

NEWSLETTER 1/2014

In this issue

PROIVITHE EUCEET ASSOCIATION	
3 rd EUCEET Association Conference	2
7 th General Assembly of the EUCEET Association	
Participation of the EUCEET Association in the new Erasmus + programme	3
New members of the EUCEET Association	4
FROM MEMBERS	
University of Pisa, IT	
Technical University of Cluj-Napoca, RO	
Vilnius Gediminas Technical University, LT	
National Research University Moscow State University Of Civil Engineering, RU	13
Aalto University, FI	
ECCE (European Council of Civil Engineers), UK	14
FROM PARTNERS	15
FROM THE EUROPEAN UNION	20
NEWS FROM EUROPE	22
	24
NEWS FROM THE REST OF THE WORLD	24
CALENDAR	25

FROM THE EUCEET ASSOCIATION

3rd EUCEET Association Conference (announcement)

The Administrative Council of the EUCEET Association approved the proposal of the organizers of the WEEF 2015 to host an EUCEET event within the umbrella of the **2015 World Engineering Education** Forum. The 2-day event is entitled: "3rd Conference of the EUCEET Association".



World Engineering Education Forum will be held in Florence on **24 - 29 September 2015** with the topic:

ENGINEERING EDUCATION FOR A RESILIENT SOCIETY

Among the organizations which will take part to the Forum are:

- IGIP (Engineering Education)
- GEDC (World Council of the Dean of Engineering)
- COPI (Italian Council of the Dean of Engineering)
- ENAEE (Accreditation)
- SEFI (European Society for Engineering Education)
- ISEEF (Int. Federation of Engineering Education Societies)
- EUCEET Association.

The Forum and the 3rd EUCEET Association Conference will be held in the Congress and Exhibition Center of Florence.

7th General Assembly of the EUCEET Association

The 7th General Assembly of the Association will take place in Vilnius, on **Friday 24th October**, between 9:00-13:00 kindly hosted by the Vilnius Gediminas Technical University.

Vilnius Gediminas Technical University (VGTU) is a prestigious Lithuanian University, fostering highly qualified and creative specialists.

The University is the leader among the institutions of technological science education, ensuring modern studies,



orientated to the labour market. Scientific research and experimental work is performed by 14 institutes, 2 research centres and 33 research laboratories.

Before the 7th GA, on Thursday 23 October, from 14.00 to 19, will be organized a workshop.

The theme of the workshop is "Sustainable structures". The few sub-topics proposed by the organizers are (the list is not exhaustive):

- * Effective use of local, nature-friendly and recycled materials for the new structures;
- * Strengthening of existing structures instead of replacing them;
- * Sustainable design of structures by assuming their whole life-cycle;
- * Preservation of the structures belonging to historical heritage buildings;
- * Application of Eurocodes in different European countries and worldwide;

Participation of the EUCEET Association in the new Erasmus + programme

The Core Group formed for the preparation of the Application for a project under the ERASMUS + programme met in Pisa on 6-7 February 2014. The meeting was attended by Diego Lo Presti, Laurie Boswell, Collin Kerr, Jose Turmo, Linas Luknevicius, Tudor Bugnariu and Iacint Manoliu.

The Group had the opportunity to receive a very comprehensive information on various actions of the ERASMUS + programme open for Higher Education from Prof. Katherine Ann Isaacs from University of Pisa, ERASMUS + Ambassador for Italy. After long and in-depth discussions, it was decided to propose to the members the involvement of the EUCEET Association in a project of "Strategic Partnerships" type, belonging to the Key Action 2: "Cooperation for innovation and the exchange of good practice". The deadline for submitting the application is 30 April 2014.

The title of the proposed project is: "Resilience by Design".

A three-year duration is envisaged for the project, starting on 1st September 2014.

Prof. Diego Lo Presti made the offer to have **University of Pisa as Applicant Organization**.

Prof. Diego Lo Presti, President of the EUCEET Association kindly invited the members of the association to read the framework proposal and to send to the General Secretary, Prof. lacint Manoliu by 10 March 2014 at the latest, a material showing in which way the respective university foresees its participation in the project and specifying the activities in which it might be involved.

New members of the EUCEET Association

Bentley Systems International Limited, IRELAND

Starting with January 2014, Bentley Systems International Limited became member of the EUCEET Association.



About Bentley

Founded in 1984, Bentley currently has more than 3,000 colleagues in more than 50 countries, and achieved revenues of \$550 million in 2012. Bentley Systems is the leading provider of comprehensive software solutions for *sustaining infrastructure*. As the user organizations and projects featured on these pages demonstrate, Bentley's products and services connect architects, engineers, geospatial professionals, constructors, and owner-operators around the globe, enabling unprecedented information mobility. So no matter where distributed teams and stakeholders are located, they can securely access and share asset and project data across project disciplines and the infrastructure lifecycle – regardless of the file formats or devices used.

Information mobility is the key to improved asset performance because it enables companies to leverage *information modeling* through *integrated projects* for *intelligent infrastructure*. Specifically:

- *Information modeling* in a unifying 3D environment facilitates rigorous simulation of an infrastructure asset's performance to enable the exploration of options to maximize design objectives.
- *Integrated projects* enable distributed design, construction, and delivery teams to collaborate efficiently on projects anytime, anywhere.

Work sharing, reuse of content, and dynamic feedback reduce project risk and increase project efficiency.

• *Intelligent infrastructure* is what's possible when owners and operators have an accurate digital asset and operational information platform to support ongoing maintenance, operations, and compliance decisions and activities. Ultimately, this results in higher quality and better-performing infrastructure assets across the entire asset lifecycle.

