society in recognition for the Special Lecture, 60th Anniversary of IGS, Bangalore, 2008.
- Cambodia Soil Mechanics and Foundation Engineering Society in recognition for the ISSMGE International Seminar in Geotechnical Engineering, Phnom Penh, 2009.

- Laos Soil Mechanics Society in recognition for the ISSMGE International Seminar in Geotechnical Engineering, Vientiane, 2009.
- Myanmar Geotechnical Society in recognition for the ISSMGE International Seminar in Geotechnical Engineering, Yangon, 2009.
- Ghana Geotechnical Society in recognition for the ISSMGE International Seminar in Ground Improvement, Accra, 2009.
- Jordan Soil Mechanics Society in recognition of the Keynote Lecture, Amman, 2009.
- Bolivia Geotechnical Society in recognition of the Keynote Lecture, La Paz, 2009.
- Argentina Geotechnical Society in recognition of the Keynote Lecture, Cordoba, 2009, III IYGEC of South America.
- Institute of Civil Engineer of Malaysia in recognition of a Course with 12 Lectures, Kuala Lumpur, 2009.
- Kazakhstan Geotechnical Society in recognition of the Keynote Lecture, Astana, 2009.
- Japanese Geotechnical Society in recognition of the Keynote Lecture, Gifu, 2009.
- Chinese Geotechnical Society in recognition of the Keynote Lecture, Hangzhou, 2009.
- International Society of Soil Mechanics and Geotechnical Engineering in recognition of Outstanding Services as President for 2005-2009.
- Thailand Geotechnical Society in recognition of the Keynote Lecture, Bangkok, 2009.
- Philippines Institute of Engineers in recognition for the ISSMGE International Seminar in New Developments in Geotechnical Engineer, Manila, 2010.
- Quian Jia Huan Lecture "New Trends in Pile Foundations Design.". Nanjing Conference, China, 2010.
- Dominican Republic Geotechnical Society in recognition for the ISSMGE International Seminar, 2010.
- The 20<sup>th</sup> Professor Chin Fung Kee Memorial Lecture "Dam Engineering: State of the Art and Practice, Observed Behaviour and Future Challenges", Institute of Engineers of Malasia, Kuala Lumpur, 2010.
- South Africa Geotechnical Society in recognition for the ISSMGE International Seminar, Pretoria, 2010.
- Argentina Geotechnical Society in recognition for the organization of International Symposium on Geotechnical Engineering, Cordoba, 2010.
- Bangladesh Geotechnical Society in recognition for the organization of International Symposium on Geotechnical Engineering, Dacca, 2010.
- Peru Geotechnical Society in recognition for the ISSMGE International Seminar, Lima, 2011.
- Institute of Civil Engineer of Malaysia in recognition of a Course in Earthquake Engineer with 8 Lectures, Kuala Lumpur, 2011.
- Cambodia Soil Mechanics and Foundation Engineering Society in recognition for the organization of ISSMGE International Seminar in Geotechnical Engineering, Phnom Penh, 2011.
- Laos Soil Mechanics Society in recognition for the ISSMGE International Seminar in Geotechnical Engineering, Vientiane, 2011.

- Myanmar Geotechnical Society in recognition for the ISSMGE International Seminar in Geotechnical Engineering, Yangon, 2011.
- Near East University- Haziran, North Cyprus, 2012, in recognition of Keynote Lecture.
- University of Missouri Rolla in recognition of State of Art Lecture 7<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, USA, 2013.
  - Sudan Soil Mechanics and Foundation Engineering Society in recognition for the organization of ISSMGE International Seminar in Geotechnical Engineering, Khartoum, 2013.
  - International Society for Soils Mechanics and Geotechnical Engineering for distinguish services as Immediate Past President during the tenure 2009-2013.
  - Indian Society of Earthquake Technology in recognition for "State of Art and Practice Lecture". 6<sup>th</sup> International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, New Delhi, 2016.
  - South East Asia Geotechnical Society in recognition for "State of Art and Practice Lecture". 50 th Anniversary International Conference, Bangkok, 2017.
  - Paraguay Geotechnical Society in recognition for "International Seminar Eurocodes 7 & 8", Asuncion, 2018.
  - Argentina Geotechnical Society in recognition for "International Seminar Eurocodes 7 & 8", Buenos Aires, 2018.
  - Mexicana Soil Mechanics Society, in recognition "International Seminar "Dam Design", Leon, 2018.
  - Belorussia Soil Mechanics Society, in recognition of "International Seminar Eurocodes 7 & 8", 2018.
  - Lithuania Geotechnical Society, in recognition of "International Seminar on "Harbour Structures", 2019.
  - 3<sup>rd</sup>. Victor de Mello Lecture Award. Indian Geotechnical Society, "Static and Seismic Pile Foundations Design. Case Histories of New Tagus Bridge and Leziria Bridge", 2019.
  - **3<sup>rd</sup> Braja Das Lecture Award**, "Understanding Pile Foundations Design through Case Histories of New Tagus Bridge and Leziria Bridge ". Cairo, 2019.
  - International Society for Soils Mechanics and Geotechnical Engineering for Distinguish Services as **Appointed Board Member,** during the tenure 2017-2022. Sydney, 2022.
  - Portuguese Geotechnical Society (SPG) Honnor President and Honnor Member, Lisbon, 2022.
  - **Portuguese Institute of Engineers** Honnor for 50 years of Distinguished Engineering Services, 2022.

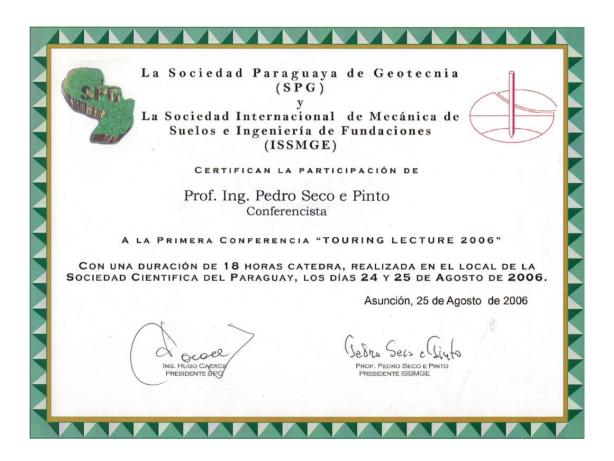
**Annex 2B - Selection of some Awards** 









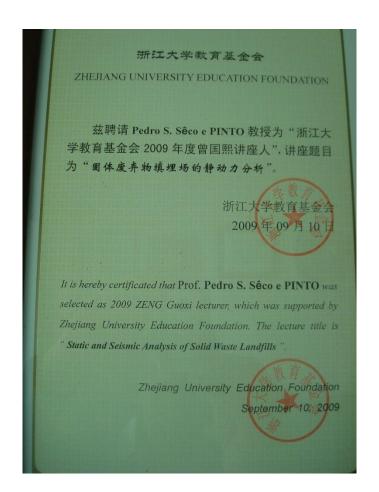




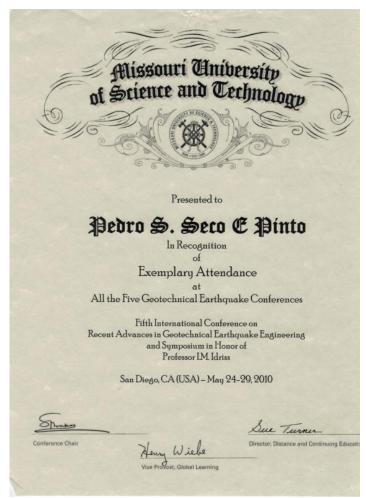
































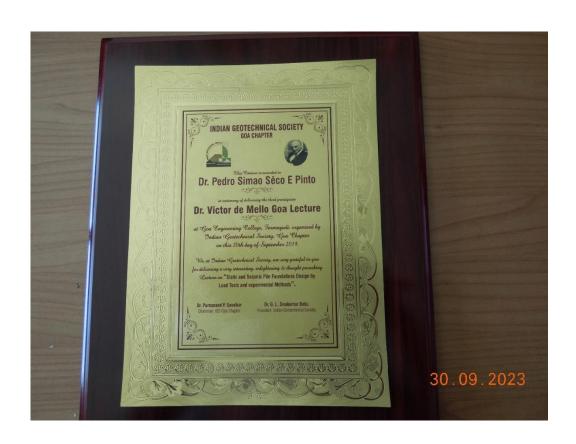














# ANNEX 3 / Statements/ National and International colleagues

I received 110 statements from 50 countries. There are no words to express my gratitude.

Turkish poet Cahit Sıtkı Tarancı:

"He's my colleague, a beacon of earnestness, And the steadfast star of camaraderie That's why he's my colleague, Resonating with the final throes of passion"

(Sent by Feyza Cinicioglu)

"A friend is one to whom one can pour out all the contents of one's heart, chaff and grain together, knowing that the gentlest of hands will take and sift it, keeping what is worth keeping, and, with the breath of kindness, blow the rest away." Arabian Proverb

Sent by

Omar al-Farout Salen al-Damluji

establishme certail of

**ISSMGE President and ISSMGE Past Presidents** 

Marc Balouz (2022-2026)

Statement of a Journey, April 15th, 2024

I am reading the "Journey of Pedro Pinto" with such interest and respect. It is with pleasure that I am writing this statement, hoping that it would be part of this report. I see myself walking along the same challenging path, combining academia with the practical world and I started feeling the burden of responsibility that lied on his shoulders throughout the years after becoming the ISSMGE president myself. Dear Pedro, I am so grateful to have met you the first time as president at the International conference in Alexandria and since then we have had many interactions on the ISSMGE board and at conferences and meetings around the world. You were an inspiration to my work and your guidance is still appreciated to date The journey of Pedro Pinto hasn't been easy but he made it to the top, with impressive projects achieved without ever loosing the humbleness and human touch of a true leader. Even after leaving the ISSMGE board as president and past president, he stayed in touch with the ISSMGE family and is still super active with the society's events and projects. For example, on the HTC (Heritage Time Capsule) committee, and on the organizing committee of the upcoming European conference in Lisbon. This continuous support with enthusiasm to the profession emanates from his love to the profession, with his serious intellect yet humorous positive character. I had the chance to interact with Prof. Pinto in person, and discuss family matters and discovered the kind person he is by observing his communication and relationship with his son and family. He is an idyllic example of how to balance life between work and

family and fun. I have utmost respect to Dr. Pinto and consider myself lucky to have met him as a colleague and genuine friend. April

Dr. Marc Ballouz President of ISSMGE

# **Charles NG (2017-2022)**

"I have known Professor Pinto since 2005. He is a very knowledgeable and kind-heart person, who is willing to help others and contributing to the ISSMGE wherever and whatever he can. He is also an excellent mentor for many others. I am very honour to learn that he contributes this volume. I am sure we shall benefit from his contribution.

Charles Wang Wai Ng, Ph.D, CEng, FICE, FASCE, FHKIE, FHKEng, FREng Chair Professor of Civil and Environmental Engineering **CLP Holdings Professor of Sustainability** Dean of HKUST Fok Ying Tung Graduate School Vice-President of HKUST (Guangzhou) for Graduate Support Vice-President of Hong Kong Academy of Engineering Sciences Fellow of Royal Academy of Engineering (UK) Immediate Past President of the International Society for Soil Mechanics and Geotechnical Engineering (2017-2022) E-mail: <a href="mailto:charles.ng@ust.hk">charles.ng@ust.hk</a> or <a href="mailto:cecwwng@ust.hk">cecwwng@ust.hk</a>

# Roger Frank (2013-2017)

Statement by Roger Frank for Some Pieces of my Journey by Pedro S. Sêco e Pinto

Avant d'écrire ces quelques lignes à propos de mon ami, Prof Pedro S. Sêco e Pinto, j'ai pris connaissance du résumé et de la table des matières du présent ouvrage. Il m'est tout de suite venu à l'esprit de le féliciter non seulement pour sa brillante carrière, mais également pour cet énorme travail de synthèse. Ce que je fais ici avec enthousiasme!

J'ai vraiment rencontré Pedro pour la première fois au Congrès Croate de Hvar en 2002, auquel il participait en sa qualité de vice-Président pour l'Europe de l'ISSMGE (2001-2005). Nous avons tout de suite sympathisé et c'est lors d'une promenade nocturne dans Split qu'il évoqua l'idée de me présenter à la vice-Présidence pour l'Europe suivante (2005-2009). Pedro m'a toujours accompagné pour ma propre carrière au sein de l'ISSMGE. Puis j'appris à le connaître encore mieux au Congrès Européen de Prague en 2003. Je me souviens, en particulier, de sa présentation finale. Il confirmait alors, à mes yeux, tout son dévouement pour notre profession, ainsi que sa grande compétence alliée à une importante capacité de travail.

Nos rencontres furent alors fréquentes. Nous travaillâmes ensemble au Board de l'ISSMGE, lors de sa Présidence de 2005 à 2009, puis de 2009 à 2013 et, à nouveau, de 2017 à 2022. Nous avons également effectué ensemble plusieurs séminaires internationaux de l'ISSMGE mémorables, organisés sur son initiative. Nous avons partagé de nombreux repas en tête à tête à Lisbonne, Paris ou encore Athènes. A chaque fois c'était une joie de le revoir. Durant toutes ces années, j'ai apprécié en plus de sa compétence et de son ardeur au travail, sa personnalité particulièrement amicale, proche des gens, ainsi que sa capacité pour écouter tout le monde. Ce sont, sans doute, à toutes ces qualités qu'il doit son extraordinaire carrière.

Bravo, Pedro!

Roger Frank Professeur honoraire de l'Ecole nationale des ponts et chaussées Vice-Président pour l'Europe l'ISSMGE (2005-2009) Président de l'ISSMGE (2013-2017)

## **William Van Impe (2001-2005)**

Some 50 years ago, the functioning of the ISSMFE (as ISSMGE was still called) was still linked to some interaction of the three geo-engineering societies (ISSMFE + Rock mechanics and Engineering geology). To this extent part of the ISSMFE was based on the PCS (permanent coordinating secretariat). As former co-worker of Prof. E.E. De Beer – chairman of the PCS- in that period, I represented him in several meetings of those 3 societies with the PCS. I remember one of them particularly, organized by LNEC in Lisbon, around 1976, and chaired by P. Habib (France), attended as well by M. Rocha -LNEC representing the Rock Mechanics.

It was in those days that I started to appreciating the importance of the interaction of the 3 geo-engineering groups as it certainly was always promoted by LNEC; and so later on followed up in the same philosophy by its well-known disciple Pedro Seco e Pinto.

I learned to know Pedro better in the eighties and later on during my years as ISSFE Vice-President for Europe (1994-1997), when Pedro's well known hospitality and organizing skills guaranteed so many times very successful meetings and symposia throughout the many years of our appreciated interaction.

Pedro Seco e Pinto indeed always worked intensively to setting up international high standard geo-engineering events. His own interest mainly inclining towards international codes and standards, earth dams and earthquake issues, that part of his work quite often resulted in valuable technical discussion sessions and relevant proceeding manuals.

My friendship with Pedro, while long standing, remained anchored in mutual respect and profound understanding; mainly germinated during my President-ISSMGE period (2001-2005), where Pedro covered the European part of the ISSMGE as Vice-President very successfully.

I may transmit him and his family my utmost kind wishes.

William Van Impe
Em.fullProf.Prof.h.c.Dr ir W.F. Van Impe
Past President of the ISSMGE
Past President of FEDIGS
Honorary Full Member of the Royal Academy of overseas sciences-Belgium
Honorary Member of the Japanese Geotechnical Society

Kenji Ishihara (1997-2001)



#### ACCOMPLISHMENTS OF PROF. SECO E PINTO in ISSMGE

I The performance of Prof. Seco e Pinto described here is that mainly on the stage of International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) during the period of 1985 to 2010. In 1985, a technical committee "Earthquake Geotechnical Engineering", TC-4, was established in ISSMGE. As one of its activities, an international conference was conceived and organized in Tokyo in 1985. This event had originally been planned as one single event, but as it had met with a great success, there arose voices of appraisal for holding the next event. Professor Seco E Pinto, a delegate from Portugal did not loose time and quick enough to propose "we wish to organize it again in Portugal." It was approved unanimously and the second international conference was indeed materialized in Lisbon in 1989.

It met with great success with the participants as many as 700 from all over the world. Everybody appraised the tremendous efforts by Prof. Seco e Pinto. As a results of the great success in Lisbon, the International Conference on Earthquake Geotechnical Engineering (ICEGE) had firmly established its foundation as a series of 4 yearly event, and now the 8<sup>th</sup> Conference is scheduled in its series to be held in Osaka Japan in May, 2024. It is generally believed that the improved setting-up and subsequent continuous prosperity of the ICEGE is due largely to the enormous efforts by Prof. Seco e Pinto.

II Thanks to the great contribution for the state of the art in the discipline of the geotechnical engineering, Prof. Seco e Pinto was elected to President of the ISSMGE and served for it for the period of 2005 to 2009. He worked hard for the advances and wellbeing of the society. Particularly worthy of notice was his tremendous efforts for increasing the number of the member society. Due to his great efforts the number of members of ISSMGE had accordingly increased almost twice.

worked hard and passionately for the benefit and advances of ISSMGE. The wellbeing of the current state of ISSMGE and its prosperity is largely the results of the tremendous effort and self-dedicating service by Prof. Seco e Pinto.

(Signature)

Kenji Ishihara
Professor, Research and
Development Initiatives,
Chuo University, Tokyo, Japan

# Norbert Morgenstern (1989-1993)

Dear Pedro.

My congratulations for completing this record of your wonderfully successful career. I am pleased to add the following tribute as per your instructions.

The geotechnical community, both professional and academic, owes a great deal to Professor Pedro Seco e Pinto and it is of enormous value to have a record of his contributions to Geotechnical Engineering presented to us in this comprehensive summary of his career. An apex of recognition was his election as President of ISSMGE for the period of 2005 to 2009. As a past-president myself(1989-1994), I can vouch for the dedication required to serve our community in this way. As indicated in this Summary document, he continues to make important contributions to this day.

With my best wishes for your continued health and success,

Norbert R. Morgenstern Distinguished University Professor (Emeritus) of Civil and Environmental Engineering University of Alberta Edmonton Canada and Consulting Geotechnical Engineer

**Sister Societies** 

# IAEG (International Association of Engineering Geology and Environment)

#### Ricardo Oliveira

I met Pedro Seco Pinto in 1975 on his first day at LNEC, where he started his research career as a Trainee in the Foundations Division of the Geotechnical Department. Soon he became acquainted with colleagues and technical staff working in the Department, showing his sympathy and kindness.

After his first years of activity at LNEC and other Scientific Institutions abroad, he got the degree of Specialist in Geotechnics (PhD level) in 1983 with honors, His thesis was related to the behavior of earth dams, a subject to which he has been connected along all his research career, as well as the consultancy he developed in Portugal and in many areas of the world and his academic activity, teaching in Portugal and in many other countries.

