



European Council of Civil Engineers

E - JOURNAL 8

MARCH 2015

NEWS FROM:

- [Croatia](#)
- [Cyprus](#)
- [France](#)
- [Georgia](#)

INSIDE THIS ISSUE:

Memorial for the Late ECCE Honorary President Prof. Jose Medem Sanjuan 2

The Future is Here - Building Integrated Solar Thermal Systems
The voice from across the Atlantic - Interview with John Swift 3

Know your EU: Directorate – General for the Energy (ENER) 5

News from EU & other Associations 6

ECCE Standing Committee on Education & Training 9

News from ECCE Members 10

61st ECCE General Meeting – 30th ECCE Anniversary 29th – 30th May 2015, Naples, Italy

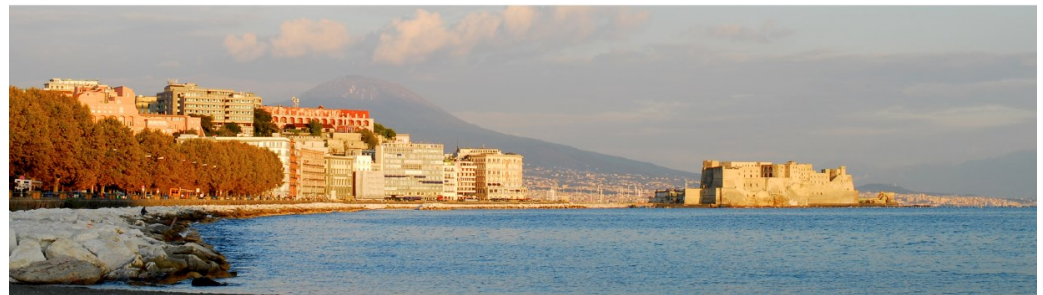
1985 – 2015
30th
Anniversary



European Council
of
Civil Engineers



NATIONAL COUNCIL OF
ITALIAN ENGINEERS



The **61st ECCE General Meeting** will celebrate the **30th Anniversary of the European Council of Civil Engineers** and it will be held on **29th – 30th May 2015 in Naples, Italy** at the Royal Continental Hotel hosted by the National Council of Italian Engineers (CNI).

This festive General Meeting will be combined with the **Conference “Artistic and Monumental Heritage – Restoration, Safeguard and Enhancement”** organized by CNI that will take place on Friday 29th May 2015, at the Basilica di San Giovanni Maggiore a Pignatelli.

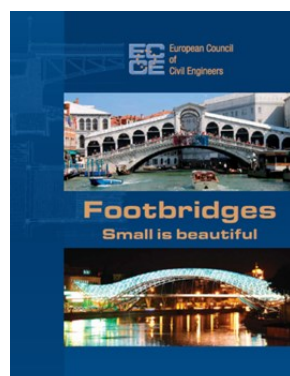
Please find the [61st ECCE General Meeting Preliminary Agenda](#), the [61st ECCE General Meeting Registration Form](#) and the [Hotel Reservation Form](#).

All updated information regarding the 61st ECCE General Meeting and Conference will be available on the ECCE website [here](#).

Please note that the deadline for hotel reservations at the Royal Continental Hotel is on 5th April 2015 and the deadline for registration to the 61st ECCE General Meeting is on 31st March 2015.

You are all invited to be part of this magnificent and memorable event at this important moment in the history of the European Council of Civil Engineers.

New ECCE book “Footbridges – Small is beautiful”



The second book prepared by the European Council of Civil Engineers on the subject of cultural and technical heritage in civil engineering and architecture is the book “Footbridges – Small is beautiful”. The book “Footbridges – Small is beautiful” which is the outcome of the hard work of the Task Force on Civil Engineering Heritage as well as of all the ECCE Members, is finally accomplished and published.

The official presentation of the book took place during the 60th ECCE General Assembly Meeting in Warsaw. The book is now available for purchase.

Some details about the book:

- the book contains 416 pages
- a total of 196 footbridges (179 in Europe and 17 in Japan) are presented in words and pictures

- the book contains a total of 613 photographs, including 43 two-page spreads
- important events in the history of bridge building are covered in a 34-page section
- more than 70 different authors from Europe and Japan have contributed to the book
- the book presents a rich and diverse selection of footbridges of various kinds, many of them world record holders
- both historic and modern bridges are included
- the key criteria for the selection of individual bridges were their technical and architectural features and characteristics, while

some are simply attractive

Our book "Footbridges - Small is beautiful" is a great coffee table hardcover book, a perfect gift and ideal to sit on a coffee table or similar surface in an area where guests sit and are entertained.

To order the book please follow the instructions and use the order forms that are provided [here](#).

Memorial for the Late ECCE Honorary President Prof. Jose Medem Sanjuan

In Memoriam

José Medem Sanjuan

13 August 1927- 27 January 2015



José Medem Sanjuan passed away in Madrid on January 27, 2015. A prominent civil engineer, leader, mentor, visionary, professor, friend and family person, he was an inspiration and motivator to many with the highest ethical and professional standards. His legacy is a living testimony of his efforts and life within the engineering profession and the organisations in which he was involved. He remained active in most of the professional organisations till the end, primarily WCCE, WFEO, Instituto de las Ingenierías de España, Colegio de Ingenieros de Caminos, Canales y Puertos de España, UPADI and the Pan American Academy of Engineers.

José Medem Sanjuan was Past President of the World Federation of Engineering Organisations, the World Council of Civil Engineers (Founding President), the European Council of Civil Engineers, the European Federation of National Engineering Associations, International Council of Engineering and Technology and the Foundation of Aragón for the Promotion of Infrastructure. He was Professor Emeritus of Civil Engineering at the Polytechnic University of Madrid, Vice-president of the Committee of International Affairs of the Instituto de la Ingeniería de España, and a Founding member of WFEO's Anti-Corruption Standing Committee. A member of the Pan American Academy of Engineering and Spain's representative to the Pan American Union of Engineering Associations (UPADI). Also a member of the Advisory Council of the Global Infrastructure Anti-Corruption Centre since the founding of GIACC. He was also Chairman of the International Advisory Board of the World Engineers Conventions of Hannover (2000), Shanghai (2004) and Brasilia (2008), and Chairman of the "Demarcacion de Madrid" of the Colegio de Ingenieros de Caminos, Canales y Puertos. He was a civil engineer and specialized in civil engineering projects, town planning, worksite management and programming. He received numerous awards, including the Distinction of the Order of Civil Merit from the King of Spain, the Gold Medal Commemorative of the Change in Tunisia from the President of Tunisia, and the Silver Medal of the Centenary of the Spanish Institute of Engineers. He was honorary Senator of the European Senate of the Economic Forum. His many publications leave a legacy on engineering practice and themes.

He is survived by his wife Frida, children Virginia, Cristina, Silvia, Ignacio, Javier and Natalia, sons-in-law José de Simón, Ricardo Botas, Francisco Rico, Letizia Cristobal and Antonio Conderana and his grandchildren.

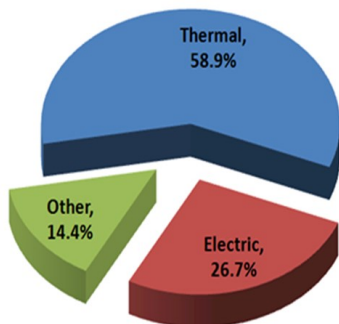
May his gentle soul rest in peace.

A special memorial will be organized during the 61st ECCE General Assembly in Naples in honour of the Late ECCE Honorary President Prof. Jose Medem Sanjuan.

The Future is Here - Building Integrated Solar Thermal Systems

The voice from across the Atlantic - Interview with John Swift

The majority of building's energy needs (on average 60%) is not electrical, but related to heating and cooling. To date, much attention has been paid to photovoltaic panels as a means of supplying the energy demands of buildings, and in the processes, the huge potential of solar thermal technology has been ignored.



2010 U.S. Buildings Energy End-Use

This issue is closely related to at least EU Directive on Energy Performance of Buildings and also to EU Strategic Goals for 2020, 2030 and 2050.