Bentley's mission is to provide innovative software and services for the enterprises and professionals who design, build and operate the world's infrastructure — sustaining the global economy and environment for improved quality of life.

Kyiv National University of Construction and Architecture, UKRAINE

http://www.knuba.edu.ua/eng/



About the University

Kyiv National University of Construction and Architecture was founded in 1999 on the bases of Kyiv State Technical University of Construction and Architecture. But its history began much earlier – from the time of its foundation in 1930 on the bases of Factory and Communal Construction branch of Kyiv Polytechnic Institute and Architectural faculty of Kyiv Art Institute. At that time its name was Kyiv Construction Institute.

In 1939 Construction Institute was released to control of Commissariat on Construction and was named Kyiv Civil Engineering Institute.

In 1976 Kyiv Civil Engineering Institute was awarded the Order of Labour Red Banner for successes achieved in training specialists and carrying out scientific researches and was given the title of Kyiv Civil Engineering Institute of Labour Red Banner Order.

In 1993 our establishment was named Kyiv State Technical University of Construction and Architecture.

From 1931 till 2005 KNUCA trained about 64 thousands specialists for 80 countries.

Specialists of 23 specialties, 13 branches are trained and about 8 thousands students are taught at 6 departments of the university.

Educational process is provided by 50 chairs and their high qualified scientific and pedagogical staff that numbers above 630 scientists with scientific degrees and titles, about 90 doctors of science, professors being among them.

2 Heroes of the Soviet Union, more than 70 laureates of state prizes, honorary workers of science, prize winners of T. Shevchenko, 4 Heroes of Ukraine went out of the university.

Ural Federal University, RUSSIA

http://urfu.ru/en/home/faculties/stf/

Ural Federal University named after the first President of Russia B.N. Veltsin

About Ural Federal University

Ural Federal University (UrFU) is one of the top ranked scientific centres in Russia carrying out research in natural, technical, social sciences, humanities and economics. Since 2008 the University has borne the name of Boris Yeltsin, its graduate of 1955, the first President of Russia.

UrFU is a public, government-owned university. In 2011 Ural Federal University merged with Ural State University. Consolidation of two oldest universities in the region resulted in the substantial increase in the University's international reputation and positions in rankings; the university is ranked among 550 top world universities according to QS World University Rankings-2013.



The University includes 17 institutes offering about 350 degree programs at different levels. The total number of students at UrFU exceeds 50,000.

Ural Federal University is the core of the research cluster comprising scientific institutes of the Ural Branch of the Russian Academy of Sciences, specialized laboratories and high-tech enterprises. Research complex of the University includes dozens of research centres, the

Innovation Infrastructure, Research Library (the library stock contains more than 3 mln volumes) and a number of museums and collections.

In 2013 Ural Federal University entered the list of 15 Russian universities that won in a competitive selection for the right to receive special subsidy targeted at enhancing the global competitiveness of the university and increasing its positions in the international rankings. In October 2013 the Roadmap that will allow UrFU to enter the top-100 of world universities by 2020 was officially approved.

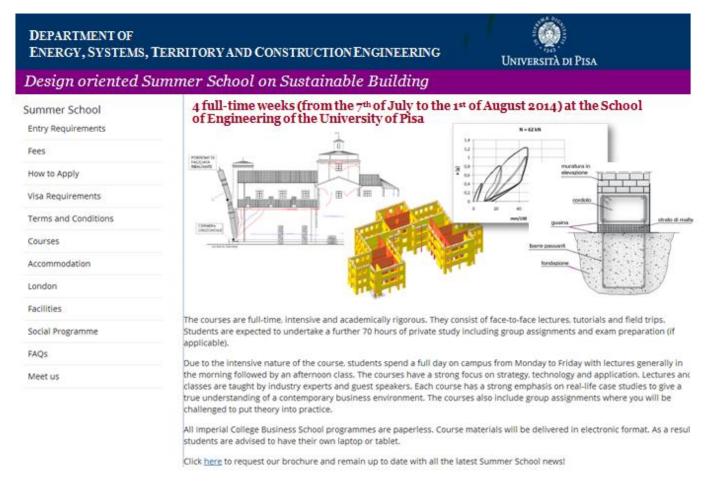
The University is engaged in numerous international projects funded by governmental institutions and non-governmental organizations from Russia, European Union, and the US; UrFU is a member of the SCO (Schanghai Organisation of Collaboration) Network University, the CIS (Community of Independent States) Network University and the Network University of the Arctic.

FROM MEMBERS

University of Pisa, IT

Prof. Diego Lo Presti informed about a summer school at the University of Pisa





The **Design oriented Summer School on Sustainable Building** is organized by DESTeC - Department of Energy, Systems, Territory and Constructions Engineering of the University of Pisa and involves experts - teachers, technicians and graduate students - in the various disciplines that define the cultural areas of the Department.

The program of the Summer School is mainly focused on the following topics:

- Energy efficiency and microgeneration from renewable energy sources in existing buildings of the historical heritage and in new construction;
- Seismic design of new buildings and seismic retrofitting of existing buildings.

Topics will be developed in theoretical lessons and seminars and will aim at drawing up a project on a real case study, selected annually on the basis of agreements with public authority or private bodies.

Target

The Course is preferentially oriented to Master Degree Students in Energy Engineering, Civil Engineering, Building Engineering and Architecture from all EU and non EU countries.

Students in Long Cycle Master Degree Course are required to have completed at least 3/5 of their total ECTS amount.

Objectives

The traditional figure of practising civil engineer has therefore been replaced by companies of associate professionals incorporating such variety of competencies.