In 1975/76 The New University of Lisbon (UNL), established in 1973, created two Graduate Courses, one in Soil Mechanics and the other in Engineering Geology. Pedro registered for the first graduate Soil Mechanics Course, and he was my student at that time. It was clear his interest in extending his knowledge to Rock Mechanics and to Engineering Geology, understanding very well the full scope of Geotecnics. In 1980 these courses became MSc courses, requiring for obtention of the degree the presentation and discussion of a thesis. Pedro Seco e Pinto was the first student to obtain this degree at UNL and he was awarded the highest classification among all his colleagues.

His capacity for reading and writing in four languages and his ability to expand his knowledge in many Countries, Institutions and Conferences soon made him well known as a relevant scientist in several areas of Geotecnics. As a result, he received many awards at the occasion of numerous Lectures given in a large number of countries.

In 1991, always acting as a researcher at LNEC, he received the degree of Research Director (Full Professor level) also with honors. Again, the topic of his research program was related to Earth Dams and its dynamic behavior.

As a result of his merits and distinctions as well as his facility to make friends all over the world, he was elected Vice President for Europe of the ISSMGE (2001-2005) and he proposed himself, with the support of several Portuguese Colleagues and of many National Groups, for election as President of the Society. He was then elected, and in that mandate (2005 to 2009), he conducted the Society with excellent merit.

His extraordinary CV, in size and quality, addressing with detail all the activities he developed in the 50 years of his professional life, refers to a large number of Portuguese and foreign colleagues, including myself, who developed and kept a sincere appreciation and friendship with him. It's with deep honor that I leave in this very short statement the expression of my admiration for all the achievements of Pedro Seco e Pinto.

Finaly, I have attended in Portugal and in other countries many Conferences and Lectures Pedro Seco e Pinto gave in several languages and atmospheres, and I never forget that the last slide of each presentation always consisted in a philosophical statement quoted from world personalities and thinkers like Budda, Socrates and Gandi.

Ricardo Oliveira

Honorary President IAEG. Research Director LNEC. President COBA. Full Professor UNL, Portugal

### **IGS (International Geosynthetic Society)**

### Richard J. Bathurst

It is a pleasure for me to pen a few words to celebrate the career of my friend Professor Pedro Pinto. Pedro has served our international fraternity of geotechnical engineers with great distinction as Past-president of the ISSMGE, by his collection of valuable technical papers, journal editorial positions and through his

pedagogy.

I wish Pedro the very best for his future endeavours.

Richard J. Bathurst, PhD, FRSC, FCAE, FEIC, FCSCE

Department of Civil Engineering, Royal Military College of Canada Professor Emeritus Past IGS President

#### Daniele Cazzuffi

Pedro is not only a very good friend of mine, he's a visionary person who could really influence the development of an entire discipline. This was the case of the geosynthetics engineering in the frame of the broader subject of the geotechnics: in fact, when he was elected ISSMGE President in 2005, he immediately took action to approach myself in my capacity of IGS President 2002-2006 in order to close the gap between the two disciplines, very close as subjects, but - at that time – still distant in the respective organizations. With my help, this approach by Pedro produced a lot of fruitful interactions in that remaining year of my presidency, as the organization of common sessions during the XIII Danube-European Conference on Geotechnical Engineering in Ljubljana (Slovenia) and the 5th International Conference on Environmental Geotechnics Conference in Cardiff (Wales-UK) in June 2006 and even during the 8<sup>th</sup> International Conference on Geosynthetics in Yokohama (Japan) in September 2006, that concluded my four-years period of IGS presidency (see the enclosed photo). Moreover, our friendly relationship allowed also to put the basis for the entrance of the IGS (International Geosynthetics Society) in the FedIGS, that Pedro substantially contributed to develop and to consolidate for a mutual collaboration among the main geo-engineering societies all around the world. Therefore, thanks a lot Pedro! Muito obrigado!

Dr. Daniele Cazzuffi CESI SpA Milano, Italy Past IGS President

# **ISRM** (International Society for Rock Mechanics)

### Nielen Van der Merwe

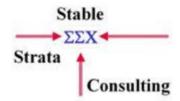
I met Pedro in 2005, at the time when the three so-called "sister societies" comprised of the ISSMGE, ISRM and IAEG were in the process of investigation ways of more meaningful collaboration by creating an overarching society called FeDIGS. Pedro represented the ISSMGE as he was their President at the time. The three societies could be seen as dealing with different specialist areas of the same fundamental problem, namely the reaction and control of natural rock and soil to man-made changes.

While closer collaboration can be seen in principle as perfectly logical, it was much more complex when dealing with the detail of collaboration on the organisational level. Each of the societies had their own study groups with different ways of working. Funding (if any could be found) had to be unified in some may. Joint problem areas had to be identified. The societies differed in size, dominated by the much larger ISSMGE and there were suspicions in some quarters that formal collaboration in the form of a single umbrella society could result in a loss of identity of the smaller groups.

There is no mathematical equation to iron out these problems. This had to be done on the human level. Several meetings were held in different parts of the world and some of the discussions were heated. This is where Pedro made his most important contribution. He had the ability to listen impartially to arguments by people with different points of view. He was the one who could then sit back and find weakness and similarities in those arguments and suggest compromises.

Pedro was the one who brought wisdom into the system of negotiation.

Prof. Nielen van der Merwe, South Africa. President of the ISRM 2003 to 2007, Board Chairperson of FeDIGS 2010 to 2011."



## ITA (International Tunneling Association)

#### In-Mo Lee

It was at Shanghai, in April, 2008 that I firstly met Professor Pinto when I attended the International Symposium on Geotechnical Aspects of Underground Construction in Soft Ground (IS-Shanghai 2008). Right after I delivered the Keynote Speech, Prof. Pinto came and suggested me to join the Lecture Tour scheduled to be held at Lahore, Pakistan with the title of "International Seminar on Tunnelling, Deep Excavations and Substructures, Lahore, Pakistan". By accepting his suggestion, we met again at Lahore in October, 2008 attending the 2 days' seminar as international speakers. Each one had to delivered 2 lectures on both days. Since I have been more heavily involved in ITA (International Tunnelling and Underground Space Association) rather than ISSMGE, those two events are all to have the chance to meet Prof. Pinto. However, I clearly remember that He was so active as the President of ISSMGE, and so called "Lecture Tour" was one of his successful achievements. He eagered to help Geotechnical Societies of developing countries to improve technologies in the geotechnical fields. I sincerely appreciate his sincere efforts on this matter.

With my best congratulations,

In-Mo Lee, Ph.D., PE
Professor Emeritus of Civil, Environmental, and Architectural Engineering
Korea University, Seoul, Korea
Past President of ITA (International Tunnelling and Underground Space Association)

### **AFRICA**

### Samuel Ampadu (Ghana)

Prof. Seco e Pinto is a friend of the Ghana Geotechnical Society and as we acknowledge today his contribution to the development of geotechnical engineering in Ghana, we mention one event that is still special to us in Ghana. In February 2009, as part of the initiative of Prof. Seco e Pinto under the touring lectures designation, the Ghana Geotechnical Society under the auspices of the ISSMGE organized an international seminar in Accra, Ghana. The theme was "Ground improvement for Accelerated Development" and it was apt as the seminars coincided with the period of Ghana accelerated economic development in recent times. Prof. Seco e Pinto supported us plan and put together the seminar. He together with three other international experts joined three local experts to deliver the lectures. He himself lectured on "soil improvement without adding elements". The

material he presented was so rich that we continue to use it today as part of lecture material in our postgraduate programme in geotechnical engineering at the Kwame Nkrumah University of Science and Technology (KNUST).

Thank you, Seco e Pinto for helping us grow professionally in geotechnical engineering.

Ing. Prof. Samuel I.K. Ampadu, Professor of Geotechnical Engineering at KNUST and Past President Ghana Geotechnical Society Kumasi, Ghana

# Mounir Bouassida (Tunisia)

In memory with P. S.S. Pinto

I knew Pedro since 2005, the year when he became the President of the ISSMGE (2005-2009) and I was the VP of ISSMGE for Africa. This term could be considered as one the best period for African Geotechnical engineers because several events happened within Africa, where the membership societies was almost ten and few societies were considered active. In fact, the second African Young Geotechnical conference was held in Hammamet (Tunisia) in 2007 after the meeting of the ISSMGE board members held at the National Engineering School of Tunis. In the same year, later on, the 14 th ARCSMSGE was held in Yaoundé (Cameroun). In parallel with those events, the meetings of ISSMGE board members were essentially preoccupied by the confirmation of the venue of the International Conference of Sol Mechanics and Geotechnical Engineering, would it be in Cairo, or not? Finally, the confirmation became a truth after a series of meetings where Pedro and I acted as members of the CAC of the conference. The organization of the 17 th ICSMGE in Alexandria Egypt (2009) was the summit of the international events held in Africa. To those events, we cannot miss the successful Touring lectures (beloved Pedro's activity in the ISSMGE) held in Tunisia 2006 and Ghana 2009.

Other achievements, regarding the African ISSMGE membership, was the launch of Mozambican Geotechnical Society followed later on by the Algerian Geotechnical society. Our vision, for the future of Africa, was, from term to another, to have a VP from one of the three dominant sub-regions, the North, the Centre and the South and, in parallel, the venue of the regional African conference should be in another sub-region. As such, with this rotating procedure, the communication between African geotechnical engineers will be much better, because travelling within Africa was and remains not easy.

Prof. Mounir Bouassida Vice President for Africa (2005-2009) National Engineering School of Tunis Tunisia

**Saturnino Chembeze (Mozambique)** 

This is a brief piece of Professor Pedro Seco e Pinto Journey. As all can imagine, it is very difficult to describe him in few words, as he is a great reference for geotechnical engineers and mainly, for International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE).

Professor Pedro Seco e Pinto is very competent engineer and professional. A man with multifaceted skills and knowledge, inspiring a new generation of professional engineers. He is a real friend, available to help everyone.

Particularly, for Mozambique, he represents a maximum exponent of best references. As engineer, has developed several important works with a main focus on dam projects, contributing for country development.

As President of ISSMGE, Professor Pedro Seco e Pinto improved the society, promoting participation of all countries over the world, in all continents, and putting the contribution of Geotechnical Engineering to serve the society. He had a decisive importance for Mozambique, encouraging the establishment of Mozambican Geotechnical Society (SMG), and organization of 15 th African Regional Conference on Soil Mechanics and Geotechnical Engineering (15 th ARC), which was a great success. And since that time, Mozambique is member of ISSMGE.

I appreciate the open mind and availability of Professor Pedro Seco e Pinto to improve the increasing of local societies, providing all his support to organize local and international workshops, seminars, and other events to promote the Geotechnical Engineering.

I believe that, Professor Pedro Seco e Pinto will be remembered as one of the best Presidents and professional in the history of ISSMGE. His philosophic words will be always present on our minds.

All the best, Professor Pedro Seco e Pinto

Saturnino Chembeze Lecturer University Eduardo Mondlane Consulting Engineer

# Peter Day (South Africa)

# PEDRO PINTO THROUGH THE EYES OF AN AFRICAN COLLEAGUE

I have had the privilege of serving on the Board of the ISSMGE with Professor Pinto on two occasions. In 2001 – 2005 Pedro and I served as regional vice presidents for Europe and Africa respectively. Then again, from 2017 – 2022 when he was an Appointed Board Member and I was Chair of a Board Level Committee. He is the only person I know who has served four full terms as an ISSMGE Board member, one of them as President of the Society.

Pedro is a gentleman and a gentle man, a man of great stature who is well respected by his colleagues in the ISSMGE. Through his voluminous publications and numerous invited presentations at conferences around the world, he has inspired many geotechnical engineers. His work in reaching out to the smaller member societies of the ISSMGE is particularly noteworthy. He was instrumental in encouraging Mozambique, a Portuguese-speaking African country, to become a member of the Society.

One of my lasting memories of Professor Pinto is from the second board meeting of the 2001 - 2005 Board. This meeting was held in the Kruger National Park on the border between South Africa and Mozambique. It was an informal occasion, and quite a large gathering as we invited Board members to bring their families and partners with them. It is the only board meeting of the ISSMGE to be interrupted by a herd of elephants

wandering through the camp. The two photos below show a visit to and opencast coal mine before the meeting and a group photo of the board and family members at our lodge in Kruger Park.

Pedro, we salute you and thank you for your years of leadership and service.

Peter Day Vice President for Africa (2001-2005) Chair, ISSMGE Corporate Associates Presidential Group South Africa

Samuel U. Ejezie (Nigeria)

### PEDRO SECO E PINTO: THE "DE FACTO WORLD CITIZEN"

Professor Pedro Seco e Pinto is, in my opinion, a "de facto world citizen" and practically symbolises the new world order of a "global village", with minimal restrictions for closer human interaction. He is a promoter of equity, justice and fair play and a strong defender of the less privileged. He is widely travelled in his bid to propagate Geotechnical Engineering awareness to all the nooks and crannies of the world. African countries, in particular, are beneficiaries of his undaunting mission to make soil mechanics and geotechnical engineering popular among nations of the world. He was instrumental in revitalising many dormant national member societies of ISSMGE and creating new ones in countries where they never existed. He introduced Touring Lecture Series during his tenure as ISSMGE President and this served to resuscitate comatose member societies. The Nigeria member society, under my leadership, benefited immensely from Prof Pinto's encouragement and support. In 2006, he assisted in securing the consent of some renowned geotechnical engineering experts from Europe to collaborate with us in mounting continuous professional development short courses in Nigeria. This made geotechnical engineering very popular particularly among civil engineers in multinational companies operating in the country. In 2008, he brought the Touring Lecture to Lagos, Nigeria to further strengthen our revived member society. He participated in our AGM that took place after the lectures and helped us resolve our hitherto lingering membership qualification tussle. In all honesty, I personally regard Professor Pinto as a fellow African considering the ease with which he identifies with every country in the continent. His proficiency in English, French and Portuguese languages contributed to the huge success of his mission in Africa, a continent whose people are so divided along colonial linguistic lines that neighbouring states seldom communicate in the same language.

Pedro Seco e Pinto is indeed an amiable personality worthy of emulation and who possesses the rare qualities needed for the citizenship of the global village into which the modern world is gradually drifting.

I am proud to have been associated with him and wish him all the best.

Engr. Professor Samuel Uchechukwu Ejezie Professor of Civil and Geotechnical Engineering, University of Port Harcourt (until 2021) and Federal University Otuoke, Bayelsa State, Nigeria (2021 – Date); Chairman, Nigerian Institution of Geotechnical Engineers (NIGE), 2002 – 2016; Vice President Africa ISSMGE, 2009 – 2013.

Etienne Marcelin Kana (Cameroun- CTGA)

My first effective contact with Professor Pedro Seco e Pinto was established during the 14 th African Regional Conference on Soil Mechanics and Geotechnical Engineering. (14 th ARC SMGE) held in Yaoundé (Cameroon) in 2007. He was at that time, President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). His very clear analysis of problems, in a "lyrical style" and his "easy contact" allowed French- and Portuguese-speaking Africans to better familiarize themselves with the geotechnical engineering, which is both, a scientific and technical discipline. He is the only one in this position to have visited countries unknown in the field, such as Cameroon. The instigated scientific meetings, the conferences given during Scientific's forums all around the world, as well as his linguistic dexterity let ourselves considered him as an immeasurable skillful in the exercise and promotion of the geotechnical engineering in the world and especially in Africa.

Prof Etienne-Marcelin KANA
ISSMGE Vice President for Africa 2017-2022
A.L.B.T.P. Secretary General
Building, Geotechnical & Environmental Engineering Consultant SARL
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Tél: +237 699500510

#### **Charles John MacRobert (South Africa)**

As a young engineer, it has been a great privilege to get to know Pedro Seco e Pinto. My interactions with Pedro, stemmed from my involvement with the ISSMGE Hertiage Time Capsule initiative. Pedro has been a leading voice in this initiative by opening doors to many in the geotechnical community. Opening doors requires the accumulation of a great number of personal contacts, and this bears testament to Pedro's ability to build friendships across boundaries. Pedro is not only a technical giant but a community leader. If I only achieve a portion of Pedro's accomplishments, I will consider my career a success.

Charles John MacRobert, Stellenbosch University, South Africa, Associate Professor

# Carlos Quadros (Mozambique)

I first met Pedro in 1982 during a study visit at the Department of Geotechnics of LNEC where he was already a Researcher. Our first discussions on dams, soil dynamics and geotechnical engineering were both enjoyable and unforgettable as they helped me during my doctoral studies and beyond. They also contributed to consolidate my professional focus in Geotechnics.

Professor Pedro Sêco e Pinto has always actively supported the geotechnical community in Mozambique. During his many visits to Mozambique Pedro made himself available to present lectures and participate in technical discussions related to the great projects he carried out worldwide. He challenged me to inaugurate and lead the Mozambican Geotechnical Society (SMG) in 2006. In the continuation of his efforts and motivation SMG successfully organized the African Regional Conference of ISSMGE that took place in Maputo in 2011. His contribution for SMG and for the establishment of a strong community of geotechnical engineers in Mozambique is acknowledged and highly valued.

Besides possessing an exceptional understanding of various subjects of Civil and Geotechnical Engineering both at theoretical level and in details pertaining to construction projects, Pedro is well-read and a man of vast culture. Spending time with Pedro is always a great pleasure.

Moreover, Pedro has an outstanding curriculum from which I would like to highlight his participation in large projects carried out in Mozambique such as Massingir Dam, Mapai Dam and Moamba-Major Dam.

I do hope that we shall continue to enjoy the fruits of a strong friendship built over many years and strengthen our interaction in engineering and life in general.

Carlos Quadros (Dr.-Ing.) Universidade Eduardo Mondlane (Prof.) TÉCNICA-Engenheiros Consultores, Lda. (Managing Director) Mozambique

#### **ASIA**

# Ooi Teik Aun (Malaysia)

I invited Prof Pinto to deliver the prestigious 12 th Prof Chin Fung Kee Memorial Lecture which took place on 23 rd October 2010 at the Auditorium Tan Sri Prof Chin Fung Kee in The Institution of Engineers, Malaysia. Prof Chin was Vice President for Asia of the International Society for Soil Mechanics and Foundation Engineering in 1981-1985. The topic of the Lecture was "Dam

Engineering: State of The Art and Practice, Observed Behaviour and Future Challenges".

At this lecture we discussed the possibility of organizing an International Seminar in Manila since Philippines was not a member of Southeast Asian Geotechnical Society (SEAGS) for which I was President. The International Seminar took place in Manila, Philippines in May 6-7 2010. The lecturers were Prof Pinto (Portugal), Dr. T. A. Ooi (Malaysia), Prof Bergado (Philippines), Prof Madhira Mahhav (India), Prof Zuyu Chen (China) Dr. Lilla Austriaco (Philippines), and Prof Charles Ng (China, Hong Kong SAR) who later became President ISSMGE. I understood that Prof Jean Louis Briund then ISSMGE President spoke to Prof Pinto on this matter and a Presidential visit to Vietnam and Thailand on 18-22 February 2013 was arranged by me.