The current "Technology Roadmap for Solar Heating and Cooling" published by The International Energy Agency (IEA) identifies the integration of solar thermal systems in building surfaces as a top priority for the solar thermal industry. The use of alternative materials, technologies and manufacturing techniques for system cost reduction and performance improvement are also listed as major priorities. The IEA suggests that research institutes and the solar thermal industry develop new integrated solar thermal building products by 2020. The document also highlights the importance of addressing information barriers and creating public, business, and professional awareness of the potential of solar heating and cooling.

One Canadian company, Solar Tomorrow Inc., has developed and implemented solar thermal collectors that meet and exceed the recommendations of the IEA Technology Roadmap. I got a chance to interview John Swift, the founder of Solar Tomorrow Inc., to gain an

understanding of how they are changing the way we heat and cool our buildings.

"Our company was originally formed as an R&D company to design, build, and test new building integrated solar thermal collectors capable of preserving a buildings' appearance while conserving and generating energy" explains John. All efforts were put towards developing a technology that could replace a buildings envelope with solar thermal collectors that play the role of cladding. "We went through the inventive process, filed patents for the basic features of the collector, and tested our new designs extensively" says John, "and then we started work on designing and proving the collector's manufacturing process."

The technology allows architects the freedom to design net zero buildings without having to rely on traditional bulky solar panels cluttering the roof or façade. It is perfect for retrofitting not only contemporary, but also historic buildings, due to the ability to match the collectors with surrounding materials.

"Today we can custom design and manufacture solar thermal collectors to resemble any cladding material in both color and texture," John explained. "It's a dream come true for architects – our collectors blend right into a building's exterior or interior aesthetics. We can design solar thermal collectors resembling everything from stucco, brick, natural stone, asphalt shingles, and even wooden planks."

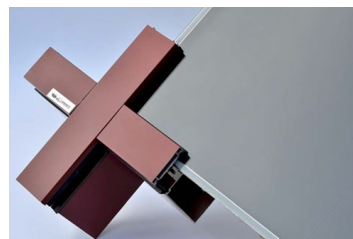


Solar thermal collectors resembling stucco during tests at the University of Nevada, Las Vegas

Traditional solar thermal systems are relatively expensive because they are treated as a separate

element in the building with only one specific function. The new approach reduces the cost of solar thermal systems through a prefabricated multi-functional design; the collectors simultaneously serve as building's cladding, capture thermal energy for hot water, space heating or cooling, and act as a building element that provides additional thermal and acoustic insulation. Cost reductions are further achieved by using an existing curtain wall structure to hold the collectors.

"Our flagship product is a high efficiency glazed flat plate solar collector designed for curtain-wall or window-wall installations" says John. These collectors can be installed into existing curtain wall structures and replace existing spandrel panels or double glass insulated glass units (IGU), without any structural changes to the existing curtain wall frame. After installation the collectors also provide additional thermal and acoustic insulation. The curtain-wall-type solar collector is the first of its kind in North America and is the only one certified by the Solar Rating and Certification Corporation (SRCC) for dual-modes of installation: in a curtain wall frame or on a rack.



The curtain-wall-type solar thermal collector in a curtain-wall frame

The majority of high-rise buildings struggle with limited area suitable for solar thermal collector installation; they are mostly constrained to a relatively small roof space which may already have a photovoltaic installation. The curtain wall façade of most buildings offers the perfect surface for placing solar thermal collectors.

“Almost every contemporary high-rise, office tower, or hotel uses curtain walls. You can go to any office building or commercial establishment that uses a curtain wall structure and swap the spandrels with our solar thermal collectors; no changes to the structure are needed” John explained. “It’s the perfect solution for retrofitting existing buildings or integrating solar thermal collectors into new curtain wall designs.”

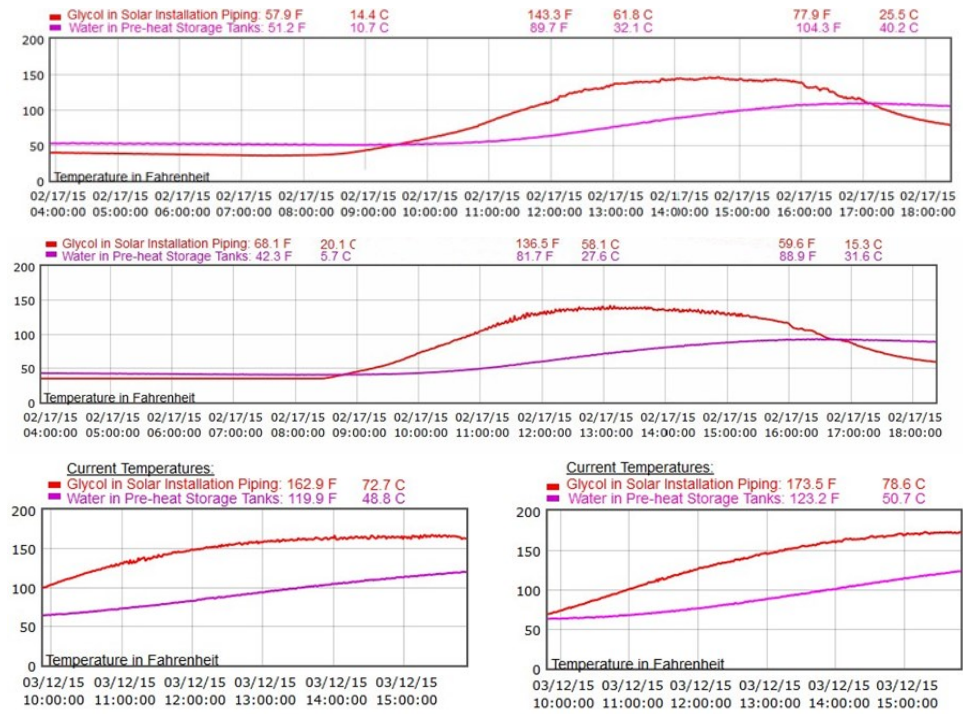
The curtain-wall-type collector is entirely made of aluminum alloy with 70% recycled aluminum content. The collector’s innovative design improves heat transfer and flow characteristic; the entirely sealed body ensures a long service life and facilitates the collection of more energy by avoiding daily defogging cycles. The extremely low drop of glycol pressure in the collector translates into a 50% savings in parasitic power needed for pumping. Two generations of this collector were tested by the National Solar Test Facility (NSTF) in Canada and described by the testing team as “the most innovative technology tested there to date.”

“In 2010, we partnered with Chatham University in Pittsburgh, Pennsylvania to design and install a building-integrated solar thermal collector demonstration project” John recalls. Façade integrated solar thermal collectors were installed on the Chatham research greenhouse in order to collect thermal energy and supplement space heating, as well as provide cladding for the building and demonstrate the systems performance through a real-time computer display installed alongside the collectors.

Following the success of the demonstration project a solar thermal hot water system was designed and installed to heat 10,000 liters of water a day for two residence buildings at Chatham University. The system used curtain-wall-type collectors installed in regular racks on the roof in order to provide easy access to facilitate research and development activities. Upon its completion in 2011, the project was listed by the U.S. Department of Energy as the largest solar thermal project in Pennsylvania. Chatham University has been awarded numerous prizes for



“The curtain-wall-type collectors installed in regular racks; the rooftop installation at Chatham University in Pittsburgh”



“Performance of two solar thermal installations at Chatham University in Pittsburgh, Pennsylvania, on February 17th, 2015. Ambient temperature during the day between -14 and -8 degrees Celsius. Amount of water heated: 10,000 liters.”

its innovative use of solar thermal energy and receives regular visitors that want to get a first-hand look at the solar thermal technology.

“Chatham is very pleased with our solar thermal projects and the results they have achieved,” John explained. “Last year we delivered another shipment of collectors for another building at the campus, which now provide heating at a new scientific greenhouse.”

One of the goals outlined in the IEA Technology Roadmap is training and education in solar heating and cooling technology for architects, engineers, designers, owners, facility managers, consultants and installers. I asked John about his opinion on the existing level of awareness between architects and designers.

“Anyone responsible for the design and construction of new buildings should be aware of the energy



“John Swift, of Solar Tomorrow, shows off the curtain-wall-type solar thermal collectors installed at the research greenhouse at Chatham University in Pittsburgh.”

conservation and generation benefits of solar thermal technology,” John explained. “I strongly believe that education about solar thermal systems should start with architects

and engineers - at the level of colleges and universities.”

