Under the Patronage of
HH Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum
Crown Prince of Dubai and Chairman of Dubai Executive Council
CHALLENGING PERSPECTIVES

Explore how we help the world progress

www.airbusgroup.com
# Table of Content

## About WEEF 2014 2 - 14
- Message from Co-Chairs 4
- Organizers 5
  - AUD
  - IFEES
  - GEDC
- Government Supporter 8
  - Dubai Business Events
- Participating Organizations 9
  - ABET
  - ACIEE
  - IACCE
  - IEEE
  - IGIP
  - IIDEA
  - SPEED
  - SOE-UAE
- UAE Engineering Deans Council 11
- Organizing Committees 13
- Technical Committees 15

## Program and Speakers Bios 20 - 140
- Program In Brief 21
- Program 23
- Sessions Description 38
- Speakers Bios 85

## Sponsors and Exhibitors 142 - 155
- Sponsors 143
- Special Sponsors 147
- Official Airline Partner 148
- Media Partners 148
- Exhibition Map 150
- Exhibitors 151

## General Information 158 - 164
- Venue Map 159
- WEEF 2014 General Information 160
- Useful Information 162
Innopolis University, being the first Russian university with a focus on advanced computer science and its applications, is an intellectual driving force for the development of the national IT industry.

Its goal is to produce excellent specialists and to create and commercialize break-through technologies.

Quality of education and research is ensured by close cooperation with high-tech business and leading academic institutions.

“Innopolis University offers favourable opportunities to receive world-class education in ICT and robotics and to participate in breakthrough mutual research projects with Innopolis-based leading companies.”

Nikolay Nikiforov
Minister of Telecom and Mass Communication of the Russian Federation

INNOPOLIS UNIVERSITY IS PLEASED TO INVITE:

- World-class professors and IT-experts – to teach and do research
- IT-companies - to become its industry partners
- Science and technology universities – to explore prospects for collaboration

Contact us:
university@innopolis.ru
tel.: +7 (843) 203-92-53

Visit us:
40-42, Profsoyuznaya str.,
420111 Kazan, Russia

Visit our web-site:
university.innopolis.ru/en
About WEEF 2014

Message from Co-Chairs
Organizers
Government Supporter
Participating Organizations
UAE Engineering Deans Council
Organizing Committees
Technical Committees
WHERE INFRASTRUCTURE MEETS INNOVATION

The regional commercial hub and gateway between East and West, Dubai is a city built on innovation and infused with opportunities. The city’s diverse knowledge base and community of trained professionals makes Dubai the ideal location for association conferences, corporate meetings and incentive events. Direct access from over 260 destinations worldwide, an array of venues, over 89,000 hotel rooms in all categories and numerous exciting activities in and around Dubai makes this city the most remarkable destination for successful business events.
Message from Co-Chairs

Dear Colleagues,

On behalf of our colleagues, the members of the organizing and technical committees, we welcome all our colleagues and students from around the world, in Dubai, at World Engineering Education Forum (WEEF) 2014.

Under the patronage of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council, WEEF 2014 is a global forum, organized under the auspices of the International Federation of Engineering Education Societies (IFEES) and brings together a number of prestigious engineering education events under one forum. In addition to the IFEES Summit, WEEF 2014 features the 6th Annual Global Engineering Deans Council Conference, the IGIP2014 International Conference, the 10th Global Student Forum, in addition to a range of workshops and symposia by participating societies.

Dubai is a strategically located global hub for commercial, economical, technological innovation and is known as a center for knowledge exchange. Dubai continues to serve as a catalyst for connecting local and international stakeholders hence adding value to the global dialogue on how to positively contribute to the solution of the world’s engineering education.

We are confident that WEEF 2014 will prove to be an enriching experience to all the participants and delegates. Our aim is to continue providing high quality technical content with participation from leading organizations from all over the world.

As your local host, we can promise you that we have worked hard to ensure that this destination will live up to your expectations and to create an enriching, educational and cultural experience that will last in the mind of our participants for years to come.

Alaa K. Ashmawy
Dean, School of Engineering
American University of Dubai

Hans J. Hoyer
Secretary General of IFEES
Executive Secretary of GEDC
Organizers

American University in Dubai - AUD

The American University in Dubai (AUD), the official host of WEEF 2014, is a private, non-sectarian institution of higher learning founded in 1995. AUD offers both undergraduate and graduate degrees and Certificates in Middle Eastern Studies and Professional Teaching. In Spring 2014, over one hundred nationalities were represented in the AUD student body.

In addition to courses in their chosen program/major, undergraduate students in all disciplines must follow a curriculum in Arts and Sciences. This is in fulfillment of the general education portion of their degree requirements.

Through its Center for English Proficiency (CFEP), the university also conducts Intensive English programs designed to develop university-level English language skills in students requiring additional language study before commencing university.

The university’s faculty possess appropriate academic credentials. Furthermore, many are or have been practicing professionals of note. In terms of faculty composition, North Americans have the highest representation of any national group.

The School of Engineering at the American University in Dubai provides students with a unique opportunity to experience American-style engineering education in one of the fastest growing and most diverse metropolitan areas in the world. The School’s educational experience provides students with the knowledge needed for technical excellence in engineering, while emphasizing the role of general education, ethical and social responsibility, and life-long learning in the personal and professional growth of future engineers.

The School offers undergraduate programs leading to Bachelor of Science degrees in Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering. In addition, the School offers a Master of Science in Construction Management. Our curricula are supported by state-of-the-art labs and facilities, a diverse group of faculty with outstanding expertise and solid ties with the professional community. With local and international accreditations in place, and through a broad education grounded in cultural diversity and technical excellence, our graduates continue to be highly sought at both the regional and global levels.

AUD’s multi-complex facility has been conceived with the objective of supporting the university’s programs (both academic and extra-curricular) to an American standard. Strategically situated in the west suburbs of Dubai, the AUD campus adjoins Media City, Internet City and Dubai Marina, and is located within a mile from the Palm Jumeirah, The World Islands, and Jebel Ali Free Zone.

www.engr.aud.edu
Organizers

International Federation of Engineering Education Societies – IFEES

The International Federation of Engineering Education Societies (IFEES) was founded in 2006, at the American Society for Engineering Education's Global Conference in Rio de Janeiro, Brazil. Engineering education leaders from around the world had gathered the previous year to explore to possibilities of creating an international organization for engineering education societies. IFEES is proud to be leading the effort in connecting the world’s engineering education societies and leveraging our members’ collective strengths in order to improve engineering education worldwide. IFEES members represent a diversity not only in cultures, but in engineering education interests, from quality assurance to engineering education, from pedagogy to the role of technology in the classroom. IFEES member societies are expanding their global reach, and new relationships and collaborations are created all the time through IFEES’ global network.

Through the collaboration of its member societies, IFEES will work to establish effective engineering education processes of high quality around the world to assure a global supply of well-prepared engineering graduates. IFEES will strengthen member organizations and their capacity to support faculty and students. It will attract corporate participation, helping to connect engineering graduates with international corporations that have a pressing need for well-trained engineers who can work in a global environment. IFEES will also enhance the ability of engineering faculty, students and practitioners to understand the varied cultures of the world and work effectively in them.

www.ifees.net
Organizers

Global Engineering Deans Council - GEDC

Recognizing the global need for a world-wide forum of engineering deans and rectors, a group of over 20 leaders of engineering education institutions and corporate partners first met in Rio de Janeiro, Brazil, on 9 October 2006 and in Istanbul, Turkey, on 30 September 2007. Encouraged by the International Federation of Engineering Education Societies (IFEES) and modeled after the ASEE Engineering Deans Council (EDC), the Global Engineering Deans Council (GEDC) was created on 9 May 2008 in Paris. The main goal of the GEDC is to provide engineering deans and rectors with ideas, tools, and “best” practices necessary to become innovative leaders of engineering education.

The Mission of GEDC is to serve as a global network of engineering deans and to leverage the collective strengths of the deans for the advancement of engineering education, research and service to the global community. The four main objectives of our strategic plan to include: institutional leadership, curriculum leadership, policy leadership and accreditation leadership. GEDC’s vision is to enhance the capabilities of engineering deans to transform schools in support of societies in a global economy.

The GEDC is only just beginning to expand its membership. According to the by-laws, GEDC membership shall comprise a person-in-charge of: an engineering college, school or faculty in a university or institution of higher learning; an education institution of higher learning that is primarily focused on engineering education and research; engineering deans councils in respective countries and/or regions; or industry leaders that identify with the mission and vision of GEDC. Currently the GEDC has members representing over 30 countries from all continents.

Global Engineering Deans Council holds regular meetings surrounding four “tracks” or themes as initial focal points for the GEDC to move forward: How to be a successful Dean/Professor, What is a “Global Engineer”, Technology Innovation in Engineering Education, and Building Global Partnerships. Accommodating for its diverse membership, the GEDC has met in Argentina, Brazil, Turkey, France, Singapore, People’s Republic of China, United States of America, Hungary and plans to meet in the United Arab Emirates, Italy and Australia in the coming years.

www.engr.aud.edu
Government Supporter

Dubai Business Events

The DBE's aim is to further develop and increase Dubai's share of the international MICE and special events markets, whilst maximizing the economic prospects of Dubai. This division of the Department of Tourism and Commerce Marketing is responsible for the following:

- Coordination, creation and presentation of a customized bid document based upon clients RFP or RFI.
- Sourcing written endorsements from key political and tourism industry contacts.
- Coordination of initial site inspection for two individuals.
- Introduction to key local industry and government contacts.
- Confirmation of sponsorship information specific to bid, sponsorship applied to Dubai-based activities.
- Confirmation of Dubai's promotional booth at previous congresses to build attendance.
- Confirmation of Dubai information booth during the Dubai congress.
- Provision of all other convention bureau services to client.

The main goal is to establish the Emirate as a leading business tourism destination. We do this by helping you plan, organize and manage every aspect of your MICE and special events. From selecting the perfect convention and exhibition venue to choosing the ideal hotel, helping you with airline bookings to arranging local guides and ambassadors, our experienced staff will take care of all the details so you can be confident that your event will be an outstanding success.

The DBE’s service standards are accredited by Lloyd's Register Quality Assurance LRQA as part of the Best Cities Global alliance, convention and visitor bureaus that deliver the world's best service experience for the meeting industry; further assurance that your event is in very safe hands.

www.dubaitourism.ae
Participating Organizations

Accreditation Board for Engineering and Technology - ABET

ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied science, computing, engineering, and engineering technology. ABET accredits over 3,300 programs at more than 680 colleges and universities in 24 countries. ABET provides specialized, programmatic accreditation that evaluates an individual program of study, rather than evaluating an institution as a whole.

ABET accreditation, which is voluntary and achieved through a peer review process, provides assurance that a college or university program meets the quality standards established by the profession for which the program prepares its students.

ABET is recognized by the Council for Higher Education Accreditation (CHEA).

www.abet.org

Annual Colloquium on International Engineering Education - ACIEE

The colloquium provides for a stimulating sharing of ideas on how to prepare engineering students for success in the global marketplace. The Colloquium includes sessions and speakers on how to internationalize the engineering curriculum, how to get started, how to assess and evaluate and features case studies of successful programs and best practices.

International Association for Continuing Engineering Education - IACEE

IACEE is an international, non-profit and non-governmental organization with the objective of bringing together diverse professionals with an interest in Continuing Engineering Education (CEE). Membership includes academic and corporate providers, professional organizations/societies and individuals with an interest in CEE, which is of increasing importance for society. The aim of IACEE is to support and enhance lifelong engineering education and training world-wide.

www.iacee.org

Institute of Electrical and Electronics Engineers - IEEE

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

IEEE’s core purpose is to foster technological innovation and excellence for the benefit of humanity.

www.ieee.org
Participating Organizations

International Society for Engineering Pedagogy - IGIP

IGIP wants to intensify the international cooperation with other societies dedicated to engineering education, such as IEEE Education Society, ASEE, the American Society of Engineering Education, SEFI, the European Society for Engineering Education, or IFEES, the International Federation of Engineering Societies.

