

FEATURED EVENT

World Engineering Congress and Exhibition: **ENGINEERING 2010 - ARGENTINA** Technology, Innovation and Production for the Sustainable Development

UADI (Argentine Union of Associations of Engineers) and CAI (Argentine Center of Engineers) together with centres, colleges and institutions of engineering all over the country are organizing this congress to be held in Buenos Aires in October 2010, with the purpose of incorporating a special event of national and international engineering ("World Engineers Week") during the celebration of the bicentennial of the Revolution of May 25th 1810 which was the beginning of the process of independence in our country.

UPCOMING EVENTS

26th to 28th April 2010 - Lille- France
River Basin Management under the Water Framework Directive.

3rd to 5th June - Matanzas, Varadero, Cuba
II Convención Internacional de la Ingeniería en Cuba

8th to 12th August 2010 - Sydney Australia
5th Civil Engineering Conference in the Asian Region

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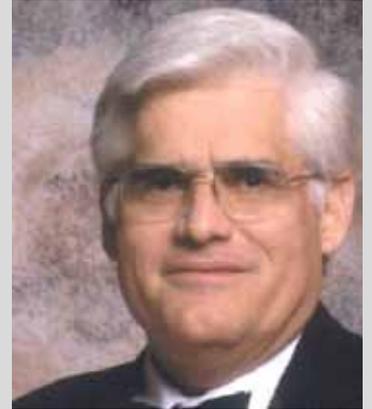
EDITORIAL

WORLD WATER DAY 2010: CLEAN WATER FOR A HEALTHY WORLD

We as Civil Engineers already contribute and play a significant role toward conservation, development, improvement and management of water resources around the world. With our technical knowledge and capacities we are helping to improve the sustainable quality of life of present and future generations.

World Water Day is an opportunity for our professionals to reflect on how we can involve ourselves more and create greater awareness on water resources conservation and development issues. Involvement includes sharing information about World Water Day between our members, our community and other interest groups. For additional information on World Water Day 2010 and ideas, materials and brochures, events and ways to contribute visit the United Nations web page at:

www.unwater.org/worldwaterday



Emilio M. Colon,
President World Council
of Civil Engineers

(follows on next page)

M^a JESÚS PRIETO NEW PRESIDENT OF WFEO

M^a Jesús Prieto-Laffarge will be appointed President at our 4th General Assembly in Kuwait City. Former Executive Vicepresident of the World Federation of Engineering Organisations and Past President of the Institute of Engineering of Spain, María Jesús Prieto-Lafargue is a prominent figure in the international arena of communications technology and international business.

Having served on boards advising national and international companies and organizations in telecommunications, energy, aerospace and transportation, she also collaborated with the Universities of Madrid, Barcelona and Navarra. She was professor of Chamber of Commerce and Industry and author of numerous articles and is currently a member of the Spanish chapter of the prestigious Club of Rome think tank.

Besides her work as a delegate of the Spanish government to several European and world organizations, PrietoLaffargue has served and is currently active in a group of select experts preparing for the United Nations work on the Summit on Sustainable Development. Another significant activity connected to the United Nations is her participation in the World Summit on the Information Society for which she will be a principal speaker.

The devoted mother of four accomplished children, Prieto-Laffargue lives in Madrid, Spain



M^a Jesús Prieto
President of WFEO

WHY CELEBRATE WORLD WATER DAY?

World Water Day is an initiative of the United Nations Environment Programme (UNEP). Celebration dates back to 1993 when the United Nations General Assembly adopted a resolution by which 22 March of each year was declared World Day for Water. Each year,

World Water Day highlights a specific aspect of water. Its aim in 2010 is to raise political awareness, build political commitments and community support to trigger actions on critical water issues at all levels to facilitate efficient management and use of water not just locally, but globally.

WATER QUALITY AND HEALTH:

It is still a reality that an estimated 1.1 billion people rely on unsafe drinking water sources. The United Nations has stated that over 2.5 billion people live without adequate sanitation, and that every day 2 million tons of sewage flow into the world's waterways. Water-borne diseases kill more than 1.5 million children each year. About 90% of the developing world's raw sewage and 70% of its industrial waste are discharged into waterways.

Clearly the water quality issue is greatest for the world's developing nations. There is a huge need to improve wastewater

treatment methods, source water protection and public hygiene education, as well as dealing with the debilitating health effects of the polluted water and its associated public health effects.

Water quality is not, however, just a developing world problem. Increasing urbanization is putting more pressure on the quality of the water re-circulated through modern cities. Larger population densities, more industry and commerce, and more intensive food production all contribute to water quality levels that fall below required standards even in the most 'pure' environments. Non-point sources of pollution continue to increase. And communicable diseases through polluted water ways and sources of water continue to debilitate and kill too many of the world's population, many of them children.