Convinced of the need to educate architects and engineers about the benefits of solar energy John led development of a classroom teaching and demonstration tool that allows students to experience hands-on learning with topics covering solar thermal, PV, PV-thermal technologies. “You divide a class into four groups, give each group a demonstration kit and let them play! The kit collects all the experiment data so students can just play with the tool – changing the angle of light, changing the load, etc. – the data for future analysis is automatically stored on a computer,” explained John. He’s witnessed the

interaction first-hand; he occasionally teaches classes as a guest lecturer at colleges and universities.

What does the future look like for innovative companies in the field of solar thermal energy? “With more than seven years of research and product development now we have all the elements aligned for entering the market: patents, certification, manufacturing processes, tools, two large demonstration projects with real-time field data, and experience in system design and delivery,” John explained. “It is time to take the technology to the next level, time to build more projects and show the world that the future of solar thermal is already

here.”

Note.

John Swift is the Director of Research at Solar Tomorrow Inc. John is a mechanical engineer with a Master degree in environmental science. After graduation John worked for a district heating company, and later formed and led a number of his own companies ranging from innovative building materials to software development. Before starting Solar Tomorrow he worked ten years managing large software development projects for public sector and financial institutions. You can contact John directly at john.swift@solartomorrow.com.

Know your EU: Directorate – General for Energy (ENER)



The Directorate-General for Energy is one of 33 policy-specific departments in the European Commission. It focuses on developing and implementing the EU's energy policy – secure, sustainable, and competitive energy for Europe.

DG Energy is organised into five Directorates consisting of 17 individual units.

See the [Organisational chart](#)

Mission statement

The Directorate-General for Energy is responsible for developing and implementing a European energy policy under the political guidance of the European Commission Vice-President for Energy Union Maroš Šefčovič and Climate Action and Energy Commissioner Miguel Arias Cañete.

The Directorate General develops and implements innovative policies aimed at:

- contributing to setting up an

energy market providing citizens and business with affordable energy, competitive prices and technologically advanced energy services

- promoting sustainable energy production, transport and consumption in line with the EU 2020 targets and with a view to the 2050 decarbonisation objective
- enhancing the conditions for safe and secure energy supply in a spirit of solidarity between EU countries ensuring a high degree of protection for European citizens

In developing a European energy policy, the Directorate-General aims to support the Europe 2020 economic strategy which, for energy, is captured in the [Energy 2020 strategy](#) presented by the Commission in late 2010.

The Directorate-General carries out its tasks in many different ways.

For example, it promotes the completion of the internal energy market; carries out energy market monitoring; supports the reinforcement of energy infrastructure, seeks to ensure that indigenous energy sources are exploited in safe and competitive conditions; enables markets to deliver agreed objectives, notably in efficiency and renewable energies; facilitates energy technology innovation; develops the most advanced legal framework for nuclear energy, covering safety, security and non-proliferation safeguards. Across all areas, it develops strategic analyses and short, medium and long term policies for the energy sector; monitors the implementation of existing EU law; encourages the exchange of best practices; provides information to stakeholders; and promotes and conducts an EU external energy policy.

All these activities are aided by expert input from the Innovation and Networks Executive Agency (INEA), the Executive Agency for Small and Medium-sized Enterprises (EASME), the Euratom Supply Agency (ESA), and the Agency for the Cooperation of Energy Regulators (ACER).

More information at <https://ec.europa.eu/energy/en>.

NEWS FROM EU & OTHER ASSOCIATIONS

6th International Meeting of the Civil Engineering Chambers from the Portuguese and Spanish Speaking Countries



Meeting of the Chambers Presidents and Invited Delegates

On the 5th and 6th of March, in the capital of Cape Verde, Cidade da Praia met the representatives of the Civil Engineering Chambers from the Portuguese and Spanish speaking countries, including Portugal and Spain, the Latin America Countries, Angola, Mozambique and Cape Verde. Some countries justified their absence like Macau from China.

ECCE Immediate Past President Fernando Branco was present, representing the actual ECCE president, and also, as guests, assisted the representatives of FEANI and WCCE.

During the opening ceremony the President of Republic of Cape Verde was present and refer the importance of Civil Engineers to the development of the islands and wished the best success for the meeting.

The first day was devoted to discussion of organizational matters of the association. The first meeting of this association in Lisbon in 2008 was remembered with recognition to the founder of Mr. Fernando Santo. In the forum, the representative of each country spoke about their national problems, namely related to the evolution of the construction sector and to the recognition of foreign civil engineers.

Fernando Branco presented recent ECCE activities, and their importance for the European Civil Engineers, including the activities to influence the positions of Brussels, the 2nd Engineers Day, the Position Papers, the Standing Committees, the organization of

Conferences related to technical important topics, the publication of books and the quality of e-Journal, inviting everybody to register in ECCE site to receive it.

On the second day took place an International Conference with the topics: (I) Infrastructures and Development; (II) Construction in Seismic and Volcanic Zones and (III) The Future of Civil Engineering, with an important audience from Cape Verde engineers.



The International Conference

Fernando Branco presented the conferences "Strategies for Building Rehabilitation" in topic (I) and "the Challenges of Civil Engineering" in topic (III). In both topics the main issues related to an European Vision were described.

In the last theme, the ECCE activities related to the Professional Recognition of Engineers in Europe were presented by Fernando Branco as a possible basis for solutions of recognition of civil engineers among the Latin America countries. This was the lead theme of the important final Forum, discussed among the presidents of the several chambers, and it even appeared on the National TV News of that day.

WFEO Meetings (December 2014)

On 8-11 December 2014, Vassiliis Economopoulos participated at WFEO Meetings in Paris as Advisor of the WFEO President Eng Marwan Abdelhamid.

In the President's Advisors Meeting on Monday 8th December in his presentation regarding the Relations with the European Union he presented the outcomes of the 2nd European Engineers' Day, as well as the general evolutions in European Union, regarding the priorities

of European Commission and European Parliament at the new period (2014-2020) and the key points affecting Engineering professional matters and also the infrastructure development and Connecting European Facility (CEF).

Vassiliis also participated in the following Meetings of the WFEO Standing Committees, as WFEO President's Advisor, Representative of the Technical Chamber of Greece:

- Committee for the WFEO Relations with United Nations (WURC) led by Canada & USA
- WFEO Strategic Plan Task Group (led by Brasil - President Elect & USA)
- Organising Committee Meeting for World Engineering Conference and Convention 2015 (WECC 2015), Kyoto - Japan (29th of November 2015 - 2nd of December 2015), led by Japan
- Standing Committee on Engineering Capacity Building, led by South Africa
- Standing Committee on Young Engineers/Future Leaders, led by Kuwait.

The WFEO meetings were held at UNESCO headquarters in Paris, where the WFEO offices are located.

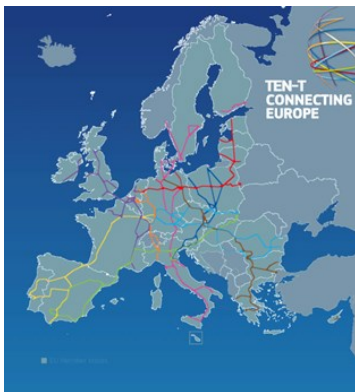


Vassiliis Economopoulos outside UNESCO headquarters



WFEO President's Advisors, from left to right: Emilio Colon, Marlen Kanga (President of Engineers Australia), WFEO President Marwan Abdelhamid, Vassiliis Economopoulos, Alade Ajibola (Nigeria)

European Commission identifies the infrastructure priorities and investment needs for the Trans-European Transport Network until 2030



The European Commission has published [nine studies](#) on the state of play and the development needs of the [TEN-T core network corridors](#). The studies have identified infrastructure development needs which represent approximately €700 billion of financial investment until 2030. They highlight the importance of optimising the use of infrastructure along the corridors, notably through intelligent transport systems, efficient management and the promotion of future-oriented clean transport solutions. This is the first time that tens of thousands kilometres of rail, road, inland waterway connections, ports, airports and other transport terminals have been studied in such a comprehensive way and with a common methodology.

