The Global Bulletin of Engineering Education

IFEES Summit in WEEF
Buenos Aires, 2012

In October 15-18, 2012, the World Engineering Education Forum hosted the International Communities of IFEES and GEDC. Under the topic of “Engineering Education for Sustainable Development and Social Inclusion,” the National Technological University, Buenos Aires and Argentina’s Federal Engineering Deans Council (CONFEDI) served as the co-hosts of this global event welcoming over 1300 guests and delegations from more than 45 countries. IFEES, had its main session on the “Trends in Open and On-Line Engineering Education” held at the National Technological University (UTN) including presentations of Uriel Cukierman, Ramiro Jordan, Jose Roberto Cardoso and Liliana Cuenca Pletsch on the session of the Americas. On the session of Fostering Regional Collaboration: Australia and Pacific the main speakers were Euan Lindsey, John Beynon, emphasizing the importance of cross border collaborations within regions. On Regional Collaboration for Central Asia: Andrzej Rucinski, Zhanna Yessengalievyan and Elisa Guberti were the presenters who shared the progress of their new projects in Kazakhstan.

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IIDEA Workshops at WEEF, 2012

Under the Program of WEEF, 2012, International Institute for Developing Engineering Academics (IIDEA) organized a number of educational events with many local and international students, including the first Latin American Workshop and the Global Student Forum. One of the topics discussed was “the Role of Education and the Students in making social impacts,” addressed by Cristian Tenuta. According to Tenuta: “In the last years, even though an entrepreneurial culture has been built, we continue to learn in our classrooms how to increase productivity and reduce costs but not how to implement a positive impact in our society.” This is important because it promotes the development, reduces the social gap and improves the citizens’ quality of life. For Tenuta, “the good news is that there are a lot of opportunities outside the university that would help to create awareness of the students’ potential to make changes as engineers.”

Accompanied by African Deans, Samuel Mukasa gave a presentation on the Africa regional Collaboration panel. Duncan Fraser was the second key note speaker of this session.

There were also separate panels who gave presentations on South and East Asia including Yu Shouwen, Susan Oh and R. Natarajan; the Collaboration for Europe and Middle East was presented by Erik de Graaff and Jose Carlos Quadrado. The objective of these sessions was to explore specific opportunities for IFEES members to collaborate with different world regions. In each session, discussion leaders set the stage with five minute open remarks and the outcome of these sessions proved to be fruitful in increasing actionable collaborations by moving forward every region.

GEDC Conference

The Global Engineering Deans Council had a number of sessions starting with the New Deans Mentoring, which provided attendees with strategies for success and insights on what every dean should know. This session covered the best practices for the first six months and for gaining momentum quickly, strategic planning and implementation strategies, faculty development and evaluation and developing and sustaining international partnerships. In October 16th, the Global Engineering Deans Council hosted the Accreditation and Curriculum Leadership Session which was moderated by Satish Udpa and it had five panelists including Michael Milligan, Timur Dogu, Roelf F. Sandenbergh and Ramamurthy Natarajan.

This session focused on the role played by accreditation in facilitating the integration of “Grand Challenges” into engineering curricula.

Another panel of GEDC was the “Leadership and Transformation in a Time of Change,” led by Luis Martin Vega, dean of the College of Engineering at North Carolina State University and Juan Carlos de la Llera dean of engineering at the Pontificia Universidad Catolica de Chile. This session highlighted the need to shape local and regional policy, and respond to rapid global changes in relation to engineering education. After the presentations, participants followed a small group discussion where specific ideas, solutions and future directions were shaped. The session culminated with recommendations for the 2013 GEDC Institutional and Policy Leadership task force.