IGIP offers also international and regional conferences, symposia, summer schools. IGIP has established working groups on different topics of engineering education.

www.igip.org

International Institute for Developing Engineering Academics - IIDEA

IIDEA is a leadership training institute focused on establishing a global network of engineering faculty development programs to disseminate learning about the transformation of engineering education worldwide.

www.sefi.be/iidea

Student Platform for Engineering Education Development - SPEED

SPEED is a global, non-profit student organization that seeks to make an impact on engineering education and its effect on society and the environment. Promoting a system that is productive, inclusive, and forward-thinking, it provides a platform for global communication about engineering education among students as well as between students and other stakeholders.

www.worldspeed.org

Society of Engineers - United Arab Emirates - SOE –UAE

Society of Engineers - UAE was established since 1979 to provide excellent services to the engineering Sector in the UAE by accrediting their Qualifications to practice in the UAE. Society of Engineers is a semi-government sector & a non profit organization who strives to provide great services to our 35,000 members. Our Vision: “National Pioneering to engineers, gulf extension, international contact and an engineering reference for the public and private sectors”. We are recognized by the ISO – 9001:2008 in 2004. We became a member of Arab Engineers Federation in 1984, World Federation Engineering Organization in 1985 and Gulf Engineering Union in 1986. We have 3 centers, Training & Development Center, Arbitration Center and Employment Center. We issue different publications and we have been accredited as Certified Test Center for international examinations and Registered Education Provider of PMI.

www.uaesocietyofengineers.com
The United Arab Emirates Engineering Deans Council (UAE-EDC) was formally established in October 2012 with a mission to promote the advancement of engineering education and research ecosystems in the UAE, and to serve the UAE community at large in the areas of engineering and technology. In the context of its name and mission, the council also includes information technology and computer science.

The UAE-EDC has sixteen members comprising of institutions in the nation that grant at least a relevant bachelors or masters degree. Its goals are to provide members with a forum for sharing information, forge partnerships, advocate academic and accreditation standards, facilitate networking with external partners and stakeholders, and maintain links and seek continuous engagement with international education and research bodies. The current member institutions are: Abu Dhabi University (ADU); Ajman University of Science & Technology (AUST); Al Ghurair University (AGU); AlHosn University (AHU); American University in Dubai (AUD); American University of Sharjah (AUS); Higher Colleges of Technology (HCT); Khalifa University of Science, Technology and Research (KUSTAR); Masdar Institute of Science and Technology (MIST); New York University Abu Dhabi (NYUAD); Petroleum Institute (PI); Rochester Institute of Technology – Dubai (RITD); United Arab Emirates University (UAEU); University of Sharjah (UoS); University of Wollongong – Dubai (UOWD); and Zayed University (ZU).

The elected officers of the UAE-EDC are:
2013-14 Chair: Sunil Kumar, New York University Abu Dhabi
2013-14 Vice-Chair: Leland Blank, American University of Sharjah
2014-15 Chair: Leland Blank, American University of Sharjah
2014-15 Vice-Chair: Mohammed Salem, University of Wollongong in Dubai

The UAE-EDC is initiating an ambitious agenda of nation-wide initiatives related to education and research. Projects such as a nation-wide graduate collaborative are being developed. The academic year 2013-14 was the first year of the formal operation of the UAE-EDC, which operates under the umbrella and with the support of the Society of Engineers – UAE. In 2014, the UAE-EDC officially became a chapter of the Global Engineering Deans Council (GEDC).

Left to Right: Hany El Kadi, AUS (representing Lee Blank, Vice-Chair); Ghalib Kahwaji, RIT-D; Tawfiq Jaber, AHU (representing Mohammed Chacha); Fahar Hayaty, AUST; Sunil Kumar, NYUAD (Chair); Bayan Sherif, KUSTAR; Aly Nazmy, ADU; Mohamed Sassi, MI; Alaa Ashmawy, AUD; Amr El-Dieb, UAEU (host) Boumediene Belkhouch, UAEU (host); Youssef Abdel-Magid, PI; Mohamed Anwar, AGU (representing Edriss Ali); Sabah Alkass, UoS; February 27, 2014, at UAEU
Bachelor of Science in
Civil Engineering
Electrical Engineering
Computer Engineering
Mechanical Engineering

Master of Science in
Construction Management

The School of Engineering at the American University in Dubai provides students with a unique opportunity to experience American-style engineering education in the heart of Dubai. Accredited by the Ministry of Higher Education and Scientific Research (UAE) and ABET (USA); with full and partial merit-based scholarships, state-of-the-art facilities and exchange programs with top US universities.

BUILD UP YOUR ENGINEERING CREDENTIALS
http:// engr.aud.edu - engineering@aud.edu - (+971) 4 318 3405
Organizing Committees

Conference Co-Chairs

Alaa K. Ashmawy
Dean, School of Engineering
American University of Dubai

Hans J. Hoyer
Secretary General of IFEES
Executive Secretary of GEDC

WEEF 2014 Program Committee

John Beynon – Chair
University of Adelaide

Michael Auer
Carinthia University of Applied Science

Stephanie Farrell
Rowan University

Uriel Cukierman
Universidad Tecnologica Nacionalo

David Delaine
University of Sao Paolo
Organizing Committee

Local Organizing Committee

Essa Al-Maidoor – Chair
Director General
Dubai Health Authority
President
UAE Society of Engineers

Leland Blank – Co-Chair
Dean of Engineering
American University of Sharjah

Abdulla Youssef Abdulla
Head of Congress
Ambassadors Development
Dubai Business Events

Aly Nazmy
Dean of Engineering
Abu Dhabi University

Bayan Sharif
Dean of Engineering
Khalifa University For Science Technology & Research

Boutheina Kzadri Tlili
Associate Professor
Department of Electrical Engineering, RIT Dubai

Edriss Ahmed Ali Idriss
Associate Professor
and Acting Dean
College of Engineering & Computing
Alghurair University

Maged Hanna
General Manager,
Society of Engineers – UAE

Sunil Kumar
Dean of Engineering
New York University Abu Dhabi

Waleed Refaay
Managing Director
Middle East, North Africa
and India, Society of Petroleum Engineers (SPE)

Youssef Abdel-Magid
Professor and Dean
of the Graduate School
The Petroleum Institute
Technical Committees

IGIP-ICL Program Committee

Michael Auer  
Carinthia University of Applied Science

Pavel Andres  
Head of the Department of Engineering Pedagogy  
Czech Technical University in Prague, Masaryk Institute of Advanced Studies

Danilo Garbi Zutin  
IGIP Secretary General

David Guralnick  
President – Kaleidoscope Learning  
President – International E-Learning Association

Barbara Kerr  
Faculty Development Officer  
University of Ontario Institute of Technology

Eleonore Lickl  
Professor, Vocational and Technical College for Chemical Industry  
Vienna  
Professor, University of Teacher Education Styria, Graz

Andreas Pester  
Vice-Dean  
School of Engineering & IT  
Carinthia University of Applied Sciences

Tatiana Polyakova  
Head of the Foreign Language Department  
Moscow Automobile & Road Construction State Technical University

Teresa Restivo  
Professor  
Faculty of Engineering  
University of Porto

Tiia Ruutmann  
Associate Professor & Head  
Estonian Centre for Engineering Pedagogy  
Tallinn University of Technology  
Estonia
Technical Committees

IGiP-ICL Program Committee (Continued)

Doru Ursutiu
President of IAOE
Manager of Creativity Laboratory of CVTC
University “Transilvania” of Brasov

Axel Zafoschnig
VET Chief Inspector of Technical College
Ministry of Education Austria

IFEES Program Committee

Jose Carlos Quadrado - Chair
IFEES, President
President, ISEL

Ivan Esparragoza
IFEES First Vice-President
Vice-President for the Americas

Myongsook Susan Oh
IFEES Vice-President for Asia and Australia

Francoise Come
IFEES Vice-President for Europe
Technical Committees

GEDC Program Committee

Peter Jimack – Chair
University of Leeds

Yousef Abdel Magid
Petroleum Institute
Abu Dhabi

Peter Kilpatrick
University of Notre Dame
Indiana

Sunil Kumar
New York University
Abu Dhabi

George Nasr
Lebanese American University

Monique Simon
TOTAL

Laura Steinberg
Syracuse University

IIDEA Program Committee

Jennifer DeBoer
Postdoctoral Research Associate
MIT
Co-Director, IIDEA

Erik de Graaff
Professor, Aalborg University
Co-Director, IIDEA
Technical Committees

Global Student Forum Program Committee

- Aswin Karthik – Chair
  TU Dortmund University
- Alexandra Semaan
  American University in Dubai
- Claudio Freitas
  Hitachi Automotive Systems

IEEE Symposium

- Maryam Al Thani
  Senior Manager, DEWA
  IEEE UAE Section Chair
- Boutheina Kzadri Tlili
  Associate Professor
  Department of Electrical Engineering
  Rochester Institute of Technology - Dubai

ABET Symposium

- Michael Milligan
  Executive Director
  ABET
- Rochelle Williams
  Director of Professional Development
  Research and Meeting Services
  ABET
IF WE want to learn together, can the world be our classroom?

3D virtual learning – a dream our software helps bring to life.

Innovative thinkers everywhere use INDUSTRY SOLUTION EXPERIENCES from Dassault Systèmes to explore the true impact of their ideas. Insights from the 3D virtual world allow students to share ideas, collaborate and learn together – wherever they are in the world. One question remains: How much more could we learn outside of school?

It takes a special kind of compass to understand the present and navigate the future.

ACADEMY.3DS.COM

DASSAULT SYSTEMES | The 3D EXPERIENCE Company
Program & Speakers Bios

Program In Brief
Program
Sessions Description
Speakers Bios
# Program In Brief

**2014 World Engineering Education Forum | Dubai UAE**

## Program & Speakers Bios

<table>
<thead>
<tr>
<th>Time</th>
<th>Wednesday, December 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 - 10:30</td>
<td>Plenary - Intergenerational Panel&lt;br&gt;Aswin Karthik</td>
</tr>
<tr>
<td>10:30 - 12:30</td>
<td>Opening Ceremony&lt;br&gt;Maktoum C</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td>IGIP/IFEES Lunch&lt;br&gt;Society of Engineers - UAE</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Maktoum A&lt;br&gt;IFEES CDIO</td>
</tr>
<tr>
<td>15:30 - 16:00</td>
<td>Networking Break&lt;br&gt;Exhibition Area</td>
</tr>
<tr>
<td>16:00 - 17:30</td>
<td>Maktoum A&lt;br&gt;IFEES PBL</td>
</tr>
<tr>
<td>19:00 - 21:00</td>
<td>GEDC Airbus Award Dinner (Airbus)&lt;br&gt;The Address Downtown Dubai</td>
</tr>
</tbody>
</table>

## Time

**Thursday, December 4**

<table>
<thead>
<tr>
<th>Time</th>
<th>Keynote: Globalization and Engineering Education, Jean-Lou Chameau&lt;br&gt;Maktoum C</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:45 - 09:30</td>
<td>Expert Panel on Diversity and Globalization&lt;br&gt;David Delaine</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Networking Break&lt;br&gt;Exhibition Area</td>
</tr>
<tr>
<td>11:00 - 12:30</td>
<td>Maktoum A&lt;br&gt;IFEES Tech Assist Learn</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td>GEDC/IFEES Lunch&lt;br&gt;UAE-EDC&lt;br&gt;Internationalization</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Maktoum A&lt;br&gt;IFEES Connected Classrooms</td>
</tr>
<tr>
<td>15:30 - 16:00</td>
<td>Networking Break&lt;br&gt;Exhibition Area</td>
</tr>
<tr>
<td>16:00 - 17:30</td>
<td>Maktoum A&lt;br&gt;IFEES Quality Assurance</td>
</tr>
<tr>
<td>17:30 - 18:30</td>
<td>UAE-EDC Meeting&lt;br&gt;(By Invitation only)</td>
</tr>
<tr>
<td>19:00 - 21:00</td>
<td>IFEES Dinner (Total)&lt;br&gt;Jumeirah Emirates Tower Hotel</td>
</tr>
</tbody>
</table>

*(By invitation only)*
# Program In Brief

## Friday, December 5

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:45 - 09:15</td>
<td>Keynote: The future is Flexible: Facing the Energy Challenge through Renewable Energy, Frank Wouters</td>
</tr>
<tr>
<td>09:15 - 10:00</td>
<td>Expert Panel on Energy Challenges</td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td>Networking Break</td>
</tr>
<tr>
<td>10:30 - 12:00</td>
<td>Maktoum A: IFIES/GEDC Lunch Innomolis University (By Invitation only)</td>
</tr>
<tr>
<td>12:00 - 14:00</td>
<td>Maktoum A: IGIP/IFEES/GEDC Lunch in Innopolis University (By Invitation only)</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Maktoum A: General Assembly</td>
</tr>
<tr>
<td>15:30 - 16:00</td>
<td>Networking Break</td>
</tr>
<tr>
<td>16:00 - 17:30</td>
<td>Maktoum B: SOE - UAE BIM</td>
</tr>
<tr>
<td>17:45 - 19:15</td>
<td>IGIP Awards</td>
</tr>
<tr>
<td>20:00 - 21:30</td>
<td>IGIP Dinner (Dubai Business Events) Dubai Heritage Village (By invitation only)</td>
</tr>
</tbody>
</table>

## Saturday, December 6

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 - 10:30</td>
<td>Maktoum A: IFIES MOOCS</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Networking Break</td>
</tr>
<tr>
<td>11:00 - 12:30</td>
<td>Maktoum A: IFIES Global Attributes</td>
</tr>
<tr>
<td>12:30 - 13:15</td>
<td>Closing Ceremony</td>
</tr>
</tbody>
</table>

---

**Program & Speakers Bios**

**Networking Break**
- 10:30 - 11:00  
  Exhibition Area

**IGIP Dinner**
- Dubai Business Events
- Dubai Heritage Village (By invitation only)

**IGIP Awards**
- Maktoum C

**IGIP General Assembly**
- (Members Only)

**Opening Ceremony**
- Maktoum C

**Closing Ceremony**
- Maktoum C
Program

16:00-19:00 Tuesday 2 December 2014

Welcome Reception – AUD Campus

Sponsored by the American University in Dubai

Students, faculty, and professionals meet for an outdoors networking reception at the American University in Dubai.