See more at http://ec.europa.eu/transport/themes/infrastructure/news/2015-01-15-corridors_en.htm

European Commission Priority Energy Union



On 25th February 2015 the European Commission set out its [Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy](#).

Vice-President Maroš Šefčovič and Commissioner Miguel Arias Cañete presented the [Energy Union](#).

A European Energy Union will ensure secure, affordable and climate

-friendly energy for citizens and businesses. Using energy more wisely and fighting climate change is not only an investment in our children's future, it will also create new jobs and growth. Important groundwork has already been done: we have a policy framework for energy and climate for 2030, an energy security strategy is in place, and an integrated energy market for all EU countries is closer than ever before.

The Energy Union means making energy more secure, affordable and sustainable. It will allow a free flow of energy across borders and a secure supply in every EU country, for every citizen. New technologies and renewed infrastructure will cut household bills and create new jobs and skills, as companies expand exports and boost growth. It will lead to a sustainable, low carbon and environmentally friendly economy, putting Europe at the forefront of renewable energy production and the fight against global warming.

See more at http://ec.europa.eu/priorities/energy-union/index_en.htm

The SME Initiative



The SME Initiative is a joint financial instrument of the EC and the EIB Group (i.e. the European Investment Bank and European Investment Fund) which aims to stimulate SME financing by providing partial risk cover for SME loan portfolios of originating financial institutions. Alongside the European Structural and Investment Funds ("ESIF") resources contributed by the Member States, the SME Initiative is co-funded by the European Union through [COSME](#) and/or [Horizon 2020](#) resources as well as EIB Group resources.

The EIF is the entrusted entity by the adhering Member States to implement and manage the SME Initiative in close cooperation with EIB.

The SME Initiative is currently operational in Spain. Negotiations with Malta are advanced. In the future, it may be extended to other EU Member States. Member States can opt-in to the SME Initiative until

1. ENERGY THAT IS SECURE FOR ALL CITIZENS

● **WITH THE ENERGY UNION**
SECURE ENERGY means member states to energy citizens. Based on SOLIDARITY AND TRUST.

● **WITH THE ENERGY UNION**
Operating with ONE VOICE GLOBALLY.

2. ENERGY THAT FLOWS FREELY ACROSS BORDERS

● **WITH THE ENERGY UNION**
Fully INTEGRATED MARKETS.

● **WITH THE ENERGY UNION**
BETTER DEAL for consumers.

3. ENERGY-EFFICIENT PRODUCTS, TECHNOLOGIES, JOBS AND SKILLS OF TOMORROW

● **WITH THE ENERGY UNION**
STRONG, COMPETITIVE COMPANIES across Europe deliver the energy efficient products, technologies, jobs and skills of tomorrow.

● **WITH THE ENERGY UNION**
ENERGY EFFICIENCY IMPROVED by at least 27% by 2030.

4. AN ECONOMY THAT IS CLEAN, LOW CARBON AND ENVIRONMENTALLY FRIENDLY

● **WITH THE ENERGY UNION**
RENEWABLE ENERGY boosted, representing at least 27% of the energy consumed in the EU by 2030.

● **WITH THE ENERGY UNION**
Greenhouse gases cut by at least 40% by 2030.

5. NEW TECHNOLOGY FOR TOMORROW'S ENERGY

● **WITH THE ENERGY UNION**
LOWER BILLS for EU citizens.

● **WITH THE ENERGY UNION**
EUROPEAN COMPANIES to be world leaders in renewable and low-carbon technologies.

#EnergyUnion

the end of 2016, by expressing their interest to the European Commission. More concretely, interested Managing Authorities can contact their counterparts (i.e. the responsible country desks) in DG Regional and Urban Policy in order to initiate discussions on how to take up the SME Initiative in their country and/or regions.

The SME Initiative Spain



The [SME Initiative](#) was launched in Spain on 26 January 2015. It is co-financed by the Kingdom of Spain, the European Commission and the EIB Group (i.e. the European Investment Bank and the European Investment Fund), with the EIF managing the scheme on behalf of the different contributors.

The Kingdom of Spain's contribution of part of its European Structural and Investment Funds (ESIF), substantially supported by 16 Spanish regions, amounts to up to

EUR 800 million and is expected, together with the resources from the other contributors, to generate at least EUR 3,200 million of SME financing in Spain over the next few years. Spanish regions contributing to the SME Initiative are: Andalucía, Aragón, Illes Balears, País Vasco, Canarias, Cantabria, Castilla-La Mancha, Cataluña, Castilla y León, Extremadura, Galicia, La Rioja, Comunidad de Madrid, Región de Murcia, Comunidad Valenciana, y Ciudad Autónoma de Ceuta.

See more at http://www.eif.org/what_we_do/guarantees/sme_initiative/smei_spain/index.htm

“Initiatives for youth employment “

The EU sectoral social partners of the construction industry, FIEC and EFBWW launch a joint website

FIEC (European Construction Industry Federation) and the EFBWW (European Federation of Building and Wood Workers), the EU sectoral social partners for the construction industry, have launched a joint website presenting national initiatives for youth employment.

The website is accessible at the following link:

www.construction-for-youth.eu

The crisis which has hit the EU since 2008 has had and is still having a significant impact on the levels of unemployment of most of the Member States and is particularly affecting young people, despite what the EU and its member countries are doing: one in five under 25 year olds who are looking for work cannot find a job. 7.5 million young people between 15 and 24 are neither working, nor in education or training. At the same time the construction industry is not always seen by young people as the best career choice.

State of BIM delivery in the UK one year before government mandate

One of the highlights of this year's [RICS BIM Conference](#) in London was the keynote presentation Delivery of Level 2 BIM by

Terry Stocks, Deputy Head of Estates Department, Ministry of Jus-



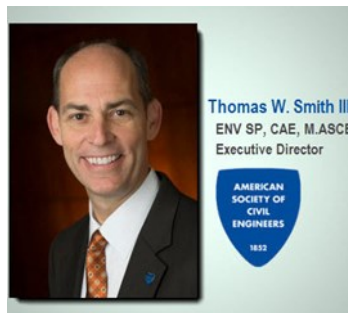
tice and Delivery Director for Level 2 BIM, UK BIM Task Force.

As people in the construction industry are aware, next year all central government construction projects (which represents about half of the construction industry in the UK) will require building information modeling (BIM) Level 2. The short term objective is to reduce the cost of construction (design, tender, build) by 20%. The longer term objective is by 2025 to reduce the costs associated with designing, building, operating and maintaining buildings and infrastructure by a third.

An industry survey in the UK last year reported that 54% of respondents in 2013 said that they were using BIM on projects. Most of those not yet using BIM said that they would be within one to two years. 70 % of the respondents reporting using BIM said that BIM has given them a competitive advantage. Terry's perspective is that BIM is fast becoming the standard way of working for designers and contractors on most construction projects - public and private.

See more at: <http://geospatialworld.net/Professional/ViewBlog.aspx?id=413#sthash.nn12w7Do.jSix8pXJ.dpuf>

Tom Smith takes the helm as ASCE's new executive director



A member for more than 25 years who had served the Society as general counsel since 1997, Tom Smith, ENV SP, CAE, M.ASCE, is

ASCE's new executive director, succeeding Pat Natale. With a master's in structural engineering, a B.S. in civil engineering and a law degree, plus five years as deputy executive director, Tom is ably equipped to lead the Society into the 21st century.

See more at <http://blogs.asce.org/new-executive-director-thomas-smith-takes-the-reins-at-asce/>

EU certification scheme for the energy performance of non-residential buildings



In December 2014, the EU Commission received a [market study on a voluntary common EU certification scheme for non-residential buildings](#), in accordance with the 2010 Energy Performance of Buildings Directive (EPBD). Giving an overview of existing voluntary schemes, this report aims to analyse the demand for a European wide voluntary scheme. It concludes that reliability, cost and international acceptance are key factors for scheme selection by the stakeholders of the construction sector. The main added value of this voluntary EU scheme would be to allow a consistent comparison between non-residential buildings across the EU. It could also contribute to raising the ambition for building certification in some Member States. The study also shows that the voluntary EU scheme should build on CEN standards, start with a pilot phase (e.g. with offices and hotels), and be applied both for public & private buildings, as well as new & existing buildings.