The overall experience of IFEES and GEDC members who participated in the WEEF, 2012, was very productive, intellectually stimulating and it gave the opportunity to every dean and corporate officer to interact among themselves and play an instrumental role in addressing the challenges and innovations in Engineering Education profession. For more information on WEEF contents, please visit: www.weef2012.edu.ar
International Scientific School Conference on Engineering Education in Kazan National Research Technological University, Russia

In November 26-30, 2012, Kazan National Research Technological University held a conference at the International Scientific School to formulate guidelines to reform advanced Engineering Education in accordance with new requirements determined by Russia’s entrance into WTO. This conference promoted international recognition of intellectual property of universities engaged in scientific educational programs; training in gas and petrochemical industrial enterprises that yield present-day production in the Republic of Tatarstan. It also paid attention to R&D in manufacturing organizations that make new methods and technologies to advance Russian education and science into the global educational and scientific research environment.

Among the participants were: Global Engineering Deans Council represented by Alaa Ashmawy, International Engineering Alliance, APEC Engineer’s Coordination Committee, The US—Russia Foundation for Economic Advancement and the Rule of Law (USRF), GEDC Executive Committee Member and representative, Alaa Ashmawy, Department for Trade Negotiations of the Russian Ministry of Economic Development, Department of Professional Education in the Russian Ministry of Education and Science. Some of the topics addressed in the Conference were: “Ways to Develop Competencies of Contemporary Engineers;” “Overview of ABET Accreditation of Engineering Degree Programs Worldwide;” “New tasks of engineering education for the petro-gas-chemical complex in the context of Russia’s accession to WTO;” “The Global Engineering Deans Council (GEDC): Transforming Engineering Education in a Time of change.

IIDEA Capacity Building Efforts:
World Engineering Education Forum

The World Engineering Education Forum successfully brought together over 1,300 engineering education stakeholders in Buenos Aires, Argentina. IIDEA had a strong presence, offering three workshops. Many of the participants in the workshops represented Argentinian institutions, and many more were from across Latin America, facilitating the strong local impact of this set of capacity building efforts. Brief descriptions followed the official workshops and other IIDEA conversations at the 2nd WEEF, the largest international gathering of engineering education yet.

Accreditation
Title: WORKSHOP ABET, INTRODUCTION TO ABET
Facilitators: Michael Milligan, ABET; Lueny Morell, HP and Teofilo Ramos from Mexico.

Building on previous successful workshops on practical considerations for accreditation, Lueny Morell (IIDEA co-founder, HP Labs) teamed up with Michael Milligan (executive director of ABET) and Teofilo Ramos (professor of Monterey Tech) provided a comprehensive accreditation workshop. This workshop provided an introduction to ABET accreditation: an organizational overview, criteria, the accreditation process, and continuous improvement. It also addressed practical questions about preparing for an accreditation visit, the planning process, and who to involve.

Active Learning and Tablet PCs
Title: DEVELOPING ACTIVE LEARNING CLASSROOM EXPERIENCES WITH TABLET PCS AND SLATE DEVICES
Facilitator: Joseph G. Tront, Bradley Department Of Electrical And Computer Engineering at Virginia Technology.

As a technology, tablets are widespread, and there are a number of ways in which professors can thoughtfully incorporate their use into an interactive classroom. This workshop provided a hands-on tutorial for faculty on a number of useful tablet programs to use in their classes.

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Participants were tasked with developing short active learning exercises starting from the development of goals for the exercise, through the desired student interaction, and ending with the exercise assessment and improvement strategy.

**Problem-based Learning**

**Title:** VARIETIES OF PBL: THE COMPONENTS OF SUCCESS

**Facilitator:** Erik de Graaff

Problem-based learning (PBL) is known around the world as a highly successful method in higher education. In particular, in training engineers this educational method seems to be well suited. In the history of implementing PBL, a plethora of varieties emerged. Some focus on problems, others on projects. Many involve self-directed learning, but some are teacher-centered. The workshop analyzed the differences between the main varieties, identifying key components in each that are critical to success for participating educators.

**Other Workshops**

In addition to the official IIDEA workshops offered, a number of IIDEA collaborators offered workshops during the WEEF, 2012. HP Calculators, which partnered with IIDEA and MIT’s Teaching and Learning Lab for workshops during the recent SEFI and IGIP annual meetings, offered a workshop on strategies for teaching mathematics using advanced calculators. HP Institute shared research and introduced the new education program to provide a business context and practical skills within university classrooms. Also Mathworks gave workshops that provided information on leveraging project-based learning, Model-Based Design, and an integrated curriculum to educate and prepare students who can accelerate innovation.