The higher education system in most of the European countries recognizes the need of "specialised" professionals but rarely the aspect of cooperation among different professional figures is faced.

The Summer School wants to promote the interdisciplinary dialogue between all the skills involved in a complex building project.

For this purpose, the educational objectives of the Course contemplate not only the acquisition of modern technical expertise, but also the expansion of cultural horizons, fostering in students an overview of the problem that permits and facilitates the evaluation and the management of the various problems and methodologies of intervention.

Educational contents

The Course involves theoretical lessons, seminars and student working groups. Seminars and theoretical lessons are intended to describe the state of the art both for new constructions and for the valorisation of the existing.

Theoretical lessons, seminars and working groups will be organized in order to overcome the difficulties arising from the different background of students (energy engineers, civil and/or building engineers, architects) coming from different areas; they also aim to provide the preliminary skills necessary for the development of the project.

The practical exercises will focus on the development of the project theme chosen as a case study; for this purpose, students will be organized into interdisciplinary teams.

Specifically, the contents of the school will be:

- 1. Methods of investigation and survey of existing buildings of historical value;
- 2. Energy savings and comfort of the building;
- 3. Acoustics and lighting applied to the building;
- 4. Microgeneration of energy from renewable sources;
- 5. Seismic Design and adjustments on buildings of historical interest.

The knowledge gained during the theoretical lessons will be applied to the development of a seismic and energy retrofitting project of the case study.

Course organization

4 full-time weeks (from the 7th of July to the 1st of August 2014) at the School of Engineering of the University of Pisa

Language: English.

ETCS

15 credits will be acknowledged by the University of Pisa according to the European Credit Transfer System (ECTS). Incoming Erasmus students may choose the Summer School as educational activity of their plan.

Case study 2014:

The case study comes out from the needs of various Tuscany municipalities and of the regional government of Tuscany. The Tuscany territory indeed is characterized by a very important historical heritage, as well as by high seismic risks. These aspects are common to various countries of Europe.

At the mean time the problem of energy saving is prominent for Italy, as well as for other European countries with limited energetic resources.

For the 2014, the course will be focused on the seismic and energy retrofitting of the City Hall of Castiglione di Garfagnana, on the base of an agreement between DESTeC and the Administration of Castiglione.



Castiglione is one of the most important and interesting examples of "living castle" of the valley of the river Serchio. It still preserves the structures of its medieval fortified asset. The City Hall is located in a historical building (XVII century) overlooking Castiglione's central square.

The choice of Castiglione and its City Hall as case study responds to a real need of the municipality, located in one of the highest seismic-risk area of Tuscany.

Accommodation (link)

Please note that the University of Pisa does not have a Guest House or a Dormitory, but only manages few rooms at Residence Tulipan and College Toniolo.

For general info about Pisa University lodgings, we suggest you visit our web page:

http://www.unipi.it/english/university/internatio1/welcome eng.pdf

FEES

800 euros, covering the teaching material, the trip to the location of the case study, a welcome lunch and a farewell dinner.

The fees are the same for Italian, EU and international students. Fees do not include living expenses, accommodation.



Admission

A minimum of 20 participants are required for the summer school activation.

A maximum of 35 participants will be selected on the basis of both academic achievement (average score in the exams, graduation score for post graduated applicants) and suitability for the programme, as indicated in personal statement and CV. In case of ex aequo, priority will be offered at foreign students.

Application and registration

The application form must be compiled in all its parts and sent by e-mail, together with a CV, to the following address before April 30th, 2014.

Candidates will be notified of acceptance by May 10th 2014.

Payment will be possible after acceptance notification.

Selected students have to pay the fees in full within **10 working days** of receiving the acceptance notification, before **May 23rd 2014**.

If payment is not received within the timeline specified in this paragraph, University of Pisa will treat this as a rejection of its offer and the student will not be booked on the Summer School.

In case the Summer School will not be activated, the amount will be refund.

Teaching Methodology and final evaluation

Teaching methodology

- **↓** a broadening cultural and professional horizon part organised in seminars on the state of the art on sustainable building. Subjects not involved in the practical project of the year will be also included.
- **a** theoretical part organized in theoretical lessons covering the knowledge required to effort the practical project tasks.
- a practical part in which the participants will be hosted in the laboratories of the Department and will be directly involved in workgroup design activities concerning the tasks of the project.

The learning program is organised in 160 hours: 8 hours / day, from Monday to Friday.

The daily program consists in 4 hours of face-to-face theoretical lessons and seminars (in the morning), 4 hours of workgroup activity lead by tutors (afternoon).

Evaluation to obtain Credits

15 Credits (ECTS) will be acknowledged by the University of Pisa after attendance of the overall Course and the positive evaluation by Scientific Committee of:

- group final oral presentation and discussion of results;
- individual final test covering the major topics learned during seminars and theoretical lessons;
- individual technical report (concerning one or more tasks of the practical project) that has to be submitted within **September 15th 2014**

Teachers and tutors:

Seminars and theoretical lessons will be taught by Teachers from the University of Pisa and distinguished experts from other Italian Universities.

Workgroup laboratory activity will be lead and supported by Tutors (graduated students, fellows and researchers from Pisa University).