One major touring lecture was held in November 6-22, 2012 as follows:

6 November 2012 Phnom Penh Prof Pinto and Dr T A OOI

8 November 2012 Kuala Lumpur Prof Pinto and Dr T A OOI

10-13 November 2012 Manila Prof Pinto and Dr T A OOI

18 November 2012 Vientiane Dr TA OOI

20-22 November 2012 Yangon Prof Charles Ng, Prof Lin, Dr. TA OOI & Dr.

All the touring lectures and International Seminar were very useful and help to forge the people to people relationship. I am pleased to say that Philippines is now a member of SEAGS.

On another note on matter relating to membership of ISSMGE I have invaluable help from Prof Pinto. It has always been a pleasure working with Prof Pinto.

Dr. Ooi Teik Aun (Malaysia) ICE Country representative for Malaysia (2000-2015), Past President

SEAGS (1993-1996, 2010-2013, 2013-2016), Founder Chairman Association of Geotechnical Society in Southeast Asia (AGSSEA) (2007-2010), Director of IEM Training Centre Sdn Bhd (1991-2021) and IEM Academy Sdn Bhd (2013-2021). Organizing Chairman, World Tunnelling Congress WTC2020.

Organizing Chairman, Southeast Asian Regional Conference and Exhibition on Tunnelling and Underground Space 5-7 March 2024 (SEACETUS2024).

#### Dennes Bergado (Thailand)

I have known Prof. Pedro when he was President of ISSMGE (2005-2009) and I was faculty of the Asian Institute of Technology (AIT) as well as Secretary General of the Southeast Asian Geotechnical Society (SEAGS). We organized lectures around Southeast Asia including Cambodia, Laos and Myanmar so that SEAGS can expand and include these countries. We also conduct lectures in Nanyang Singapore University and National University of Singapore. I found Prof. Pedro Pinto as Academician, Professional Geotechnical Engineer and Consultant with keen sense of humor. Besides being Professor at Coimbra University in Portugal with numerous Academic Publications as well as member of Editorial Boards and Paper Reviewer, Prof. Pedro Pinto has many consulting projects involving Dams, Power Plants, Bridges, Tunnels, Waste Landfills and Quay Walls. Throughout his professional career, he has presented lots of State-of-the-Art and Special Lectures and received International Awards.

Emeritus Professor Dennes T. Bergado

#### **Deepankar Choudhury (India)**



I am deeply honoured and delighted to write this statement about one of the best ISSMGE Presidents, Professor Pedro Seco e Pinto, with whom I had started interacting closely since 2008 (at Saint Petersburg Conference in 2008) as a member from Indian Geotechnical Society (IGS) with my active involvements in ISSMGE. Later at several technical and personal occasions at various places in the world, including multiple times in India and in particular at Goa, India, where Prof. Pinto had old ancestral connection to the Indian soil. I always found him extremely polite, humble and suggest many good things for young faculty members like me to shape Geotechnical Engineering of the world through the involvement in ISSMGE and otherwise. Prof. Pinto is an inspiring person and Geotechnical community will be extremely thankful for his various significant contributions through ISSMGE.

Prof. Deepankar Choudhury, IIT Bombay, Mumbai, India.

#### Omar Damluji (Iraqi)

HE Omar al-Farouk Salem al-Damluji, Former Chairman of Civil Engineering of the University of Baghdad, Former Minister of Construction and Housing of Iraq, Founder and First President of the Iraqi Geotechnical Society, Consulting Civil Engineer.

I have known Professor Pedro Sêco e Pinto since he was first elected in 2005 as a President to the International Society of Soil Mechanics and Geotechnical Engineering. As the Iraqi Geotechnical Society was then gaining momentum after its formation earlier to his assignment in the year 2000, his incessant support to it had a remarkable impact on its later development. Moreover, we personally met and interacted on various scientific, professional, and administrative platforms and in several different occasions and found him most diligent, precise, and always seeking the spread of meaningful scientific professional knowledge worldwide. He actually had a profound impact on the development and understanding of modern geotechnical engineering academia and practice aspects at the international level that will remain tangible for future generations to come of geotechnical engineers. For all of that, I hold much admiration and respect for his character. I wish him a long life filled with joy and entwined with happiness and full of scientific and civil engineering professional productivity.



Omar al-Farouk Salem al-Damluji, CEng, PhD, MISSMGE, FICE, FASCE

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#### Chu Jian (Singapore)

I have had the honour of working with Prof Pedro Pinto closely during his presidency for the ISSMGE. He is one of the most inspiring leaders that I have ever worked with. Pedro is not just an outstanding engineer and researcher, he is also an artist. I always enjoy the citation of poems at the end of his elegant speeches. Pedro has been a role model for me and many others. This collection will continue to inspire many more to follow his suit or to excel in their profession.

Prof Jian Chu

President Chair in Civil Engineering, Chair of Civil and Environmental Engineering, Nanyang Technological University, Singapore

Chair of ISSMGE TC217 on Land reclamation

Past President of Geotechnical Society of Singapore

# Takaji Kokusho (Japan)

Congratulations to your preserved health and long-standing social activities.

I still remember we started our contact in 1995 when the 1<sup>st</sup> International Conference on Earthquake Geotechnical Engineering was held in Tokyo organized by Prof. Kenji Ishihara. I jointed it as one of the organizer and had close contacts with many geotechnical researchers all over the world including you. We have added such international conference series on Performance-Based Design which was first held in Tsukuba, Japan organized by myself. During these terms, Prof. Seco e Pinto was continuously guiding the TC-4 (TC-203 now) as a chairperson. As Chairman of the committee, he delivered opening speeches in many of such conferences, which were very impressive for its great depth and insights referring famous words by many historically well-known philosophers.

About 30 years have passed since then. People were young at that time with lots of research topics/challenges and energies. Researchers are recently shifting to the next generation everywhere. However, earthquakes never stop occurring and incurring devastations including unprecedented aspects of geotechnical damage. As long as we can keep our health, we are needed to join the international research activities to mitigate earthquake geotechnical damage for resilient and sustainable world.

Takaji Kokusho Professor Emeritus Chuo University, Tokyo, Japan

#### Osamu Kusakabe (Japan)

Pedro is a very lovable person. He likes people and loves conversation with friends. At the Osaka Conference in 2005 when he was elected as the 14 th President of ISSMGE, Professor Kenji Ishihara, the 12 th ISSMGE President, introduced me to Pedro. Then Pedro invited me a member of Board of ISSMGE during his term. It was a beginning of our friendship. The task that Pedro assigned me was to launch a sort of newsletter. As the President, he had a policy of informing all ISSMGE Members about the ISSMGE activities in the ISSMGE Newsletters. After intensive discussions at a few Board meetings, we launched the first ISSMGE Bulletin in March 2007. Pedro was very delighted to see his policy materialized. His initiative continues even today, proving that the Bulletin is an excellent way to keep all ISSMGE members connected. All the best for him.

Osamu Kusakabe Emeritus Professor of Tokyo Institute of Technology Executive Director of International Press-in Association

#### Madhira Madhav (India)





Prof. M.R.Madhav
Fellow, IIT, Kanpur
AICTE-INAE Distinguished Visiting Professor
Professor Emeritus, J.N.T.University
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President, Int. Assoc. of Lowland Technology (2010-18) Vice President for Asia, IS SM&GE (2005-9)

Jan. 24, 2024

#### Dear Pedro,

It has been a pleasure knowing you and working with you in the Board of ISSMGE during 2005 to 2009. I vaguely remember seeing you during 13<sup>th</sup> ICSMGE, New Delhi, but don't remember interacting with you then. Your name was familiar from your publications. I was aware you were born in Goa and thus felt sort of connected. It was in Istanbul during the 15<sup>th</sup> ICSMGE, I remember to have met you and exchanged pleasantries. Of course the four years, 2005 to 2009, we worked together in ISSMGE are very pleasant memories. Not only during the Board meetings but also during all the lecture series in South East Asia we conducted are fond memories for me. Your passion for Geotechnical Engineering research and practice, and zeal to promote the same is phenomenal. You are one of the few I know of, who demonstrated the people to people intimacy that endears you to all.

You have worked on a variety of geotechnically challenging problems, viz., dams, deep excavations, piles foundations, etc. The profession has benefitted from your experiences. The large number of conferences and symposia organized by use is a unique testament to you organization skills and endeavor to contribute to society. I have personally enjoyed interacting with you.

Wishing you a long and healthy life,

M.P. Teder

#### K. K. Phoon (Singapore)

Professor Pinto is an unusual geotechnical engineer in our community. Some see him as a highly decorated university professor and researcher. Some see him as the ISSMGE President. Others see him as a distinguished consultant who has worked in hundreds of projects spanning many countries. However, I admire him as a gentleman scholar who conducts research, teaches and mentors students, practices, and leads because he believes geotechnical engineering can contribute to improving lives in communities. I believe it is this commendable aspiration that drives his indefatigable efforts to bring distinguished geotechnical engineers around the world to build capabilities in less developed countries and to lend a personal hand in organising national societies and international activities to amplify the societal impact of geotechnical engineering as an enabler for inclusive development. I am honoured that Professor Pinto count me as a comrade-in-arms. He is generous in his friendship just as he is generous in his service to our profession and beyond. I wish him good health, may luck smile constantly on him, and I am certainly looking forward to his contributions for many years to come.

Professor KK Phoon, Provost, Singapore University of Technology and Design

#### Pintor Tua Simatupang (Indonesia)

ISGE Owes Pedro a Debt

I first met Pedro at the ISSMGE Touring Lecture event in Jakarta on 17-18 October 2007. As chairman of the committee, I picked Pedro up from the airport. However, unexpectedly my car broke down on the toll road, so I was forced to take Pedro into a taxi to be taken to the hotel. And thankfully Pedro arrived at the hotel safely. This bad incident becomes a touching memory every time I meet Pedro at the ISSMGE event.

During Pedro period as President of ISSMGE in 2005-2009, there was a Touring Lecture program including at Jakarta, Indonesia. In my opinion, Indonesian Society for Geotechnical Engineering (ISGE) is forever indebted to Pedro because since we were involved in the ISSMGE program in 2007, we have always been active in ISSMGE activities. Since Pedro visited Indonesia, subsequent Presidents of ISSMGE have also always come to visit Indonesia during Indonesian Society activities, including J.L. Briaud, Roger Frank, Charles W.W. Ng and now M. Ballouz.

Pintor Tua Simatupang

Secretary General of Indonesian Society for Geotechnical Engineering (2007-2023)

#### **Eun Chul Shin (South Korya)**

I'm delighted to write this statement for the Commemorative Volume 1-5 entitled Some Pieces of my Journey", for celebrating Prof. Pedro S. Pinto's life-long dedication in Lecturing, Research, Consulting in Geotechnical Engineering as well as Serving as a Board Member (VP and President) of ISSMGE. He inspires the younger generation and the engineers from developing countries through Touring Lectures under ISSMGE and International Conference as well as Seminar. He first came to Incheon, South Korea during his Presidency of ISSMGE in November 2006 for the Geo-environmental and Geotechnical Engineering Conference along with Prof. Braja M. Das of California State University and Vice President Asia of Prof. Madhira R. Madhav. It is always exciting and enjoyable to accompany with him for Touring Lecture in Hanoi and Hochiminh City in 2007, Vietnam and International Conference on New developments in SMGE in North Cyprus in 2012. These volumes will be enlightened the ordinary engineer's contribution to their societies as well as professional arena.

Congratulations Prof. Pedro S. Pinto!

Eun Chul Shin Prof. in Emeritus, Incheon National University, South Korea Past VP of ISSMGE for Asia (2017-2022)

#### Jianhong Zhang (China)

In 2009, being the President of ISSMGE, Prof. Pedro Pinto organized a workshop at Tsinghua University in September, 2009. He invited several professors to give lectures on various topics. His presentation, Landslides Analysis under Static and Seismic Conditions, was very impressive, as in 2008 China just experienced a strong earthquake in Wenchuan with a maximum magnitude of 8.0.

He is a very kind, easy-going person, and willing to offer his help. He helped to build a good relationship between ISSMGE and Chinese geotechnical society. He visited China frequently since 2009, helping China to bid for the International Conference on Soil Mechanics and Geotechnical engineering.

Jianhong Zhang, Vice President of Chinese Institution of Soil Mechanics and Geotechnical Engineering,

Professor of Tsinghua University, China

#### Askar Zhussupbekov (Kazakhstan)

This book, the content of which is a collection of scientific articles by Professor Pedro Pinto, his life career, participate in international conferences, consulting works etc. included also statements from international colleagues. I know of Professor Pedro Pinto since 2000 till now. At during time of his vice-president of ISSMGE for Europe he invited me to be as invited lecturer to Baltic international geotechnical conference in Riga (Latvia). I surprised that he knows mentality of former Soviet republics geotechnical engineers as well. Kazakhstan Geotechnical Society supported his candidature to President of ISSMGE (2005-2009), because he visited more with lectures of geotechnical conferences which provided in developing countries (we interacted with him directly face to face). Also, at during time of ISSMGE board I worked with him (2009-2013), as appointed Board member (2009-2010), and as Vice President of ISSMGE for Asia (2010-2013). Professor Pedro Pinto was as immediate Past President of ISSMGE (2009-2013) in ISSMGE Board. At during time of this period, I discussed with him in several times about improving of geotechnical engineering in developing countries, especially also for opening of new societies in Asia (CTGS, Taiwan) and Europe (Belarusian Geotechnical Society). He visited at during time of his ISSMGE presidential period (2009) of our Eurasian National University and gave very good lecture about dam engineering issues for our students and members of Kazakhstan Geotechnical Society (he visited of workshop on TC305-Geotechnical infrastructure for megacities and new capitals). He helped to KGS to open of TC 305, which works now under auspices of KGS and ISSMGE still now. He is from Portugal (Europe), but helped more to Asian geotechnical societies and visited more Asian countries than other regions in the world. Also I remember that he kept and also introduced to ISSMGE Council Meeting of the keeping of name of our society as ISSMGE. I think he was absolutely right, because our society included two important sections: Soil Mechanics and Geotechnical Engineering. Professor Pedro Pinto in traveled too much, because ISSMGE President must visit (in person) of many conferences, symposiums and seminars for introducing of ISSMGE mission to international geotechnical audience as well. Now KGS with TC 305 work active with Pedro for supporting of XVIII European Regional Geotechnical Conference in Lisbon (Portugal) were we can meet with him and maybe also with his family in person.

Sincerely yours,

Professor Askar Zhussupbekov

Past Vice-President of ISSMGE

President of Kazakhstan Geotechnical Society

Director of Geotechnical Institute Department of Civil Engineering, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan

Academic of National Engineering Academy of Kazakhstan

Adjunct Professor of Saint – Petersburg State University of Architecture and Civil Engineering, Saint Petersburg, Russia

Professor – consultant of Moscow State Civil Engineering University, Moscow, Russia

Chair of TC 305 (ISSMGE) on Geotechnical infrastructures of megacities and new capitals

#### Susumu Yasuda (Japan)

Prof. Pedro Seco e Pinto has been a friend of mine for about 30 years. He has a wealth of knowledge in the field of earthquake geotechnical engineering and is familiar with researchers and engineers around the world, so he has taught me a variety of things. I probably first met Pro. Pinto at the 1st Earthquake Geotechnical Engineering Conference of TC4 in the ISSMGE held in Tokyo in 1995. Prof. Kenji Ishihara was appointed as the chairman

of TC4, and the first meeting was held in Tokyo. The second conference was organized by Prof. Pinto and was held in Lisbon in 1999. Of course, the conference was a great success, but I also had a great time enjoying Portugal beautiful scenery and delicious food. Since then, we have met once every year or two at international conferences and other events. When the 5th TC4 conference was held in Chile, Prof. Pinto organized a seminar in Peru before the Chile conference. I was asked to give a talk at the seminar, and it was a fun seminar to attend. At the end of every year, I look forward to receiving a X-mas card from Prof. Pinto. His heart-warming words move me, and his cute illustrations make me feel at ease. I hope that Prof. Pinto will continue to be active in the future.

Susumu Yasuda, Professor Emeritus of Tokyo Denki University, Japan

AUSTRALASIA

Malek Bouazza (Australia)

# **MONASH** University



Dear Pedro,

It is a pleasure to reflect on your remarkable journey. Pedro is not just a long-time friend (we first met in 1996) but a distinguished figure in our geotechnical community and ISSMGE. Throughout the years of our friendship, Pedro's dedication to his work and his profound impact on various technical committees and ISSMGE have left an indelible mark. As an active participant in technical committees and ISSMGE, Pedro has consistently demonstrated his expertise and leadership skills. His strategic insights and innovative approaches have played a pivotal role in shaping the direction of numerous initiatives, fostering collaboration, and driving progress within the geotechnical engineering community. I had the privilege of witnessing first-hand all these when he was a member of our Technical Committee No 5 "Environmental Geotechnics" and when he joined the ISSMGE leadership as Vice-president for Europe and then as President of ISSMGE.

Pedro's commitment to his endeavours is matched by his camaraderie and willingness to support his peers. My most vivid memory of the latter is a flight we shared from Lisbon to Paris after giving a seminar at the LNEC. As we sat down, waiting for take-off, I asked him what his plans were in Paris; he said he was not staying in Paris but going to Croatia, which at that time was coming out of a regional conflict and not easy to fly into, to attend a Croatian Geotechnical Society event he was invited to. He indicated that It was his duty to honour the invitation no matter the circumstances.

Beyond his professional commitments and achievements, Pedro's warm demeanour and kindness make him a cherished friend. Pedro's ability to forge meaningful connections extends beyond professional circles, enriching the lives of all those fortunate enough to know him.

Thank you, Pedro, for contributing to the geotechnical community over the years and having an enduring impact as a friend and colleague.

Keep well, and I wish you all the best.

Prof A (Malek) Bouazza, PhD, FIEAust, NER
Past-Chair ISSMGE TC215 Environmental Geotechnics (2014-2022)
Member and Core Member ISSMGE TC 5 Environmental Geotechnics (1995-2013)

#### **Sukumar Pathmanandavel (Australia)**

Professor Pedro Pinto has played a pivotal role in shaping the ISSMGE Heritage time Capsule (HTC) project (previously the time capsule project) since 2020. He is a constant and unwavering supporter of the HTC and continues to serve as an advisor to the HTC project. He calls the HTC team the "dream team": part of the reason it may deserve this title is the presence of persons such as him, passing on their knowledge of the ISSMGE to new comers. At the HTC monthly team meetings, it is often the case that he can see an elegant way through what appears to be a matter of some complexity. His insistence that the HTC should have contributions from all the 17 past presidents of the ISSMGE, as well as other key persons from its more than 8 decades of existence, has been matched by his persistence and efforts on delivery of this aspect, including through the COVID 19 years. This aspect of the HTC now forms a strong backbone to the project, helping the 20,000+ members of the ISSMGE look at the development of geotechnical engineering through "the eyes" of their past presidents.