The WCCE has been invited and participated in numerous activities around the world. They have provided an excellent opportunity for us to share and dialogue with international water experts, non government groups and many others on subjects of mutual concerns. This year, and through the initiative of our Standing Committee on Water, such initiatives will be highlighted in Zaragoza, Spain.

Emilio M. Colon,
President World Council of Civil Engineers

ZARAGOZA CHARTER: WATER AND SUSTAINABLE DEVELOPMENT

OUR COLUMN: TOMAS SANCHO, CHAIRMAN OF WATER SC

The Legacy of Expo Zaragoza 2008 appears as something tangible to be brought to the future. The range of solutions to the most compelling issues of water and sustainable development will ensue from an intense process of debate, conciliation, summary, organisation, edition, publication and diffusion which was presented to society in the form of a document of synthesis: The Zaragoza Charter.

The Zaragoza Charter, the backbone of this legacy, summarises the conclusions reached by over 2000 experts from all fields of knowledge, who gave more than 200 lectures. To this must be added the public and private contributions made by individuals and groups coming from Agora and the Parallel Meetings and Events: a rich and plural collection of ideas and solutions which were studied and evaluated by a Scientific Committee composed of very important international experts on the subject of water resources.

This document wishes open up a door into the future from the present and contribute to determining the parameters of a new state of the issues regarding water and sustainable development. The Zaragoza Charter breaks away from a vision from the past which is only based on diagnosis and aims to be a guiding light for contemporary and future initiatives regarding water and sustainability.

Because of that, we the WCCE, and especially by means of our Standing Committee on Water, signed an agreement with Expo Zaragoza 2008 in order to spread the legacy of Zaragoza Expo 2008 (compiled in the documents of its Water Tribune -Blue Box-) and to promote the effective application of the Zaragoza Charter.

We firmly want to contribute to:

- Secure the integrated management of water throughout the world for all the inhabitants of the Plan
- Promote education and the transfer of technologies and successful experiences;
- Encourage an ethical and supportive attitude respectful of the sustainable development of water;
- Collaborate in advancing in the fulfilment of related

Carrying on Zaragoza's Legacy is a very good way to reach these objectives. So it will be one of our more important activities in the next future. [Read the Zaragoza Charter. \[+\]](#)



"Those of us who have been involved with the Water Tribune are well aware that water is essential to life and to the planet.."

Integrated management of water resources will ensure the survival of the human race and protect the planet" (Zaragoza Charter, 2008).

PHOTO GALLERY NEW PREMISES OF THE WATER SC IN ZARAGOZA, SPAIN



WCCE SC Water Premises, Zaragoza
Hall Entrance



WCCE SC Water Premises, Zaragoza
Meeting Room



Our team— (Left to right) Pedro Mouliacá, Millet
Pedro Teresa Alós, BerangerePillet& SC Water XD

OUR MEMBERS LEADERSHIP — MIGUEL TORRES DÍAZ, P. E.

PRESIDENT OF PROFESSIONAL COLLEGE OF ENGINEERS AND LAND SURVEYORS OF PUERTO RICO

Displaying an uncanny sense of clarity and direction, a young civil engineering student named Miguel Torres Díaz began to attend the meetings of the Professional College of Engineers and Land Surveyors of Puerto Rico back in 1995, promoting the student chapter he presided at the time at Polytechnic University of Puerto Rico.

After obtaining a bachelor's degree in civil engineering (cum laude) from Polytechnic University in 1996 and a master's degree in Engineering Management from the same institution in 2003, Torres Díaz soon solidified his ties to the Professional College of Engineers and Land Surveyors of Puerto Rico. During his first assembly following college, he successfully ran for the post of Director, his first step on a path that would ultimately take him to the helm of the trade group in September 2009.

As president of the professional organization that represents more than 12,500 engineers and surveyors in Puerto Rico, Torres Díaz is keenly focused on delivering results, specifically in the association's efforts to assist the government and other entities in moving the island's economic development.

Torres Díaz's professional career includes stints in the island's private sector, Central America and the Caribbean region as well as in the public sector working for the Puerto Rico government.

For five years he held various management positions while undertaking infrastructure marine projects throughout the region for Misener Marine Construction, Inc., a Tampa-based subsidiary of Holland's Interbeton NV.

Previously, he worked as project inspector for San Juan-based engineering firm MTG & Associates, where he was resident inspector of various construction projects, including the rehabilitation of a historical building.

As a public sector official for the Puerto Rico government, Torres Díaz served five years as director of the Construction Management Bureau of the Public Housing Administration. From 2001 through 2007, he led the rehabilitation of more than 5,000 public housing units for low income families at an investment of more than \$1.3 billion.

In 2007, Torres Díaz returned to the private sector as vice president and stockholder of Beta Group, a group of local corporations dedicated to providing services in the areas of construction management, development and project management, engineering, technology integration and consulting.