Technical Conference in Athens re-affirms the importance of road infrastructure



On 12-13 February, more than 200 road infrastructure safety stakeholders gathered in Athens, Greece to attend the first Technical Conference on 'Current Advances in Road Infrastructure Safety Equipment'.

Co-organised by the European Union Road Federation (ERF), the National Technical University of Athens (NTUA) and the Hellenic Institute of Transportation Engineers (HITE), the conference was dedicated to providing Road Authorities and Operators, Transportation Planners, Engineers and Road Safety Experts with an overview of European policies, legislation, technical norms and good practices in the field of road infrastructure safety equipment, in view of the re-launching of important motorways construction projects to

complete the Greek TEN-T.

See more at <http://erf.be/index.php/communication/press-releases/449-technical-conference-in-athens-re-affirms-the-importance-of-road-infrastructure>



ECCE STANDING COMMITTEES

Standing Committee on Education & Training

“Lifelong learning in civil engineering profession in Europe”

A Workshop in Prague on 20-21 April 2015

The ECCE Standing Committee Education & Training invited each ECCE member to send a representative to the Workshop “Lifelong learning in civil engineering profession in Europe”, to take place in Prague on 21-21 April 2015.

The Workshop will be kindly hosted by CKAIT (Czech Chamber of Chartered Engineers and Technicians in Construction) on its headquarter premises (Sokolská Street 15). There is no registration fee for the attendance of the Workshop.

The Workshop is intended to give the opportunity to ECCE members representatives to be engaged in an ample exchange of views and experience in a matter of major importance for the profession: the continuous professional development of European civil engineers.

In a letter sent on 9th March 2015 to all ECCE members, ECCE President Włodzimierz Szymczak strongly endorsed the organisation of the Workshop in Prague.

The Workshop will start with a working session on Monday 20th April 2015 from 9.00 to 13.00. In the afternoon of the same day is planned from 15.00 to 18.00 a visit to the laboratories of UCEEB (University Centre of Energy Effective Building) located near Prague (pages <http://www.uceeb.cz/en>), followed by a dinner offered by CKAIT.

The second working session will take place on Tuesday 21st April from 9.00 to 13.00.

CKAIT made a preliminary reservation at the hotel Ankora (www.hotelankora.cz) located close to the venue of the Workshop. Special price for reservation made through CKAIT is 1.400 CZK for single room and 1.600 for double room, equivalent to 50 EURO and, respective, 57 EURO for the present exchange rate of 27,70 CZK/EUR.

“Study on the practical placements/internships of civil engineering students and on the support given by ECCE members to this activity”

Following the Workshop in Prague, the SC E&T will undertake in 2015 a “Study on the practical placements/

Phase I	Practical placements/internships in the curricula of civil engineering programmes <ul style="list-style-type: none"> • at Bachelor (1st cycle) level • at Master (2nd cycle) level • for Integrated (5-year) programmes
Phase II	Partnership Universities – civil engineering firms for the organisation of internships Phases I and II will be completed by the time of the 62 th ECCE meeting, October 2015.
Phase III	Support of civil engineering professional associations and chambers to the organisation of internships Phases III will be completed by the end of 2015.

internships of civil engineering students and on the support given by ECCE members to this activity”. Three phases are previewed:

Prof. Iacint Manoliu
Chairman of the ECCE Standing Committee on Education & Training

ECCE NEWS

Update of ECCE Articles of Association

The process of Updating and Changing the ECCE Articles of Association has already started according to the decision of the newly elected ECCE Executive Board in Warsaw. Appreciating the importance of this issue for our organization and our members, ECCE President has established a Preparatory Group for Updating and Changing the ECCE Articles of Association that functions under the direction of Immediate Past President Prof. Fernando Branco. The Group is already working and the case of updating the ECCE Articles of Association is in process.

ECCE Standing Committees functions

ECCE President has started to put into practice his idea that was presented during his first speech as President regarding the assessment and enhancement of the current work and formula of functioning of the ECCE Standing Committees. ECCE President has been trying to support the activation and involvement of all our members to the works of the existing ECCE Standing Committees with the intention to promote the spirit of team work that will lead us to achieve and produce solid results for ECCE and for the Civil Engineering pro-

fession. In this direction, a letter on behalf of the ECCE President has been sent to all ECCE delegates encouraging their active participation in the ECCE Standing Committees and also asking for the creation of a "support group" in each ECCE Member organization related to the works of the Standing Committees. Another goal that has been set and is already in process is the creation of at least one position paper by each Standing Committee per year. Also, ECCE President has been in direct communication with the ECCE Standing Committees' Chairmen regarding all these matters.

Meeting with ICE leadership

Towards the end of 2014 ECCE received a resignation letter from the Institution of Civil Engineers (U.K.) which is one of ECCE's founding members. This was a very unfortunate moment for ECCE as one of its founding members decided to step down. The ECCE President and Executive Board considered the poor situation and decided that for the sake of ICE's long history in ECCE the least that could be done was to explain and clarify the situation and the reasons that led ICE to such a decision. Therefore, a meeting with ICE leadership was arranged in the beginning of February in London. In this meeting the participants on behalf of ECCE

were ECCE President Włodzimierz Szymczak, ECCE Immediate Past President Fernando Branco and



From left to right: ECCE Immediate Past President Fernando Branco, ICE Vice President/ President Elect Tim Broyd, ECCE President Włodzimierz Szymczak, ECCE Past President Vassilis Economopoulos, ICE Executive Director Nick Baveystock

ECCE Past President Vassilis Economopoulos. On behalf of ICE, Nick Baveystock Director General and Secretary and Tim Broyd Vice President participated in the meeting. It has been a very fruitful and constructive meeting since the two organizations established a direct contact and exchanged information to achieve the utmost transparency and dissolve any misperception due to miscommunication. The discussions that were held reinforced the need for further dialogue and we are expecting good results.

NEWS FROM ECCE MEMBERS

CROATIA

The Croatian Chamber of Civil Engineers provided professional aid to flooded areas in Slavonia through voluntary work

Between 14 and 18 May 2014, a low-pressure [cyclone](#) designated *Tamara* and *Yvette*, affected a large area of [South-eastern](#) and [Central Europe](#), causing floods and landslides. The rain was the heaviest in 120 years of recorded weather measurements and activated torrents and mudslides, and subsequently several rivers in watersheds of [Sava](#) and [Morava](#) rose and flooded the surrounding val-

leys, spreading damage across many towns and villages. Official counts indicate that over 1.6 million people were affected after a week of flooding, especially in Serbia and Bosnia.



In Croatia the most critical area was in southern [Slavonia](#). The embankments on the Sava River

were under severe pressure caused by the huge amount of water coming from Bosnia. The embankment was breached near [Rajevo Selo](#) and [Račinovci](#),



and thus evacuation was ordered for [Gunja](#), Rajevo Selo and Račinovci. As of 19 May, around 15,000 people in easternmost parts of Croatia were evacuated from their homes.



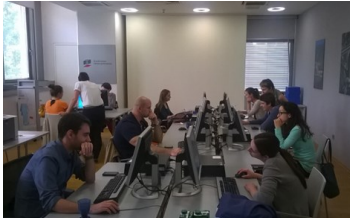
After the flood catastrophe was announced in Slavonia, the Croatian Chamber of Civil Engineers (CCCE) promptly reacted and on 21 May offered all available resources through the provision of professional help after the water would fall back.



Due to the proportion of damage incurred in the catastrophic flood, it was necessary to engage a larger number of experts in a short period of time, thus the engagement of chartered civil engineers was agreed in coordination with the Ministry of Construction and Physical Planning and the action **“Give Slavonia one work day”** was initiated – for the activities of professional assessment of the condition in the flooded areas.

The Centre for Helping the Flooded Areas was established at the Chamber. Equipment was procured for engaging in fieldwork, and the data for the purposes of the Centre were processed at 10 background

computers. All chartered civil engineers were called to assist in the action in order to provide professional assistance in the procedures of condition assessment and damage assessment in the flooded areas. The Chamber also appealed to the employers to allow their employees, also the CCCE members, to participate in these important activities of public interest.