Sukumar Pathmanandavel, Australia Past chair ISSMGE CAPG (2013 – 2019), ISSMGE HTC project lead (2020 - )

Harry Poulos (Australia)

I have had the pleasure of knowing Pedro for over three decades, and got to know him well when we were fellow ISSMGE Board members during the Presidency of Professor William van Impe. Pedro has made many valuable contributions to the geotechnical literature in a variety of fields. Including geotechnical earthquake engineering, foundation engineering, embankment dams and education. One of Pedro's notable characteristics is that he is very well read in areas outside engineering, especially philosophy, and this has influenced his views on the way in which geotechnical engineering is taught and practiced. I very much enjoyed many stimulating discussions with him on these topics.

He has been an untiring servant of ISSMGE in many roles, and has played an important role in extending its influence to many emerging countries around the world. He continues to inspire its members to "think beyond the box", and the geotechnical profession should be indebted to him for his energy, enthusiasm and dedication.

Harry G. Poulos. February 2024.

Prof Harry Poulos AM FAA FTSE NAE Senior Consultant, Tetra Tech Coffey Level 20, 799 Pacific Highway, Chatswood NSW. AUSTRALIA 2067 T: (+61) 02 9406 1000 M:(+61) 0420 960 248



#### Misko Cubrinovski (New Zealand)

"Prof. Pinto has made significant contributions in the field of earthquake geotechnical engineering and has been one of the leading members of our technical committee within ISSMGE (TC203, formerly TC4). He chaired TC203 in the period 1995-1999 and organized the 2 nd ICEGE in Lisbon in 1999. Ever since his early involvement with TC203, Prof. Pinto has made enormous technical, leadership and advisory contributions to our 'family of professionals in this field'. We deeply appreciate Pedro's efforts and contributions to this committee and to the profession at large, as well as his always friendly and collegial demeanour."

Misko Cubrinovski

Professor, University of Canterbury, New Zealand (TC203 Chair, 2019-2024)

#### **EUROPE**

#### Dietmar Adam (Austria)

I met Professor Pedro Seco e Pinto decades ago at the ISSMGE international and European conferences, and he was a lovely person who was particularly friendly and open towards young people. I will never forget how he accompanied me as a young researcher together with my students to the airport in Lisbon after a conference in Coimbra and invited us to lunch there. It was a very nice gesture to be treated so hospitably by the then candidate for the future president of the ISSMGE.

He has repeatedly demonstrated his openness and sense of humor as ISSMGE President and when he sang "... It's my way ...", it was his way of socializing.

Pedro, thank you very much for your friendship and your commitment to the geotechnical society throughout your life journey - ad multos annos!

Dietmar Adam Professor of Ground Engineering and Soil Mechanics Institute of Geotechnics at TU Wien Vienna, Austria



#### Luis Barbosa (Portugal)

I met Pedro Seco Pinto for the first time, when we both made our specialization studies in Geotechnique, at Universidade Nova de Lisboa (New University of Lisbon). I immediately realized that he was a good engineer and a very clever person.

During more than 3 decades, I followed his extraordinary career at the Laboratório Nacional de Engenharia Civil (National Laboratory of Civil Engineering), in Lisbon, where he reached the top position of Director of Research.

I also followed his academical career in Portugal, as a professor of Soil Mechanics and Geothecnique, both at the New University of Lisbon and Coimbra University.

I attended numerous conferences of the highest level on Geothecnique, that he organized, always presenting the latest developments of the state of art.

He was the head of the scientific journal «Geotecnia», the most important portuguese geothecnical journal.

He was a distinguished member of Sociedade Portuguesa de Geotecnia (Portuguese Society of Geotechnique), where he reached the top position, as President.

I witnessed, during more than two decades, his high-level consulting work, particularly in the design of earth dams, not only for Portugal, but also for various other countries.

During his distinguished career he always acted not only as a brilliant engineer, but also as a gentleman.

Luis Barbosa

Former Executive Administrator of COBA

#### Loreta Bataglia (Romania)

Prof. Pedro Seco e Pinto was one of the first international personalities in the field of Soil mechanics and Geotechnical engineering I met when being young teaching assistant at the Technical University of Civil Engineering of Bucharest, along with some other important names invited to our first international events organised in the 90's. For us at that time these first contacts with the names seen in the speciality books were amazing from a professional point of view. And Prof. Pedro Seco e Pinto was one of those personalities sharing his knowledge with us all. And now, reading about his journey and his so many accomplishments we understand even more the importance of his presence in Romania in those years. But most of all, we all also remember his pleasant presence, his friendly approach and the human contact with all colleagues, his songs among other things and overall, the presence of a friend of the Romanian Society.

It is not the end of his journey and it will be our outmost pleasure to meet Prof. Pedro Seco e Pinto many years from now during the ISSMGE events, starting with the ECSMGE2024 in Lisbon and to remember much cherished moments. But it is also a moment of counting the achievements and they have been so so many for Prof. Pedro Seco e Pinto, a lifetime achievement, a career so rich that even so many volumes cannot encompass totally, for which we have to congratulate him and we will take an immense interest in reading the pieces of his journey once published.

Prof. Loretta Batali, President of the Romanian Society for Soil Mechanics and Geotechnical Engineering

Technical University of Civil Engineering Bucharest, Romania

#### Heinz Brandl (Austria)

Em.O.Univ.-Prof.
Dipl.-Ing. Dr.techn. Dr.h.c.mult. Heinz BRANDL
Honorary President of the Austrian Society of
Engineers and Architects (ÖIAV)
President of the Austrian Chapter of IGS
Head Em. of the Institute for Soil Mechanics
and Geotechnical Engineering
Vienna University of Technology
ISSMGE Vice President for Europe 1997 - 2001

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e-mail: office@ahbrandl.at
Vienna, 14th March, 2024

Dear Pedro,

Remembering with pleasure our conversation in Skopje (Macedonia) about the XVIII ECSMGE, which will take place in Lisbon in August 2024, where contribution by me was considered.

Unfortunately, my poor health condition does not allow me to participate,

which I deeply regret.

Our first import interaction was when I chaired the 3<sup>rd</sup> Environmental Geotechnics Conference, organized by you in 1998 in Lisbon. From this time we met on various international Conferences and I always appreciated your high technical knowledge in geotechnical engineering but also a widespread humanistic interest.

Very interesting conversations we had in Podlov (Bulgaria) 2001, when I was the outgoing Vice President for Europa and you was the incoming Vice President for Europe.

A special adventure we had in Prague, when a Taxi driver made problems and we could at least solve the problem together.

Finally, I would like to express my respect to your geotechnical knowledge and inspiration, what one needs to make a highly successful career you did.

I enjoyed our meetings in a special way and remember all of them with great pleasure.

Wishing you all the best and continued success

#### José Mateus de Brito (Portugal)

Heinz

To express what I think of Pedro Seco e Pinto, I must highlight his great work capacity and dedication to his professional life, the great commitment with which he defends his convictions, but always maintaining great openness of mind, and dedication to the cause of Geotechnics in Portugal and the World.

I met Pedro in the mid-1970s in the first postgraduate course in geotechnics at Universidade Nova de Lisboa and I still remember some meetings at LNEC at that time about seismic design of embankment dams.

From then on, I followed with the greatest attention his contribution to the evolution of Portuguese geotechnical engineering, both in research and in the design of geotechnical works. I also had the opportunity to participate with him, throughout our professional lives, in multiple meetings and events, which allowed me not only to admire his seriousness, intelligence and rigor, but also to create bonds of friendship that steel remains.

José António Mateus de Brito Ex Cenor and TPF companies Portugal Geotechnical Consultant

#### John Burland (UK)

Pedro has kindly invited me to write a few lines about him and it gives me the greatest possible pleasure to do so. My first comment is that, while being a delightfully modest person, his contributions to soil mechanics and geotechnical engineering have been immense. Secondly, he has played a leading role in developing and maintaining the vitality of ISSMGE. We owe him a huge debt of gratitude that he has devoted so much of his precious time to our International Society and to its development. I personally feel a very close bond of friendship with Pedro because my early career closely matches his. I was educated in South Africa and I frequently visited Lourenço Marques in Mozambique where Pedro received his secondary education. Indeed, in 1959 I attended one of the earliest African Regional Conferences on Soil Mechanics and it was held in Lourenço Marques. I have found Pedro's account of some of his life's journey enthralling, and I know that all who read it will share my view. Thank so much Pedro.

Professor John Burland Imperial College London United Kingdom Emeritus Professor of Soil Mechanics

#### Laura Caldeira (Portugal)

I met for the first time Pedro Seco e Pinto as a lecturer at Porto University invited by him to do her PhD thesis in dynamic behaviour of embankment dams and I was really impressed by his personality.

His work on hydraulic fracturing of zoned embankment dams is a reference early in his career. His second biggest legacy accomplishment lies in introducing geotechnical earthquake engineering in the Portuguese National Laboratory for Civil Engineering.

His notable geotechnical research has improved international practices and standards for embankment dams, transportation infrastructures and waste landfills.

Nevertheless, his most important role was the internationalization of the Portuguese Geotechnical Engineering in the various fields, such as research, education, consulting, lecturing, editing, and disseminating.

Laura Caldeira

Laboratório Nacional de Engenharia Civil

Portugal

President

#### José Cerejeira (Portugal)

I have known Pedro Sèco e Pinto since the late 1960s in Lourenço Marques, Mozambique, when I worked as an engineer at the local engineering laboratory, the LEMMS – Laboratório de Ensaio de Materiais e Mecânica do Solo, and also I teached as assistant professor at the university, named in 1963 Estudos Gerais Universitários, and later in 1968 University of Lourenço Marques. In 1971 Pedro Sêco e Pinto was graduated in civil engineering.

I closely followed, through technical publications and conferences, the remarkable professional activity he carried out over the years in the field of geotechnics, both as an engineer and specialist in geotechnique at LNEC – Laboratório Nacional de Engenharia Civil and as a leader of SPG – Sociedade Portuguesa de Geotecnia and ISSMGE - International Society for Soil Mechanics and Geotechnical Engineering.

When I was managing director at the portuguese engineering company PROMAN – Centro de Estudos e Projectos, I often recommended to the project managers of some important projects his participation as a geotechnical consultant.

It was the case of the project for the rehabilitation of the Marina do Parque das Nações (Lisbon) in 2008, at which Pedro Seco e Pinto performed significant static and seismic analyses of the solution advocated by PROMAN for the breakwaters and evaluated and validated the alternative solutions proposed by the contractor SOMAGUE, which, accepted by the owner, was implemented.

In the case of the Inhassoro Petrochemical Complex Project, Mozambique, the proposal presented by PROMAN, with Pedro Seco e Pinto as a consultant, was not the winning one. Unfortunately, it came in second place.

José Manuel Gonçalves Cerejeira Civil Engineer (U.P.) Senior Advisor of Future Proman Lisbon, Portugal

#### Safiye Feyza Cinicioglu (Turkey)

Pedro Seco Pinto stands out as one of the most memorable personalities I have encountered within the ISSMGE community. My first acquaintance with him was during the XV ICSMGE held in Istanbul in 2001, coinciding with the commencement of his Vice-Presidency for Europe. Since then, Pedro has emerged as one of the foremost leaders of ISSMGE globally, gracing many of our conferences in Turkey and North Cyprus with his presence. Particularly noteworthy are the "New Developments in Soil Mechanics and Geotechnical Engineering conferences", expertly organized by our esteemed colleague Cavit Atalar in North Cyprus. Despite encountering challenges, Pedro steadfastly supported these conferences, for which we owe him special gratitude. Included below is a photo from one such conference held in 2012, during Pedro tenure as Immediate Past President, with Jean Louis Briaud serving as President. Pedro amiable, humble, and intellectual demeanor makes it effortless to develop a fondness for him. Yet, beneath his humility lies a remarkable resolve, wisdom, and adeptness in navigating both scientific and social spheres. Pedro unwavering dedication to ISSMGE is evident in the strong bonds he has forged with every facet of the organization. From my personal perspective and on behalf of the Turkish Society, this bond has been palpable from the moment we first encountered him.

Pedro has a knack for enriching his speeches with poetry. Though I lack such talent, Il attempt

to echo his sentiment with a verse from the Turkish poet Cahit Sıtkı Tarancı:

He my colleague, a beacon of earnestness,

And the steadfast star of camaraderie

That why he my colleague,

Resonating with the final throes of passion;

Feyza Cinicioglu, PhD.

Past President of the Turkish Society for ISSMGE (2011-2021) Professor of Civil Engineering and Department Head Ozyegin University Istanbul/Turkiye

# Paulo Coelho (Portugal)

I had the great pleasure and privilege to learn from Pedro Sêco e Pinto in different circumstances, periods and places. These included stimulating Master Classes at the University of Coimbra, in Portugal, out-of-classroom challenging discussions on technically complex and practical problems, including failures, motivating speeches as part of his various prestigious roles in the International Society for Soil Mechanics and Geotechnical Engineering, from Chairman of a Technical Committee to President of the ISSMGE, or entertaining stories during a meal seating next to the Bosphorus Strait or while watching the cormorant fishing on the Nagara River. Despite the obvious differences dictated by the specific environments of each event, all these moments showed the great passion of Pedro Sêco e Pinto for his profession, for different cultures and for life in general, as well as his ability to bring people together and eagerness to interact with and support others, especially but not only young professionals. For all this, it remains a privilege to keep learning from him and to truly appreciate in every moment, as a friend, what keeps him going...

Paulo Coelho

Assistant Professor, University of Coimbra, Portugal

## Rui Correia (Portugal)

I met my colleague and good friend Pedro Sêco e Pinto a long time ago, in 1975, when we were both young trainee research officers in the Geotecnics Department of LNEC (National Laboratory of Civil Engineering, Lisbon, Portugal). I had, since then, ample opportunities to observe (from different perspectives) the important contributions he has given, throughout his brilliant professional career, to the advancement and dissemination of knowledge (as a researcher and professor) and to the design and construction of major engineering works (as a consultant engineer) in the broad field of geotechnical engineering. A laudatory reference is also due as regards his long and fruitful involvement with the International Society for Soil Mechanics and Foundation Engineering (the highlight being the presidency from 2005 to 2009), in which his skills in the promotion of technical and scientific cooperation at world wide level were fully demonstrated.

Rui Correia

LNEC, Portugal (retired)

Former Director (1999-2002) of LNEC (National Laboratory of Civil Engineering, Lisbon, Portugal

#### **Isabel Fernandes (Portugal)**

My journey with Prof Pedro Seco e Pinto

I first encountered Pedro Seco e Pinto during my time as a master's student in Engineering Geology at NOVA University Lisbon in 1987. As a young student, I was deeply impressed by Prof. Seco e Pinto extensive expertise as a civil and geotechnical engineer. His classes were not only dynamic and engaging but also enriched with practical case studies drawn from his professional background.

Over the years, my interactions with Prof. Seco e Pinto have been sporadic, primarily at various geotechnical congresses. However, it was only recently that I had the honor of collaborating directly with him on the organization of ECSMGE2024 (the 18<sup>th</sup> European Conference of Soil Mechanics and Geotechnical Engineering). His wealth of experience as both an organizer and a participant in numerous international conferences proved invaluable in ensuring the success of this event. Much credit for the conference's success is owed to his guidance and deep understanding of the ISSMGE community.

Thank you Professor for being a brilliant engineer and a gentleman!

Isabel Fernandes Engineering geologist University of Lisbon, Portugal

## **Manuel Matos Fernandes (Portugal)**

I have been a genuine admirer of Pedro Sêco Pinto ever since he was my professor in the tutorial classes of the M.Sc. Course on Soil Mechanics, at NOVA University Lisbon, during the academic year of 1977/78.

We interacted in the following years at LNEC (National Laboratory for Civil Engineering), Lisbon, as good friends, both developing research for our doctoral theses, which we completed in the same year, 1983.

In the following decades, we often collaborated in the Portuguese Geotechnical Society, in the national Technical Committee devoted to Eurocode 7, and in other initiatives.

I followed with enthusiasm, but also, I must confess, with some skepticism, his candidacies for Vice-President for Europe and, later, for President of the ISSMGE. And, above all, I followed with enormous satisfaction and admiration the excellent work he developed during those mandates, generally recognized by his peers. It is extraordinary to note, for example, that during his term as President of the ISSMGE, he visited all the member countries of the Society.

A slogan used by a distinguished Portuguese geotechnical contractor definitely applies to Pedro: in each project, we always reach the maximum depth.

Indeed, in every task, Pedro Sêco Pinto always reaches the maximum depth!

Throughout our almost half-century of interaction, I have often expressed my admiration by saying that Pedro is a true Force of Nature. This contribution to the legacy of the ISSMGE is the definitive proof of that.

Manuel Matos Fernandes
Full Professor (Faculty of Engineering-University of Porto)

#### Jana Frankosva (Slovakia)

I first met Prof. Pedro Pinto while preparing for the 14th Danube European Conference on Geotechnical Engineering DECGE 2010 in Hungary in 2008, when he was the president of ISSMGE. He took care of the preparation for the conference, gave us valuable advice and, above all, moved us in the right direction. I respect him as a responsible person, able to work harder than others and gently push things forward. The world needs such people full of renewable, undying energy. He is a motivating personality, able to share his knowledge. I will never forget his singing during the gala dinner at the 16th DECGE in Skopje, North Macedonia, in 2018.

prof. Ing. Jana Frankovska, PhD.

President of Czech and Slovak Society for Soil Mechanics and Geotechnical Engineering
Head of Department of Geotechnics, Faculty of Civil Engineering
Slovak University of Technology in Bratislava, Slovakia

## Evelina Fratalocchi (Italy)

It is an honour and a pleasure to be able to express my sincere congratulations and gratitude to my friend, prof. Pedro Seco e Pinto. I met him for the first time at the III ICEG in Lisbon, in 1998, when I could appreciate his scientific and technical expertise, organizational skill, as well as his kindness. Since that time, our meetings at several international conferences and workshops turned out to be always precious opportunities for my personal enrichment, thanks to his knowledge, scientific curiosity and passion for geotechnical engineering, his friendship and courtesy.

Throughout his extraordinary "journey" he gave a fundamental contribution to the professional and academic world in several fields of geotechnical engineering.

Evelina Fratalocchi Università Politecnica delle Marche, Ancona, Italy Associate Professor of Geotechnics

#### Liudas Furmamivich (Lituania)

First I met Prof. P.S. Pinto in Riga (Latvia) in 2005, during X Geotechnical Conference of Baltic States. Being a President of ISSMGE during that time, he was very active inviting famous geotechnician scientist from all

Europe to participate in this Conference. This his activity create a possibility for young geotechnical and engineering geology specialist of Baltic states to get closer relations with prominent researchers of Europe and encouraged them to be more motivative in their field of work. I feel that this is the main characteristics of Prof. Pedro S. Pinto – to wake up to learn something new. It was nice discussions moderated by him at Klaipeda University on April 12, 2019, next day after his visiting lecture, about geotechnical engineering as a base of civil engineering.