**Working Group Meeting**

After the conference, the IIDEA community conducted a meeting of its founders, directors, secretariats, advisory board, and interested observers. The group discussed the change in leadership, upcoming IIDEA workshops in the next year, structures for quality assurance, ensuring a sustainable funding model for the group, and understanding how IIDEA can truly serve as a platform to support the IFEES community, its experts, and its broader constituents. The working group will continue to discuss these on the Capacity Building SIG on the GEL community website. If you are interested in contributing to the IIDEA working group, please email jdeboer@mit.edu.

**Next Steps**

A number of additional IIDEA workshops are already in the pipeline. Planning has begun for next year’s Tsinghua workshops. There is also a possibility for IIDEA contribution to capacity building in Central Asia and for the forthcoming AEEA conference in Nigeria, in September, 2013. As IIDEA grows, a number of set procedures are evolving to make the group better able to serve the IFEES community. Full reports of the workshops presented at the WEEF will be made available online.

For more information on IIDEA’s activities, please visit our website: www.sefi.be/iidea/

For more information on the WEEF and contents, including presentations, please visit the conference website: www.weef2012.edu.ar.
IFEES member ASIBEI conducted a meeting focused on: "Training for Engineering academicians," "Mobility of teachers, researchers and students in Ibero-America" and "Entrepreneurship in Latin America."

In the first topic participated as speakers and moderators: Ricardo Vega, Dean of Academics at the University of Santiago de Chile, Nestor Blanco from the University of Lomas de Zamora, Argentina and Mauricio Duque from the Universidad de los Andes, Colombia. The second topic was led by engineers: Daniel Morano, University Policies Secretariat of Argentinian government, Teofilo Ramos from Tecnológico de Monterrey, Mexico and moderated by Mr. Mario Gomez Mejia, from ANFEI, Mexico. The third topic was developed by Braidot Nestor from the University of Argentina, Hector C. Kaschel Director of Graduate Studies at the University of Santiago de Chile, and moderated by Mr. Mario Fernandez, Dean, Faculty of Engineering, ORT, Uruguay.

The summary and accomplishments of the three panels were made by Jaime Salazar (Colombia), Edmundo Lopez (Chile) and Jorge del Gener (Argentina). Soon will be published a newsletter devoted to present the conclusions of the issues addressed in respective panels.
Airbus and the Global Engineering Deans Council launch award to encourage more diversity in engineering programs at universities worldwide.

Airbus, the European aircraft manufacturer and GEDC (Global Engineering Deans Council), the leading organization for engineering education, launch an award to recognize individuals who have been proactive in bringing more diversity into engineering classrooms. They intend to reward initiatives which encourage students of all profiles, gender, social and cultural backgrounds as well as disability, to study and succeed in engineering.

The long term aim of this new award is to increase diversity among the global community of engineering educators and professionals, so that the engineering industry reflects the diversity of the communities it supports. In addition it will ensure that more students have the opportunity to experience and value working in diverse teams during their studies.

“Increasing demands for engineers globally means we must broaden our reach and attract the most talented people to the industry” said Sarah Rajala, Dean of the Bagley College of Engineering at Mississippi State University and Chair of the GEDC. “With this award we want to make sure that engineering represents the population served by the industry, with opportunities for everyone. It will recognize the contribution of individuals, or of their projects, which have enhanced the diversity in engineering education globally.”

“At Airbus we have some 100 nationalities and over 20 languages are spoken among our 55,000 employees. We believe that this diversity is a huge strength, a vital part of our business success and that it helps foster innovation, performance and engagement.” said Charles Champion, Airbus Executive Vice President Engineering.

Following the launch the GEDC and Airbus will establish an Awards Committee comprising experts in engineering education, diversity and industry, to define the application guidelines, evaluation criteria, selection process and launch the call for candidates.