He is currently engaged in various projects, the most significant being the construction and design management of 25 regional sports-related infrastructure projects for the 2010 Central American and Caribbean Games in Mayagüez and other western towns, as a consultant for KFK management and the Infrastructure Financing Authority (AFI by its Spanish initials).



A CIVIL ENGINEER, FUTURE WFEO PRESIDENT



The WFEO held its biennial General Assembly in Kuwait City from 1 to 6 November. This event was hosted by the Kuwait Society of Engineers with support from the Government..

The General Assembly witnessed the election of a new President Elect, while current PE Maria Jesus Prieto became acting President till 2011. Two candidates ran for PE elections:



*Adel Al-Khurafi,
the KSE honorary
chairman and
immediate past
president of the
Arab Federation of
Engineers .*



*Darrel J. Danyluk
current chairman
of the WFEO
Committee on
Environment and
Past President of
Engineers Canada.*

FAMOUS CENg:

ISAMBARD K. BRUNEL

Isambard Kingdom Brunel was born on 1806 in Portsmouth, Hampshire.

Though competent in other fields, he developed his career as bridge engineer and tunnel engineer. Clifton's Suspension bridge had the longest span of any bridge in the world at that time. Brunel did not live to see the bridge finished.

After two centuries, many of Brunel's bridges are still in use; these designs have stood the test of time. [+]



I am opposed to the laying down of rules or conditions to be observed in the construction of bridges lest the progress of improvement tomorrow might be embarrassed or shackled by recording or registering as law the prejudices or errors of today "

ISAMBARD K. BRUNEL

MEMBERSHIP NEWS

ARAB ENGINEERS INTERESTED IN WCCE

The activity of the Kuwait Society of Engineers as our first member located in the Middle East has arisen the interest of several Arab Engineering organizations.

WCCE has established contact with the Federation of Arab Engineers and the Gulf Engineering Union, which will broaden during our next Executive Committee in Kuwait.

With this future incorporation our members will rise to 27 with more than 50 countries represented. The number of individual professionals is now over 100.

A NEW MEMBER: ARGENTINA

During the last Executive Committee and pending final approval in our next General Assembly we have incorporated one more member to WCCE.

The Consejo Profesional de Ingeniería Civil (CPIC) represents more than 4000 registered civil engineers in Argentina.



IDENTIFYING AND AVOIDING CORRUPTION IN THE INFRASTRUCTURE SECTOR

NEW ONLINE TRAINING MODULE BY GIACC

The Global Infrastructure Anti-Corruption Centre (GIACC) has on 1st September 2009 published an on-line anti-corruption training module: "Identifying and avoiding corruption in the infrastructure sector".

- The module is designed to help users: Achieve a better understanding of corruption in the infrastructure sector
- Avoid corruption
- Identify corruption
- Deal with corruption appropriately if confronted with it.



There is no charge for the use of the module.

The module can be used by individuals, and also by professional institutions and organizations as part of their formal training for their members and employees. It is aimed primarily at middle and senior management, particularly those involved in procurement, tendering, sales and marketing, design, project management, claims management, commercial management, financial management, legal, compliance, and internal audit.

This training can be used by organizations and individuals wherever they are located or working as, although the law will vary between jurisdictions, the module covers general principles and examples which have worldwide applicability.

The module is designed to be undertaken by individuals working by themselves on-line. However, an organization could project the web-pages onto a screen, and use the whole or part of the module as part of a training workshop.

Upon completion of the module, you can type your name into a box on the certificate web-page, and you then can print out a GIACC certificate of completion of the course which includes your name and date of completion. GIACC does not retain any record of these names. This certificate can be given to your employer or professional institution as proof of completing the module.

For further information, and to access the module, go to: <http://www.giaccentre.org/onlinetraining.intro.php>

XVIII WCCE EXECUTIVE COMMITTEE

15TH MARCH - SKYPE

The World Council of Civil Engineers held XVIIIth Executive Committee Meeting on March 15th over Skype. The meeting, which will comprise representatives of national members, from business and academia, civil society is aimed to draw attention to issues such as anti corruption and the final approval of the Civil Engineering Excellence Award to be presented in Buenos Aires during our next General Assembly on October 16th.

WORLD ENGINEERING CONGRESS AND EXHIBITION: ENGINEERING 2010 – ARGENTINA CALL FOR PAPERS

Those interested in presenting short talks or posters can send their abstracts, typed in English or Spanish until April 30th. The conference will be held on 17th to 20th October 2010.