214 volunteers, members of the Croatian Chamber of Civil Engineers, participated in the action **“Give Slavonia one work day”**. Upon examining the buildings in the flooded areas, they prepared 1029 records on building damage assessment according to the previously determined methodology, of which 249 were prepared for Stročinci, 117 for Đurići, 154 for Posavski Podgajci and 509 for Rajevo Selo.



The organisational preparations were conducted by a special committee, president and CCCE secretariat, and the action was coordinated by MSC Mihaela Zamolo and

Aleksej Dušek, as well as the Chamber general secretary Sunčana Rupić.

The Minister, Mrs. Anka Mrak Taritaš, particularly thanked the Chamber president as well as all the chartered engineers participating in this action, for their quick response and engagement during the damage assessment in the flooded areas.

Act on Chambers

During the preparation of the Act on Jobs and Activities in Physical Planning and Construction it was noticed that it would be more appropriate from the legal and technical as well as the content aspect to separate the provisions of the aforementioned act referring to the organisation, scope and work of the professional chambers into an independent act systematically regulating all issues relating to the work of professional chambers. The reason for the adoption of the Act on the Chamber of Architects and Chambers of Civil Engineers lies in the fact that the professional chambers are widening their scope of competence, they are given new public authorities, as well as great significance in the organisation of professional training, particularly with regard to the control of their members' work.

The changes caused by the Republic of Croatia becoming a full-fledged member of the European Union require a proactive role of the Chambers in the creation and implementation of public policies in the field of construction and physical planning. In that regard, it is necessary to formulate a quality legislative framework which shall enable the Chambers to undertake further activities with the aim of improving the profession, the responsibilities and efficiency.

Precisely the long tradition of chamber associations of engineers in the territory of the Republic of Croatia and the good organisation of engineering chambers have in the previous period had a significant role in the organisation and implementation of an efficient system of professional training and membership preparation, in order to be able to respond to the high requirements imposed by the legislation harmonised with the acquis

communaux, as well as to join the demanding Internal Market.

10th Days of Chartered Civil Engineers

The Croatian Chamber of Civil Engineers is organising the tenth anniversary of the **Days of Chartered Civil Engineers, from 11 until 13 June 2015, in Opatija.**



The already traditional **Days of Chartered Civil Engineers** have been recognised as an opportunity to gather experts in the field of civil engineering. All participants, almost 1000 to 1500 every year, have the opportunity to take part in discussions and exchanges of opinion with regard to the topics of common interest, they can acquire new knowledge and socialise beyond the business environment.



The great challenges placed before the civil engineering profession in the conditions of economic crisis are achievable through joint consideration of the possible routes of action for the Chamber as an institution, and all its members as well. Above all, our goal is to ensure a quality, professional and responsible performance of activities in construction, by undergoing continuous education and training of knowledge and professional competitiveness, with the aim of advancing the profession, its dignity, responsibilities and efficiency.

For several consecutive years, as part of this meeting in Opatija the annual meetings of regional Chambers were held. In five years the participants were Engineers Chambers from Montenegro, Hungarian, Serbia, Slovenia and Bulgaria. The topics of common interest were discussed at these meetings, the

summaries of measures proposed by these Chambers as civil engineers' contribution to overcoming the crisis in these countries. We were also able to demonstrate to our guests the most recent achievements in the field of construction and some important energy facilities in Istria, the Rijeka area and Gorski Kotar.

For this precise reason, as well as due to the desire for these celebratory "10th Days" to gather the newest scientific and professional knowledge, experiences and examples of good practice, we are convinced that we will gather a large number of participants this year as well, with the aim of proposing further operating activities in order to improve the conditions for action and further development of the civil engineering profession. In addition to the topics and news from the professional field, the participants will receive relevant information on the news in legislation from the representatives of the relevant Ministry.

Furthermore, with the aim of promoting the achievements in the field of civil engineering, for the fifth time we are organising the formal **KOLOS** awards – the award given by the Croatian Chamber of Civil Engineers, as part of this meeting.



The award is given for exceptional results of permanent value in the advancement and development of the profession, for public recognisability and acknowledgement, as well as development of technical creativity in the Republic of Croatia, for exceptional engineering achievements, as well as encouraging investments and contributing to the development and advancement of the construction activity.

CROSKILL

After the accession of the Republic of Croatia to the EU, new possibilities are arising for the use of the resources from different funds, and to that regard the Chamber has participated as a partner in the preparation of several projects. The European Commission has approved the CROSKILL II project.

The project holder is the Faculty of Civil Engineering of the University of Zagreb.

Partners in the project are the following:

CO1 – FCE - Faculty of Civil Engineering of the University of Zagreb

CB2 – REC - Regional Environmental Centre for Central and Eastern Europe, Country Office Croatia)

CB3 – SBC – School of Building and Crafts Čakovec

CB4 – HUPFAS – Croatian Association of Facade Thermal Insulation Systems

CB5 – CCCE – Croatian Chamber of Civil Engineers

CB6 – HZZ – Croatian Employment Service

Experiences of EU countries and experiences in Croatia have demonstrated that an energy efficient renovation and construction of new buildings with minimum energy consumption (low-energy, passive, almost zero energy) currently present a great challenge for the construction sector and the industry as a whole.

The above mentioned situation requires an increase in the number of professionally qualified employees in the market, that is, the creation of a work force with adequate knowledge, or which is specialised in the construction of low energy, passive and almost zero energy buildings, thus guaranteeing a quality building performance. Furthermore, it is necessary to create the measures to ensure the preconditions for the evaluation of a qualified work force in the market (regulations, recommendations).

The BUILD UP Skills initiative contributes to the objectives set by the European Commission through the "Commission's 'Europe 2020' Strategy — 'Resource-efficient Europe' and 'An Agenda for new skills and jobs', and is part of the recently adopted Energy Efficiency Action Plan 2011. The interaction with the existing structures and funding instruments such as the European Social Fund and Lifelong Learning Programme is also improving, and shall be based on the European Qualification Framework (EQF) and the learning results defined by it.

CYPRUS

In recent months, the Civil Engineers in Cyprus developed great activity organizing events both of social and of professional content.

It is emphasized that since last year 2014 the Cyprus Association of Civil Engineers launched a series of free seminars for its members and for Engineers and Architects in general with great success and high participation index.

Of all the activities we note the following:

Position letter

The Cyprus Association of Civil Engineers, with letters to the Ministry of Interior, the Municipalities and the District Administration, expressed its opposition in relation to laying pipes in gutters in columns and beams in buildings. This practice causes a series of problems in constructions due to moisture concentration that oxidizes the reinforcement while the reinforcement cannot easily be installed correctly, thereby reducing greatly the estimated carrying capacity of the columns in earthquake particularly at beam-column junctions.

The CYACE invited the competent authorities not to accept the drawings submitted to them by the designers for Building licensing purposes if they propose pipes and other "foreign" bodies crossing through the structural elements of reinforced concrete (i.e. columns, beams and walls), so as to provide the required level of safety in construction. Moreover, the CYACE recommended rejection of applications that provide for passage of gutters and sewer pipes through slabs when they do not have the required thickness.

Extensive meeting of the Council of the Association of Civil Engineers

The 13th meeting with wide participation of the Cyprus Association of Civil Engineers, was attended by members of the Council, the members of the District Councils, elected members of the steering committee, the general council and of the Disciplinary Council of the Cyprus Scientific and Technical Chamber (ETEK) and the members

of the Council of Presidents of the Association, as well as other active members, crowned with great success.

The meeting was held on Saturday, October 4th 2014 and covered key issues facing the Association and Civil Engineers and there was critical discussion about decisive issues. Topics included:

- Promoting the objectives and goals of the Association and of ETEK for the period 2014-2017.
- The course of the Association, the current situation and challenges, and the future of the Association.
- Ensuring the responsibilities of Civil Engineering in today's difficult economic situation.
- The Assignment, Agreement and Conditions of Contract Services in Civil Engineering.

Meeting with the government spokesman

Delegation of the Cyprus Association of Civil Engineers, CYACE, led by President Stylianos Platona, had a meeting with the government spokesman Nikos Christodoulides, at the Presidential Palace on Tuesday, October 14, 2014.

The meeting took place at the request of the Association for information on schedules and actions of the Government on the issue of reconstruction of the closed city of Famagusta and of the organization of expert groups.