Staff

Scientific Committee

Diego Lo Presti (Director)
Marco G. Bevilacqua
Anna De Falco
Francesco Leccese
Antonella Martini
Daniele Testi
Stefania Zanforlin

Teaching staff

Marco G. Bevilacqua Luca Lanini Fabrizio Cinelli Stefania Landi Stefania De Benedetto Francesco Leccese Anna De Falco Diego Lo Presti Paolo Fiamma Antonella Martini Alessandro Franco Mauro Sassu Maurizio Froli Daniele Testi Ewa Karwacka Stefania Zanforlin

Technical University of Cluj-Napoca, RO

The Organizing Committee CE PhD 2014 sends an invitation to take part to the 2nd International Conference for PhD students in Civil Engineering

"New Researcher Generation with Challenges in Civil Engineering" CE PhD 2014, 10-13 December 2014, Cluj-Napoca, Romania



After a successful first edition (540 participants, 198 abstracts, 102 published full papers, 56 papers presented in 6 parallel sessions, 7 keynote speakers, 28 papers published in an Acta Tehnica Napocensis Civil Engineering and Architecture special issue, site



visits and social program), the Organizing Committee is delighted to invite the PhD students and PhD supervisors to participate in the second edition of the international conference Civil Engineering PhD 2014 (www.cephd.ro).

The conference, jointly organized by three faculties of the Technical University of Cluj-Napoca (Faculty of Civil Engineering, Faculty of Building Services and Faculty of Architecture and Urban Planning) and the SEnS Group, provides the forum for young researchers, supervisors, experts involved in PhD civil engineering research programs, academics and practitioners to discuss and review latest developments in the broad area of civil engineering. Experts from academic and non-academic entities will be invited in order to discover new opportunities and make new connections.

Objectives and scope

The conference aims to give PhD students instructive feedback, to promote the new scientific generation in civil engineering and to develop stronger and more organized relationships between scientific community members and institutions.

A number of special sessions will be organized at this conference and several keynote lectures presented by the experts will take place during the conference. Lectures will highlight areas of research and current topics, emphasizing the results obtained so far and also providing an overview of the possible opportunities for regional and international collaboration. In this respect, several personalities from CNCS (National Research Council), CNATDCU (National Council for the Recognition of Degrees, Diplomas and Certificates) and other academic related institutions will be invited.

Certificates of Excellence will be awarded to best papers from research students. All the information about the Conference is available at: www.cephd.ro

Areas of research and conference topics

Young researchers in civil engineering who are writing their PhD thesis will be able to make presentations of their work-in-progress and give/receive feedback while being in touch with the international scientific community. The conference will run in a number of parallel sessions covering the following (but not limited to) main fields:

- · Structural analysis, design and risk assessment
- Geotechnical engineering
- Roads, bridges and railways engineering
- Building materials
- Energy efficient and sustainable buildings
- Processes, management and construction technologies
- · Building services and renewable energy

- Architecture and urban planning
- Hydro technical engineering and water&waste management
- Land measurement
- Smart technologies in civil engineering, architecture and building services

Each session will be coordinated by international experts. The international scientific committee will manage abstracts and full papers review, providing permanently guidance to authors.

More information on: www.cephd.ro

Vilnius Gediminas Technical University, LT



A letter addressed to members of the EUCEET Association:

Dear colleagues,

Faculty of Civil Engineering, Vilnius Gediminas Technical University (VGTU), more than 5 years ago established an international scientific journal entitled "Engineering Structures and Technologies". This journal now is copublished with international publishing company "Taylor&Francis". Today the journal is abstracted and indexed in the following databases: ICONDA (The International CONstruction DAtabase); Gale®: Academic OneFile, InfoTrac Custom; ProQuest: Ulrich's, Summon™; EBSCO host; IndexCopernicus; Excellence in Research for Australia (ERA) 2012 Journal List (ERA ID 125004). More information about the journal could be found on the dedicated internet site: http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=tesn20

In the nearest future we plan to submit the journal to SCOPUS database for indexing. Since SCOPUS is asking to comply with several conditions (like the wide geography of authors, a significant number of citations from other SCOPUS publications, etc.) – we kindly ask you to consider our journal as an option for some of your scientific publications. In turn, we could promise a very short terms for review and publishing. We also ask you to check out the already published articles in our journal for possible references and citations in your scientific articles. The full-text copies of the published articles are available on the internet site:

http://www.tandfonline.com/toc/tesn20/current

We are looking forward for your submissions. Please don't hesitate to contact us directly in case of any questions related to the journal or submission procedure.

On behalf of editorial board, Dr Remigijus Šalna & Dr Linas Juknevičius Managing Editors

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National Research University Moscow State University of Civil Engineering, RU

INFORMATIONAL MESSAGE

On **28-29 of June 2014** the Moscow State University of Civil Engineering will hold the International Scientific Seminar «*Theoretical and Experimental bases of the software verification*».

The seminar will take place at the Science Educational Center of Computer Simulation of Unique Building, Structures and Facilities of MGSU (SEC CS MGSU), and also at the Department of the Computer Science and Applied Mathematics (CSAM) and at the Department of the Structural Mechanics in MGSU.

Organizers

- Russian Academy of Architecture and Construction Sciences (RAACS)
- International Association of Construction and Higher Education
- Training Association higher educational institutions of the Russian Federation in the field of construction
- Russian Union of Builders
- State Educational Institution of Higher Professional Education Moscow State University of Civil Engineering

Subject and purposes

Subject of reports and the purposes of the Scientific Seminar "Theoretical and experimental bases of software verification" include scientific discussion and formation of methodological bases of development and realization of theoretical and experimental approaches to software verification for safety analysis of installing, operated buildings and constructions during the periods of their construction, operation, reconstruction and utilization.