Pedro is very friendly person and always is the same in spite with whom he communicates with student or VP. Being in the new country he always starts to learn a history of it and situation at present. We spent nice days in Trakai, capital of Lithuania in XIV century, and surrounding lakes, eating old type dishes of karaimai, relicts of tatars, and in Vilnius, capital of modern Lithuania. Staying in Lithuania, Pedro visited Lithuanian country side in Dzukija Nacional park and learned how oceans begins (streamlet Spengla).

Lithuanian geotechnics are happy having a friend Prof. Dr. Pedro Seco e Pinto.

Liudvikas V. Furmonavičius First prezidento f Lithuanian Geotechnical Society (1990.02.02) Expert of geotechnical engineering Geotechnikos grupė II Ltd.

#### António Gens (Spain)

Pedro Seco e Pinto is a key figure in the field of Soil Mechanics and Geotechnical Engineering. He has been a constant presence during the development of the discipline over the last half century and he has been a privileged witness and contributor to the major advances that have occurred during this long period. He is one of the rare individuals combining excellence in research, well-appreciated teaching ability, management skills and high-quality professional practice. More importantly, he has a warm personality that allows him to connect and engage easily with people at a personal level. Those qualities inspired a strong and visionary leadership during his term as President of the ISSMGE. All his interventions at that time ended with a nugget of wisdom for us to mull over. The geotechnical community is fortunate that he has been able to continue influencing the policy and future direction of the International Society. I am proud to be considered his friend.

Antonio Gens, Universitat Politècnica de Catalunya, Barcelona, Spain, Emeritus Professor. President of the Spanish Society for Soil Mechanics and Geotechnical Engineering.

Past ISSMGE Vice President for Europe

## Jorge Vazquez Gongalez (Portugal)

I met Pedro Pinto fifty years ago, when we attended and completed the first postgraduate course in Geotechnics in Portugal, I was at COBA-Engineering and Environmental Consultants and Pedro Pinto was at LNEC-National Laboratory for Civil Engineering. He was a brilliant student and colleague, and came to COBA in part-time, where for about thirty years we worked together. As Director of the Dams Service and later, Director of the Geotechnics Service and Administrator of COBA, I always had Pedro Pinto very close, as a consultant expert in Soil Mechanics. We have grown in Engineering, having carried out multiple external missions together within the scope of studies and works on large geotechnical Projects, having worked together on the study and design

and monitoring of the construction of many dams in Portugal but also abroad, as was the case with the inspection, monitoring and rehabilitation of dams in the Dominican Republic and Algeria and Projects in Greece, Angola and Mozambique.

Pedro Pinto also specialized in earthquake engineering, having made a major contribution to these matters in studies of structural stability of dams. But also, in the material identification and characterization test program, in the definition of monitoring programs, in slope stabilization studies, in the analysis of problems and foundations, in road and railway geotechnics, Pedro Pinto played an important role, in the studies and the design and contributed a lot in the training of COBA youngest geotechnical engineers. Later, we met again at several conferences, in which I followed the multidisciplinary nature of his activity, whether as a researcher or as a consultant - always at the "state of the art" level - which greatly contributed to the dissemination and consolidation of geotechnics in Portugal and abroad.

Jorge Vazquez – Administrator at EDIA – Empresa de Desenvolvimento e Infraestruturas de Alqueva (Alqueva Project) - Portugal

#### **Alain Gouilloux (France)**

J'ai connu Pedro, en particulier dans les années 2000, alors qu'il était Vice-Président pour l'Europe, puis Président de l'ISSMGE, et moi-même Président du CMFS de 2006 à 2010. Je garde le souvenir d'un homme extrêmement cordial et civil, toujours plein de bonne humeur et très engagé dans ses multiples activités. Par ses très nombreux voyages tout autour du globe, il a largement contribué à développer la convivialité dans le milieu de la géotechnique internationale, et à transmettre ses savoirs à nos plus jeunes collègues. Je lui en suis reconnaissant.

Alain GUILLOUX Terrasol. Paris. FRANCE Past-President du CFMS (2006-2010) » TERRASOL – Expert géotechnicien alain.guilloux@setec.com

#### **Nuno Guerra (Portugal)**

I don't exactly remember when I met Pedro, but it was surely before 1991. In fact, I knew him already when, after finishing my Civil Engineering "Licenciatura", I was a student of the Master in Soil Mechanics, at Nova University of Lisbon, where Pedro was lecturing part of the course of "Embankment Works". The students, mostly university and research Assistants, easily interacted with Pedro, who shared his knowledge supporting our simulated design of an earth dam.

Later, in the end of 1993, in the days before the ISSMGE Conference in New Delhi, I participated in a trip to Goa, Pedro's place of birth, mostly organized by him, and there he was an attentive guide to all Portuguese participants. I believe that was the period we strengthened our relationship, which I now consider to be of sincere friendship. There, I also started to admire what I think is his most important quality, his persistence, which directed him to his professional goals, the most important of which, I believe, materialized when in 2005 he was elected President of ISSMGE. This persistence continues in his life, and is even present in the least important things, as obtaining this statement of mine, postponed too many times... Sorry for that, Pedro!

Nuno Guerra

Associate Professor, NOVA University of Lisbon, Portugal

#### **Noel Huybrechts (Belgium)**

I met Pedro several times during my career, which lasts for almost 30 years now, mainly at the occasion of European and international geotechnical conferences and meetings.

My earliest memory about Pedro dates back from 1998 at the DFI conference in Vienna.

As beginning research engineer, I had the opportunity to present a paper addressing the outcome of my first research project concerning SLT & DLT on several types of pile foundations.

After my presentation Pedro came directly to me to discuss the presentation, which gave me a pleasant feeling and confidence in what I was doing as a beginning/young engineer.

Each time I see or hear Pedro, this memory comes back.

It characterizes Pedro as person: not only an excellent scientist, but also a very kind person with a genuine interest in what people are doing!

Prof. Ir. Noel Huybrechts Chief R&D Officer at BUILDWISE Visiting Professor KU Leuven (Civil Engineering Department) Belgium

#### Stephan Jefferis (UK)

In this volume of reminiscences others will rightly have written at length of Pedro's achievements in the field of international geotechnical engineering so I will not dwell on these. Rather I will recognise Pedro as a good friend to the geotechnical community across the World who has sought the best for this community. He has always been ready with warm words and an apposite quote so that in turn, in recognition of his role as a good friend to our community, may I echo the words of Claude Mermet:

Les Amis de l'heure présente, Ont la nature du melon Il faut en essayer cinquante Avant d'en trouver un bon.

Prof. Stephan Jefferis

**Environmental Geotechnics Limited** 

#### Rolf Katzenbach (Germany)

I got to know Professor Pedro Sêco e Pinto in the late 1990th. From the early beginning we had a great respect for each other which led at least to our long-term friendship, which even currently is existing.

I value him highly as a very good friend with a wide knowledge in geotechnical engineering and especially in earthquake and dam engineering. But that 's only the technical and scientific basis of his personality – there is much more: Pedro is totally open for new developments and for interdisciplinary approach, always reflecting (self-)critically the political dimension and the impact and effect of our engineering approach for people and society.

Pedro is a perfect strategist: he recognized very early – especially before and during his time as president of ISSMGE – the enormous importance of Environmental Geotechnics and Deep Foundations in our geotechnical area and supported me with power in my role as chairman of TC 212 Deep Foundations and of TC 215 Environmental Geotechnics of ISSMGE. One of the results of his friendly support is the international ISSMGE Combined Pile-Raft Foundation Guideline for design and construction of very cost effective deep foundations, saving a lot of CO2, edited by Professor Deepanker Choudhury, IIT Bombay in Mumbai and me.

I thank Professor Pedro Sêco e Pinto for our long-lasting friendship and I wish him all the best for the future.

Professor Dr.-Ing. Rolf Katzenbach, Managing Director of IK KATZENBACH ENGINEERS/Frankfurt am Main &

Professor Emeritus of Technical University of Darmstadt, Germany.

#### Lyesse Laloui (Switzerland)

Dr. Pinto, our interactions have offered me a glimpse into your career, revealing a man of remarkable dedication. Your lifelong pursuit of learning, from your Ph.D. to your esteemed professorship, is a testament to your passion for geotechnical engineering. The impact you've made is evident on a global scale through your leadership roles within the ISSMGE and your extensive consulting experience on major projects worldwide. But perhaps most inspiring is your dedication to sharing knowledge. The countless publications and lectures you've delivered across the globe stand as a lasting legacy of your commitment to the field. As you embark on this next chapter of your journey, please accept our heartfelt best wishes for the future.

Prof. Dr Lyesse Laloui ISSMGE Vice-President for Europe

#### Renato Lancellotta (Italy)

A short remind of my recognition of Pedro Seco e Pinto activity.

The name of Pedro Seco e Pinto is worldwide linked to an impressive academic and professional activity. He was a highly esteemed lecturer at many universities, and an active member of the International Society of Soil Mechanics and Geotechnical Engineering, that he chaired on the term 2005-2009.

In this respect, his activity was recognized by more than 50 international Awards.

His contributions to the engineering profession are highlighted by his leading role in most projects in the world, including 450 major projects of Dams, Power plants, Bridges, Tunnels, Waste landfills, and Quay Walls.

Due to this huge experience, he was also a United Nations Consulting for Design and

Instrumentation for Dams for the period 1988-1992.

In addition to these highly recognized activities, it is worth to outline the pleasure that in many occasions we had of sharing time in a stimulating and friendly way.

Very friendly Renato Lancellotta Emeritus Professor of Geotechnical Engineering Politecnico di Torino (Italy)

Tim Lansivaara (Finland)



20.2.2024

Prof. Tim Länsivaara Faculty of Built Environment Tampere University, Finland tim.lansivaara@tuni.fi

To Whom It May Concern

#### Letter of support

I am pleased to be writing a letter of support for Professor Pedro Séco e Pinto in his goals to write memoirs about his long and impressive career as a true servant of the international geotechnical community. I have known Professor Séco e Pinto for over twenty years' time. I become to know him when serving as the secretary of foreign matters in the Finnish Geotechnical Society (FGS). Professor Séco e Pinto was then first the ISSMGE Vice President for Europe, then ISSMGE President and Immediate Past President and Board member. Professor Séco e Pinto has always shown great devotion to the society and its members. A perhaps minor, but even so important quality that describes his devotion is his remarkable ability to always find the utter quotations for each occasion.

In addition to his many years as a servant for the international society, Professor Sêco e Pinto has an impressive record both as an academic and professional in practice. I am thus convinced that his life journey will be of interest and inspiration to many.

Sincerely

Tim Länsivaara

#### **Zbigniew Marek Lechowicz (Polland)**

Serving as Secretary of the Polish Committee on Geotechnics, I had my first contacts with Professor Pedro Sêco e Pinto, Vice President for Europe, in 2001. I met Pedro Sêco e Pinto in person for the first time during the 13th ECSMGE in Prague in 2003. As President of ISSMGE he provided great assistance to the Polish Committee on Geotechnics in organizing 11th Baltic Sea Geotechnical Conference in Gdańsk, Poland in 2008. His professional and friendly contacts allowed the organization of the International Advisory Committee and the invitation of leading specialists in the field of geotechnical engineering with outstanding lectures. During over twenty years of fruitful cooperation members of the Polish Committee on Geotechnics have always felt a warm, friendly atmosphere from this open person who cares about the progress in geotechnical engineering around the world.

Professor Zbigniew Marek Lechowicz, Warsaw University of Life Sciences, Poland, Secretary of the Polish Committee on Geotechnics (2002-2008), President of the PCG (2008-2014), Vice President of the PCG (2014-2021), Board Member of the PCG (2021-2024)

#### **Luis Lemos (Portugal)**

Dear Pedro

First of all I would like to congratulate you for the extraordinary publication you are implementing. I join my statement about your collaboration with the University of Coimbra.

"Professor Pedro Seco e Pinto has collaborated with the Geotechnical Laboratory of Civil Engineering Department of Coimbra University since its creation, as a lecturer in the undergraduate and postgraduate, Master and Doctor Degree in Soil and Rock Mechanics. He gave a significant support to development of applied research with the supervision of Master and Doctor thesis and to consulting activities. His international prestige facilitated the internationalization of the Geotechnical Laboratory, as well as the development of international research projects.

Luís Joaquim Leal Lemos Full Professor Coimbra University"

#### **Lurdes Lopes(Portugal)**

I had the privilege of meeting Pedro Sêco e Pinto, in 1984, as my lecturer on the Masters course in Soil Mechanics at the Faculty of Science and Technology of the New University of Lisbon, 1984-86 edition, from which I highlight the thoroughness and rigor of his teaching and supporting texts.

From then on, we began to collaborate on research, which contributed greatly to laying the foundations for Environmental Geotechnics in Portugal. At his invitation, I had the privilege of being part of the organization of the 3rd International Conference on Environmental Geotechnics, which took place in Lisbon in 1998, and together with him, we were the first representatives from Portugal on the ISSMGE TC on Environmental

Geotechnics. I would like to sincerely thank Pedro Sêco Pinto for his support at the start of my career as a researcher. Over these 40 years I have followed Sêco e Pinto exceptional professional career, but above all I have always been able to count on his support and personal friendship.

Maria Lurdes Lopes

**Full Professor** 

University of Porto – Faculty of Engineering

## Gopal SP Madabhushi (UK)

My early interactions with Prof Pedro Pinto were during the 2nd International Conference on Geotechnical Earthquake Engineering held in Lisbon in 1999. I was a young Lecturer at the University of Cambridge at the time. Prof Pinto was extremely kind and friendly during the conference, and we discussed the importance of investigating seismic effects on landfill structures. Prof Pinto was also interested in earth dams and liquefaction effects on them. I have successfully included these topics as part of my research and therefore thankful to Prof Pinto and his guidance at an early stage. Since then, we have met often in different parts of the world during various conferences. He is a thorough gentlemen, very humble and always finds have time to discuss enthusiastically various topics on geotechnical engineering. We have had fruitful collaborations during various EU funded projects such as NEMISREF, where Prof Pinto made valuable contributions to the project with his vast experience in this field.

Prof Gopal SP Madabhushi, PhD (Cantab), FICE

Head of Geotechnical & December 1988 (Geo-Environmental Engineering,

Professor of Civil Engineering & Director (Schofield Centre)

University of Cambridge, UK

#### **András Mahler (Hungary)**

Dear Pedro

I look back with joy and great affection to the times when I met you several times as a young member of the ISSMGE and later as a Secretary of the Hungarian National Committee. As President of ISSMGE you created a very friendly atmosphere at all events and as a young colleague I felt it was good to belong to such a "family". These encounters played a significant role in my later role as the President of the Hungarian National Committee, which gave me many fond memories and professional experiences. Thank you for all the pleasant conversations and inspiration! As you used to finish your speeches as President "and last but not least" never stop karaoke:).

András

András Mahler, PhD Vice-Dean (finance), Associate Professor Budapest University of Technology and Economics Department of Engineering Geology and Geotechnics

Tel.: +36 1 4631446, +36 20 4446048 email: mahler.andras@emk.bme.hu

#### Teresa Maia (Portugal)

Since I marry Pedro, I was able to understand what is his need and pleasure to study all kind of subjects and the way he considers the Geotechnical Engineering, more than a profession, actually a passion. He is never tired out of working. He never complains about the work, but only with the problems that sometimes appear.

When he became the chairman of TC4 – Earthquake Geotechnical Committee (1994-2000)

invited by Professor Kenji Ishihara, he embraced this society as a second family. He knows by heart the biography of all famous geotechnical engineers and past ISSMGE presidents and board members.

I had the opportunity to join him in several conferences, particularly during his ISSMGE presidential tenure (2005-2009), all of them full of interesting interaction with the society members and their families.

He also lives very intensely the family life, always concerned with the well-being of us, wife, children and granddaughter.

I am very proud of his achievements in his profession life thanks to hard work and perseverance and consider myself a lucky person to accompany him for more than four decades.

Teresa Maia (spouse)

#### Mario Manassero (Italy)

First, Professor Pedro Seco Pinto was an example and a master for me in dedication, enthusiasm, and passion for the Geotechnical Engineering discipline.

I was lucky enough to have the opportunity to follow him along many initiatives and activities, in particular during his ISSMGE Presidential mandate (2005-2009), when I could appreciate his outstanding contribution to spreading and sharing the geotechnical engineering science within both developing countries and the most industrialised countries, starting from the basic principles up to its most recent advancements.

Prof. Pedro Seco Pinto was also able to effectively combine the theoretical aspects with professional practice and construction activity.

On a personal note, I still treasure a vivid memory of one of the iconic initiatives organised and led by Prof. Pedro Seco Pinto in 2008. This initiative, a series of Turing Lectures, was aimed to promote Geotechnical Engineering skills in environmental safeguard, protection, and improvement. I was invited as a speaker at the lecture in Lagos, Nigeria, which was memorable and successful. Several years after this event, Nigeria witnessed significant advancements in waste management and polluted site remediation. This progress was a direct result of the valuable contribution and immense potential of Geotechnical Engineering in the environmental field, as

well as Prof. Pedro Seco Pinto ability to disseminate this knowledge within the international scientific community.

In my opinion, this is the most significant contribution my friend Pedro made and continues to make to our community.

Mario Manassero Professor of Geotechnical Engineering Politecnico di Torino (Italy) ISSMGE Vice President for Europe (2017-2022)

#### João Marcelino (Portugal)

When I joined LNEC in 1985, Pedro Seco e Pinto had already been a researcher in the Geotechnics Department for around 10 years. Shortly afterwards, he took over as head of the foundation division of the department. At first glance, it couldn't be said that contact was easy. Seco Pinto was (and is) demanding with those around him and with himself. A little later, as we got to know each other better, the interaction became much easier and more fruitful. He undoubtedly contributed to shaping the characteristics of the researchers who followed him. Pedro Seco Pinto has a characteristic that I really appreciate, which is a spirit of humour, sometimes even farfetched. He also has considerable energy, which is evident in the many positions he has taken on over the years and which still amaze me today.

João Marcelino, Director of Research, LNEC, Portugal Head of Geotechnics and Hydraulic Work Unit

## José Saldanha Matos (Portugal)

I am about 7 years younger than Pedro Seco Pinto, and when I joined the National Laboratory of Civil Engineering (LNEC) in 1980, Pedro Pinto already had an enviable position and CV. Shortly afterwards, I took up an assistant position at the Instituto Superior Técnico, but I had always worked as a consultant in hydraulics and water resources.