The spokesman informed the delegation and then had the opportunity to exchange views. The CYACE assured that the Civil Engineers welcome and support any action of the Government which aims at planning the reconstruction of cities and villages on a possible solution to the problem of our country and for the protection, restoration and enhancement of religious, historical and archaeological sites throughout Cyprus.

On the occasion of the meeting there was a discussion on development issues, focusing on ways of recovery of the construction industry and simplification of licensing procedures for proposed projects.

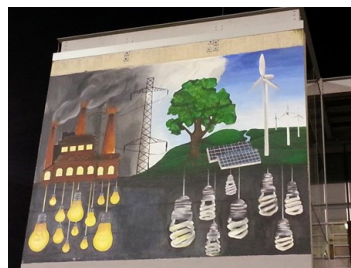
Meeting with the director of the Public Works Department

Representation of the Council of the Cyprus Association of Civil Engineers met with the Director of Public Works Department Mrs Chrystalla Mallouppa on January 16, 2015. During the meeting they discussed issues of common interest such as development projects planned for 2015, the assignment of designs to the private sector, the public transport etc. in relation to the economic crisis.

Careers exhibition

Civil Engineers were once again present at the exhibition for the "Professions Career", held on 29th and 30th of November 2014 in Nicosia. The exhibition is organized every year by the Association of Teachers - Counselling and Career Education Service.

Contest – Exhibition



The Cyprus Association of Civil Engineers, Nicosia Department, in cooperation with the Art department of the GC School of Careers organized a contest for wall painting on the topic of "Energy and environment".

The aim of the competition was to raise awareness among pupils and the general public for the protection of the environment and energy issues and understand the need for a shift to renewable energy sources.

The contest finished on January 2015 and a painting titled "Green Energy" is now decorating the wall of the School.

Training

1. Eurocode 8, Part 1 - Provisions and Implementation

The Cyprus Association of Civil Engineers organized a two-day Training Programme on "Eurocode 8, Part 1- Provisions and Implementation" in November 2014, in Limassol Cyprus.

The Eurocodes are a set of standards, which cover the design and construction structure in the European area. In our country Eurocodes came into mandatory application on January 1, 2012 and therefore, all the engineers are required to use these standards in designing and constructing structures. Because Cyprus is located in an area of high seismic activity, earthquake resistance should be included in the design of structures, covered by Eurocode 8. The need for the training includes the case of engineers who have not been taught about Eurocodes in university. The instructor was Dr Christis Chrysostomou, Associate Professor of Civil Engineering and Geomatics of the Cyprus University of Technology, and Dean of the Faculty of Engineering and Technology.

2. Design of Steel Structures for Energy Applications

Accordingly, the Cyprus Association of Civil Engineers, organized with great success on 11th and 12th December, 2014 the Educational Program "Design of Steel Structures for Energy Applications". The instructor was Dr. Chares J. Gante, Professor at the Laboratory of Steel Structures of the Civil Engineering School of the National University of Greece.

3. Hidden Defects and Legal Responsibilities in the Design and Construction of Real Estate

The Cyprus Association of Civil Engineers and the Cyprus Architects Association co-organized the seminar "Hidden Defects and Legal Responsibilities in the Design and Construction of Real Estate" in Limassol and Nicosia – Cyprus. The purpose of the seminar was the definition of hidden defects, both from the practical and the legal aspect, the risks involved and how to absorb these risks in relation to the parties in a project. The seminar included the presentations

by leading providers of insurance coverage of losses due to "hidden defects" and a lawyer.

4. Proposed Legislation and code of practice for fire protection of buildings

On December 2014 the Cyprus Association of Civil Engineers organized lectures in Limassol and in Nicosia for the "Proposed Legislation and code of practice for fire protection of buildings". The lecture was given by Dr. Spyros Spyrou fire-fighting design engineer.

5. Design for strengthening of buildings against earthquake

A half-day seminar was organized on January the 12th, 2015 at the Cultural and Educational Center of ETEK following relevant educational programs. During the seminar the Professor of the University of Cyprus Stavroula Pantazopoulou analysed to the participants a design step by step.

6. Seminar on Geotechnical Engineering

The Cyprus Association of Civil Engineers, organized with great success, the 2nd Pancyprian two-day seminar on Geotechnical Engineering on 6th and 7th of February 2015, in Limassol.

The seminar was under the auspices of the Auditor General of the Republic of Cyprus Dr. Odysseas Michaelides and was attended by distinguished professors and other scientists involved in the issues of Geotechnical Engineering, both from Cyprus and abroad.

The purpose of the seminar was the further understanding of the geotechnical engineering problems met frequently locally as well as highlighting issues in the world. Presentations were given by distinguished speakers coming from the academic and the industrial community.

7. Basic knowledge and obligations of Engineers - Ethics and disciplinary procedures

The Cyprus Association of Civil Engineering organized a seminar on "Basic knowledge and obligations of Engineers - Ethics and disciplinary procedures of ETEK" on February 16, 2015, at the Educational and Cultural Center of ETEK. The seminar was presented

by the President of our Association Mr. Platonas Stylianou.

Projects

A. Civil Engineering heritage – Panagia Melandrina church

On July and September 2011, inspections took place concerning the current condition of Panagia Melandrina Church situated in the village of Agios Amvrosios at the province of Kyrenia. The purpose of these inspections was the recording of the general and structural damages the above structure has suffered through the years and the general observation of the site.

The architect of the project was Marilia Christodoulou and the Civil / Structural Engineer was Platonas Stylianou who designed and supervised the implementation of the study.

The damages observed concern two different structures: **the Church** itself and **the added five counterforts**.

The damages that were recorded during our inspections can be categorized as follows:

- Extensive severe cracks on the stone-made, load bearing masonry of the Church,
- Extensive severe cracks on all counterforts and partial collapse of one of them,
- Extensive damages on all of the barrel vault shaped, stone-made beams of the interior of the Church and total collapse of some of them,
- Partial collapse of the roof and extensive cracking on the rest of it,
- Poor joining plaster and poor pointing at all masonry walls,
- Uncontrolled plantation / vegetation inside the body of all walls, roof and counterforts.

Since there is immediate danger of collapse, emergency measures are needed i.e. measures in order to prevent the structure from further deformation, displacement and cracking.

In order to achieve propping of the Church both inside and outside, installation of proper formwork

system is required all around the structure and in the inside.

In order to shelter the Church and protect the interior from rain, water, birds or other possible enemies causing further damage, covering should be provided to the roof and especially above the collapsed part of the roof. This cover should be light (i.e. heavy duty polythene

sheeting or something similar) and supported to its own bearing system so as to avoid further loading on the formwork or the existing masonry roof.

To re-establish the wall's homogeneity, bracing of all openings is necessary. A proposed type of bracing, which is a traditional one, is with the use of timber joists.

Uncontrolled plantation and vegetation should be removed from and around the building.

All proposed measures are reversible and easy to execute under continuous supervision and skilful personnel. The cost of this work was €137.000.

Before



After



B. Civil Engineering heritage - Apostol's Andreas Monastery – Restoration works under progress

The restoration of the historic Greek orthodox Apostolos Andreas Monastery will be in three phases.

The first phase of a major project for the preservation of the Monastery in the Karpasia district at the North Eastern part of Cyprus started in September 2014 and is expected to last 22 months. The project started from the church, which was built in 1867. The Works included a fence at the perimeter of the monastery to achieve no access from the public over the work. The temple, sacred objects and images were removed from the charge and a chapel was built outside the fence.



The rotten balconies, the crumbling ceiling and ruins attest to the difficult task of contractors.

The architect and restorer, Diomedes Myriantous, consultant of the group of Patras University will oversee the implementation of the study. Supervision is done by the UNDP.

During the first phase the following operations will be performed:

1. Maintenance of the 1867 church (rebuilt coatings, door maintenance, and equipment, new electrical installations, repair and reinforcement of walls, etc.). Configure the baptistery in the western part.

2. Belfry (static reinforcement, replacement of damaged masonry etc.)

3. Demolition of reinforced concrete slabs on the east side and new construction with stainless iron beams and wooden floor.

4. Maintenance of southern arches (strengthening and replacement of damaged stones), replace metal beams with new stainless iron. Construction of room for icon stands and candles, etc. in the south-western part.