 Directions
- By Car or Taxi: American University in Dubai, Dubai Media City, Sheikh Zayed Road, Exit 32
- By Metro: Metro Red Line, Nakheel Station (35), Station Exit 2 Sheikh Zayed South
Program

09:00-10:30  Expert Panel  Wednesday 3 December 2014

Maktoum Hall C – Intergenerational Panel
The Digital (Re)-evolution in Engineering Education
Moderator: Aswin Karthik (TU Dortmund)
Panelists:
- Alexandra Semaan (Tenaris)
- Buddhi Kanmani (BMS College of Engineering)
- Eesa Bastaki (University of Dubai)
- Joseph Packhem (Marquette University)
- Xavier Fouger (Dassault Systèmes)
- Zainab Al Hammadi (American University in Dubai)

In this session, educators, practitioners and students spanning a range of generations will debate the critical role of technology in today’s engineering education, and will present arguments in support of, or against, the proliferation of technology in today’s classroom… more on page 38

10:30-12:30  Opening Ceremony  Wednesday 3 December 2014

Maktoum Hall D – Corporate Exhibition
Exhibition Inauguration
HH Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum

Maktoum Hall C – Opening Ceremony
Keynote Address: Future Trends in Higher Education in the Middle East
Elias Bou Saab (Minister of Education and Higher Education, Lebanon)
Keynote Address: Toward a Knowledge-Based Economy – the Role of Engineering Education
Essa Al-Maidoor (President, Society of Engineers – UAE)
Welcome Message: WEEF 2014 Host Institution
Jihad S. Nader (American University in Dubai)
Participating Societies: Opening Remarks
Moderator: Alaa K. Ashmawy (American University in Dubai) § International Societies: ABET (Michael Milligan); GEDC (John Beynon); IACEE (Linda Krute); IFEES (José Carlos Quadrado); IGIP (Michael Auer); SPEED (Aswin Karthik) § Regional Societies: IEEE-UAE (Eesa Bastaki); UAE-EDC (Leland Blank)

In Remembrance of Professor Duncan Fraser (1946-2014)
Presenters: Hans J. Hoyer (IFEES / GEDC); Funso Falade (University of Lagos)

Video: Engineering Education for a Global Community

12:30-14:00  Lunch  Wednesday 3 December 2014

Lunch by Invitation Only
GEDC Lunch – Maktoum Hall A
Sponsored by National Instruments
Joint IGIP/IFEES Lunch – Bubble Lounge (Mezzanine Level)
Sponsored by Society of Engineers-UAE

Employers’ Forum... details on page 38
Ajman BC
**Program**

14:00-15:30  **Parallel Sessions**  Wednesday 3 December 2014

**Maktoum Hall C  •  IGIP Keynote Session**

**Engineering Education in Upper Secondary Systems: Challenges and Risks**  
*Keynote Speaker:* Christian Dorninger (*Ministry of Education, Arts & Culture, Austria*)

K-12 Engineering Education is discussed in several countries, beginning with single-day experiences, but also as pedagogical strategies through longer programs like “shaping the world”, “learning through experience”, “enhancing scientific and mathematical literacy”...  
*[more on page 53]*

**Education in the KIC InnoEnergy Branch of the European Institute of Innovation and Technology**  
*Keynote Speaker:* Torsten Fransson (*EIT KIC InnoEnergy*)

KIC InnoEnergy within European Institute of Innovation and Technology offers a completely new approach of education, that combines the best technical training in energy with transferable skills in innovation and entrepreneurship...  
*[more on page 53]*

**Maktoum Hall A  •  IFEES Session: CDIO – Conceive, Design, Implement and Operate**  
*Moderator:* Gareth Thomas (*Mathworks*)  
*Workshop Leaders:* Antonio Costa (*ISEP*); Mushtak Al-Atabi (*Taylor’s University*)

The CDIO initiative is an innovative educational framework for producing the next generation of engineers. The framework provides students with an education stressing engineering fundamentals set in the context of CDIO real-world systems and products...  
*[more on page 48]*

**Dubai Room C - Mezzanine Level  •  India Workgroup Assembly**  
*Presenters:* R. Murugesan (*Anna University of Technology / ISTE*); N.R. Shetty (*Bangalore University*); R. Natarajan (*IIT Madras*); Rajneesh Arora (*Punjab Technological University*); K.P. Isaac (*AICTE*)

This session led by ISTE will focus on Indian Perspectives on Engineering Education Challenges and Opportunities. Speakers will make presentations on relevant topics...  
*[more on page 83]*

**Dubai Room D - Mezzanine Level  •  East and Southeast Asia Workgroup Assembly**  
*Moderator:* Khairiyah Mohd Yusof (*Universiti Teknologi Malaysia*)

Along with existing local practices, support required in empowering local champions within the region will be discussed. Participation is not limited to delegates from Southeast and East Asia ...  
*[more on page 83]*

**Dubai Room E - Mezzanine Level  •  MENA Workgroup Assembly**  
*Moderator:* Leland Blank (*American University of Sharjah*)  
*Panelists:* Abdulraheem Kinsara (*King Abdulaziz University*); George Nasr (*Lebanese American University*); Mark Weichold (*Texas A&M University - Qatar*); Sunil Kumar (*New York University – Abu Dhabi*)

Delegates from the Middle East and North Africa will meet and discuss issues related to their region.

**Ajman Room D - Mezzanine Level  •  IEEE Session: Enhancing Gender Diversity in Engineering Education and Practice**  
*Moderator:* Elmira Khalitova (*Innopolis University*)  
*Panelists:* Antonia Moropoulou (*National Technical University of Athens*); Boutheina Tili (*RIT Dubai*); Gisela Loehlein (*Ajman University of Science and Technology*); Jennifer deBoer (*Purdue University*); Maryam Althani (*DEWA*); Nadia Konzali (*International Civil Aviation Organization*)

Diversity is not about recruiting more women. It is about being a better company, a better school that offers better solutions. The panelists will share their perspectives through their own experiences...  
*[more on page 47]*

15:30-16:00  **Networking Break**  Wednesday 3 December 2014
**Program**

**16:00-17:30  Parallel Sessions  Wednesday 3 December 2014**

**Maktoum Hall A  ●  IFEES / IIDEA Session: Developing PBL-Inspired Teaching Experiments**  
**Session Leaders:** Alex Stojcevski (*Deakin University*); Erik de Graaff (*Aalborg University*)  
This workshop aims to provide the participants with experiences and skills for implementing PBL in daily teaching practice. The workshop is intended to assist participants in designing and planning PBL inspired teaching experiments suitable within their local contexts... *more on page 48*

**Maktoum Hall C  ●  GEDC Session: Enhancing and Embedding Internationalization in Engineering Education**  
**Moderator:** Marcia Grant (*Ashesi University College*)  
**Panelists:** Angela Laguna (*Universidad Tecnológica de Panamá*); Norman Tien (*University of Hong Kong*); Sirin Tekinay (*Kadir Has University*)  
Engineering education is impacted by both of these global trends and is continually evolving towards more internationalization through a variety of means. There are a wide range of experiences and lessons to be learnt from the internationalization initiatives undertaken across the globe... *more on page 42*

**Maktoum Hall D  ●  Digital Poster Session**  
Digital poster presentations will take place in the Exhibition Area... *details on page 54*

**Dubai Rooms - Mezzanine Level  ●  IGIP-ICL Conference: Parallel Sessions**  
Room Dubai A (FP-11): Research in Engineering Pedagogy... *details on page 55*  
**Session Chair:** Habibah Norehan Haron (*Universiti Teknologi Malaysia*)

Room Dubai B (FP-12): Accreditation and Curriculum Development... *details on page 55*  
**Session Chair:** Latifa Mahdaoui (*USTHB*)

Room Dubai C (FP-13): Project and Research Based Learning... *details on page 56*  
**Session Chair:** Istvan Simonics (*Obuda University*)

Room Dubai D (SP-14): New Trends in Graduate Education... *details on page 57*  
**Session Chair:** Imre Jozsef Rudas (*Obuda University*)

Room Dubai E (SS-15): IGIP Special Session – iLab/iPodia  
**Presenters:** Ang Liu (*University of Southern California*); Danilo Zutin (*iLab Alliance*); Michael Auer (*Carinthia University of Applied Sciences*); Stephen Lu (*University of Southern California*)

**Ajman Room D - Mezzanine Level  ●  IACEE Session: The Continuing Professional Development of Engineers: Challenges, Opportunities and Future Trends**  
**Moderator:** Paul Marca (*Stanford University*)  
**Panelists:** Alfredo Soeiro (*Universidade do Porto*); Marc Goossens (*European Society for Engineers and Industrialists*); Nelson Baker (*Georgia Tech*); Wissam Hachem (*Etihad Airways*); Yvonne Leidi (*Tenaris Global Services*)  
This session will focus on how academia, industry, professional societies, accrediting organizations and other providers of continuing engineering education are striving to meet the lifelong learning needs of engineers in a whirlwind climate of technological and economic changes... *more on page 46*

**19:00-21:00  Dinner  Wednesday 3 December 2014**

**GEDC-Airbus Award Dinner – by Invitation Only**  
**Sponsored by Airbus**  
The Address Downtown Dubai. Transportation provided by shuttle bus to and from the venue.
08:45-09:30 Plenary Thursday 4 December 2014

Maktoum Hall C: Keynote Lecture

Globalization and Engineering Education

Keynote Speaker: Jean-Lou Chameau (King Abdullah University of Science and Technology)

Science and technology universities play a critical role as catalytic engines, inspiring students to excel in the classroom, laboratory and broader community. To meet the challenges ahead, university leadership must be committed to offering an environment with limitless growth potential... more on page 39

09:30-10:30 Expert Panel Thursday 4 December 2014

Maktoum Hall C: Panel Discussion

Extrapolating Diversity from Local to Global – Do Common Global Denominators Exist within Local Diversity Initiatives?

Moderator: David Delaine (Universidade de São Paulo)

Panelists:
Charles Champion (Airbus)
Cristina Amon (University of Toronto)
Hosnia Hashim (Kuwait Foreign Petroleum Exploration Company)

Today’s engineers are expected to be able to work in highly diverse teams, and within different cultures. This session will attempt to strip the local context away from the diversity discussion and extrapolate local best practices to a global level... More on page 39

10:30-11:00 Networking Break Thursday 4 December 2014
Program

11:00 - 12:30  Parallel Sessions    Thursday 4 December 2014

Maktoum Hall A  ●  IFEES Session: The New Face of Technology Assisted Learning
Moderator: Ivan Esparragoza (Pennsylvania State University)  §  Session Leaders: Joseph Packhem (Marquette University); Paul Gilbert (Quanser); Tom Lee (Quanser)
Specific topics in this session include enhancing the learning of complex modern engineering design, increasing student motivation and retention through technology-driven pedagogy, and moving the learning experience to mobile and off-campus platforms... more on page 49

Maktoum Hall C  ●  GEDC Session: Promoting Diversity in Engineering
Moderators: Rachel Schroeder (Airbus); John Beynon (University of Adelaide)  §  Speakers: Bevlee Watford (Virginia Tech); Bryan Hill (University of Arkansas); Marita Cheng (2Mar Robotics)
Airbus and GEDC have partnered to provide the global Diversity Award (diversityengineering.com) which is in its second year. This session will hear from this year's three finalists on the practicalities of creating diversity in the engineering student cohort... more on page 42

Dubai and Ajman Rooms - Mezzanine Level  ●  IGIP-ICL Conference: Parallel Sessions
Room Dubai A (SP-21): Research in Engineering Pedagogy and Collaborative Learning... details on page 57
  Session Chair: Barbara Kerr (York University)
Room Dubai B (FP-22): Knowledge Management and New Learning Models & Applications... details on page 58
  Session Chair: Richard David Evans (University of Greenwich)
Room Dubai C (FP-23): Academic-Industry Partnership... details on page 59
  Session Chair: Meena Parathodyil (BMS College of Engineering)
Room Dubai D (SS-24): Integration of Externally Funded Research and Development and Higher Education Functions... details on page 59
  Session Chair: Rauno Pirinen (Laurea University of Applied Sciences)
Room Dubai E (SS-25): Creation of New Universities in Emerging Countries... details on page 60
  Session Chair: Russell Jones (World Expertise LLC)  §  Speakers: Dmitry Kondratyev (Innopolis University); Fred Moavenzadeh (Masdar Institute); Jean-Lou Chameau (KAUST); Mark Weichold (Texas A&M University Qatar)
Room Ajman D: IGIP-SPEED Young Scientist Award... details on page 61
  Session Chair: Michael Auer (Carinthia University of Applied Sciences)