Contact information

MGSU Yaroslavskoe shosse, 26, Moscow, Russia

- Institute of Basic Science of MGSU, tel. (495) 780-45-38, e-mail: <u>oko44@mail.ru</u>, contact person Director of the Institute *Kovalchuk Oleg Aleksandrovich*;
- Department of the Computes science and applied mathematics of MGSU, tel.(499) 183-59-94, e-mail: sidorov.vladimir@gmail.com, contact person Head of the Department Sidorov Vladimir Nikolaevich;
- Science Educational Center of Computer Simulation of Unique Building, Structures and Facilities of MGSU, tel. (499) 929-50-17, e-mail: niccm@mgsu.ru, contact person – The Head of the Center *Belostotskiy Aleksandr Mikhaylovich*.

Aalto University, FI



Professor Juha Paavola, Chair of the Department of Civil and Structural Engineering at Aalto University, informed about new Professor positions open for application at Aalto University.

The professorship is defined on the area of 'Operations Management in Construction'. The professor will be working at the Department of Civil and Structural Engineering, and the field belongs to the research focus area 'Building Information Modeling and Construction Management'

More accurate information will be found in http://www.aalto.fi/en/about/careers/jobs/view/147/

For additional information, please contact Head of Department, Professor Juha Paavola, tel +358 50 511 3249 (or in recruitment process –related questions HR Coordinator Heidi Lehtinen, tel. +358 50 340 9683).

E-mails: firstname.lastname@aalto.fi .

Aalto University coordinates sustainable development project

Aalto University has been selected to coordinate the Rio+20 Implementation in the Nordic Higher Education Institutes project, which aims to improve the implementation of and policy instruments related to sustainable development in Nordic Higher Education Institutes. Another aim is to encourage higher education institutes to adopt the principles of sustainability.

The two-year project is funded by the Nordic Council of Ministers, which has also approved it as an official Nordic follow-up project to the Rio+20 commitment. Rio+20 was the UN Conference on Sustainable Development, held in June 2012 in Brazil.

Aalto University has also endorsed the Rio+20 commitment and pledged to incorporate sustainable development as part of all university operations. Aalto University established together with other Nordic universities the Nordic Sustainable Campus Network (NSCN) in 2012. These universities are all actively involved also in rolling out the Rio+20 Implementation in the Nordic Higher Education Institutes project. The NSCN arranges seminars and workshops, and the 2014 seminar, on the subject of Rio+20, will be held in Lappeenranta, Finland, 20-21 May 2014. (...)

More information: http://www.aalto.fi

ECCE – European Council of Civil Engineers, UK

59th ECCE General Meeting

The 59th General Meeting of the European Council of Civil Engineers (ECCE) will be held in Tbilisi, Georgia at the Courtyard Marriott Hotel, on Saturday 31st May 2014, hosted by the Georgian Society of Civil Engineers (GSCE). The 59th ECCE General Meeting will be combined with the International Conference "Seismic design and rehabilitation of buildings" which will be held on 29th - 30th May 2014, co-organized by:

- European Council of Civil Engineers (ECCE)
- Georgian Society of Civil Engineers (GSCE)
- World Council of Civil Engineers (WCCE)
- Ministry of Regional Development and Infrastructure of Georgia

Venue for the conference: 2 Freedom Square, Tbilisi, Georgia Hotel "Courtyard-Marriott".

On the conference will be presented plenary and sectional reports. **The topics to be discussed:**

- seismic resistance of civil buildings;
- seismic resistance of hydraulic structures;
- seismic resistance of motor road facilities.

Conference Languages: English, Georgian and Russian.

The simultaneous translation will be provided at the conference.



FROM PARTNERS

CLAIU - EU Conference, 13th- 14th March 2014, Brussels



Council of Associations of long cycle Engineers from a University or a Higher School of Engineering of the European Union



SETT

European Society
for Engineers
and Industrialists

CLAIU-EU Conference in partnership with SEII

Employability of Engineering Graduates

A Vision for the Future

The objectives of the conference

Climate, energy, insecurity about our future ..., we are faced with huge challenges. In order to meet them and to respond to the many problems they entail, engineers will have an essential role to play, particularly in Europe, which lacks natural resources and competitiveness. Do European engineers receive the appropriate education to come up to the expectations of their various employers? This conference intends to draw the current status of the question, with a special view on future needs for all types of engineers (Bachelor, Master or doctoral degrees).

CLAIU-EU provides a forum for consultation and collaboration within Europe among associations of engineers who have received a more "theoretically oriented" education. Their last four annual conferences (from 2010 to 2013), held in different European cities – with an active collaboration of SEII – were dedicated to different aspects of engineering education:

- 2010 Brussels: "Engineering Master Degrees in Europe"
- 2011 Roma: "The Formation of the Engineer- International Models"
- 2012 Madrid: "The engineering doctorate"
- 2013 Bologna: "The Bologna Process and the Engineering Education"

The 2014 Conference which crowned the achievement of the series comprised 5 sessions in which were presented 10 lecturers.

Session 1 – Views from industry

"Engineers: leaders for Innovation, Integration and Direction", by Christian JOURQUIN, keynote speaker, former CEO of the Solvay Group, member of the Board of Directors of SEII, Belgium

Over the past few centuries, engineers have consistently contributed to innovative solutions to meet the challenges of daily life. At the dawn of this 21st century, the fast evolution and the growing complexity of the challenges that have to be met call for new paradigms in engineering, integrating new disciplines and new ways to share knowledge. Addressing them will require from engineers both teamwork and strong leadership capabilities. This typically defines the profile that industry, services and society at large will look for in the new generation of engineers: innovative personalities, able to integrate expectations from the future and solutions coming from other horizons of science and knowledge, and also able, through their strong leadership, to show the way and give the impulse to multidisciplinary teams for successful projects. But, the question is: how to breed them?