5. Cells on south wing roof. Repair (replacement of roof windows doors, railings, balconies, etc.). Configure a section as a chapel; configure a section as a museum etc.

6. Western part - Maintenance - strengthening, deposing some newer additions and configuration in synod and reception area.

The first phase of the project is expected to be completed in May 2016 and will cost about two and a half million euros.



Coming events

International Conference on Health and Safety

The Cyprus Association of Civil Engineers organizes the 4th *International conference and exhibition on Construction safety and Health – Maintenance, alteration demolition* at Filoxenia Conference Centre, in Nicosia, Cyprus on 22nd and 23rd of May 2015.

Distinguished scientists and experts from various countries will present the latest developments and Best Practices for the effective implementation of prevention and coordination of safety and health issues at the design, preparation and execution stages of these projects.

The language of the conference will be Greek and English with simultaneous translation

Photo contest on Health and safety

The Cyprus Association of Civil Engineers announced a Photo Contest on "Safety in construction in Cyprus". The contest takes place in cooperation with the Cyprus Photographic Society, the Association of Safety and Health Cyprus and the Federation of Associations of Building Contractors.

The competition is open to all persons (amateur and professional photographers, Students, Cypriots, aliens, etc.

FRANCE

French civil engineering heritage and its Engineers in the world

A new chapter of IESF website



As early as the 17th Century and during the 18th Century, many civil engineering structures and infrastructures were built in France, in

matters of bridges, tunnels, harbours, canals and dams. Then, civil engineering Companies developed quickly, several of them being amongst the most important in the world. They kept this position during the 19th Century (with railways for example), up to now.

The works that they design and built, in France as well as abroad, constitute a heritage of remarkable pieces of civil engineering, which demonstrate the knowhow and

innovation capabilities of the firms, of the engineers, and of French civil engineering.

This heritage is of high economic, historical and cultural value. In order to improve and to disseminate this knowledge, the Civil Engineering Comity of IESF devotes a part of its activities to this objective.

A first step was engaged in 2003 with participation in the ECCE Working Group "Civil Engineering

Heritage" which published in 2009 the book "Civil Engineering Heritage in Europe, 18th - 21st Century" and more recently in 2014, the book "Footbridges, small is beautiful".

Later on, this activity was extended: it is implemented in the IESF website under the title « 250 ans de patrimoine du génie civil en France » (www.iesf.org/upload/pdf/patrimoine_genciv.pdf).

Facing the success encountered on the web, the Comity decided to enlarge its action to civil engineering works designed by French engineers and built by French firms in the world, since 19th Century.

This Century required responding to considerable needs of transport infrastructures in all countries with recourse to banks in order to facilitate funding of the investments.

In a very competitive context, the response of French industries and of their engineers to requests of foreign and colonial countries shown a high inventiveness: development of new materials such as iron and steels, cements, reinforced concretes, as well as new

construction techniques appropriate to local condition, with considerable risks.

These efforts continue all along 20th Century, with the improvement of high performance materials adapted to various kinds of works: pre-stressed concretes, fiber concretes, self-placing concretes, high elasticity limit steels, high performance cables (etc.), with always daring technologies: cantilever bridges, launched bridges, suspension bridges, cable stayed bridges, high performance tunneling equipment's, etc.

Today, main civil engineering French firms realize most of their business outside France, despite a high international competition which requires « excellency » and reinforcing the knowhow and capabilities that they export in the whole world.

In order to present this up to now existing heritage, a new chapter has been posted on the IESF website, devoted to structures still in use in the world. (http://www.iesf.fr/upload/pdf/ouvrages_g-c_monde.pdf)

It is divided in several sections in order to facilitate an easy access to various work categories:

- Bridges and viaducts, 1820-1915
- Bridges and viaducts, 1918-1944
- Bridges and viaducts, 1944-2012
- Railways, 1820-1915
- Tunnels 1871-2014 (in progress)
- Canals, 1869-1983
- Dams, 1860-2012
- Concrete offshore platforms, 1973-2004
- Buildings (in progress)

The contributions were prepared by active members of the Civil Engineering Comity: Jean-Louis Bordes, Jean-Claude Charlot, Georges Pilot, Lucien Pliskin, Bernard Raspaud, Noël Richet, Jean-Paul Teyssandier.

Jean-François Coste

Chairman, IESF Civil engineering Comity

GEORGIA

Georgian Society of Civil Engineers



* The President of the Georgian Society of Civil Engineers Mr. Iuri Svanidze convened a meeting of the members of GSCE, as well as representatives of executive and legislative bodies, during which the results of the activities in 2014 were considered and the prospects for 2015 in the field development were outlined, based on the close cooperation with the European Council of Civil Engineers and professional organiza-

tions of its member countries, in order to study and implement new construction technologies with mutual cooperation.



* The vice - president of the Georgian Society of Civil Engineers Malkhaz Bediahshvili was granted the title of the best engineer 2012-2013 of the country by the Engineering Academy of Georgia and he was awarded an honorary diploma. He works productively on issues of improving seismic resistance of buildings (Improvement

of existing buildings stability by seismic insulation method, A.Sokhadze, M. Bediahshvili). It is known that traditionally calculated and designed buildings at design seismic impact, receive certain deformations, get damaged, but with non-dangerous results for life. This circumstance causes certain panic and break of functioning in institutions and organizations on which the sustainable action of cities and settlements are depending. Such organizations, the functioning of which is not allowed to stop during an earthquake, are: police, fire service, communication, power supply, water supply and so on. The damages that occur at schools, kindergartens and hospitals should not be such that would create fear and panic situations. Right from such situations is the way out of the protection of existing buildings by seismic insulation, without withdrawal of the population. In the article, seismic insulation means are presented which are used in many countries but not

on a large scale. It is necessary to study these methods and their mass implementation in all seismic dangerous zones.

* With leadership of the GSCE President Mr. Iuri Svanidze, the former minister of construction Nodar Medzmariashvili and Mr. Malkhaz Bediashvili widely considered the issue of the foundation of a regulatory government agency for the construction sector, similar to what exist in Europe, in relation with the establishment of the Ministry of Architect and construction in Georgia, which will promote in our country the implementation of modern technologies and the great European experience. Also, the issues of the city's historic part urban development concept was discussed and considered.

* We are actively working on the improvement of specialists' education in civil engineering field, in particular to study the green and energy efficient buildings and their further implementation, on issues of European Young Civil Engineers experience implementation.

* In Georgia, the consideration and development of various projects of international construction and architectural level is successfully carried out. These projects include the "Panorama of Tbilisi", in which we are involved due to the decision of the national and local government and we are participating in discussions.

The Panorama of Tbilisi investment project and the tourism and real estate project uniting four multi-functional complexes in the city center of Tbilisi have been described by the Georgian Co-Investment Fund's (GCF) chief executive George Bachiasvili, as "grandiose". The Panorama of Tbilisi's four multi-functional areas with a total investment of \$0.5 billion USD fully funded by GCF, a \$6 billion USD private equity fund included: Sololaki Rise, Sololaki Gardens, Tavisufleba (Liberty) Square and Erekle II Square. The Panorama of Tbilisi is one of the GCF's five projects that has gone public where Bachiasvili gathered business representatives, investors, financial institutions and Government representatives to mark

the launch of the projects at the Tbilisi Marriott Hotel.



European Council of Civil Engineers

Secretariat:

Thiras 49

112 52, Athens

Greece

Phone/ Fax: +30 210 8623 992

E-mail: ecce_sps@otenet.gr

Web: www.ecceengineers.eu

**"Civil Engineers at the Heart of Society
Building Life Quality and a Sustainable
Environment"**

The European Council of Civil Engineers (ECCE) was created in 1985 out of the common concern of the professional bodies for Civil Engineers in Europe that the Civil Engineers working together across Europe could offer much more to assist Europe advance its built Environment and protect the natural environment.

At the European Union level, ECCE aims to promote the highest technical and ethical standards, to provide a source of impartial advice, and promote co-operation with other pan-European organizations in the construction industry. ECCE also advises and influences individual governments and professional institutions, formulates standards and achieves a mutual compatibility of different regulations controlling the profession, and formulates standards for a European Code of Conduct of the Civil Engineering Profession and disciplinary procedures applicable throughout the Union.