Airbus is a corporate member of the GEDC (Global Engineering Deans Council), towards leading global organization whose members are individuals responsible for setting the agenda for higher education in engineering in their countries and universities.
The purpose of the conference was to pursue the mission and goal of IFEES and to offer the best exchange platform for scholars in Asian-Pacific area. This facilitates engineering education research and development in Asian-Pacific area. IFEES President, Jose Carlos Quadrado was a key note speaker.

The importance of Engineering Education has been emphasized by many countries and has taken root in middle and elementary schools. The report of “Preparing the Next Generation of STEM Innovators: Identifying and Developing Our Nation’s Human Capital” by the National Science Board (2010) pointed out the importance about cultivating a person’s ability to integrate science, technology, engineering and mathematics. In addition, the report of “A Framework for K-12 Science Standards: Practices, Crosscutting Concepts, and Core Ideas by the Board on Science Education (2011)” also showed that science education should be focused on the connection of technology and engineering in the future. Therefore, engineering education research and development will be crucial to the world. There are approximately 48 members of international organizations in IFEES, and they cooperate to promote engineering education globally. IFEES not only enhances each member's, teacher's and student's ability, but also hopes that enterprises can be motivated to engage in engineering education for helping graduates majoring in engineering or technology work anywhere in the world and connect with international enterprises.

Therefore, IFEES strives to improve engineering education research, to enhance faculty’s quality in the department of engineering, to cultivate students and engineering-related staff, and to understand culture differences for facilitating students to work globally. In short, in order to globalize engineering and technology education efficiently, providing the best engineering education to satisfy the demand of engineering professionals by following the innovation of science and technology is a main trend for engineering and technology education scholars around the world.

According to the abovementioned background, the 5th Asia-Pacific Conference on Engineering & Technology Education (APCETE) will be held with the topic, “The Future Trend in Engineering and Technology Education Research and Development,” and will be expected to promote engineering and technology education research and development in Taiwan and Asia-Pacific countries.
In September 2012, SEFI held in Thessaloniki its Annual Conference “Engineering Education 2020: MEET THE FUTURE”. BEST supported actively the Conference, by promoting it to students, and planning activities for students and professors. Nearly 100 students took part in the Conference, and had the chance to get informed about engineering education issues. BEST’s activities consisted of discussion groups and training sessions. The topics varied, and had to do with the impact of volunteering work to development of students, their involvement in improving engineering education, and other relevant issues.

BEST members published papers during the conference under the topics “Student Understanding of Filters in an Analog Electronics Lab Courses” (P. Coppens, M. De Cock, C. Kautz) and “Virtual Internships” (M. Majerič, A. Enea, W. Villerius). The outcomes of the BEST Event on Education which took place in Vienna during September were presented at SEFI’s Students’ Task Force Working Group.

The Conference was a great opportunity for students and professors from all over the world, to interact in a common environment, discuss on engineering education issues, address their needs, and share their vision for the future.

Event on Education: “Education for Sustainable Development: Fostering the Revolution of Society”

The Local BEST Group Vienna and BEST Educational Committee have organized the Event on Education: "Education for Sustainable Development: Fostering the Revolution of Society" in cooperation with the Austrian Commission for UNESCO, SEFI, Technical University of Vienna and Öjab. It was held at the Technical University of Vienna from 16th to 22nd of September.

BEST Educational Committee strives to raise students’ awareness on educational matters by involving them to different discussions on education. At the Events on Education students have an opportunity to express their opinion on a certain education topic and discuss it together with professors, experts and companies’ representatives. At the Event on Education Vienna the main focus was placed on Education for Sustainable Development.

One of the ways to make our future more sustainable is to make current education system more sustainable. Around 50 students of different nationalities, professors and organizations were discussing educational matters that concern education for sustainable development. Different sustainable development disciplines were taken into account: biodiversity, climate change and energy, sustainable urbanization, sustainable lifestyles, cultural diversity, poverty reduction, water, and disaster risk reduction. Various topics on education were discussed within the mentioned fields, e.g. improvement of current curricula, interdisciplinary and intercultural approach, values of cooperation with companies, teaching methods in sustainable development, etc. They also visited the Biofuel Factory Güssing and the UNESCO Biosphere Park Neusidler See.