It was in the context of drainage studies that I asked Pedro Pinto to take part in projects under my responsibility, namely the rehabilitation of the Trafaria-Portinho da Costa drainage tunnel – this infrastructure was in a state of disrepair and nobody knew how to rehabilitate it so that it could perform its functions efficiently. The success of the intervention, which was essentially structural and safety-related, was almost entirely down to our colleague Pedro Pinto; the Design-Build of the Albufeira drainage tunnel - In this case, Pedro Pinto participated in the preparation of the preliminary program and specifications for the design-build process of the contract for the deviation, by tunnel, of the Albufeira brook, and the drainage tunnels of the city of Lisbon, where in this case Pedro Pinto participation was directly for the Owner, the Lisbon City Council, which he also carried out with the utmost professionalism and wisdom.

There are aspects of our personalities that we share, despite the age difference, namely the importance we both give to the role of applied research for development, in other words, putting knowledge, innovation and knowhow at the service to society.

José Saldanha Matos

Full Professor of IST (Lisbon Technical University)

CEO of HYDRA

## Agostinho Mendonça (Portugal)

Capacity for work and thought were two of the facets that immediately were evident to me when I met Prof. Sêco e Pinto, more than 25 years ago, in the initial phase of my doctoral studies. It was a privilege to me have him as a co-supervisor and as a master. Throughout this journey I was able to appreciate his great generosity and kindness with which he always treated me, never failing to make his time available to me when necessary. I still remember some weekends when we conceived and reviewed works. It was a period in which his vision and creative spirit allowed us to develop some innovative studies regarding dynamic characterization of urban solid waste or to the stability of structures under seismic actions. My respect and appreciation are renewed for the enormous contribution he has made to the national and, above all, international scientific community, as well as for the repeatedly coherent manifestation, without fault, of his personality where accuracy and concern for the legacy to future generations are evident in this remarkable, and unique, biography that he prepared.

To Prof. Pedro Sêco e Pinto, thank you for the learning you provided to me and for the privilege of your friendship.

"The man who has the largest capacity for work and thought is the man who is bound to succeed.", Henry Ford. António Agostinho Martins Mendonça, PhD Consulting Engineer

## **Meit Mets (Estonia)**

I have known Professor Pedro Pinto for decades, from our years on the international geotechnical conference circuit. Unlike many of his peers, he never tried to dazzle anyone. He never needed to, either, as he was, quite effortlessly, an extraordinary scholar and a perfect president to the society. As a president, he never hindered or interfered, but was always helpful and resourceful - he was, for example, a staunch supporter of the (then newly independent) Baltic countries joining the international family of geotechnics. Prof Pinto's help in organising the first conferences in the former Eastern bloc (Riga, Gdansk) cannot be overstated. Our co-operation enabled NGM and BGC in creating a large joint Baltic Sea event. The idea was born in Pärnu, developed in Riga and realised in Gdansk - an initiative that hopefully will be around fora long time to come.

Dr Mait Mets

Geotechnic

#### **Zbigniew Mlynarek (Polland)**

The cooperation of Polish geotechnicians with Prof. Pedro Seco e Pinto is long-lasting and accentuated by elements of friendship. A special period of cooperation was the period when prof. Pinto served as President of ISSMGE. At that time, we were organizing a significant event for the Baltic countries i.e. the 11th Baltic Sea Geotechnical Conference, Gdańsk, 2008. We received great support from Prof. Pinto, which is documented by his visit to Gdańsk and participation in the meeting of the Conference Organizing Committee and Conference. Prof. Pinto often supported the nomination of Polish geotechnicians to perform functions at conferences organized under the patronage of ISSMGE. This fact is well remembered and appreciated by our community.

Prof. dr Zbigniew Mlynarek, former President of Polish Committee on Geotechnics, University of Life Sciences, Poznan, Poland.

#### Trevor Orr (Ireland)

I am delighted to write this statement on Pedro Seco e Pinto, whom I have now known for almost 40 years. I clearly remember the first time we met. It was July 1987, when the Eurocode 7 Model Code drafting committee held its meeting in Lisbon. As I was the youngest person on the committee and Pedro was a young rising star of geotechnical engineering in Portugal, we warmed to each other and started talking. At a time, there was very little experience or confidence in Europe in the use of statistics and probabilistic analyses for geotechnical design, so we discussed how their greater use in Eurocode 7 could improve the reliability of geotechnical designs. This is about to be realised with the publication of the second generation version of Eurocode 7.

One particularly important characteristic of Pedro is his great interest in developing and improving contacts between people and countries internationally. In 2002, while ISSMGE Vice-President for Europe, he provided great support to me as I organised the European Young Geotechnical Engineers Conference in Trinity College Dublin. Later, after he became ISSMGE President, he used his extensive contacts to facilitate two workshops on Eurocode 7 that we both contributed to, one in Dubrovnik in 2007 and the other in Struga in North Macedonia in 2008. These countries were fairly recent members of both the ISSMGE and CEN, the European Committee for Standardization. It is great to see that Pedro continues to maintain his great interest in personal and international contacts.

Trevor Orr

Adjunct Professor, Trinity College Dublin, Ireland

#### Ervin Paci (Albania)

Professor Pinto has been and is a great friend of our Association. He has helped us in organising conferences and has honoured us with his presence and his lectures during these conferences. During his presence in Albania with our former association president professor Luljeta Bozo Professor Pinto has contributed to the preparation of new geotechnics and during his visits he has appreciated the country and our hospitality. Prof. Pinto has helped our association, even though it is a small association, to have its own voice in the ISSMGE forums.

The Albanian Geotechnic Association is very grateful to Professor Pinto for all the help and contribution to the development of our association and the promotion of the geotechnical engineering profession in Albania.

With respect on behalf of myself and Professor Lulieta Bozo.

Dr. Ervin Paçi

President of the Albanian Geotechnic Association Professor Polytechnic University of Tirana Faculty of Civil Engineering

## Jovan Br. Papić (North Makedonia)

Although 2001 was a very specific year, in terms of ISSMGE it become kind of a nice one: prof. Pinto was elected as Vice-President, while Macedonian Association for Geotechnics (MAG) was integrated in the international family. So, it was natural that these two paths will intertwine, as with mirroring his professor's manners to ISSMGE, he expressed huge trust to young members. Among the rest, like an experienced coach, prof. Pinto pushed MAG to promote internationally, which positively reflected to MAG ever after. Meanwhile he stood there for professional and friendly advices, both on the floor and behind the scenes. These, and the warm communication, frequent visits, sophisticated dimension, are only few points that contributed to engrave him deep in the MAG.

During his half-a-century long career, prof. Pinto traced many roads, not only for promoting science, but more important – for connecting people and societies. The comfort along them is very pleasant: for those leading the journey, for those taking short distances, for those looking for a nice scenery or a good company on the trip. Whatever the motivation is, all of them enjoy the design. Thank you!

Prof. Jovan Br. Papić University "Ss. Cyril and Methodius", Faculty of Civil Engineering – Skopje, R. N. Macedonia Past Secretary and immediate-past President of MAG



## Marina Pantazidou (Greece)

I salute Pedro for being so engaged with education activities, while he held a series of high offices within ISSMGE, especially during 2005-2009 as President of our society. I met and had the opportunity to interact with Pedro mainly in meetings and conferences organized by the EU-funded Thematic Network European Civil Engineering Education and Training (EUCEET), in the first decade of the new millennium. Pedro graced EUCEET meetings with his memorable presentations, interweaving inspiring quotes with his thoughts on Education. The same approach he had followed in the paper he prepared for the 1st Conference on Education in

Geotechnical Engineering in 2000 in Sinaia, Romania "Education in Earthquake Geotechnical Engineering: Practice and Needs", where the interspersed quotes help the reader take a thoughtful break and ponder on the data presented or on the limitations of our knowledge. With his example, Pedro taught us to find inspiration in unexpected corners of our field; it is now up to each one of us to identify and showcase them.

Marina Pantazidou, Associate Professor, National Technical University of Athens, Greece, Chair, ISSMGE-TC306 Geo-engineering Education 2017-2025

#### **Alexandre Pinto (Portugal)**

For me is a honour to write this statement, as I know Pedro since about 30 years ago, just before he was elected President of Portuguese Geotechnical Society Board (1996-2000), and well before he started his international carrier on behalf of the ISSMGE. I consider him technical wise, but mainly a very diplomatic person with high human and leadership qualities, always available to discuss new ideas and to support colleagues, as it can be proved by its national and international carrier, mainly his mandate as ISSMGE President. Finally, and as Board Vice President and Board President of the Portuguese Geotechnical Society, I would point out his notable contribution, since 2017 at the candidacy stage, and after 2019 at the organization stage, for the 18<sup>th</sup> ECSMGE 2024, to be held in Portugal for the first time.

Alexandre Pinto

JETsj - Partner and Technical Manager;

IST / Technical University of Lisbon – Invited Professor at Geotechnical Department;

Portuguese Geotechnical Society – Board Vice President (2016/2020) and President (2020/2024)

## Isabel Pinto, David Pinto & Jorge Pinto (children) (Portugal)

It is with pride, honour and love that we write this statement about our father. He taught us so many important values and life skills, such as greatness, love, kindness, balance, persistence, leadership, responsibility and work ethic. Our father cherishes his family a lot and we are very grateful to him. He is insightful, loving, forgiving, persistent, funny, patient and a supportive father, who provided us a prosperous home with love, joy and happiness.

Furthermore, nowadays, he is a loving, supporting and playful grandfather.

Our father exceeded the expectations of professional and personal life and is the perfect example of the wisdom of Mahatma Gandhi: "Love is the strongest force in the world and yet the most humble"; We are very proud and lucky to have a father who is a unique role model that achieved such a greatness that makes the world a better and richer place.

David, Isabel and Jorge Pinto

#### Raul Sarra Piston (Portugal)

I met Pedro for the first time as a teacher on the MSc course in Portugal. Fifteen years after, time wanted us to work together again now as a Specialized Consultant in Geotechnics and Dams, when I was Director of that department at COBA.

I can only thank Pedro for his valuable collaboration on large-scale projects, from bridges to dams, always with a generous and didactic attitude towards his collaborators.

I also had the honor to share with him some of his conferences as president of the ISSMGE, in various countries. Pedro always maintained his didactic and modest tone regarding the different frameworks and technological possibilities of the countries and regions he visited.

Dr. Raúl Sarra Pistone,

Ex-Director of Geotechnics Department at COBA SA, President of the Portuguese Tunneling Association.

#### **Kryazis Pitilakis (Greece)**

#### **ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ** ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ

ΤΜΗΜΑ ΠΟΛΙΤΙΚΏΝ ΜΗΧΑΝΙΚΏΝ ΤΟΜΕΑΣ ΓΕΩΤΕΧΝΙΚΉΣ ΜΗΧΑΝΙΚΉΣ ΕΡΓΑΣΤΗΡΙΟ ΕΔΑΦΟΜΗΧΑΝΙΚΉΣ, ΘΕΜΕΛΙΏΣΕΩΝ ΚΑΙ ΓΕΩΤΕΧΝΙΚΉΣ ΣΕΙΣΜΙΚΉΣ ΜΗΧΑΝΙΚΉΣ



ARISTOTLE UNIVERSITY OF THESSALONIKI

SCHOOL OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING
GEOTECHNICAL ENGINEERING DIVISION
LABORATORY OF SOIL MECHANICS, FOUNDATIONS
AND GEOTECHNICAL EARTHQUAKE ENGINEERING

To my friend Pedro Seco e Pinto pinto.pss@gmail.com Thessaloniki 12.02.2024

What a marvelous carrier my dear Pedro! And what a wonderful and substantial contribution to our geotechnical engineering practice and to ISSMGE our prestigious professional and scientific society.

We first met in the 2nd International Conference of Earthquake Geotechnical Engineering, you nicely and successfully organized in Lisbon, Portugal, in 1999. Since then we met several times in different occasions and I had the opportunity to closely follow achievements of your dedicated work. I always admired and appreciated your devotion and efficiency to all commitments and challenging endeavors you were committed and undertaken along all these years. I also appreciated your friendly and warm personality, which has been reflected to the activities of our society in different circumstances, and not only. Last but not least I deeply appreciated your thoughts, generally in the closure of your talks, where through different legendary words of famous philosophers, scientists and prestigious writers, you tried to highlight that engineering should be also seen as an art, complementing all others. An art in the sense of its profound word etymology, that we, engineers, should respect and never forget it.

Thank you very much for your friendship and your contribution to Geotechnical Engineering.

#### Kyriazis Pitilakis

Professor Emeritus, Aristotle University, Thessaloniki, Greece

Ex Chairman of the Technical Committee 203 on Geotechnical Earthquake Engineering and Associated Problems of ISSMGE

President and currently Vice President of the European Association of Earthquake Engineering (www.eaee.org).

## Chaido Doulala-Rigby (Yuli) (UK)

I have known of Pedro for many years, ever since I have started my career in geotechnics some 30 years ago and more recently since my involvement with the ISSMGE that started in 2012 in St Petersburg, but have never met him until 2019. My knowledge of Pedro was purely based on his excellent reputation as a long-standing member of the ISSMGE, and as an educator, researcher, and innovator in geotechnics; let's just say Pedro, in my eyes, was one of the GeoLegends of our industry. It was only when I finally met Pedro, in Cairo in 2019, where we both attended and presented at the GeoMEast2019, that I had the great fortune to meet the *rea* Pedro, the romantic traveller, the philosopher, the explorer, the inquisitive humble human being that is genuinely interested in other people's lives and what makes us all get out of bed every morning, and what feeds our passion for life and for geotechnics. I will always look back to the few days we shared in Cairo at the conference, exploring the colourful markets of Cairo, talking to local strangers, and savouring the local delicacies with great affection and the best of memories. Having finally met Pedro in real life, I realised that Pedro is not just a true GeoLegend respected and loved by many geotechnical engineers globally, but he is a wonderful, curious, humble human being too. One of life's rear finds.

Chaido Doulala-Rigby (Yuli) CEng FICE FInstRE FPWI MHKIE MIMMM Business Development & Chief Civil Engineer

#### José Delgado Rodrigues (Portugal)

Pedro Sêco e Pinto, a brief tribute

We can endorse Pedro Sêco e Pinto in qualities that we witness that he possesses, in qualities that we have heard about him, or in others that are documented in any repository or database. Having worked for over 40 years in the same department at LNEC, I could well write about any of these types, but not liking the hearsay and having a different professional background, the last two types are not viable for me, and I have to limit my words to those qualities about which I am confident enough to attribute to him.

His proverbial great capacity for work is undoubtedly true. I can guarantee that this is one of his most solid qualities, which of course is a good guarantee that the vast number of achievements were not invented nor are they fictitious facts. He worked hard to achieve them.

They are there entirely on his merit.

He is an intelligent and shrewd person and a fond seeker to reach new goals and to get new responsibilities. Thus, the large number of invitations he received to occupy and perform positions of responsibility at the most diverse levels were not given to him by any blessing, nor did they fall from heaven. He fought for them, fulfilled what was expected of him and for that the credit is entirely his.

He is not known for having an exceptional sense of humour and is often a little too serious and circumspect, but he is an easy conversationalist and his ability to draw on quotes from multiple sources can bring a pinch of salt to make it enjoyable. Regardless of what we think of his way of being, the large number of requests he received to act in such diverse circumstances proves that he is certainly not a boring person, as we might expect from the way we saw him on his circumspect walks through the corridors of our department.

We both enjoyed working in the Geotechnical department at LNEC and we both experienced how hard life can sometimes be and now, looking back, we miss the times when we would pass each other in the corridors or meet for a quick lunch in our canteen. It is good to see that you still have the courage to face the enormous work of preparing an annotated repository of achievements. You reached them at your own expense and they are there to your credit. I must say that they testify to your ability to work and your commitment to fulfilling your duties.

I wish you all the best, hoping that life will accompany you for a long time to come.

Dr. José Delgado Rodrigues

Principal Research Officer, LNEC (ret.)

#### Francisco Salgado (Portugal)

Dear Pedro.

We briefly cross our pads in the beginning of 1976. At that time you became a LNEC's Trainee Research Engineer (TRE). I was already a (TRE) when I left LNEC, in February 1976, to British Columbia, Canada, to pursue further studies at UBC.

After about 10 years we briefly cross again, this time at UBC. AT that time I was pursuing my Ph.D's program, when you come to visit Prof.(s) Peter Byrne, Lian Finn, Dick Campanella and Yogi Vaid.

After, another 10 years our pads cross again at LNEC. This time for a longer ongoing period during which we develop a friendship due to our common geotechnical seismic interests. As of today we are both retired from LNEC and became closer friends.

Recently you asked me, and I proudly accepted, to write a few lines about your professional life achievements, but as your friend I have to emphasize, besides your remarkable achievements, all your enormous strength that enable you, with your family, to help your son to surpass with success his leukemia.

I recommend all of you to read in detail all his achievements described in his Memories ("Some Pieces of my Journey"), because it is really not possible do resume all Peter's achievements in this Statement.

Therefore, from Peter's remarkable achievements I select to outstand Peter's election, at Osaka's congress (2005), for President of ISSMGE during 2005 to 2009. It is a major achievement at Nacional and International level.

Peter's name joins the following list of remarkable Soil Mechanics and Geotechnical Engineers.

Karl Terzaghi 1936–1957; Alain W. Skempton 1957–1961; Arthur Casagrande 1961–1965; Laurits Bjerrum 1965–1969; Ralf B. Peck 1969–1973; Jean Kerisel 1973–1977; M. Fukuoka (Japan) 1977–1981; Victor. F. B. de Mello 1981–1985; Bent B. Broms 1985–1989; Norbert R. Morgenstern 1989–1994; Mike Jamiolkowski 1994–1997; Kenji Ishihara 1997–2001; William Van Impe 2001–2005; **Pedro Sêco e Pinto 2005–2009**; Jean L. Briaud 2009–2013; Roger Frank 2013–2017; Charles W.W. Ng 2017–2022; Mark Ballouz 2022-2026.

Your friend

Francisco Salgado

Civil Eng. (IST), Doctor (UNL), M.A.Sc.; Ph.D. (UBC), Senior Researcher (LNEC), PEng.

Email: fsalgado@outlook.pt

#### Mónica Silva (Portugal)

This statement is dedicated to you, my mentor and friend. You have been my teacher at soil mechanics Master of Science classes at Universidade Nova de Lisboa and later my older colleague and mentor in several COBA

studies and projects since I was a young engineer in 1998. You have been an inspiration to me throughout my career, and I am grateful for your guidance and support. You took me under your wing and taught me a lot about dam instrumentation, seismic dam design and environmental geotechnics. You taught me the importance of hard work, dedication, and perseverance. You always promoted and encouraged the work of young engineers and we have traveled together to Bulgaria for the Young Geotechnical Engineers Conference (where the bus carrying us broke down, where we had a great lunch with professors from Sofia University and where you made me sing Portuguese songs at dinner to the other delegates from Europe). We have worked in several dam international studies for Algeria and Mozambique where your vast knowledge and experience were invaluable to me, and I am grateful for the opportunity to have learned from you. With your background and collection of the best geotechnical bibliography from several soil mechanics authors since Terzaghi, you always collected the best books and technical papers, always knowing how to find information on all the topics that arose in the day-to-day engineering projects we worked on together. You were always willing to share your knowledge and experience with others. You were an inspiration to me. I was so lucky to have you in my journey. Thank you for everything, Professor.