12:30-14:00  Lunch    Thursday 4 December 2014

Lunch by Invitation Only
GEDC / IFEES Lunch – Bubble Lounge – Mezzanine Level
Sponsored by UAE Engineering Deans Council
IGIP Lunch – Maktoum Hall A
Sponsored by Dassault Systèmes
Program

14:00-15:30  Parallel Sessions  Thursday 4 December 2014

Maktoum Hall A  •  IFEES Session: Connected Classrooms

**Moderator:** Stephen Lu (University of Southern California)  
**Panelists:** Guenther Schuh (RWTH Aachen University); Lueny Morell (Lueny Morell & Associates); Mazen Hasna (Qatar University)

Advanced technologies can abolish the interaction distance between distributed learners across physical, institutional, and cultural boundaries. How will instruction for the teachers and learning for the students be different with this no-distance education paradigm in classrooms-without-borders?... more on page 49

Maktoum Hall C  •  GEDC Session: Preparing Graduates for a Global Engineering Workforce

**Moderator:** Xavier Fouger (Dassault Systèmes)  
**Panelists:** Ashok Agrawal (ASEE); Gary May (Georgia Tech); Yvonne Leidi (Tenaris Global Services)

Panelists will discuss what employability requirements mean to different stakeholders and how engineering programs are addressing them in practice. They will also explore which of these desirables are the scarcest, and what employers would they like to see done to improve the situation... more on page 43

Maktoum Hall B  •  IEEE Session: STEM Education at the K-12 Level

**Moderator:** Boutheina Tlili (RIT Dubai)  
**Panelists:** Dmitry Kondratyev (Innopolis University); Rana Chemaitelly (The Little Engineer); Sohaib Qamar Sheikh (Arup)

STEM-based curricula focus on educating students in four specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach. In this session, panelists will attempt to answer a range of questions related to STEM education... more on page 47

Dubai and Ajman Rooms - Mezzanine Level  •  IGIP-ICL Conference: Parallel Sessions

Room Dubai A [FP-31]: Academic-Industry Partnership... details on page 61  
**Session Chair:** Yacine Atif (UAE University)

Room Dubai B [FP-32]: Pre-College Education and New Teaching Models... details on page 62  
**Session Chair:** Thomas Frederick Garrison (Washington State University)

Room Dubai C [FP-33]: Hybrid and Blended Learning... details on page 62  
**Session Chair:** Ashraf Badawi (Zewail City of Science and Technology)

Room Dubai D [FP-34]: New Learning Models and Applications... details on page 63  
**Session Chair:** Dmitry Kondratyev (Innopolis University)

Room Dubai E: IGIP Workshop 332 (Part 1 of 2) Helping Teachers Integrate and Use ICT Effectively in their Teaching Practice...details on page 81  
**Workshop Leaders:** Genny Villa (Université de Montréal); Jacques Viens (Université de Montréal)

Room Ajman D: IGIP Workshop 333 (Part 1 of 2) Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills...details on page 82  
**Workshop Leader:** Nikos Mourtos (San Jose State University)

15:30-16:00  Networking Break  Thursday 4 December 2014

weef2014.org
Program

16:00-17:30  Parallel Sessions  Thursday 4 December 2014

Maktoum Hall A  •  IFEES Session: Quality Assurance
Moderator: Michael Milligan (ABET)  Panelists: Axel Zafoschnig (Landesschulrat für Kärnten); Badr Aboul-Ela (MOHESR-UAE and ANQAHE); Hasan Mandal (Sabanci University); Krishna Vedula (University of Massachusetts, Lowell); Ramamurthy Natarajan (IIT Madras); Yuri Pokholkov (Tomsk Polytechnic University)

The goal of this panel is to provide an opportunity for the audience members to engage in a meaningful dialog, focused on the three areas of Quality Assurance in engineering education: accreditation, mobility of graduates, and quality of faculty... more on page 50

Maktoum Hall C  •  GEDC Session: Corporate Engagement and Collaborative R&D
Moderator: Peter Jimack (University of Leeds)  Panelists: Abdurrahman Khalidi (GE); Alexander Tormasov (Innopolis University); Peter Kilpatrick (University of Notre Dame); Wafik Beydoun (ADNOC)

In this session, panel participants will share their observations and experiences in collaborative research and development, providing insights on relevant subjects including hallmarks of successful collaborative partnerships, factors that drive industry selection, university expectations... more on page 43

Maktoum Hall B  •  IFEES Workshop: Experimental Hardware and Instrumentation
Workshop Leader: Joachim Schlosser (The MathWorks)

This workshop will show examples, concepts and live demonstrations of using programming, modeling and simulation through experimental hardware and instrumentation to gain insight into both theory and application... more on page 50

Dubai and Ajman Rooms - Mezzanine Level  •  IGIP-ICL Conference: Parallel Sessions
Room Dubai A (SP-41): New Trends in Graduate Education... details on page 64
Session Chair: Richard David Evans (University of Greenwich)

Room Dubai B (FP-42): Digital and Online Engineering Education...details on page 64
Session Chair: Alfredo Soeiro (Universidade do Porto)

Room Dubai C (FP-43): Virtual and Remote Laboratories... details on page 65
Session Chair: Doru Ursutia (Universitatea Transilvania din Brasov)

Room Dubai D (FP-44): Impact of Globalization and New Learning Models & Applications... details on page 66
Session Chair: Mohamad Saleh (Institute of Technology, Blanchardstown)

Room Dubai E: IGIP Workshop 332 (Part 2 of 2) Helping Teachers Integrate and Use ICT Effectively in their Teaching Practice... details on page 81
Workshop Leader: Genny Villa (Université de Montreal); Jacques Viens (Université de Montreal)

Room Ajman D: IGIP Workshop 333 (Part 2 of 2) Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills... details on page 82
Workshop Leader: Nikos Mourtos (San Jose State University)

19:00-21:00  Dinner  Thursday 4 December 2014

IFEES Awards Dinner – by Invitation Only
Sponsored by Total
Jumeirah Emirates Towers Hotel. Transportation provided by shuttle bus to and from the venue.
Program

08:45-09:15    Plenary

Maktoum Hall  C: Keynote Lecture

The Future is Flexible: Facing the Energy Challenge through Renewable Energy

Keynote Speaker: Frank Wouters (International Renewable Energy Agency)

This presentation will shed light on the future energy system, in which the main sources of energy, like in the past, will be renewable. The existing relatively simple electricity system will be replaced by an increasingly complex system, in which flexibility is a key element required of all components... more on page 40

09:15-10:00  Expert Panel

Maktoum Hall  C: Panel Discussion

Energy Challenges: Economic, Technical, and Environmental Drivers

Moderator: Myongsook Oh (Hongik University)

Panelists:
- Don Sadoway (MIT)
- Vincent Schachter (Total)
- Frank Wouters (International Renewable Energy Agency)

Despite the fact that large amounts of fossil fuel resources are available, the possibility to exploit them is not guaranteed for economic, political and environmental reasons. This session focuses on renewable energies, cross-sector collaborations on global renewable energy projects, and sustainable cities... more on page 40

10:00-10:30 Networking Break
Program

10:30 - 12:00  Parallel Sessions  Friday 5 December 2014

Maktoum Hall A ● IFEES Session ● Presidential Panel - Input, Output and Process: Why are these Colleges/Universities Unique?
Moderator: Satish Udpa (Michigan State University); Jose Carlos Quadrado (Instituto Superior de Engenharia de Lisboa)
Panelists: David Garza (Tecnológico de Monterrey); Marcia Grant (Ashesi University College); Richard Miller (Olin College); Swapan Bhattacharya (National Institute of Technology Karnataka); Tod A. Laursen (KUSTAR)
This panel will bring together a small number of college presidents to share their ‘formula’ to address these issues and develop the next generation of engineering innovators, with particular focus on the main aspects distinguishing their college/university… more on page 51

Maktoum Hall C ● General Assembly of the Global Engineering Deans Council
Chair: John Beynon (University of Adelaide)
This session is open to GEDC members only.

Dubai and Ajman Rooms - Mezzanine Level ● IGIP-ICL Conference: Parallel Sessions
Room Dubai A (FP-51): New Trends in Graduate Education… details on page 66
Session Chair: Victor Murray (Universidad de Ingenieria y Tecnologia, Peru)
Room Dubai B (SP-52): Women in Engineering, Partnerships & Professional Development… details on page 67
Session Chair: Renetta Garrison Tull (University of Maryland Baltimore County)
Room Dubai C (SP-53): Learning Culture & Diversity, New Learning Models & Applications… details on page 68
Session Chair: Istvan Simonics (Obuda University)
Room Dubai D (DS-54): Demonstration Session… details on page 68
Session Chairs: Maria Teresa Restivo (Universidade do Porto); Alberto Cardoso (Universidade de Coimbra)
Room Dubai E (SS-55): Inter-Institutional Cooperation in Engineering Education… details on page 69
Session Chair: Axel Zafoschnig (Landesschulrat für Kärnten)
Room Ajman D (SS-56): Competence Development in (Online) Laboratories for a Globalized Professional World… details on page 70
Session Chairs: Claudius Terkowsky (TU Dortmund); Dominik May (TU Dortmund)

12:00-14:00  Jumaa Prayer /Lunch  Friday 5 December 2014

Lunch – by Invitation Only
IFEES / GEDC / IGIP Lunch – Maktoum Hall A
Sponsored by Innopolis University
GEDC Executive Committee Meeting and Business Lunch – Ajman BC

Jumaa Prayer
Buses leave Convention Center at 12:05
Program

14:00 - 15:30    Parallel Sessions     Friday 5 December 2014

Maktoum Hall A ● IFEES / GEDC Joint Session: (Re-)defining the Engineering Grand Challenges of the 21st Century

**Moderator:** Christina White (MIT) & **Panelists:** Catherine Didion (US National Academy of Engineering); Jaime Bonilla (Tecnológico de Monterrey); Jean-François Minster (Total); Khairiyah Mohd Yusof (Universiti Teknologi Malaysia); Theophilus Andrew (Durban University of Technology); Yannis Yortsos (University of Southern California)

The panelists will discuss multiple global perspectives on Grand Challenges as complex initiatives that take diverse stakeholders to make a positive impact on the world. The panelists and the audience will engage in a discussion to revisit and redefine the Engineering Grand Challenges of the 21st Century... *more on page 51*

Maktoum Hall C ● GEDC Session: New Deans Mentoring

**Session Leaders:** Adagbonyi Obiazi (Ambrose Alli University); Laura Steinberg (Syracuse University); Leland Blank (American University of Sharjah); Mallikharjuna Babu (BMS College of Engineering, Bangalore)

This session will focus on challenges facing today’s engineering deans including curriculum planning, globalization, financial management, strategic planning, and faculty management. Current deans are also invited to attend and to contribute their insights to the discussion... *more on page 44*

Dubai Rooms - Mezzanine Level ● IGIP-ICL Conference: Parallel Sessions

Room Dubai A (WP-61): Work-in-Progress Papers... *details on page 71*

**Session Chair:** Ieda M. Santos (Emirates College for Advanced Education)

Room Dubai B (FP-62): Impact of Globalization and Ethics in Engineering Education... *details on page 71*

**Session Chair:** Christina Kay White (Singapore-MIT Alliance for Technology and Research)

Room Dubai C (FP-63): Professional and Continuing Education... *details on page 72*

**Session Chair:** Julia Ziyatdinova (Kazan National Research Technological University)

Room Dubai D (FP-64): Research in Engineering Pedagogy... *details on page 73*

**Session Chair:** Claes Fredriksson (Granta Design)

Room Dubai E: IGIP Workshop 138 (Part 1 of 2) Teaching Engineering Ethics and Professional Responsibility – Techniques and Methods... *details on page 82*

**Workshop Leader:** Nael Barakat (Grand Valley State University)

Ajman Room D - Mezzanine Level ● ABET Workshop: Fundamentals of Program Assessment – Part 1 of 4

**Workshop Leader:** Rochelle Williams (ABET)

Pre-registration required... *details on page 41*

15:30-16:00    Networking Break     Friday 5 December 2014
Program

16:00-17:30 Parallel Sessions  Friday 5 December 2014

Maktoum Hall A ● IFEES General Assembly

President: José Carlos Quadrado (Instituto Superior de Engenharia de Lisboa)

This session is open to IFEES members only.