The outcomes have been presented at the SEFI Annual Conference 2012 in Thessaloniki, Greece and have been very appreciated by the audience. Furthermore, the report will be sent to certain UNESCO Commissions, European universities and presented at the 10th Global Conference on Sustainable Manufacturing in Istanbul, Turkey.

Should you be interested visit our webpage: http://events.bestvienna.at/en/events/oe/120917/welcome.html

Or contact: educo.coordinator@best.eu.org
ISTEC Announcements about Nano Professor Media Coverage

The press release announcing that NanoProfessor joined Innovation Plaza was reprinted in full by 20 media outlets including presence in several web sites:

- A to Z of Nanotechnology
- Bio Optics World
- Bio Space
- Business Press 24
- CBS News
- Chicago Daily Herald
- Contacto Latino News
- Device Space
- Electric Light and Power
- El Nuevo Herald
- HPC Wire
- International Business Times
- Lightwave
- Marketwatch
- MSNBC
- Nanotechnology Now
- NanoTech Café
- News Blaze

- Optimum Online
- Yahoo! News

Additionally, according to Dulce M. Garcia and Ramiro Jordan, information from the press release was also included in the

- Nanotech Café e-Newsletter
- Barbados Gazette
- Trinidad Tribune
- French Caribbean News
- Dominica Gazette
- NanoTechno
- Science Daily News

The announcement was also mentioned on Twitter 20 times.

https://twitter.com/search/realtime?q=nanoprofessor

We will also continue to provide periodic updates on our pitching efforts as well as new media coverages.

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SPEED takes the lead in educating a new generation of engineers

The Student Platform for Engineering Education Development (SPEED), is a global, non-profit student organization intent on helping mold engineering education through student input.

Objective:
We are committed to increasing student globalization through partnership with IFEES member societies. As such, we hope you will consider encouraging the development of student leaders within your ranks. We invite you to implement a student contest to identify the best local students helping us both achieve our goals.

Goals:
Our members and event participants know that well-organized student associations can be the fuel to launch their ideas while providing substantial professional and soft-skill development. Fostering this development within students is a great way to ensure the longevity of your organizations initiatives.

Activities/Contests:
We organize global events for students like Global Student Forum (GSF), whose main objective is to gather highly-motivated, internationally-minded student leaders in a place where they can exchange their thoughts on how to improve daily life, mainly through engineering education and set in motion plans to achieve the desired change. A lack of economic resources prevents many students from participating in SPEED events. We recommend all IFEES societies to encourage students participation by sponsoring a contest. We do understand that it is impossible to sponsor each and every student, so our suggestion is to promote contest in order to provide a scholarship to the winners, bringing the best students to our conference. We have recently implemented a Contest Officer to give support and organize contests with the goal of bringing brilliant students into our communities and global conferences.

We know there are many questions involving the organization of a contest. We are able to give you all needed support to transform such a contest into a tool to develop and stimulate students to create great movements within your community. We can create a new channel to connect your organization with students.

How can IFEES member societies benefit from a student contest?
First of all, it is clear that Contest is a great window for a society. Through this activity a lot of students can to know activities from a specific society and they can become a channel to promote these activities and projects in others countries, or attract brilliant students to become part. Other important point is enjoying this tool to stimulate and create a focus for a practical of students. In other words, we are discussing about a new way to implement the interdisciplinary within schools and universities.