Mónica Monteiro Silva

**AQUALOGUS** 

Portugal

Director of the Geotechnics Department

## Jorge Almeida Sousa (Portugal)

I start by mentioning that before I met Pedro Seco Pinto, his name was already familiar to me, so many times Rui Furtado, my professor and our mutual friend, referred to him as having been the best student he had at the University of Lourenço Marques.

I meet him at LNEC in 1990 and our first conversations, instead of technical subjects, were mainly about our children, as Pedro had recently become the father of three twins.

In the following years, his great and fruitful activity made him a reference in Civil Engineering and, in particular, Geotechnics, both nationally and internationally, which led him to the presidency of SPG and, later, ISSMGE.

My contacts with Pedro intensified when he accepted the invitation from the University of Coimbra to teach in the area of Geotechnics on the Civil Engineering course. Your collaboration was extremely useful, having contributed to the adequate training of our students, providing them with a vision, as close as possible, to the reality of conception, design, construction and maintenance of geotechnical strictures.

Jorge Almeida e Sousa

University of Coimbra

Portugal

Retired Associate Professor

#### Sarah Springman (Switzerland)

It has always been a great pleasure to meet Professor Pedro Seco e Pinto at a multitude of geotechnical events and conferences over the years.

As a doctoral student, one became aware of his presence and many contributions. When he became the President of our International Society, we experienced his sage leadership. And then after handing over so gracefully, we witnessed his long term interest in the younger members and in the future of the profession in general. Personally, I wish him good health and happiness in the future, and many ongoing geotechnical interactions through his memoires.

Professor Dame Sarah Springman

Professor of Geotechnical Engineering Emerita, ETH Zurich Rector Emerita, ETH Zurich Principal, St Hilda's College, University of Oxford

#### Vlasta Szavits-Nossan (Croatia)

I met Professor Pedro Seco ê Pinto while he was the ISSMGE Vice President for Europe in the early 2000s. After that we became very good friends. Pedro is a very nice and kind person, with rich professional outcomes. As a friend he has always been very helpful. I was glad when he was selected for the ISSMGE President in 2005.

Pedro visited Croatia in 2006 and delivered the 7th Nonveiller Lecture. This was an honor for members of the Croatian Geotechnical Society, and his second visit to Croatia.

The third time Pedro visited Croatia was to deliver a lecture at the Faculty of Geotechnical Engineering of the University of Zagreb. At that time, I was the Dean of the Faculty, and I was having some faculty problems. At the same time, I was the President of the Croatian Geotechnical Society, so it all got mixed up. I invited Pedro to help me, and he was all ready to travel to Croatia. I am very grateful to him for this.

I do like and respect Professor Pedro Seco ê Pinto very much.

Prof. Vlasta Szavits-Nossan

Mesnicka 4

10000 Zagreb

Croatia

Retired from the University of Zagreb.

## Joaquim Tavares (Portugal)

Dear Friend Prof. Pedro Sêco e Pinto,

Respecting the annexed file in your e-mail where is summarized your superb prepared work:"Some Pieces of my Journey", I must send you my big gratitude and some short lines about you:

This fabulous work that I loved to see, and I found wonderful, and above all carried out by someone with an extraordinary CURRICULUM VITAE, with whom I was lucky enough to collaborate on the Odelouca Dam for about four years, one of his 207 projects, also (in part) elaborated (well accompanied in reality) by you, in 20 countries, which generated 500 studies and technical reports, which I would say an unsurpassed 52 years of experience. Also noteworthy are the received statements from National colleagues, including the Unforgettable Odd Prof. Manuel Rocha and Prof. António Mineiro and International colleagues, including Past President Prof. Kenji Ishihara who in 1992 made Prof. Pedro Sêco e Pinto a member of Earthquake Geotechnical Engineering; not forgetting the no less relevant fact that you were President of the ISSMGE (International Society of Soil Mechanics and Geotechnical Engineering) – founded at Harvard in 1936 by Karl Terzaghi, in the period 2005-2009 and its Board Member in the period 2017-2022.

BEM HAJA and Thank You, Prof. Doutor Engo Pedro Sêco e Pinto

Joaquim Tavares

Head of Consortium Teixeira Duarte/Monte Adriano for the construction of Odelouca dam

Eng. Civil - O.E.15074

#### **Hywel Thomas (UK)**

To whom it may concern.

It is my pleasure to write the following statement in acknowledgement of Professor Pedro Seco Pinto's contributions in the field of Geotechnical engineering. My comments relate to his work in the field of Touring Lectures/International Seminars which he coordinated. The purpose of the work was to share developments on soil mechanics and geotechnical engineering with Member Societies of developing countries in Africa, Asia, Europe and South America Regions. I was at the time a UNESCO Chair holder in the subject of a Sustainable Geoenvironment and as such shared Pedro's passion for the agendas of developing countries. I participated in the West Africa lectures and in the Indian lectures. My talks were on the emerging subject of Geoenvironmental Engineering. In West Africa we had been commissioned by UNIDO to help draw together expertise to address the POPS (Persistent Organic Pollution) problem. I remember with great fondness both the lecture tours, for many reasons, not least of which was the sheer enthusiasm of the students. I feel Pedro needs great thanks for initiating these lectures, which in my experience were very valuable.

Professor Hywel R Thomas CBE FRS FREng PLSW MAE Founder Director of the Geoenvironmental Research Centre at Cardiff University. Former UNESCO Professor in a Sustainable Geoenvironment.

# David Toll (UK)

"Professor Pedro Seco e Pinto has played an influential role in our global geotechnical engineering community throughout much of my own professional career. In addition to his technical contributions, he has tirelessly

taken on leadership roles within our profession; initially as President of SPG (Portuguese Geotechnical Society) and Chair of TC4 on Earthquake Geotechnical Engineering, then being elected as the Vice-President of ISSMGE for Europe before achieving the pinnacle of our profession as President of our International Society. I recall his great support when we were establishing JTC2, the joint technical committee on "Geo-Engineering Data" in 2005 and when we were hosting the 1st European Conference on Unsaturated Soils in the UK in 2008. He remained influential within ISSMGE even during my own period as Chair of the British Geotechnical Association, campaigning strongly for Portugal to host the 18th European Conference on Soil Mechanics and Geotechnical Engineering. I am sure we all look forward to the conference in Lisbon in 2024 and meeting Pedro there."

Best wishes David

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Eur Ing Professor David Toll FICE FLSW Department of Engineering Durham University Durham, DH1 3LE, UK

Tel: (+44/0) 191 334 2388 Email: d.g.toll@durham.ac.uk

WWW: https://www.durham.ac.uk/staff/d-g-toll/

## **Andrey Totsev (Bulgaria)**

I know Prof. Pinto from the time he was president of ISSMGE. We have met many times in different places at the world. What has always impressed me is the friendly attitude and modesty. For a young engineer, talking to the president of ISSMGE is a privilege that he reduced to a friendly conversation. Prof. Pinto has an innate curiosity and a wealth of knowledge not only in the field of earth mechanics, and meetings with him have always been a pleasure."

Prof. Andrey Totsev Secretary of Bulgarian SSMGE

#### **Christos Tsatsanifos (Greece)**

I first met Pedro in 2001, when he was elected Vice President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) for Europe, while I started being involved in the technical committee of ISSMGE for the preservation of monuments and historic sites. I greatly appreciated his efforts to support the work of the committee during his term as Vice President and, subsequently, as President of ISSMGE.

The first time I attended a presentation by Pedro I was truly impressed by his speech, which was concluded with an inspirational saying. I soon realized that concluding his speeches with various sayings was customary for him; an indication of a wise, cultured, and well-read person, both scientifically and otherwise. A person with a depth of understanding and a thoughtful perspective on life.

Dear Pedro, I wish you to continue your wonderful journey in the field of geotechnical engineering and to keep reminding us of those excellent sayings.

Dr. Christos Tsatsanifos

Civil Engineer NTUA, M.Sc, Ph.D, DIC, M.ASCE

Editor, Former President HELLENIC SOCIETY FOR SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

Managing Director, PANGAEA CONSULTING ENGINEERS LTD.

#### Vladimir M. Ulitsky (Russia)

I actively entered the international level of geotechnical engineering on the threshold of the 21 century at the XV International Congress for Soil Mechanics and Geotechnical Engineering (Istanbul, 2020) after delivering the invited lecture "Geotechnical problems of reconstruction of historical cities". Later it was published in the Congress Proceedings and the Journal "Soils and Foundations" (Japan). My participation was sponsored by Michiele Jamiolkovsky, ISSMGE Vice-President. It was a landmark for me as I was appointed a lecturer in the special section "PROSCPECT" together with B.Simpson (UK) with the lecture "Embedded retaining walls". Then I started to receive personal invitations to all subsequent Congresses until 2022 and actively participated in them heading sections.

My active involvement in the international geotechnical life happened due to Prof. P. Pinto, ISSMGE President, later Vice-President in 2006 during the Congress in Osaka (Japan). He reminded me about my successful debut in Istanbul and invited to a preliminary conversation with Prof. Ishihara and Prof. Van Impe, vice-presidents of related international geotechnical societies. We spoke about creation of a new special technical committee on soil-structure interaction. They asked me whether I'd like to form and head it in subsequent four years. With easy submission of my colleague Pedro Pinto I actively and successfully headed this committee until 2022. We had 16 sessions of TC 207 in different cities of the world including working sessions of the committee at the congresses. The results were published in the Proceedings (including those by Balkema). The vivid example is that at two sessions of TC 207 SSI in Paris (2013) there participated 1216 ISSMGE members.

I should also mention the pedagogical merit of Prof. Pinto. He wisely advised to activate work of sessions of international congresses by discussions on issues which do not have an unambiguous solution. I implemented it both congresses and conferences of any level and in routine pedagogical activity at St. Petersburg University.

Vladimir M. Ulitsky,

Prof., Prof. Emeritus, Alexander I Petersburg Transport University

Scientific Advisor, Institute "Georeconstruction"

#### José Luís Machado do Vale (Portugal)

I met Pedro Seco e Pinto, in 1978, at LNEC, when I went to do my post-graduation internship at the Department of Geotechnics. At the time, Pedro was a young researcher in the Foundations Division and was at the beginning of a journey that would shape his career and leave an indelible mark on Portuguese geotechnics. In those days,

he welcomed younger colleagues, explaining the properties of soils and how they behaved to static actions, but also to dynamic actions due to earthquakes.

His meticulous work, his tireless dedication, and his kindness to younger colleagues would be remembered for generations to come. He was planting the seeds of a career that would blossom into designs for dams, tunnels, foundations, and structures that would stand the test of time.

We have coincided during our careers on many occasions, both at the Portuguese Society of Geotechnics, which we both chair, and at ISSMGE events, but also professionally in many projects in which his knowledge of geotechnical engineering has always been valuable.

Today, we look back and see the legacy that the young researcher left. He has become a respected researcher, an inspirational speaker, and a global ambassador for geotechnical engineering. His teachings echo in classrooms and laboratories around the world. Their commitment to safety, innovation, and sustainability continues to guide the engineers who follow in their footsteps.

Dear friend Pedro, a big hug and thank you for everything.

José Luís Machado do Vale Eng.º Civil Former President of SPG

## Ivan Vanicek (Chequia)

Viewing more than 2,000 pages prepared by a professional colleague and friend, Pedro Seco Pinto, including a summary, was very pleasant for me. I realized how much we had in common as part of the ISSMGE activities and, additionally, the fact that we had similar professional beginnings related to the issue of the formation and behaviour of tensile cracks in earth and rockfill dams.

Pedro is an example of how one can currently reach the highest positions in our common profession – geotechnical engineering – from relatively simple roots. He achieved this with his diligence and perseverance, and the submitted documentation also testifies to his diligence. At the same time, he always chose a humanitarian approach to his surroundings, he likes to refer to historical figures, including their instructive quotes. He also does not forget the fact that good relationships are not only the result of professional steps, but also of discussions spent together while having a good time.

I am grateful to count myself among his long-time friends.

Ivan Vanicek
Professor in soil mechanics and geotechnical engineering
Czech Technical University in Prague
Past Vice-president ISSMGE for Europe (2009 – 2013)
Now emeritus professor CTU

#### Paulo de Venda (Portugal)

Although I have had the privilege of contacting Professor Seco e Pinto several times over the last 30 years, I would like to highlight the two periods that have had the most profound impact on my formation, both personally and professionally. The first encounter with Prof Seco e Pinto occurred during the distant academic year of 1990/1991 when I was enrolled in the Master's Degree program in Soil Mechanics at the New University Nova of Lisbon. It was during this time that I had the privilege of being taught by Prof Seco e Pinto, who imparted his extensive knowledge on the design and construction of earth dams. His classes were not only enriched by solid theoretical bases, but also by the sharing of his vast practical experience, making them truly fascinating.

Later on, I once again had the opportunity to interact with Prof Seco e Pinto at the Civil Engineering Department at the University of Coimbra. During several academic years, he served as a invited professor and was responsible for teaching the subject of Earthworks. This collaboration played a crucial role in the academic development of students and junior faculty members, including myself. Prof Seco e Pinto not only shared his valuable expertise and "savoir faire", but also encouraged us to publish our research findings in international congresses and scientific journals.

In conclusion, I consider myself fortunate to have had Prof Seco e Pinto as both a professor and colleague. Our countless conversations, which extended far beyond the realm of Geotechnics, have further enriched my academic and personal journey.

Professor of Coimbra University President of SPG

#### Mirjana Vukićević" (Serbia)

Unfortunately, I have not personally met Professor Seco e Pinto. There was a certain official correspondence that we had since 2020, since I have been the president of the Serbian Society for Soil Mechanics and Geotechnical Engineering. Despite the fact that I did not know him personally, I knew about Prof. Pinto and his achievements since I was dealing with Soil mechanics and Geotechnical Engineering, because there is a saying in Serbia, "a good voice can be heard far away". His professional and research career is impressive, as well as his commitment to the development of geotechnics, without which modern civil engineering does not exist and which all of us geotechnicians are in love with. Contribution of Prof. Seco e Pinto in Soil Mechanics and Geotechnical Engineering is exceptional: as an engineer who solved problems in the construction of geotechnical structures, as a scientific researcher and an active participant in the work of ISSMGE.

Prof. dr Mirjana Vukicevic, Faculty of Civil Engineering, University of Belgrade, Serbia President of the Serbian Sociate of Soil Mechanics and Geotechnical Engineering

**NORTH AMERICA** 

António Sousa (Canadá)



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Professor Pedro Simão Sêco e Pinto I feel privileged to write this statement about my long-time friend Pedro. We first crossed paths as university classmates back in 1965, where Pedro's passion for his civil engineering studies and his insatiable curiosity set him apart. In the third year of our respective programs, he in Civil Engineering and I in Mechanical Engineering, we had a common subject, which was an introduction to Surveying. The course was demanding and requiring a considerable amount of field work. We were in the same team and we worked closely throughout the project and I had the opportunity of appreciating Pedro's intellect and diligence, but it was his genuine warmth and approachability that endeared him to those around him. As our lives diverged into separate paths, our friendship remained a constant anchor amidst our busy careers. I recall well how Pedro at LNEC (Laboratório Nacional de Engenharia Civil, Portugal) climbed the ranks brilliantly, while taking tasks and challenges of increasing responsibility. My own field is far from Pedro's; however, from what I have read from the experts, there is little doubt that Pedro stands as a luminary figure in the realm of Soil Mechanics and Geotechnical Engineering. He is recognized worldwide for his ground-breaking contributions and innovative solutions to complex problems, primarily related to safety of dams and large structures and in particular under earthquake conditions. With a career spanning many decades, Pedro has cemented his reputation as a leading authority in the field, pioneering advancements that have reshaped our understanding of geotechnical processes. His dedication to the profession and his unwavering commitment to finding practical, scalable solutions have earned him accolades and respect from peers across the globe. Among his many achievements, I have to mention that he was President from 2005 to 2009 of the prestigious International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). Despite his international acclaim, Pedro has remained remarkably humble and grounded, never allowing his success to overshadow the values of integrity and kindness that have defined our friendship. Time spent with Pedro is always marked by intellectual stimulation, laughter, and a profound sense of gratitude for the enduring bonds of friendship.

19th of February of 2024

Antonio C.M. Sousa, PhD (Manchester, UK) Professor Emeritus

### **Gabriel Auvinet (Mexico)**

I had the privilege to meet Pedro Seco y Pinto in many international meetings in which we coincided, I particularly remember the successful "Touring lectures" he used to organize and in which I was invited to

participate in countries such as Chili and Paraguay (2006). By then, I could already appreciate Pedro's talent as a promotor of Geotechnical Engineering and distinguished ambassador of ISSMGE throughout the world. I also met Pedro in Alexandria, Egypt (2009), during the ICSMGE. I was extremely surprised by the lectures Pedro delivered. As an expert in topics such as dam engineering and details of the Eurocode, he used to insert in his technical presentations some unexpected philosophical citations. I guess Pedro wanted to stress that, before being an engineer, a geotechnical specialist is primarily a human being that must be concerned about his destiny and the logical and moral precepts that must rule his life. Later on, I had the opportunity to interact with him as Vice President of ISSMGE for North America. His international experience as Past President was extremely useful for the 2009-2013 board of ISSMGE. Speaking "portuñol" together was sometimes convenient to clarify some concepts and also helped creating a complicity that led to a real and lasting friendship.

Professor, National University of Mexico President, Mexican Society for Soil Mechanics (1991-1992) ISSSMGE Vice-President for North America (2009-2013)

### Ahmed Elgamal (USA)

Professor Pedro Sêco e Pinto is more than just a name in the geotechnical engineering world; he is an embodiment of dedication, innovation, and leadership. He possesses the exceptional ability to bridge the gap between theoretical knowledge and practical application. He stands as a pillar of geotechnical engineering, with professional contributions echoing across continents and leaving an indelible mark on the field. His true impact lies in the countless structures standing tall, a testament to his meticulous approach and unwavering commitment to safety and sustainability. As such, his fingerprints are etched on the landscape, silently ensuring the wellbeing of countless individuals. In fact, his influence extends beyond individual projects, as he actively shaped the future of the field through his involvement in a remarkably large number of prestigious and influential international societies, scientific committees, and professional entities. Through this involvement, his leadership extended to fostering the next generation of engineers, creating a vibrant community of learners and innovators. As he continued to share his knowledge and expertise, Professor Sêco e Pinto leaves an enduring legacy that will continue to shape the future of geotechnical engineering for generations to come. In conclusion, I express my sincere gratitude for your remarkable contributions to geotechnical engineering. Your expertise, your dedication to education, your leadership, and your spirit of collaboration leave an indelible mark on the field. Thank you for inspiring and empowering the next generation of engineers, and for shaping a safer and more sustainable future for us all.