"Engineering education – academic interest versus industry needs", by Frank-Stefan BECKER, former Executive of Siemens AG, in charge of Communications, Government Affairs & Higher issues Education, member of the VDI Committee for Engineering Education, Germany

This presentation focused on the discrepancies between the requirements of an academic training and selection process and the needs of industry. As the gaps are widespread, age-old and have frequently been analyzed – as well as lamented – the reason for their persistence cannot be attributed to a lack of information, but rather to different interest of academia – "producers" – and industry – "customers". This talk will discuss the underlying mechanisms, try to define "quality" from an industry perspective, highlight the future challenges for industry and derive some conclusions as regards the requirements that professional engineers must meet. Some prerequisites for making universities more autonomous in determining the quality assurance process as responsive as well to their customers' needs – including students' interests – will be outlined.

Session 2 – Views from young engineers

"Volunteering & Global Skills: a young engineers perspective", by Siobhán McGRATH, General Secretary of EYE (European Young Engineers)

The work of an engineer is increasingly global – projects based in other countries, international teams, ... – and therefore engineers must be able to work globally. Global skills are the non-technical skills needed by engineers to solve today's engineering challenges. Universities are under pressure to add global skills development to an already overloaded curriculum. Should universities be solely responsible for preparing their students for employability? Could not young engineers take responsibility for their own professional development? Many of them volunteer, not only to contribute to the engineering community, but also to enhance their own employability, since volunteering is known for developing global skills.

"Engineering education and its impact on young graduates' employability from a students' point of view", by Marta CORTESÃO, BEST representative (Board of European Students of Technology)

BEST is a constantly growing non-profit organization that strives to develop students of technology through complementary education, educational involvement and career support. Since 1995, BEST also strives to bring the development of European Engineering Education closer to their students, who are the engineers of the future. We have learned that there is currently a gap between employers' needs and the skills and knowledge provided by the universities. If those needs won't be assessed and responded to, the gap will become larger as the industry develops while engineering curricula remain unchanged. There are already various opportunities to bridge this gap, but they are nor included nor recognized in a classic curriculum. Something has to be done and BEST is ready to participate.

Session 3 – Views from education

"Employability of engineering graduates", by William GRIMSON, former Head of department of Electrical Engineering and Academic Registrar from Dublin Institute of Technology, Vice President of Engineers Ireland "Graduateness", the expected attainment of programme learning outcomes, and employability are three close, but not identical, perspectives on what constitutes a graduate. There are also three major stakeholders, with sometimes conflicting views on the subject: the academic institution, the employer in a broad sense, and the student (future graduate and employee). Adding different societal norms and cultural values, there is obviously a wide scope for respective expectations to be misaligned and no possibility for a "one size fits all". A whole system has been build,

struggling along to meet the expectations, but causing some tensions around a number of difficult to cross gaps. This paper will review the process of 'negotiation' amongst stakeholders, explore the perceived educational gaps or inadequacies and make some tentative proposals as to how such matters can best be addressed.

"Engineering Graduates for Employment", by Ian FREESTON, Professor Emeritus - University of Sheffield, Higher Education Adviser - Engineering Council, Member of EUR-ACE Label Committee - ENAEE, United Kingdom

The role of education as a preparation for employment has been debated for many years, particularly within Higher Education. It is directly relevant to engineering education, because activities intrinsic to engineering, such as designing and creating artefacts and processes, imply markets and end users, and consequently employment in production. The issue is sometimes represented as a distinction between engineering science, which stresses the education of the individual student, and engineering technology, which emphasises training for employment in a specific industry. Is it possible to design programmes to design programmes that will satisfy the requirements of all stakeholders: students (with a variety of interests, aspirations and abilities), employers (with widely differing products and markets), teachers (with career aspirations often based more on research rather than on teaching), universities (interested in academic reputations in many disciplines), and society at large (usually represented by government policy and financing)? How can these potentially conflicting requirements be resolved without overprescribing engineering programmes, while encouraging diversity and innovation of content and teaching methods?

Session 4 – Linking education to market needs

"Employability of engineers: new challenges within a difficult economic landscape", by José Ignacio GARBIZU, Dean of the "Collegio de Ingenieros Industriales de Gipuzcoa", Spain

Spain's high unemployment rate prompted the General Council of Official Industrial Engineering Associations to take a deep look at the situation of industrial engineers in the country, including their prospects for employment. Different aspects of the situation were to be analyzed through the answers to a questionnaire that was sent to the 19 Industrial Engineering Associations of Spain. This paper will present the main results of the survey. The speaker ends up with a short description of the action plan that has been drawn to improve the situation.

"Employability of engineers: a full vision of new opportunities", by María NUÑO VALDÉS, member of the Executive Board of the Spanish Association of Engineers of Telecommunications (AEIT), Spain Spanish Telecommunication Engineers currently have a high occupancy rate, as compared to the national average of the unemployment rate of industrial engineers. The speaker will present a paper that has been prepared on the basis of the results of a survey that involved more than 1,800 engineers and 320 students in the field of telecommunications.

"Employability of civil engineering graduates & the Bologna process – findings of surveys conducted by the European Council of Civil Engineers and by the EUCEET Association", by Iacint MANOLIU, Professor, Technical University of Civil Engineering of Bucharest, and Barbara KARLEUŠA, Professor, University of Rijeka, respectively Chair and Vice-chair of the Standing Committee of the European Council of Civil Engineers (ECCE)

The word 'employability' does not appear in the Bologna Declaration of June 1999, but only the statement that "the degree awarded after the first cycle shall be relevant to the European labour market as an appropriate level of qualification". Is it the case now, nearly 15 years later? This paper tries to answer such a question on the basis of surveys conducted in 2013 by ECCE on the impact of the Bologna process on civil engineering education and profession in Europe, with emphasis put on employability. Academics and professionals from 17 countries were actively involved in the surveys, the findings of which are summarized and commented in the paper.