Maktoum Hall B ● Society of Engineers UAE Workshop: Building Information Modeling (BIM) for Engineering Systems

Moderator: Alex Albani (American University in Dubai)  § Speakers: Hassan Dajani (Bentley Software); Dale Welch (Autodesk)

Participants will be introduced to BIM applications in engineering and construction, with a focus on practical implementation challenges and opportunities.

Maktoum Hall C ● GEDC Session: Building Engineering Excellence in Resource-Scarce Environments

Moderator: Jerry Hultin (New York University)  § Panelists: Kayode Ayodele (Obafemi Awolowo University); Pankaj Jalote (Indian Institute of Information Technology, New Delhi); Theophilus Andrew (Durban University of Technology)

Increasingly, there are substantially more engineering students enrolled in universities and colleges that operate in resource scarce environments. In this session, panelists will describe their experiences operating in resource-scarce environments, and share tips for success under such constraints... more on page 44

Dubai Rooms - Mezzanine Level  ● IGIP-ICL Conference: Parallel Sessions

Room Dubai A (SS-71): Special Session: Talk about Teaching 2014 (TaT’14)...

Session Chairs: Charles Pezeshki (Washington State University); Fernando Maciel-Barbosa (Universidade do Porto)

Room Dubai B (FP-72): Diversity Programs and Initiatives...

Session Chair: Alberto Casado Lordsleem Jr. (Universidade de Pernambuco)

Room Dubai C (FP-73): Learning Culture and Diversity...

Session Chair: Elmira Khalitova (Innopolis University)

Room Dubai D (FP-74): Digital and Online Engineering Education...

Session Chair: Buddhi Kanmani (BMS College of Engineering)

Room Dubai E: IGIP Workshop 138 (Part 2 of 2) Teaching Engineering Ethics and Professional Responsibility – Techniques and Methods...

Workshop Leader: Nael Barakat (Grand Valley State University)

Ajman Room D - Mezzanine Level  ● ABET Workshop: Fundamentals of Program Assessment – Part 2 of 4

Workshop Leader: Rochelle Williams (ABET)

Pre-registration required...

17:45-19:15 IGIP Awards Session  Friday 5 December 2014

Maktoum Hall C  - IGIP Festive Awards Session

20:00-21:30 Dinner  Friday 5 December 2014

IGIP Dinner – by Invitation Only

Sponsored by Dubai Business Events

Dubai Heritage Village. Transportation provided by shuttle bus to and from the venue.
Program

09:00-10:30  Parallel Sessions  Saturday 6 December 2014

Maktoum Hall A  IFEES Session: The Future of MOOCs – Hope or Hype?
Moderators: Uriel Cukierman (Universidad Tecnológica Nacional); Michael Auer (Carinthia University of Applied Sciences) § Panelists: Mushtak Al-Atabi (Taylor’s University); Yacob Astatke (Morgan State University)
The goals of this session are to discuss the role and significance of MOOCs in educating engineers, and to identify changes needed to optimize MOOCs for engineering education. Panelists will also present their views regarding the future of MOOCs... more on page 52

Moderator: Peiman Kianmehr (American University in Dubai) § Speakers: Alan Millin (Alan K. Millin); Kamal Azayem (Dubai Municipality)
Participants will be introduced to the latest green building specifications in Dubai and beyond, and will learn about continuing education opportunities in the field of sustainability.

Maktoum Hall C  GEDC Session: Toward a Global Grand Challenges Scholars Program
Moderator: Tom Katsouleas (Duke University) § Panelists: Josephine Nabukenya (Makerere University); Richard Miller (Olin College); Yannis Yortsos (University of Southern California)
In this session, the audience and panelists will explore how programs such as the NAE Grand Challenge Scholars can be adapted or extended globally. The discussion is expected to lead to a commitment letter to be signed by interested international engineering deans... more on page 45

Dubai Rooms - Mezzanine Level  IGIP-ICL Conference: Parallel Paper Presentations
Room Dubai A [SS-81]: Special Session: Talk about Teaching 2014 (TaT’14)... details on page 76
Session Chairs: Teresa Lee Larkin (American University); Ana Maria Beltran Pavani (Pontificia Universidade Católica do Rio de Janeiro)
Room Dubai B [FP-82]: Diversity in Engineering Careers... details on page 77
Session Chair: Saira Dawer Baig (Texas A&M University Qatar)
Room Dubai C [FP-83]: Digital Education and Collaborative Learning... details on page 77
Session Chair: Tanya Stanko (Innpolis University)
Room Dubai D [WP-84]: Work in Progress... details on page 78
Session Chair: Ieda M. Santos (Emirates College for Advanced Education)
Room Dubai E: IGIP Workshop 400 (Part 1 of 2) Skills for Effective Guided Learning - Tools for Achieving Ambitious Learning and Innovation Goals... details on page 82
Workshop Leaders: Pablo Franzolini (Enzyme Advising Group); Barbara Kieslinger (Zentrum für Soziale Innovation)

Ajman Room D - Mezzanine Level  ABET Workshop: Fundamentals of Program Assessment – Part 3 of 4
Workshop Leader: Rochelle Williams (ABET)
Pre-registration required... details on page 41

10:30-11:00  Networking Break  Saturday 6 December 2014
**Program**

**11:00-12:30 Parallel Sessions  Saturday 6 December 2014**

**Maktoum Hall A ● IFEES Workshop: Attributes of the Global Engineer: Assessing Global Competence**

*Workshop Leaders:* Stephen Hundley (IUPUI); Jennifer DeBoer (Purdue University)

This interactive workshop will describe the stakeholder-driven process to identify and define attributes of a global engineer; present a summary of key findings-to-date; discuss how attribute outcomes can be used to enhance engineering education globally... *more on page 52*

**Maktoum Hall C ● IFEES Executive Committee Meeting (by invitation only)**

**Maktoum Hall B ● Society of Engineers UAE Workshop: Project Management Education and Certification for Professionals**

*Moderator:* Edgar Small (American University in Dubai)  §  *Speakers:* Khaled Hamdy (Roads and Transport Authority); Najmul Hussain (Dubai World Central)

Participants will be introduced to continuing education opportunities in project management, PMI certification and case studies in management of complex projects.

**Dubai Rooms - Mezzanine Level ● IGIP-ICL Conference: Parallel Paper Presentations**

Room Dubai A (SS-91): Special Session: Talk about Teaching 2014 (TaT’14)... *details on page 79*

*Session Chairs:* Polina Mozgaleva (Tomsk Polytechnic University); James Uhomoibhi (Ulster University)

Room Dubai B (FP-92): New Trends in Graduate Education... *details on page 79*

*Session Chair:* Moses Oludayo Tade (Curtin University)

Room Dubai C (FP-93): Professional and Continuing Education... *details on page 80*

*Session Chair:* Tatiana Polyakova (Moscow Automobile and Road Construction State Technical University)

Room Dubai D (SP-94): Research in Engineering Pedagogy... *details on page 80*

*Session Chair:* Milind Madhav Kulkarni (ITM Group of Institutions)

Room Dubai E: IGIP Workshop 400 (Part 2 of 2) Skills for Effective Guided Learning - Tools for Achieving Ambitious Learning and Innovation Goals... *details on page 82*

*Workshop Leaders:* Pablo Franzolini (Enzyme Advising Group); Barbara Kieslinger (Zentrum für Soziale Innovation)

**Ajman Room D - Mezzanine Level ● ABET Workshop: Fundamentals of Program Assessment – Part 4 of 4**

*Workshop Leader:* Rochelle Williams (ABET)

Pre-registration required... *details on page 41*
Program

12:30-13:15  Closing Ceremony   Saturday 6 December 2014

Maktoum Hall C   – Closing Ceremony

Final Conference Report
Hans J. Hoyer (IFEES / GEDC); Michael Auer (IGiP)

SPEED/GSF 10th Anniversary – History and Accomplishments
Aswin Karthik (Technische Universität Dortmund)

WEEF 2015 Invitation
Claudio Borri (Università degli Studi di Firenze)

2015 GEDC Conference Invitation
John Beynon (University of Adelaide)

Recognition of Sponsors and Farewell
Alaa K. Ashmawy (American University in Dubai)
Sessions Description | Plenary Sessions

**Intergenerational Panel**

*The Digital (Re)-evolution in Engineering Education*

**Location:** Maktoum Hall C

**Date and Time:** Wednesday 3 December, 9:00-10:30

**Moderator**
Aswin Karthik (Technische Universität Dortmund)

**Panelists**
- Alexandra Semaan (Tenaris)
- Buddhi Kanmani (BMS College of Engineering)
- Eesa Bastaki (University of Dubai)
- Joseph Packhern (Marquette University)
- Xavier Fouger (Dassault Systèmes)
- Zainab Al Hammadi (American University in Dubai)

**Summary**
The role of technology in engineering education has evolved dramatically over the past decade. Today’s engineering students are learning not only from the professor in the classroom, but also from a variety of digital resources including MOOCs, digital labs, online simulations, wikis, discussion boards, and even social media interactions. The attention span of today’s learners has become noticeably shorter, with students opting for shorter more focused summary lectures, while supplementing their knowledge from digital sources later on. Classroom note-taking is gradually being replaced with digital notes, snapshots, and even video recording. Professors who used to find the use of smart phones in the classroom annoying are realizing that students actually use these devices to record and search for information during the lectures. In parallel, telepresence facilities are making it easier and more reliable to hold synchronous classroom sessions across different continents. In this session, educators, practitioners and students spanning a range of generations will debate the critical role of technology in today’s engineering education, and will present arguments in support of, or against, the proliferation of technology in today’s classroom.

**Employers’ Forum**

**Location:** Ajman BC – Mezzanine Floor

**Date and Time:** Wednesday 3 December, 12:30-14:00

**Moderator:** Jenny Coyle (Petrus Communications)

**Attendance:** by invitation only

**Summary**
The Employers’ Forum is a new initiative to be piloted at the World Engineering Education Forum (WEEF) in Dubai, December 2014. This is a unique opportunity for senior recruitment and HR executives from diverse local and global companies to share insights and learn from each other. In an ever-changing recruitment market, and in response to fast-evolving industry requirements, employers everywhere are tackling similar challenges and can learn from each other to find innovative new ways to find, attract and retain the best talent for their businesses. WEEF is an ideal setting to discuss how industry and universities can work together to meet these challenges. As this invitation-only event, a select group of up to 10 industry representatives will be invited to take part in a moderated discussion over lunch. The Moderator will summarise the discussion to share with all delegates on the conference website and report following the event.
The current global economic environment affects how students and academics approach their careers. As Thomas Friedman noted in 2011, careers have become “entrepreneurial adventures” which demand creative and bold steps. For engineering students, these shifts in the global hiring marketplace have inspired them to look for the best possible academic training to increase their value as future employees and leaders. Given this new ‘normal,’ science and technology universities must find opportunities to create value through education and training, and cultivating research environments that graduate engineers who are globally competent, culturally fluent and ready to compete in the global marketplace. Science and technology universities play a critical role as catalytic engines, inspiring students to excel in the classroom, laboratory and broader community. To meet the challenges ahead, university leadership must be committed to offering an environment with limitless growth potential. In his talk, Dr. Chameau will reflect on his experiences in leadership roles at Georgia Tech, Caltech, and now KAUST. He will share the key ingredients for creating value in education and research environments as well as strategies for successfully leveraging people and ideas within the research enterprise. These ingredients constitute the foundation on which to propel the university forward toward becoming a great university with local and global impact.

Summary
Diversity is a very contextualized topic that shifts objectives from country to country. The role of diversity in engineering education and practice has gained prominence in recent years, with the increased need for global collaborations and engineering workforce mobility. Today’s engineers are expected to be able to work in highly diverse teams, and within different cultures. In many countries, particularly in the OECD, diversity was initially driven by legislation. Diversity initiatives in the field of engineering generally include gender, ethnicity, and national origin, and may include underprivileged and handicap. Companies may go further in inclusion, resulting in a mix of legislative-driven and voluntary diversity policies. Within a global community, a common platform allows for the sharing of best practices and maximizes learning opportunities, which is sometimes lacking in the dialog on diversity. This session will attempt to strip the local context away from the diversity discussion and extrapolate local best practices to a global level. The discussion will seek to determine if there is a common denominator for diversity initiatives, and how those commonalities could be leveraged to promote global discussion, towards improving diversity in engineering education and practice.
**Keynote Lecture**

**The Future is Flexible: Facing the Energy Challenge through Renewable Energy**

**Keynote Speaker:** Frank Wouters *(International Renewable Energy Agency)*

**Location:** Maktoum Hall C  
**Date and Time:** Friday 5 December, 8:45-9:15

**Summary** Our more than 100-year-old energy system is changing at the speed of light. New paradigms replace old ones, technology and financial innovations conquer the market place, and unexpected players appear alongside traditional energy companies. Private investors are driving decentralization in developed and developing markets alike and smart renewable energy systems offer practical and affordable solutions for the energy-poor in rural areas of the developing world. Renewable energy systems are cornerstones in the decarbonization of our economies and are indispensable in our fight against climate chaos. Their advantages go way beyond producing green electrons or clean fuels. Their merits can also be found in the creation of jobs or their ability to turn consumers into so-called “prosumers”, thereby tapping into new sources of capital required for the energy transformation. This presentation will shed light on the future energy system, in which the main sources of energy, like in the past, will be renewable. The existing relatively simple electricity system will be replaced by an increasingly complex system, in which flexibility is a key element required of all components, whether generation systems, transmission and distribution channels or the demand side. The increasing stress on inflexible power plants will be exhibited, and the solution in the form of smart storage systems, smart grid technologies and electric vehicles will be explained.