The benefits of having your students participating in contest and attending SPEED events include:

- Global promotion of your society and its initiatives.
- Identification of local students who can develop into leaders within your organization.
- Acquisition of international experience, awareness and understanding, as a motivation for young engineers to work for their countries and for their society.
- Exposure to cutting-edge research taking place in engineering and engineering education.
- Personal development and empowerment as a global engineer through cultural understanding and awareness of difference across borders.
- Development of concrete action plans to implement/improve/continue an initiative of their choice established in conjunction with student leaders from around the world.
- Professional development through active participation in workshops and presentations.
- Connection to Engineering Education stakeholders (universities, professors, industry and government representatives and other students) who can provide many connections and information on study abroad, international employment and education opportunities and many other areas.

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SPEED Student Contest

How to start your own student contest?
We are ready to create a proactive environment between your organization and students. Moreover, we are able to establish and manage all points involving a contest like website, promotion, newsletter, registrations, etc. If you are interested in starting a student contest – Let’s schedule a meeting and find how we can support your organization to implement your first global or local contest. SPEED is ready to give you all support needed to organize your contest. This is a great way for us to flex our collective muscle and show that we are an organization that has action behind its words.

Any questions may be sent to claudio.freitas@worldspeed.org

Claudio Freitas
SPEED Contest Officer

http://worldspeed.org The Student Platform for Engineering Education Development (SPEED), is a global, non-profit student organization intent on helping mold engineering education through student input.
The conference was dedicated to the 40th anniversary of the founding of the International Society of Engineering Education (IGIP). During the conference was also the 80th Birthday of the founder of IGIP, Adolf Melezinek – the father of Engineering Pedagogy as a scientific subject, was celebrated with an honorary colloquium.

It was a pleasure for us to welcome distinguished international guests:

- **Hans J. Hoyer**, Secretary General, International Federation of Engineering Education Societies (IFEES).
- **Stephanie Farrell**, Vice-President, American Society of Engineering Education (ASEE).
- **Manuel Castro**, President Institute of Electrical and Electronics Engineers, (IEEE), Education Society.
- **Russ Meier**, Vice-President, IEEE Education Society.
- **Victor Schutz**, former IEEE President.
- **N. V. Ratnalikar**, President Indian Engineering Education Foundation (EEF).
- **David Guralnick**, President International E-Learning Association (IELA).
- **Doru Ursutiu**, President International Association of Online Engineering (IAOE).
- **Ivan Esparragoza**, Vice-President Latin American and Caribbean Consortium of Engineering Institutions (LACCEI).
- **Andras Szucs**, Secretary General European Distance and E-Learning Network (EDEN)

Furthermore Rectors from some European Universities were present.

The motto of this year’s ICL was “Collaborative Learning and New Pedagogical Approaches in Engineering Education”. We received near 400 paper submission from all over the world. Finally about 200 presentations were selected to appear in the conference program.

On the three conference days we had 385 participants from 61 countries from all continents. International well-known experts gave keynote presentations about:

- “Global Partnerships in Engineering Education” by Hans J. Hoyer.
- “VisioneerING – Future Trends in Engineering Education” by Sabina Jeschke, Director TeachING-LearnING.EU, RWTH Aachen, Germany.
- “Global Trends in Engineering Education” by Russ Meier.
- “New challenges in engineering education and the answer of University of Porto” by Jose Carlos Marques dos Santos, Rector University of Porto, Portugal.
- “Is Social Online Based Learning the Cure for Knowledge Poverty?” by Djamshid Tavangarian, University of Rostock, Germany.
- “Learning 3.0 and the Smart eXtended Web” by Steve Wheeler, Plymouth University, UK.

During the conference IGIP at the first time awarded international scientific personalities for outstanding achievements in Engineering Education and Pedagogy:

With the Nicola-Tesla-Chain were awarded:

- Adolf Melezinek, Austria
- Rob Reilly, USA
- The Adolf-Melezinek-Meritorious-Service Award received:
  - Viacheslav Prichodko, Russia
  - Victor Schutz, USA
  - Hartmut Weidner, Austria

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The honorable title “IGIP Senior Member” received:
Dana Dobrovska, Czech Republic
Vasiliy Ivanov, Russia
Eleonore Lickl, Austria
Larisa Petrova, Russia
Norbert Kraker, Austria