Session 5 – Influence of accreditation

"Lessons learnt from the accreditation of civil engineering programmes in Belgium", by Bernard REMAUD, former President of CTI (Commission des Titres d'Ingénieur, France), member of ENAEE

Two agencies – AEQES in Belgium and CTI in France – have organized in 2012-2013 a joint mission in the French speaking Community of Belgium, with a twofold objective: the evaluation of their engineering programmes according to Belgian legal requirements, and their accreditation according to CTI's and EUR-ACE's criteria. Discussions are in progress with the Engineering Faculty deans of the Dutch speaking Community in view of organizing their legally required accreditation by CTI. This paper presents the lessons learnt from these experiences: benefits and pitfalls of a joint process between two different agencies, the adaptation of EUR-ACE criteria to different national contexts, and the different views on the issues of engineering graduates' employability.

The 6th Session was a Plenary Discussion between the speakers and the participants, moderated by Dr, Marc Goossens, Director and Executive Officer of SEII.



Participants at the Conference

SEFI (European Society for Engineering Education)

European Convention for Engineering Deans "Engineering for a Connected World"

2-3 April 2014 - Lund, Sweden

Hosted by the University of Lund – LTH Organized jointly by SEFI and CESAER

These and other questions will be addressed in Lund in April 2014.

- In the connected world, we share research facilities! Ho do we connect?
- In the connected world, the education of engineers will be different. How?
- In the connected world, new abilities are required for the teachers. Which?
- In the connected world, industry and uinversity share commom goals. How?







More information on: www.lth.se/eced/

Inaugural SEFI debate on the topic "Engineering Education facing the Challenge of the Crisis in Europe"

Together with the Hellenic Presidency of the Council of the European Union, the European Society for Engineering Education - SEFI - is pleased to invite you to the inaugural SEFI debate on the topic "Engineering Education Facing the Challenge of the Crisis in Europe", that will be hosted in Brussels thanks to the generous support of the Permanent Representation of Greece to the EU.

The speakers will be the Honourable Mrs A. Vassiliou, EU Commissioner for Education, Culture, Multilingualism and Youth and Prof. A. Kyriazis, Secretary General for the Hellenic Ministry for Education and Religious Affairs.

The SEFI debates are bringing together major stakeholders in the field of Education in general and Engineering Education in particular to debate important issues of Education in Europe.

The debaters of the day will be:

- Dr. A. de la Bourdonnaye, Director, Ecole Nationale des Ponts et Chaussées, France
- Prof. R. Fastenau, Dean, Faculty of Electrical Engineering, Mathematics and Computer Sciences/Dean Open and Online Education, Delft University of Technology, the Netherlands
- A representative from the Royal Academy of Engineering, United Kingdom (name tbc)
- Mr. J. Vyncke, Director Research & Innovation, Belgium Building Research Institute (BBRI), European Construction Technology Platform Eurekabuild, Belgium
- Christiane Malcorps, Executive Vice President, Country Manager Belgium, Solvay, Belgium

FEANI

More Mobility for Engineers – A contribution to innovation and Growth in Europe

FEANI and VDI organized on 19th March 2014 in Brussels an evening debate focused on how the mobility of qualified personnel can be enhanced and how this will foster growth and innovation in Europe. The event offered an interchange of ideas on the topic between policy decision makers and representatives from industry, public administration and engineering organizations. For engineers and the companies they work for, the



introduction of the engineering card, a professional card which facilitates the recognition of qualifications substantially will play a major role.

Prof. Dr.-Ing Udo Ungeheur, President of VDI, pronounced the opening address. The key-note address was presented by Claire Bury, Director Services DG Internal Market and Services, replacing Michel Barnier, European Commissioner for Internal Market and Services.

At the panel discussion, moderated by Dirk Bochar, Secretary General, FEANI, took part Ralph Appel (Executive Director, VDI), Rafael Aller (President, FEANI), Konstantinos Tomaras (European Commission, DG Internal Market, Deputy Head of Unit E4 Free movement of professionals), Bernadette Vergnaud (European Parliament, Vice-Chair of the Committee on Internal Market and Consumer Protection) and Monica Wertheim (E. ON SE).

FROM THE EUROPEAN UNION

European Commission publishes new report on QA in Higher Education

EUA European University Association

The European Commission published its Report on Progress in Quality Assurance in Higher Education. The new publication follows a first report published in 2009 which responded to an invitation from the European Parliament and Council in 2006 to report on progress in quality assurance.

It focuses on trends since 2009 and the potential of quality assurance (QA) to support reform both at system and institutional level, and outlines the role which the new EU programme for education, training, youth and sport, Erasmus+, aims to play in supporting cross-border cooperation in QA.

The report notes, for example, the importance of developing quality culture in higher education institutions and also points to the value of institutional evaluation which it states "empowers academics and HEIs to build curricula and to ensure their quality, avoiding the need for formal, external accreditation of each individual programme". These are issues which the European University Association (EUA) has highlighted repeatedly and are outlined in its 2010 Policy Statement on Quality and Quality Assurance in the European Higher Education Area.