**Panel Discussion**

**Energy Challenges: Economic, Technical, and Environmental Drivers**

**Location:** Maktoum Hall C  
**Date and Time:** Friday 5 December, 9:15-10:00

**Moderator**  
Myongsook Oh *(Hongik University)*

**Panelists**  
Don Sadoway *(MIT)*  
Vincent Schachter *(Total)*  
Frank Wouters *(International Renewable Energy Agency)*

**Summary** One of the Grand Challenges that must be tackled to ensure sustainability of the planet for our future generations is Energy. Future demand for energy will be driven by the strong economic growth that will come from population growth, development, and the needs of the poorest populations. Despite the fact that large amounts of fossil fuel resources are available, the possibility to exploit them is not guaranteed for economic, political and environmental reasons. The growth of economically viable complimentary renewable energy production is not certain to be fast enough to satisfy energy demands. For solar and wind, there are a number of challenges related to their intermittency, including intelligent networks for the electricity produced as well as massive electric storage capabilities. For biomass, access to land is constrained by competition with food supply, confronting needs and willingness of local populations, and managing issues related to increasing carbon emissions when replacing natural growth with agriculture. This session focuses on renewable energies, cross-sector collaborations on global renewable energy projects, and sustainable cities.
**Session Description | ABET Workshop**

**Fundamentals of Program Assessment**

**Location:** Ajman Room D – Mezzanine Level

**Date and Time:**
- Friday 5 December, 14:00-15:30 (part 1 of 4)
- Friday 5 December, 16:00-17:30 (part 2 of 4)
- Saturday 6 December, 9:00-10:30 (part 3 of 4)
- Saturday 6 December, 11:00-12:30 (part 4 of 4)

**Workshop Leader:**
Rochelle Williams (ABET)

**Summary** Participants will develop their program assessment skills in this one-day workshop. They will broaden their understanding of the continuous improvement of student learning through the design of assessment processes, development of measurable student outcomes, and application of data collection and data reporting methods. Workshops are facilitated by highly experienced faculty with wide-ranging experience in assessment and evaluation. This workshop focuses primarily on ABET Criterion 2: Program Educational Objectives, Criterion 3: Student Outcomes, and Criterion 4: Continuous Improvement. This workshop is interactive and those attending will work in small groups applying the concepts learned throughout the day. Participants will receive a workshop booklet containing all slides and reference materials.
Sessions Description | GEDC Sessions

Enhancing and Embedding Internationalization in Engineering Education

Location: Maktoum Hall C
Date and Time: Wednesday 3 December, 16:00-17:30
Moderator
Marcia Grant (Ashesi University College)

Panelists
Angela Laguna (Universidad Tecnológica de Panamá)
Norman Tien (University of Hong Kong)
Sirin Tekinay (Kadir Has University)

Summary As globalization continues to transform the engineering profession, teaching global competency skills has become an imperative for schools of engineering worldwide. Nowadays, engineering practice is being globalized through outsourcing, through collaboration online, and through the environment of multinational companies and projects. At the same time, education as a whole is also witnessing a globalization transformation through International campuses, study abroad programs, and online learning such as MOOCs and SPOCs. Engineering education at academic institutions is impacted by both of these global trends and is continually evolving towards more internationalization through a variety of means. There are a wide range of experiences and lessons to be learnt from the internationalization initiatives undertaken by schools of engineering across the globe. Methods such as increased language requirements, multi-institutional international design teams, case studies, topical courses, engineering-specific study abroad programs, international internships, and international research collaborations have been used in varying combinations, with varying degrees of success. This session will present internationalization strategies and experiences from different countries and institutions in a panel format.

Promoting Diversity in Engineering

Location: Maktoum Hall C
Date and Time: Thursday 4 December, 11:00-12:30
Moderator
Rachel Schroeder (Airbus)
John Beynon (University of Adelaide)

Panelists
Bevlee Watford (Virginia Tech)
Bryan Hill (University of Arkansas)
Marita Cheng (2Mar Robotics)

Summary Diversity in the engineering workforce greatly enhances company performance as well as better reflecting the make-up of our societies. Diversity has many dimensions, such as gender, socio-economic status, and indigenous groups. Airbus and GEDC have partnered to provide the global Diversity Award (diversityinengineering.com) which is in its second year. This session will hear from this year’s three finalists on the practicalities of creating diversity in the engineering student cohort, with examples of what works well and what should be avoided. Following their brief presentations, the audience will discuss their own experiences of diversity issues at their tables and the facilitators will ask for highlights to be presented at the end of the session. Everyone will be encouraged to leave written notes with references to good practice (e.g. web links) and expressions of interest in working with colleagues on new initiatives. These will be recorded and lodged on the GEDC website for access by GEDC members.
Preparing Graduates for a Global Engineering Workforce

Location: Maktoum Hall C
Date and Time: Thursday 4 December, 14:00-15:30
Moderator
Xavier Fouger (Dassault Systèmes)
Panelists
Ashok Agrawal (ASEE)
Gary May (Georgia Tech)
Yvonne Leidi (Tenaris Global Services)

Summary Employers are looking to recruit graduates from all engineering disciplines that are both “employment ready” and are able to continue to develop both technically and managerially throughout their careers. In this session, we will discuss what these requirements mean to different stakeholders and how engineering programs are addressing these requirements in practice. From the perspective of employers, the question of how easy it is to recruit graduates with the necessary combination of technical expertise, independent learning and problem solving ability, communication skills, organizational skills, and business awareness will be discussed. We will also explore which of these desirables are the scarcest, and what employers would they like to see done to improve the situation. From the educators’ perspective, the discussion will focus on what are some of the best practices in embedding soft skills alongside technical education, and how they can make effective and appropriate use of employer input to support this. Students will also engage in the debate to present their perspective on the issues, and highlight what they see as deficiencies in relation to their preparation and readiness for employment.

Corporate Engagement and Collaborative R&D

Location: Maktoum Hall C
Date and Time: Thursday 4 December, 16:00-17:30
Moderator
Peter Jimack (University of Leeds)
Panelists
Abdurrahman Khalidi (GE)
Alexander Tormasov (Innopolis University)
Peter Kilpatrick (University of Notre Dame)
Wafik Beydoun (ADNOC)

Summary Corporate partnerships with universities represent a symbiotic relationship: universities do not have the internal financial resources necessary to undertake research projects and companies do not have the required human resources nor do they necessarily have the necessary physical infrastructure. Focused research projects benefit all involved and are essential to driving innovation. Universities become part of an economic ecosystem with start-up spinoffs that in turn provide opportunities for corporate investment. In this session, panel participants will share their observations and experiences in collaborative research and development, providing insights on relevant subjects including hallmarks of successful collaborative partnerships, factors that drive industry selection, university expectations, and different forms of collaboration. Panelists from both sides – industry and academia – will share their experiences in addressing questions such as how industrial-academic partnerships are evolving.
Sessions Description | *GEDC Sessions*

**New Deans Mentoring**

*Location:* Maktoum Hall C  
*Date and Time:* Friday 5 December, 14:00-15:30

*Workshop Leaders*
- Adagbonyin Obiazi (*Ambrose Alli University*)
- Laura Steinberg (*Syracuse University*)
- Leland Blank (*American University of Sharjah*)
- Mallikharjuna Babu (*BMS College of Engineering, Bangalore*)

**Summary** Featuring a panel of deans from a diverse set of institutions, this session will focus on challenges facing today’s engineering deans including curriculum planning, globalization, financial management, strategic planning, and faculty management. Lessons learned will be presented, and lively discussion amongst attendees is anticipated. Current deans are also invited to attend and to contribute their insights to the discussion.

**Building Engineering Excellence in Resource-Scarce Environments**

*Location:* Maktoum Hall C  
*Date and Time:* Friday 5 December, 16:00-17:30

*Moderator*
- Jerry Hultin (*New York University*)

*Panelists*
- Kayode Ayodele (*Obafemi Awolowo University*)
- Pankaj Jalote (*Indian Institute of Information Technology, New Delhi*)
- Theophilus Andrew (*Durban University of Technology*)

**Summary** Driven by global trends as well as local demands, engineering is a career of choice in large parts of the globe, and increasingly there are substantially more engineering students enrolled in universities and colleges that operate in resource-scarce environments. This includes most institutions in developing nations, as well as many in the developed world. Delivering excellence in engineering education requires significant resources, escalated by sophisticated laboratory and computational needs, scarcity of qualified faculty, and the requirement of a vital modern infrastructure to support a thriving engineering educational ecosystem. As a result of the confluence of these trends, more and more of the world’s products and services are being designed, built, and managed by engineers who received their initial engineering education from institutions where resources were scarce. In this session, panelists will describe their experiences operating in resource-scarce environments, and share tips for success under such constraints.
Toward a Global Grand Challenges Scholars Program

Location: Maktoum Hall C

Date and Time: Saturday 6 December, 9:00-10:30

Moderator
Tom Katsouleas (Duke University)

Panelists
Josephine Nabukonya (Makerere University)
Richard Miller (Olin College)
Yannis Yortsos (University of Southern California)

Summary
The Grand Challenges for Engineering in the 21st century include complex yet vital aspirations that can be addressed through not only technology and engineering, but also a new educational model that develops students’ broader understanding of behavior, policy, entrepreneurship, and global perspectives. Recently, 65 deans of US engineering schools committed to creating educational programs at their institutions with five elements they deemed key to preparing students for the Grand Challenges: 1) a creative learning experience connected to the Grand Challenges; 2) authentic experiential learning with clients and mentors; 3) entrepreneurship and innovation; 4) global and cross-cultural perspectives; and 5) development of social consciousness through service learning. However, there is a need to begin to build an international network of ‘Grand Challenge Scholars’ who can turn to each other for partnership and support. In this session, the audience and panelists will explore how programs such as the NAE Grand Challenge Scholars can be adapted or extended globally, and how the participants in such a program can be brought together to form an international community of leaders. The discussion is expected to lead to a commitment letter to be signed by interested international engineering deans, possibly forming the basis for launching a Global Grand Challenge Scholars program.
Session Description | IACEE Session

The Continuing Professional Development of Engineers: Challenges, Opportunities and Future Trends

Location: Ajman Room D – Mezzanine Level

Date and Time: Wednesday 3 December, 16:00-17:30

Moderator

Paul Marca (Stanford University)

Panelists

Alfredo Soeiro (Universidade do Porto)
Marc Goossens (European Society for Engineers and Industrialists)
Nelson Baker (Georgia Institute of Technology)
Wissam Hachem (Etihad Airways)
Yvonne Leidi (Tenaris Global Services)

Summary The significance of lifelong learning as related to competitiveness and employability of the engineering workforce becomes more important and challenging in the delivery of educational programs designed to enhance the enrichment of personal and professional development of engineers, technicians and scientists. Increased productivity and better quality employment are often the by-products of professional development programs. This session will focus on how academia, industry, professional societies, accrediting organizations and other providers of continuing engineering education are striving to meet the lifelong learning needs of engineers in a whirlwind climate of technological and economic changes. The panel will also explore the differences and similarities among organizations involved in providing or regulating the professional development activities of engineers and IACEE’s Continuing Professional Development Benchmarking and Quality Improvement Program.
Sessions Description | *IEEE Sessions*

**Enhancing Gender Diversity in Engineering Education and Practice**

**Location:** Ajman Room D – Mezzanine Level

**Date and Time:** Wednesday 3 December, 14:00-15:30

**Moderator**

Elmira Khalitova *(Innopolis University)*

**Panelists**

Antonia Moropoulou *(National Technical University of Athens)*
Boutheina Tili *(RIT Dubai)*
Gisela Loehlein *(Ajman University of Science and Technology)*
Jennifer DeBoer *(Purdue University)*
Maryam Althani *(DEWA)*
Nadia Konzali *(International Civil Aviation Organization)*

**Summary** Diversity is not about recruiting more women. It is about being a better company, a better school that offers better solutions. In this panel discussion, the speakers will share their perspectives on diversity in Engineering through their own experiences. Issues that will be addressed include the importance of diversity in Engineering, best practices in managing diversity, discuss the recruitment, retention and advancement – what works, how it is related to culture, and examples of successful diversity programs. This panel discussion is designed to stimulate interaction among participants, as well as with the speakers.