As “International Engineering Educator – Ing. Paed. IGIP” were awarded:
Ivan Esperragoza
Stephanie Farrell
Hans J. Hoyer
Vera Melezinek
Russ Meier

Andras Szucs
Max Winkler

Furthermore the IGIP Young Scientist Award went to:
Ramona Oros, Transilvania University of Brasov, Romania, with a work on: Educational Studies of the Use of a WiTAG System

Swetlana Rusina, Belgorod State Technological University, Russian Federation, with a work on: Gender characteristics of graduates – engineers

Tiago Andrade, Faculdade de Engenharia, University Porto, Portugal with a work on: Project Based Learning Activities in Engineering Education.

Universiti Teknologi Malaysia is pleased to invite you to the 2013 Research in Engineering Education Symposium (REES2013). This symposium follows ICREE 2007 in Hawaii, USA, REES 2008 in Davos, Switzerland, REES 2009 in Palm Cove, Queensland, Australia, and REES 2011 in Madrid, Spain.” The event is held in collaboration with Research in Engineering Education Network (REEN). REEN is an international forum for scholars interested in discussing and advancing research in engineering education. It aims to bring together the growing international community of engineering education researchers. This vibrant and welcoming community nurtures developing researchers through collaboration and sound methodological approaches to address the challenges within Engineering Education.

Academics, researchers and decision makers interested in enhancing engineering education through scholarly and evidence-based practices should not miss the opportunity to attend this meeting in Kuala Lumpur, Malaysia. The conference will be held from 4th until 6th July 2013. This is the first REES symposium held in Asia. It will give you the chance to experience the hospitality of Kuala Lumpur, and the cultural experiences that should not to be missed! Selected papers will be invited for publication in the International Journal on Engineering Education, which is indexed in SCOPUS and ISI.

For more information, please visit the symposium website at: http://ctl.utm.my/rees2013

REES2013 promises to be an enticing and informative symposium and we look forward to welcoming you to Kuala Lumpur in 2013!
Accreditation Board for Engineering and Technology (ABET)
EXPANDS GLOBAL PRESENCE

Responding to the increasing worldwide demand for accreditation of academic programs in technical fields, ABET has updated its Global Operations Strategic Plan. Under the updated plan, the organization will focus its international activities in three areas: 1) supporting Mutual Recognition Agreements, such as the Washington, Sydney, and Seoul Accords; 2) assisting in the development of national (in-country) and regional accreditation systems through our Memoranda of Understanding; and 3) directly accrediting programs outside the U.S. ABET will take a more strategic and proactive approach to implementing its international activities, focusing on areas of most need, and demand.

Working with institutions and accreditors across the globe is not new for ABET. ABET has a long history of assisting accreditors improve their own processes and procedures through various mentorship agreements. In addition, for nearly 20 years, upon request, ABET would provide evaluation services aimed at determining if a program was “substantially equivalent” to those accredited by ABET in the United States. These evaluations used the same criteria and processes, while allowing for country specific and cultural differences. It was not until October 2006 that the ABET Board of Directors approved new efforts to accredit programs outside the United States and to phase out substantial equivalency evaluations.

At a time when the need for global professionals has never been greater, ABET stands in an ideal position to help improve the quality of technical graduates entering the workforce. “Supporting global accreditation organizations such as the Washington Accord, allows us to help set the standards for the global technical professional of the future,” says Michael Milligan, ABET Executive Director. “In addition, for those programs seeking ABET accreditation, by satisfying ABET’s policies and criteria, programs in many nations can offer students the necessary resources to enhance learning and increase knowledge. This will result in graduates that are prepared to enter the professions of applied science, computer, engineering and technology worldwide.”

Given the accelerated movement of commerce and ideas across traditional geographic and political boundaries, accreditation is also intended to facilitate the mobility of technical professionals. Milligan observes that both employers—especially those operating on a multi-national basis—and individual graduates will benefit from an accreditation process that it widely recognized.