More information:

http://www.eua.be/News/14-02-06/European Commission publishes new report on QA in Higher Education.aspx

Ongoing process of the Commission evaluation of national regulations on access to regulated professions

The European Commission (EC) published a communication on evaluating national regulations on access to professions on 2nd of October 2013. The EC presented an Action Plan: each Member State should be invited first to carry out an accurate mapping of all its regulated professions and then continue with a screening of the justification for each regulated profession at domestic level. In a next step results should be compared in an extensive mutual evaluation between Member States. The EC announced that the mutual evaluation should be grouped in sectors. Screening and mutual evaluation should be divided between two phases with distinct timetables, each on dealing with a different cluster of sectors. The mutual evaluation meetings shall take place on 6 June 2014, 30 September 2014 and 24 November 2014.Last week the EC started the pre-selection of professions which shall be first discussed during the mutual evaluation of regulated professions (cluster 1). DG MARKT has put together a list of 15 professions. The civil engineer profession is included in this list. From this list, Member States should submit to the EC their preferred six (6) professions for in-depth analysis. The deadline was 11 March 2014. The EC shall then, on the basis of the replies received, announce the six professions which will be reviewed.

More information: http://europa.eu/rapid/press-release MEMO-13-839 en.htm

Press release from the Council of the EU

February 06, 2014



European Commission published its *Report on Progress in Quality Assurance in Higher Education*. The new publication follows a first report published in 2009 which responded to an invitation from the European Parliament and Council in 2006 to report on progress in quality assurance.

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More information:

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NEWS FROM EUROPE

ICCE-22 Malta, July 13-19, 2014

22st Annual International Conference on Composites or Nano Engineering

www.icce-nano.org

Contact person: David Hui, dhui@uno.edu



The ICCE conference will provide a forum for the exchange of information and ideas in virtually all areas composite materials research. The goals of the ICCE conference are:

- 1. The conference aims to solve or partially SOLVE CRITICAL UNRESOLVED ISSUES of our everyday lives. The methodologies involve the three pillars in Composites or Nano engineering, namely, Mechanics, Manufacturing and Materials, in all length-scales.
- 2. The ICCE emphasizes the "D.I.M." approaches to science and engineering (DURABILITY approach to structures, INTERDISCIPLINARY approach to science, and MULTIFUNCTIONAL approach to materials). Thus, you will find many chemists and engineers in this conference, a pleasant situation since these two groups traditionally tend to attend separate conferences. The ICCE conference aims to bridge the gaps between aerospace technology, bio-materials, chemistry, electronics, energy, fluid mechanics, infrastructures, magnetic materials, metallurgy, nanotechnology, pharmacy, physics, powder metallurgy, sensors/actuators, among others.

3. The goal is to ENCOURAGE LEVERAGING of composite materials research resources through joint research between participants and writing joint research proposals.

EUA-CDE Workshop "Outcomes of Doctoral Education - Mindset, Research, Innovation"



Izmir, Turkey (23-24 January 2014)

The 7th Annual Thematic Workshop of the EUA Council for Doctoral Education (EUA-CDE) was held at Dokuz Eylül University in Izmir, Turkey, from 23 to 24 January 2014.

Every year, EUA-CDE dedicates its annual workshop to a specific theme which it invites EUA-CDE members to consider in detail through a combination of keynote speeches and case-study presentations from individual universities.

The 2014 Thematic Workshop developed this format by inviting researchers on doctoral education to present evidence on how outcomes of doctoral education are seen across different disciplines. Speakers presented interesting results concerning the effect of different supervision styles on the independence of doctorate holders as well as insights into how the notion of an original research contribution varies between disciplines.



Questions were also raised about how doctoral programmes could be adapted to diverse career paths for researchers. Moreover, several speakers demonstrated how doctoral education could be linked to the development of local industry and building regional research capacity.

More information: http://www.eua.be

NEWS FROM THE REST OF THE WORLD

2014 ABET Symposium

April 3, and Friday, April 4, in Pittsburgh, Pennsylvania, SUA

The 2014 ABET Symposium functions as a platform to discuss emerging trends and ideas on how technical education constantly evolves to produce the professionals who will not only face, but create the demands of our growing technological world.

From research to education and environmental challenges, each one of our speakers will share their experiences and reveal a dimension of the impact technical education has on the technologies that are transforming our world.



See more at: http://www.abet.org/

The Second Arab-Euro Conference on Higher Education

10-12 June 2014, Aman, Jordan



Second Arab-Euro Conference on Higher Education



The Second Arab-Euro Conference on Higher Education brings together for the second time the Association of Arab Universities (AARU) and the European University Association (EUA) and their respective members. The Conference is addressed to university leaders and its focus will be promoting, within a joint AARU and EUA framework, a sustainable process of dialogue, mutual understanding, exchange of knowledge and increased cooperation between Arab and European universities. This major event will encourage Rectors, Presidents and Vice-chancellors from both regions to rethink the role of the university in the current context of internationalization and to examine the introduction of new functions to tackle socio-economic challenges in the Arab, Euro and Arab-Euro contexts.

For full information: http://aeche.psut.edu.jo/aeche/index.aspx

Newsletter 1/2014

CALENDAR

Date Event Place

15-18.06.2014 ASEE Annual Conference 2014

Indianapolis, Indiana,

USA

www.http://www.asee.org/



08-12.12.2014 INTERNATIONAL SCIENCE AND TECHNOLOGY CONFERENCE (ISTEC)

Doha,

http://www.iste-c.net

QATAR



24-27.06.2014 IACEE 14TH WORLD CONFERENCE ON CONTINUING ENGINEERING EDUCATION

Palo Alto, California, USA

http://iacee2014.stanford.edu/



IACEE 14th World Conference on Continuing Engineering Education

Stanford University | June 24 -27, 2014

07-11. 10. 2014 GLOBAL ENGINEERING CONFERENCE 2014

Panama City, Panama



http://content.asce.org/conferences/annual2014/