**Supporting STEM Education at the K-12 Level**

**Location:** Maktoum Hall B

**Date and Time:** Thursday 4 December, 14:00-15:30

**Moderator**

Boutheina Tili *(RIT Dubai)*

**Panelists**

Dmitry Kondratyev *(Innopolis University)*
Rana Chemaitelly *(The Little Engineer)*
Sohaib Qamar Sheikh *(Arup)*

**Summary** STEM-based curricula focus on educating students in four specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach. In this session, panelists will attempt to answer a range of questions: How can we best identify and nurture pools of potential STEM talent in K-12 that could become a source of adults productive in STEM and could fuel innovation? What role does the community (parents, teachers, local businesses) play in nurturing, supporting and motivating students? Do ethnically or geographically distinct subgroups of students learn differently? What role does cultural background play in talent development? What are the policy implications? What are the best practices in STEM initiatives including program communication, structure, implementation, and sustainability? Are there any professional development programs for STEM educators? What are the strategies to engage girls in the STEM field? How can we do STEM Outreach to interest high school students into STEM?
Sessions Description | IFEES Sessions

**CDIO – Conceive Design Implement Operate**

**Location:** Maktoum Hall A  
**Date and Time:** Wednesday 3 December, 14:00-15:30  
**Moderator**  
Gareth Thomas (Mathworks)  
**Workshop Leaders**  
Antonio Costa (Instituto Superior de Engenharia do Porto)  
Mushtak Al-Atabi (Taylor’s University)

**Summary** The CDIO™ INITIATIVE is an innovative educational framework for producing the next generation of engineers. The framework provides students with an education stressing engineering fundamentals set in the context of Conceiving — Designing — Implementing — Operating (CDIO) real-world systems and products. Throughout the world, CDIO Initiative collaborators have adopted CDIO as the framework of their curricular planning and outcome-based assessment. CDIO collaborators recognize that an engineering education is acquired over a long period and in a variety of institutions, and that educators in all parts of this spectrum can learn from practice elsewhere. The CDIO network therefore welcomes members in a diverse range of institutions ranging from research-led internationally acclaimed universities to local colleges dedicated to providing students with their initial grounding in engineering. CDIO envisions an education that stresses the fundamentals, set in the context of Conceiving – Designing – Implementing – Operating systems and products, through a curriculum organized around mutually supporting courses but with CDIO activities highly interwoven. CDIO activities are rich with student design-build-test projects, integrate learning of professional skills such as teamwork and communication, feature active and experiential learning, and are constantly improved through quality assurance process with higher aims than accreditation. This workshop intends to raise the awareness of educators to CDIO as an engineering education best practice. In the first part, an overview of CDIO will be presented, with an emphasis on the 12 Standards and tools. In the second part, the application of CDIO at Taylor’s University (Malaysia) will be described and discussed.

**Developing PBL-Inspired Teaching Experiments**

**Location:** Maktoum Hall A  
**Date and Time:** Wednesday 3 December, 16:00-17:30  
**Workshop Leaders**  
Alex Stojcevski (Deakin University)  
Erik de Graaff (Aalborg University)

**Summary** Problem and/or Project-Based Learning (PBL) involves complex and situated problem analysis, and problem solving strategies. It stresses the importance of learners’ motivation and the development of various process skills such as management, communication and collaboration. Implementing PBL and managing the change to PBL from traditionally lecture-based methods is a complex matter, and many questions arise in its wake. Should it be implemented at a single subject level as a start, or is it possible to introduce it at the program level? What are the roles of the teachers in the change process? To what level can the curricula be revised and how? What implications does it have on the existing assessment system? By addressing the above questions, this workshop aims to provide the participants with experiences and skills for implementing PBL in daily teaching practice. The workshop is intended to assist participants in designing and planning PBL inspired teaching experiments suitable within their local contexts. A wide range of methods will be used facilitate discussions and learning outcomes, including presentations by the facilitator, group based experience sharing discussions, brainstorming for solutions, and peer advice.
Sessions Description | IFEES Sessions

The New Face of Technology-Assisted Learning

Location: Maktoum Hall A
Date and Time: Thursday 4 December, 11:00-12:30
Moderator: Ivan Esparragoza (Pennsylvania State University)

Session Leaders
Joseph Packhem (Marquette University)
Paul Gilbert (Quanser)
Tom Lee (Quanser)

Summary: This session explores concepts and case studies from institutions striving to transform the undergraduate curriculum to make learning experiences more engaging and relevant as we adapt to new demands on when, where, and how we instruct our students, and exploit new pedagogical opportunities being offered by emerging technologies. The session leaders have been active partners with institutions around the world in a wide range of forward-looking collaborations all based on the theme of technology-based learning transformation. Specific topics in this session include enhancing the learning of complex modern engineering design, increasing student motivation and retention through technology-driven pedagogy, and moving the learning experience to mobile and off-campus platforms. The session format will include presentation, videos, select live demos, and open discussion.

Connected Classrooms

Location: Maktoum Hall A
Date and Time: Thursday 4 December, 14:00-15:30
Moderator: Stephen Lu (University of Southern California)

Panelists
Guenther Schuh (RWTH Aachen University)
Lueny Morell (Lueny Morell & Associates)
Mazen Hasna (Qatar University)

Summary: We all have witnessed the sweeping changes of campus education over the past few decades, when remote students are connected to classrooms via distance education. Now, try to imagine an exciting future of campus education when remote classrooms around the globe are connected together as one learning place. Advanced technologies can abolish the interaction distance between distributed learners across physical, institutional, and cultural boundaries. How will instruction for the teachers and learning for the students be different with this no-distance education paradigm in classrooms-without-borders? After all, by the time when all lectures are digitized and courses are moved into the Cloud, the globally connected classrooms maybe the new value proposition of campus education in the post-MOOCs era. The significance and implication of this exciting scenario of future education will be presented by a panel of distinguished engineering educators who will share their global perspectives.
Sessions Description | IFEES Sessions

Quality Assurance

**Location:** Maktoum Hall A

**Date and Time:** Thursday 4 December, 16:00-17:30

**Moderator**
Michael Milligan (ABET)

**Panelists**
Axel Zafoschnig (Landesschulrat für Kärnten)
Badr Aboul-Ela (MOHESR-UAE and ANQAHE)
Hasan Mandal (Sabancı University)
Krishna Vedula (University of Massachusetts, Lowell)
Ramamurthy Natarajan (IIT Madras)
Yuri Pokholkov (Tomsk Polytechnic University)

**Summary**
The goal of this panel is to provide an opportunity for the audience members to engage in a meaningful
dialog, focused on the three areas of Quality Assurance in engineering education: accreditation, mobility of graduates, and
quality of faculty. Quality assurance of programs through accreditation carry significant benefits to the institution, but
also poses numerous challenges in terms of fulfilling the needs of both international and regional stakeholders. The
discussion on accreditation will include regional vs international accreditation, evolving criteria and standards, best
practices, online and blended learning programs and lessons learned. Panelists will also discuss the role of quality
assurance in facilitating mobility of graduates, and the impact of professional licensure and mutual agreements on
mobility. In many countries where engineering educators do not hold doctoral degrees and do not have formal
training as educators, the need for a quality assurance process is needed. Current and emerging trends toward
certification of engineering educators as part of the quality assurance cycle will be discussed.

Experimental Hardware and Instrumentation

**Location:** Maktoum Hall B

**Date and Time:** Thursday 4 December, 16:00-17:30

**Workshop Leader**
Joachim Schlosser (MathWorks)

**Summary**
Industry leaders are concerned about the skills gap they face with engineering graduates, including the
lack of project awareness, problem-solving skills, applicable tools or applied science skills. Academic leaders are
concerned that students do not have the prerequisite basic skills as engineering freshmen. Teachers are concerned
about the lack of student engagement, and students complain about classes not being engaging enough or
relevant. Too often, students and educators feel that topics throughout education are not connected. Early on,
students do not understand the practical application of theoretical concepts. Later, they no longer see the connection
between advanced theory and fundamental concepts. When analyzing this chain of challenges starting with
student engagement, the use of experimental hardware and instrumentation within a project-based learning environ-
ment presents a feasible solution. Students educate themselves on concepts, with the teacher facilitating the learning
experience. Applying theory in practical ways with tools that are used in the industry gives students first-hand experience
on industry-relevant methods as well as the “why” behind theory. This workshop will show examples, concepts and live
demonstrations of using programming, modeling and simulation through experimental hardware and instrumentation to
gain insight into both theory and application.
Sessions Description | IFEES Sessions

Presidential Panel - Input, Output and Process: Why are These Colleges/Universities Unique?

**Location:** Maktoum Hall A

**Date and Time:** Friday 5 December, 10:30-12:00

**Moderator:**
- Satish Udpa *(Michigan State University)*
- José Carlos Quadrado *(Instituto Superior de Engenharia de Lisboa)*

**Panelists**
- Marcia Grant *(Ashesi University College)*
- David Garza *(Tecnológico de Monterrey)*
- Richard Miller *(Olin College)*
- Swapan Bhattacharya *(National Institute of Technology Karnataka)*
- Tod A. Laursen *(KUSTAR)*

**Summary**

Nine of ten jobs that did not exist ten years ago require engineering skills. Most of today’s highly coveted positions demand a particular brand of expertise, one that enables us to engineer solutions to complex problems in multiple fields. Traditional engineering programs focus on theory in a single discipline and perpetuate the disconnect between education and industry interests. These programs fail to engage 21st century learners, ignoring the plethora of resources and techniques made available by advanced technology. Consequently, half of all engineering students drop out or change their course of study, and the other half enters the job market without the skills needed to fuel socioeconomic progress. This is not the case for selected engineering colleges around the world. This panel will bring together a small number of college presidents to share their ‘formula’ to address these issues and develop the next generation of engineering innovators, with particular focus on the main aspects distinguishing their college/university. Panelists will discuss their student recruitment strategies and admission requirements, factors affecting retention and graduation rates, curriculum development processes, evaluation of faculty performance, employment and career path of graduates, and measurement of success and key performance indicators at their institution.

(Re-)Defining the Engineering Grand Challenges of the 21st Century

**Location:** Maktoum Hall A

**Date and Time:** Friday 5 December, 14:00-15:30

**Moderator:** Christina White *(MIT)*

**Panelists**
- Catherine Didion *(US National Academy of Engineering)*
- Jaime Bonilla *(Tecnológico de Monterrey)*
- Jean-François Minster *(Total)*
- Khairiyah Mohd Yusof *(Universiti Teknologi Malaysia)*
- Theophilus Andrew *(Durban University of Technology)*
- Yannis Yortsos *(University of Southern California)*

**Summary**

The discussion surrounding the Engineering Grand Challenges of the 21st Century has given rise to global initiatives that have beconed support from around the world, including the Chinese Academy of Engineering, National Academy of Engineering, Royal Academy of Engineering, multinational corporations, and a wide range of universities. This diverse panel of thought leaders from academia and industry will actively engage in the global discourse about perspectives on Grand Challenges and engineering education. The panelists are interested in engineering education and committed to positively influencing global development and socio-economic growth by facing the Grand Challenges. The discussion will include themes that resonate across the Grand Challenges global debate including sustainability, health, technology and growth, education, enriching life, and resilience. The panelists will critically discuss their multiple global perspectives on Grand Challenges as complex initiatives that take diverse stakeholders to join forces together to make a positive impact on the world. The panelists and the audience will engage in a discussion to revisit and redefine the Global Engineering Grand Challenges of the 21st Century.
Sessions Description | IFEES Sessions

The Future of MOOCs – Hope or Hype?

**Location:** Maktoum Hall A  
**Date and Time:** Saturday 6 December, 9:00-10:30

**Moderator**  
Uriel Cukierman (Universidad Tecnologica Nacional)  
Michael Auer (Carinthia University of Applied Sciences)

**Panelists**  
Mushtak Al-Atabi (Taylor’s University)  
Yacob Astatke (Morgan State University)

**Summary** Massive Open Online Courses offer a new approach to teaching and learning. The MOOC label was coined in 2008 for online courses that are offered free of charge or for very low fees. MOOCs are massively open because they can be taken online anywhere in the world. In addition to traditional course materials such as lectures, videos, readings, and problem sets, MOOCs provide interactive venues that help build communities of students, professors, and teaching assistants. The goals of this session are to discuss the role and significance of MOOCs in educating engineers, and to identify changes needed to optimize MOOCs for engineering education. The discussion will focus on questions intended to challenge the audience into thinking critically about the role of MOOCs in engineering education. Panelists will discuss topics such as augmenting MOOCs with interactivity, project work and online laboratories (MOOLs), ambient learning in engineering education, and suitability of MOOCs to different disciplines. Panelists will also present their views regarding the future of MOOCs, whether their market will continue to grow or whether they will diminish in popularity, and how they will be economically sustainable in the long run.