“It is clear that the future workforce will be diverse, global, multi-disciplinary and knowledge-based, not only in the United States, but all over the world. In this scenario, ABET sees the opportunity to provide leadership and to enhance the quality of technological education worldwide,” says Joe Sussman, ABET Managing Director for Accreditation. “We will work closely with our partners – both institutions and accreditors – worldwide to ensure that their academic programs meet high standards for quality in technology education, while assisting in the development and improvement of accreditation systems outside the United States. At the same time, ABET will continue its 80-year-old commitment of promoting quality and innovation in technological education in the United States.”

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Since beginning accreditation services outside the U.S. in 2007, ABET has accredited 324 programs at 64 institutions in 23 nations outside the United States. More than 430 volunteers have served as team chairs or program evaluators in conjunction with the non-U.S. accreditation visits.

For more information about ABET’s engagement with Mutual Recognition Agreements or Memoranda of Understanding, please contact Daniela Iacona at diacona@abet.org. For information on ABET global accreditation activities, please contact ABET international accreditation specialist, Sherri Hersh, at shersh@abet.org.
ASEE Activities, Summer 2012

The American Society for Engineering Education Annual Conference and Exposition was held from June 10-13 in San Antonio, TX. The meeting hosted over 400 technical sessions with peer-reviewed papers spanning all disciplines of engineering education. One of the conference highlights was the Inaugural ASEE International Forum, hosted in collaboration with sister societies from China, India, Japan, Korea and Malaysia. Other popular pre-conference and conference activities included the annual National Effective Teaching Institute and K-12 Engineering workshops, a distinguished lecture series, and an exposition exhibiting companies and poster sessions.

The call for papers for the 2013 ASEE Meeting is now available online at http://www.asee.org/conferences-and-events/conferences/annual-conference/2013/program-schedule/call-for-papers. The conference will be June 23-36 in Atlanta, GA. The 2nd Annual International Forum will take place on June 22.

In June ASEE released the “Innovation with Impact” report, the culmination of a series of evolving conversations that began in the summer of 2004 within the American Society for Engineering Education and that progressively broadened to include hundreds of engineering faculty, chairs, and deans. http://www.asee.org/about-us/the-organization/advisory-committees/Innovation-with-Impact

As part of a larger ASEE study of student retention, ASEE recently collated a list of best practices from Engineering, Engineering Technology and Computing deans and chairs of two-year and four-year schools.

ASEE conducted a review of this literature and documented over 60 strategies and practices that were identified as effective in retaining students in engineering. We divided these strategies into three groups: student-focused strategies and practices; faculty-focused strategies and practices; and institutional- and departmental-focused strategies and practices. ASEE asked deans and chairs to send us brief descriptions of their most successful departmental and college-wide retention activities in each of the three categories. We provided a number of examples found in the literature. We also asked deans and chairs to send us evidence showing that the practice was effective. We received close to 60 best-practice submissions.

More information is available at: http://

QUEECA Kick-off

The Quality of Engineering Education in Central Asia (QUEECA) project was launched at a kick-off meeting in Menaggio, Italy from November 26-29. QUEECA is a Tempus project which will establish and implement a system of quality assurance of Engineering Education in Central Asia. The intended outcome of the project is the pre-professional accreditation of engineering programmes satisfying the standards for the award of the EUR-ACE quality label.

The three-year QUEECA initiative is led by IFEES founding president, Claudio Borri of the University of Florence. The QUEECA consortium includes European partners from Italy, Germany, Belgium, Portugal and UK and Central Asian partners from Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan. Several IFEES member societies are partners in the project including SEFI, ENAEE, ISEL, ASEE and KazSEE.
9th World Congress of Chemical Engineering; Chemical Engineering Education Session

The 9th World Congress of Chemical Engineering will be held from August 18 to 23, 2013 in Coex, Seoul, Korea. An education session invites papers on all topics related to chemical engineering education. This includes enhanced teaching methods, curriculum developments, laboratory developments, tools, accreditation, assessment methods, and student and faculty developments. The deadline for abstract submission has been extended to 31 January.

http://www.wcce9.org/
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