Accepted abstracts will be published by the organisers. Also, the minutes of the Conference will be published in a special volume in 2010. [+]



CIVIL ENGINEERING FAQs by Vincent CHU

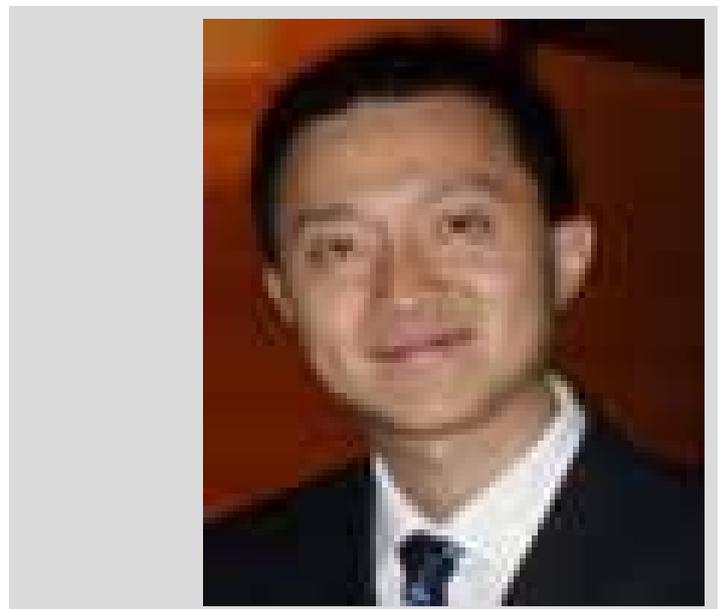
CAN BOTH PILE DRIVE ANALYSER (PDA) AND PILE INTEGRITY TEST (PIT) BE USED FOR CHECKING PILE CAPACITY?

Pile Drive Analyser is a high-strain dynamic test to determine the force and velocity response of a pile to an impact force applied axially by a driving hammer at the pile top. It is applicable to driven piles or small diameter bored piles. The operation measures the elastic deformation of a pile after a hammer blow and is mainly used to check the ultimate capacity of piles. However, it may also be adopted to detect damages in pile body and obtain the friction profile along the pile shaft.

Pile Integrity Test is a low-strain dynamic test which involves the use of a small vibrator or a light hammer. It is applicable to small diameter driven concrete piles and large diameter bored piles. It can be used to check the following properties:

- Quality of concrete (e.g. honeycombing)
- Location and type of damages
- Estimation of pile length

However, it is mainly used to check the integrity of piles only and it may be used to deduce the pile capacity.



UPCOMING EVENTS



- **Internatinal Emergency Prevention Day.**
14th April - Italy
- **River Basin Management under the Water Framework Directive.**
26-28 April - Lille- France
- **European Engineers Day**
28th April - Stanhope Hotel, Brussels
- **Engineering Leadership Conference**
5th to 7th May - Brisbane, Australia
- **Advanced Conference on Seismic Risk Mitigation and Sustainable Development Sustainable Development**
10th to 14th May - Trieste, Italy
- **Open and Sustainable Building**
17-19 May - Bilbao, Spain
- **Water and Wastewater Treatment Plants in Towns and Communities of the XXI Century: Technologies, Design and Operation.**
26-27 may - Moscow-Russia.
- **Aquatech China.**
02-04 june - Shanghai -China
- **II Convención Internacional de la Ingeniería en Cuba**
3rd to 5th June - Matanzas, Varadero, Cuba
- **Young Water Professionals.**
16-18 june - Barcelona-Spain
- **Green Ventures.**
16-18 june - Potsdam-Germany
- **2nd Iberian Congress on Self Compacting Concrete**
1- 2 July - Guimarães, Portugal
- **Panamericano de Transportes y Congresos Mundial de Investigacion en los Transportes.**
11th to 15th july 2020 - Lisboa

- **Zimbabwe Infrastructure Investment Conference**
22nd and 23rd July - ICE
Headquarters, One Great George Street Westminster, London
- **8th International Conference on Short and Medium Bridges –**
3rd to 6th August - Niagara Falls, Ontario, Canada
- **5th Civil Engineering Conference in the Asian Region**
8th to 12th August - Sydney Australia
- **2nd International Conference: Climate, Sustainability and Development in Semi-arid Regions**
16th to 20th August - Fortaleza, Ceara - BRAZIL
- **Eighth Caribbean Island Water Resources Congress**
30th August to September 1st - Rio Grande, Puerto Rico
- **Annual FIDIC Conference**
12th to 16th September - New Delhi, India
- **World Water Congress & Exhibition.**
19-24 September - Montreal-Canada.
- **EWA Newsletter**
20th to 29th September - Berlin
- **4th European Water and Wastewater Management Conference & Exhibition**
27-28 September - The Royal Armouries, Leeds, UK
- **II International Congress on Dam Maintenance and Rehabilitation.**
28-30 September - Zaragoza-Spain.

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In the months to come this events will be available on a RSS Channel. If you are interested in including your events in our newsletter, please contact Secretariat.