Ahmed Elgamal University of California San Diego, USA Distinguished Professor

#### **Bob Holtz (USA)**

I met Pedro a few times at various soil mechanics events, but I really got to know him during my two years on the ISSMGE Board, 2007-09. I was appointed by the board of the US National Society to fill out the term of an appointed USNS member who was unable to serve due to health reasons. Because the ISSMGE Board met in person during those 2 years, I was able to travel to such interesting venues as Brisbane, St. Petersburg, Hyderabad, and of course the ICSMGE in Alexandria. It was a real pleasure and honor for me to serve on the ISSMGE Board during Pedro's presidency. Because of his enthusiasm, creative leadership, and many excellent ideas, his was one of the more successful recent presidencies. In my opinion, he left our Society much better than he found it, for which I'm very thankful.

Bob Holtz, PhD, PE, BC.GE, Dist. M. ASCE Prof. Emeritus, Univ. of Washington, Seattle International Secretary of the USNS, 2001-23

#### Paul Mayne (USA)

Pedro Sêco de Pinto is an international researcher with expertise in the areas of soil dynamics, seismic ground behavior, and geotechnical earthquake engineering. During Pedro's term as the President of the International Society on Soil Mechanics & Engineering (ISSMGE) from 2005-2009, he chose me to lead the State-of-the-Art keynote paper and lecture for the ICSMGE 2009 conference held in Alexandria Egypt with my co-authors: Matthew Coop, Sarah Springman, An-Bin Huang, and Jorge Zornberg. This was an historic honor and major undertaking as the 5 of us were all located in different countries and time zones, thus assembling the 100-page SOA-1 paper brought exciting challenges, hurdles, and demands to the team in the development of the final manuscript. We can certainly thank Pedro for his thoughtful insightfulness and visionary leadership that brought these individuals together towards a common and useful achievement.

Submitted 19 Feb 2024 All the best from Atlanta Paul

Paul W. Mayne, PhD, P.E. Emeritus Professor, Geosystems Group Georgia Institute of Technology School of Civil & Drive, Environmental Engineering 790 Atlantic Drive, Mason Building 2247 Atlanta, GA 30332-0355 USA

## Jorge M. Rebelo (USA)

Pedro Pinto was my colleague in the Civil Engineering course from 1965 to 1971 at the University of Lourenço Marques, Mozambique. The University was part of the Portuguese accredited universities and was staffed with Phds from all over the world. We studied together the basics of Strength of Materials, Structures, Soil Mechanics, Hydraulics, Roads, Railways, Bridges. We both graduated in 1971 with the diploma of Civil Engineering and registered in the Order of Engineers. Pedro was always a leader of people both when they needed to organize to get something done or we needed to have some celebration to enlighten our spirits. From early on, he showed his interest in Soil Mechanics and was pursuing Finite Elements which he applied later in his work at LNEC. I understand that he played an important role in construction and maintenance of earth dams in Mozambique. Lately, I meet him every year in Lisbon where he normally organizes meetings of his former colleagues and delights us with his stories of several conferences which he chaired throughout the world.

Name: Jorge M. Rebelo

Affiliation: The World Bank Group

Country: U.S.A

Position: Lead Transport Specialist (R)

#### Charles D. Shackelford, Ph.D. (USA)

I congratulate my professional friend and colleague, Pedro Seco e Pinto, on his long and successful career in geotechnical engineering. I first met Pedro when he served as the host of the Third International Congress on Environmental Geotechnics in Lisbon in 1998, and we have typically interacted over the years primarily at the ISSMGE International Conferences. He has always been gracious and accommodating, and I always appreciated

his friendliness and hospitality. I extend my warmest regards and best wishes as he celebrates his distinguished career.

Charles D. Shackelford, Ph.D. Professor and Department Head Fort Collins, Colorado 80523-1372, USA

#### **SOUTH AMERICA**

## Alberto Sayão (Brazil))

It was with joy that I received the request for a brief testimony about Prof. Pedro Sêco e Pinto. I first met him during a geotechnical event in Portugal, in 1999. Since then, we have met many times, in Brazil, Europe and Japan, where he was elected President of ISSMGE, in 2005.

Among his many achievements, the Touring Lectures stand out, with a series of short courses and lectures organized in countries with little access to major geotechnical events. Prof. Sêco e Pinto is now one of the most notorious engineers in Portugal, for having been appointed as a Member of the European Academy of Sciences and being President of the Portuguese Geotechnical Society.

Thanks, Pedro, for your friendship and good example to the new generations of geoengineers.

Prof. Alberto Sayão, PUC-Rio, Brasil.

#### Alejo Sfrizio (Argentine)

Prof. Pedro Simão Sêco e Pinto has a long history of friendship with Latin America and especially with Argentina. He helped SAIG, the Argentinian Society for Geotechnical Engineering, many times, and I remember some of them. In 2011, Pedro was the immediate past-president of ISSMGE. He gave us strong support for our bid to host the Pan American Conference of Soil Mechanics and Geotechnical Enginering, which took place in Buenos Aires in 2015. In 2012, we were working on design codes for geotechnical investigation and foundation design, and Pedro shared his experience with us, not only by email, but also by helping us to bring the ISSMGE Board to our National Conference in Rosario, Argentina, where we discussed some of these topics. Later in 2017, when I became Vice President for South America and the Caribbean, I had the privilege to serve with Pedro on the Board led by Charles Ng. During that term, we organized one of the "Touring Lectures", an idea that Pedro came up with during his Presidency, where international experts visit countries to share their expertise and knowledge. As we were developing a Code for Foundation Design, I asked him, Prof. Roger Frank and Prof. Roberto Terzariol to run a series on "LRFD in Foundation Design". Pedro prepared his share, on seismic analysis of foundations, which Roberto presented in Mexico, Paraguay and Argentina. Pedro remains a very good friend of all of us who shared experiences and service to ISSMGE with him.

Prof. Alejo Sfrizio University of Buenos Aires Argentine

## **Roberto Terzariol (Argentine)**

Pedro, my dear friend

I met Pedro when he visited Argentina, more precisely Córdoba, during a joint meeting of the Association of Geology Applied to Engineering (ASAGAI) and the Argentine Society of Geotechnical Engineering (SAIG), when he was President of the ISSMGE. He came on another occasion with Dr. Sarra Pistone, while I was Dean of the Faculty of Engineering at the University of Córdoba. He also participated in the Board meeting held in the city of Rosario during 2012.

Years later we were members of the ISSMGE Board, he as past President and I as Vice President for South America (2009-2013). And finally, we share the Board with Pedro Appointed Member and myself Chair of a Board Level Committee (2017-2021). In those years he visited many countries on all continents, being able to appreciate how in all of them Pedro had strong friends who always appreciated his efforts and support.

Pedro was always enthusiastic about promoting our society on all continents and that is why he made every effort to realize his idea of the Touring Lectures, as a joint effort of the ISSMGE and local societies. With the idea of supporting national societies so that, taking advantage of the presence of international speakers, they would promote the association of local colleagues and raise the standards of geotechnical engineering.

I had to participate in these lectures with him, in various countries, such as Paraguay, Argentina, Peru, Mexico, Mozambique, etc. Where he was always distinguished by the quality of his conferences and by the humanist spirit that he gave to his presentations with quotes from universal philosophers in order to contextualize and smooth out for everyone the aridity of engineering concepts.

Not only in the field of geotechnics did he distinguish himself, but also in the field of earthquake-resistant engineering where his time as a leader is still remembered today. Remembering, among others, the 2011 conference in Santiago de Chile where I learned that it was, he who devised the delivery of a historical seismograph, which is passed on to the next organizing society of the conference and a reminder plaque is placed on it.

During all these years I cultivated his friendship and was able to see his generosity and kindness, in addition to his solid geotechnical knowledge.

In long hours of personal talks and numerous epistolary exchanges, I confirmed his bonhomie and generosity. He was always a travel enthusiast and boasted of having visited a greater number of countries than the number of countries that make up the United Nations Organization. Quite an achievement!

Unfortunately, in recent years some health complications prevented him from traveling to international meetings, which without him were never the same.

That is why when I found out that he was preparing this book to leave on paper what his life experience left us in our minds and hearts, I wanted to express in these brief lines the human quality, the humanistic wisdom of his concepts and the strength of his engineering knowledge, which undoubtedly place him in a higher echelon of the great geotechnicians who directed the ISSMGE.

Prof. Roberto Terzariol Former ISSMGE-VP for South America

### Ramon Verdugo (Chile)

It is a great pleasure for me to extend my heartfelt congratulations to Professor Pedro Seco e Pinto for his book where he has compiled part of his immense research work and applications in engineering. I have had the privilege of sharing with Prof. Seco e Pinto many conferences and workshops around the world and I have witnessed not only his academic excellence but also his unwavering commitment to fostering intellectual curiosity in both students and colleagues. His passion for research is unlimited, and it is reflected vividly in the pages of this remarkable work. His dedication, perseverance, and boundless enthusiasm serve as an inspiration to all who have the pleasure of knowing him. I am truly proud to call Professor Seco e Pinto not just a colleague, but a friend and a great contributor to the field of Earthquake Engineering.

Ramon Verdugo CMGI Ltda Chile Founder Partner - Senior Engineer

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# In Memoriam Ralph B. Peck (1912-2008)



Ralph B. Peck, Professor Emeritus of Foundation Engineering at the University of Illinois at Urbana-Champaign died of congestive heart failure on February 18, 2008, at his home in Albuquerque, New Mexico. He was born in Winnipeg, Canada, to his American parents, Orwin K and Ethel Huyck Peck on June 23, 1912.

Ralph Peck earned a Civil Engineering Degree in 1934 and Doctor of Civil Engineering Degree in 1937, both from Rensselaer Polytechnic Institute in Troy, New York. In 1938-39 he attended the Soil Mechanics course at Harvard University and was a laboratory assistant to Arthur Casagrande. From 1939 to 1942 Peck was an assistant subway engineer for the City of Chicago, representing Karl Terzaghi who was a consultant on the Chicago Subway Project. He joined the University of Illinois in 1942, and was a Professor of Foundation Engineering from 1948 to 1974. Since 1974, Professor Peck was a Professor Emeritus at the University of Illinois, and a consultant in geotechnical engineering. In 1948, together with Karl Terzaghi, Ralph Peck co-authored the most influential text book in geotechnical engineering, /Soil Mechanics in Engineering Practice/. In 1953 with Walt Hanson and Tom Thornburn, Ralph Peck co-authored the widely used text book /Foundation Engineering./

In 1942, Dr. Peck joined the Civil Engineering Department of the University of Illinois, where he remained as a teacher and mentor until his retirement as Professor Emeritus in 1974. After moving to Albuquerque, Dr. Peck continued his active consulting practice which included jobs in forty-four states in the USA and twenty-eight countries on five continents. His more than one thousand consulting projects include: the rapid transit systems in Chicago, San Francisco, and Washington; the Alaskan Pipeline System; the James Bay Project in Quebec; and the Dead Sea dikes. He authored over 250 technical publications, and served as the President of the International Society of Soil Mechanics and Foundation Engineering from 1969 to 1973. In 1974, he was awarded the National Medal of Science by President Ford. A few of his many honors include the Norman Medal, The Wellington Prize, and the Outstanding Lifetime Achievement Award in Education from the American Society of Engineers. His last project was the Rion-Antirion Bridge in Greece. It received the ASCE's OPAL Outstanding Civil Engineering Award for 2005, and is the only project outside the United States to be so honored. Ralph Peck married Marjorie E. Truby on June 14, 1937. He is survived by his daughter and son-in-law, Nancy Peck (Allen) Young, and son and daughter-in-law, James (Laurie) Peck, and grandchildren, Michael Young and Maia Peck.

In lieu of flowers, contributions can be made to: Ralph B. Peck Geotechnical Engineering Fund Univ. of Illinois Foundation 1305 West Green Street, MC-386 Urbana, Illinois, 61801.

## In Memoriam of Professor Ralph B. Peck

By Professor Pedro Sêco e Pinto, The President of ISSMGE

To Mrs. Nancy Peck Young and Family

It is a great loss for the entire geotechnical world the physical disappearance of Ralph B. Peck. In this moment of great sadness I convey my condolences and deep sympathy in my personal name and on behalf of the International Society for Soil Mechanics and Geotechnical to Nancy Peck Young and Family.

Ralph Peck was a man of prodigious energy and fine intellect, an outstanding geotechnical engineer, an extraordinary master, a distinguished citizen and a twinkling light for all of us. A genial thinker, Ralph Peck was one the bright talents that have enlighten the Geotechnical Engineering road. We are indebted for his outstanding contribution for the advancement of knowledge in soil mechanics and geotechnical engineering and his legacy will maintain for many generations and will always be a source of great inspiration for all geotechnical engineers.

Prof. Ralph B. Peck was a frequent Keynote Speaker at International Conferences of geotechnical engineering and we were always listening to his fascinating lectures with great interest and pleasure, as they were challenging and opening new avenues of research. In the treatment with people, in the devotion and patience in interacting and educating the young generation, in the strength of his character, in the sensitiveness and affability of his behavior, we can discover a Man coated for a special mission.

Ralph Peck has oriented his existence for a great and noble ideal and has always teached us that the correct method to learn science is to pursue the discovery of the scientific truth.

His legacies where the Scientist, the Professor and the Engineer are integrated in one soul, where the beauty and the truth give friendly their hands, totally justify the applause and the debt of gratitude of the current and next generations.

With best regards.

#### News

In Memoriam

The Past President- Prof. Victor F.B. de Mello

The geotechnical community received with great sadness the notice that Prof. Victor de Mello has passed away.

In this moment I convey my condolences and deep sympathy in my personal name and on behalf of the International Society for Soil Mechanics and Geotechnical Engineering to Maria and Family.

Prof. Victor de Mello acted as President of the International Society for Soil Mechanics and Foundations Engineering during the tenure 1981-1985 and will be remembered for his actions and passion to implement geotechnical activities worldwide.

Professor Victor de Mello was a man of prodigious energy and fine intellect. We are indebted for his outstanding contribution for the advancement of knowledge in soil mechanics and geotechnical

I had the opportunity to meet Prof. Victor de Mello in Mozambique in 1972, when he was acting as Consulting Expert for Massingir dam and I was initiating my first steps in geotechnical engineering.

My debt of gratitude for him is so huge and I should like to recall this Master who teach me to think, to investigate, to be in Geotechnique and which friendship is for me a great lesson.

Professor Victor de Mello is often invited to be Keynote Speaker at international conferences of geotechnical engineering and other events and we always listen to his lectures with great interest and pleasure, as they are challenge and open new avenues of research.



Victor's photo taken in 1977

I would like to highlight from Prof. Victor de Mello outstanding curriculum: i) his solid scientific background and research contributions for the advancement of knowledge of embankment dams and special foundations; ii) his significant contribution as author/co-author of papers for Journals, widely accepted throughout the world; (iii) his excellent lecturing and teaching ability to communicate, to support and to encourage students; (iv) his skill to establish synergies with Industry.

I believe that everybody fully agree with me in classifying his activity with Five Es - Exciting, Elegant, Efficient, Excellent and

But it is not sufficient to remember the Master, it is important to follow his example, to give continuity with energy and perseverance to his heritage and to spread his message that:
"The important thing in science is not so much to obtain new facts, as to discover

Gedro Seco e Sinto

new ways of thinking about them".

This will be the simple contribution of the current and next generations to honor Victor de Mello memory.

ISSMGE presents to Victor de Mello family our deep sympathy.

With best regards

Pedro Séco e Pinto President

#### For Soils & Rocks published by ABMS (Brazilian Association of Soil Mechanics)



## Obituary Waldemar (1950-2022)

I received this notice with great sadness. I had the honor and privilege to consolidate my friendship with Waldemar, since end of 80's, during my ISSMGE presidential ship (2005-2009).

Waldemar was graduated in Civil Engineering (1972) and Master of Structural Engineering (1978) by Polytechnical School of University of San Paulo. He received his Ph.D. in Geotechnical Engineering by MIT (Massachusetts Institute of Technology), in 1981.

On return to Brazil Waldemar has devoted to the Academia, culminated with the highest degree of Full Professor at University of San Paulo, and has received several awards in recognition of the excellence in teaching. He has coordinated several master and doctoral theses.

He was also involved in professional practice working in Promon Engineering (1973-1976) and in 1986 and 1992 he was the founder of the companies Interact and Geoexpert, devoted to geotechnical engineering and development of software.

His topics of interest were analytical and numerical methods, probabilistic methods and risk analysis in Geotechnical Engineering.

Waldemar had a great engagement in ISSMGE activities, as ABMS (Brazilian Association of Soil Mechanics) president (2001-2004) has played an important role in strengthing the relationship with SPG (Portuguese Geotechnical Society), promoting the Journal Soils and Rocks, and acting as Editor (2013-2016). He was ISSMGE Vice President for South America (2005-2009), and member of ISSMGE Technical Committees: TC306 - "Geo-Engineering Education" and TC304 - "Engineering Practice of Risk Assessment".

Waldemar was co-editor and co-author of the book "Foundations: Theory and Practice" published by ABMS and ABEF.

Waldemar has received from ABMS the awards Manuel Rocha (1991) and Terzaghi (2022).

I could recall several episodes that we have enjoyed together, but I have the duty to be short, and so I will refer only that ISSMGE Board (2001-2005), that I have the privilege to integrate as Vice President for Europe, has submitted a motion by the President William Van Impe, during the Council in Prague in 2003, "Each Society – 1 Vote", against the intention of some Societies of a weighted vote. Waldemar Hachich, as

ABMS President, has supported lively the Board motion, and was instrumental in the result of the final voting.

I would like to stress that Waldemar, as ISSMGE Vice President for South America, was a key person to promote the geotechnical activities in the Region.

He helped me to organize the Touring Lectures in Ecuador, in Paraguay and in Peru.

I would like to remind his great knowledge, total devotion for the causes that he was engaged in, a high spirit of solidarity, a notable capacity of initiative and a fine interaction.

He was not only brazilian, but a person that has inspired in the knowledge from his livings in several continents, a mix of unique human characteristics.

Unfortunately, he departed early, but left us a legacy that will be remembered by the friends and the students that had the privilege to interact with him. Rest in peace my friend.

To Vera, to the family and to Waldemar friends, I express my solidarity and I wish great courage and strength to overcome these painful moments.

I believe that Waldemar would like to be remembered by:

"Do not cry aside my grave;

I am not there. I did not dye.

I am the wind that blows.

I am the sun lighting the dawn.

I am the water flowing from the rivers to the ocean.

I am the stars shining on the sky".

Pedro Sêco e Pinto

ISSMGE President (2005-2009)