Attributes of the Global Engineer: Assessing Global Competence

**Location:** Maktoum Hall A  
**Date and Time:** Saturday 6 December, 11:00-12:30

**Workshop Leaders**  
Stephen Hundley (IUPUI)  
Jennifer DeBoer (Purdue University)

**Summary** The American Society for Engineering Education Corporate Member Council’s Special Interest Group for International Engineering Education developed, presented, and vetted with its stakeholders a series of attributes representing the desired competencies and characteristics needed by engineers in order to effectively live and work in a global context. A global online survey was launched to validate the performance and proficiency levels of each attribute, including the stages at which attributes were essential to the preparation, performance, and employability of global engineers. Furthermore, a series of global focus groups in various regions of the world have been held for the purpose of clarifying and defining the attributes, and for discussing ways in which the attributes can be introduced, reinforced, and assessed in the preparation and development of future engineers. This interactive workshop will describe the stakeholder-driven process to identify and define attributes of a global engineer; present a summary of key findings-to-date; discuss how attribute outcomes can be used to enhance engineering education globally; and highlight the recommendations and implications for a variety of stakeholders. Specific considerations will be given to introducing, reinforcing, and assessing global competence for engineering students.
Sessions Description | IGIP Sessions

Keynote Lecture 1

Engineering Education in Upper Secondary Systems: Challenges and Risks

Keynote Speaker: Christian Dorminger (Ministry for Education, Arts and Culture - Austria)

Location: Maktoum Hall C

Date and Time: Wednesday 3 December, 14:00-14:45

Summary K-12 Engineering Education is discussed in several countries, beginning with single-day experiences, but also as pedagogical strategies through longer programs like “shaping the world”, “learning through experience”, “enhancing scientific and mathematical literacy” and “enrich inquiry based lessons and activities”. These approaches are compared with engineering education systems in some countries in Europe with long traditions of highly qualified trade and engineering education in upper secondary education. In the United Kingdom, a system of university technical colleges (UTC) provides professional development opportunities for secondary school students aged 14 to 19 and their teachers. The UTC sector is developing fast, and every college has a sponsor university. Some other kinds of engineering colleges have been established in central Europe since 1947, combining engineering qualifications with general education for university entrance. The challenges, limitations, risks and benefits of such learning environments are discussed. Even other learning environments (language and humanities, mathematics and science, laboratories, workshops, computed aided design and manufacturing, entrepreneurship education, practice in enterprises and diploma work) provide the opportunity to learn problem-solving skills from a different perspective.

Keynote Lecture 2

Education in the KIC InnoEnergy Branch of the European Institute of Innovation and Technology

Keynote Speaker: Torsten Fransson (EIT KIC InnoEnergy)

Location: Maktoum Hall C

Date and Time: Wednesday 3 December, 14:45-15:30

Summary Europe’s need for highly skilled and entrepreneurial graduates, in particular Masters and PhDs, will continue to grow in the years ahead. Europe not only needs employees but also future employers and entrepreneurs. To meet these needs the European Institute of Innovation and Technology (EIT) was created in 2008. KIC InnoEnergy Education proposes a new approach of education, which in a strong concept combines the best technical training in energy from the KIC InnoEnergy universities with transferable skills in innovation, entre- & intrapreneurship and business creation. The offers from KIC InnoEnergy education range from Master’s programs through several thematic PhD tracks and Post Master programs as well as self-assessment learning material and life-long education for industry. A significant part of this is related to joint programs, courses and repositories, as well as national, cultural, geographical, and virtual mobility. All educational offers are based upon the EIT Label Handbook, which emphasizes the student-centered education, aligned teaching and active learning. A rigorous labelling procedure ensures that all activities have proper intended learning outcomes and contain significant innovation and entrepreneurship components.
Sessions Description | IGIP Sessions

**Digital Poster Session**

**Location:** Maktoum Hall D  
**Date and Time:** Wednesday 3 December, 16:00-17:30

**Role of Engineering Education in Realization of Millennium Purposes and Sustainable Development**  
Rifat Gabdulkhacovich Khabibullin, Irina Victorovna Makarova, Eduard Irekovich Belyaev, Angelina Olegovna Bagateeva  
*Kazan Federal University (Russian Federation)*

(16:00 - 16:30 Poster Desk 1)

**Pedagogical Training of University Lecturers – the Attribute of Quality Assurance of University**  
Roman Hrmo, Lucia Kristoňaková  
*Dubnica Technological Institute in Dubnica nad Váhom, (Slovakia)*

(16:00 - 16:30 Poster Desk 2)

**Model of Implementation of Joint International Continuing Professional Development (CPD) Module for Industrial Enterprise Specialists**  
Elena Mishchenko¹, Mansur Galikhhanov², Vasil'iy Ivanov²  
¹*Tambov State Technical University (Russian Federation)*; ²*Kazan National Research Technological University (Russian Federation)*

(16:00 - 16:30 Poster Desk 3)

**A Study on Satisfaction of New Employee Training Program in Regional Campus Network Applying CIPP Evaluation Model Focusing on a Corporation**  
Juhyun Jeon, Jaeung Lee  
*Chung-Ang University (South Korea)*

(16:00 - 16:30 Poster Desk 4)

**AccAB – Processes and Roles for Accreditation of Computing Degrees at Al Baha University in Saudi Arabia**  
Arnold Pears¹, Anders Berglund¹, Aletta Nylén¹, Nimir Saleh²  
¹*Uppsala University (Sweden)*; ²*Al Baha University (Saudi Arabia)*

(16:00 - 16:30 Poster Desk 5)

**Opportunities and Challenges for Industry-Academia Collaboration via Sponsored Design Competitions**  
Jorge Rodriguez, Alamgir Choudhury  
*Western Michigan University (USA)*

(16:30 - 17:00 Poster Desk 1)

**Computer-Aided Translation Course for Engineering Students**  
Olga Lefterova, Diana Gilyazova  
*Kazan National Research Technological University (Russian Federation)*

(16:30 - 17:00 Poster Desk 2)

**Hungarian Online University**  
Imre Felde, Laszlo Nadai, Tamas Kersanszki  
*Obuda University (Hungary)*

(16:30 - 17:00 Poster Desk 3)

**Integration of KNRTU into the World Community as an Example of Cooperation with France**  
Natalia Krayzman, Elvira Valeeva  
*Kazan National Research Technological University (Russian Federation)*

(16:30 - 17:00 Poster Desk 4)

**Pedagogical Integration as a Means of Forming Professional Competence of the Intending Engineer**  
Tatyana A. Starshinova¹, Liliya Prikhodko²  
¹*Kazan National Research Technological University (Russian Federation)*; ²*Moscow State University of Economics, Statistics and Informatics (Russian Federation)*

(16:30 - 17:00 Poster Desk 5)
Sessions Description | IGIP Sessions

**Parallel Session FP-11**

**Research in Engineering Pedagogy**

**Session Chair:** Habibah Norehan Haron (Universiti Teknologi Malaysia)

**Location:** Dubai Room A – Mezzanine Level

**Date and Time:** Wednesday 3 December, 16:00-17:30

- **Improving Motivation and Learning Outcome in a Flipped Classroom Environment**
  - **Bjarne Schmidt**
  - *University of Southern Denmark (Denmark)*
  - *(17:00 - 17:30 Poster Desk 1)*

- **Pedagogical Tools for Teaching Modern Physics to Engineering Students in a Developing Country**
  - **Mario Ricardo Amani**
  - *National Technological University of Argentina at Tucuman (Argentina)*
  - *(17:00 - 17:30 Poster Desk 2)*

- **Pre-College Activities to Promote Positive Perception of Engineering and Engineering Technology Careers**
  - **Jorge Rodriguez, Tycho Fredericks, Steven Butt**
  - *Western Michigan University (USA)*
  - *(17:00 - 17:30 Poster Desk 3)*

- **The Impact of Globalization on Changing Roles of University Professors**
  - **Elvira Valeeva, Natalia Kraysman**
  - *Kazan National Research Technological University (Russian Federation)*
  - *(17:00 - 17:30 Poster Desk 4)*

- **Learning Alone or in a Group - an Empirical Case Study of the Collaborative Learning Patterns and Their Impact on Student Grades**
  - **Ling Cen, Dymitr Ruta, Leigh Powell, Jason Ng**
  - *EBTIC / Khalifa University, United Arab Emirates*

- **Self-Regulated Learning Strategies between the Performing and Non-Performing Students in Statics**
  - **Habibah Norehan Haron, Kamilah Radin Salim, Rosmah Ali, Hafizah Harun, Noor Hamizah Hussain**
  - *Universiti Teknologi Malaysia, Malaysia*

- **Demonstrative Deliverables of Enhanced Holistic Learning Through a Blend of Variety in Pedagogical Methods**
  - **Meena Parathodyil**
  - *BMS College of Engineering, India*

- **Diversification of Educational Paradigm in Professional Pedagogy**
  - **Galina Aleksandrovna Bokareva, Mikhail Yurievich Bokarev**
  - *Baltic Fishing Fleet Academy KSTU, Russian Federation*

- **A Comparative Study on Different Pedagogy Strategies in Engineering Interdisciplinary**
  - **Sartajvir Singh¹, Lipika Gupta¹, Vishakha Sood², Madhu Chitkara¹, Rajnish Sharma¹**
  - ¹Chitkara University, India; ²CGC College of Engineering, India

**Parallel Session FP-12**

**Accreditation and Curriculum Development**

**Session Chair:** Latifa Mahdaoui (USTHB)

**Location:** Dubai Room B – Mezzanine Level

**Date and Time:** Wednesday 3 December, 16:00-17:30
Sessions Description | IGIP Sessions

Quality Assurance of Engineering Education Worldwide: the QUEECA TEMPUS Project for Central Asia
Claudio Borri¹, Jose Carlos Quadrad³, Elisa Guberti⁴
¹University of Florence, Italy; ²Istituto Superior de Engenharia do Porto, Portugal

Integrating General Education Outcomes into a Senior Design Capstone Experience
Nikos J. Mourtos
San Jose State University, USA

The Problem of International Unification of Systems of Study Programmes' Quality Assurance
Alexander Solovyev, Larisa Petrova
MADI, Russian Federation

Global Virtual Teams: Pedagogical Innovation in MBA Education
Yoshiaki Watanabe¹, Benny Magnier-Watanabe⁴, Olivier Aba², Harald Herrig²
¹University of Tsukuba, Japan; ²Grenoble Ecole de Management, France

Educational Cooperation across Countries by Shared Course Materials: More than 10 Years of Experience
Klaus Bothe¹, Zoran Budimac², Zoran Putnik³, Mirjana Ivanovic⁴, Stanimir Stoyanov⁵, Katerina Zdravkova⁶, Betim Cico⁷, Novica Nosovic⁸, Damir Kalpic⁹, Joan Jurca¹⁰, Elinda Kajo¹¹, Sanja Candrilic¹², Boro Jakimovski¹³, Asya Stoyanova-Doycheva¹⁴
¹Humboldt University Berlin, Germany; ²University of Novi Sad, Serbia; ³University “Paisii Hilendarski” Plovdiv, Bulgaria; ⁴University of Skopje, FYR Macedonia; ⁵South-Eastern University Tetovo, FYR Macedonia; ⁶University of Sarajevo, Bosnia and Herzegovina; ⁷University of Zagreb, Croatia; ⁸Technical University Timisoara, Romania; ⁹Polytechnic University Tirana, Albania; ¹⁰University of Rijeka, Croatia

Parallel Session FP-13

Project and Research Based Learning
Session Chair: Istvan Simonics (Obuda University)
Location: Dubai Room C – Mezzanine Level
Date and Time: Wednesday 3 December, 16:00-17:30

Learning by Research and Development
Rauno Pirinen
Laurea University of Applied Sciences, Finland

Institute-Industry Collaboration in Higher Engineering Educational Institutions
Parameswaran Ananthanarayananan¹, Basil Gnanappa², C. Muthamizchelvan¹
¹SRM University, India; ²Indian Society for Technical Education, India

Implementation of Practical Exercises in Software Engineering Education to Improve the Acquisition of Functional and Non-Functional Competences
Alexander Soska, Michael Schumm, Susanne Knörl, Stefanie Mörtlbauer, Irmgard Schroll-Decker, Michael Niemetz, Jürgen Mottok
OTH Regensburg, Germany

Project Based Learning: Real World Experiential Projects Creating the 21st Century Engineer
Phillip Albert Sanger¹, Julia Ziyatdinova²
¹College of Technology Purdue, USA; ²Kazan National Research Technological University, Russian Federation
Sessions Description | IGIP Sessions

Investigation of Project Based Learning Environment in Engineering Education
Nitin Shrivastava, Mukesh Pandey
Rajiv Gandhi Proudyogiki Vishwavidyalaya, India

Project based learning – Theoretical Foundation of Computation course
Indiramma Manchaiah
BMS college of Engineering, India

Parallel Session SP-14

New Trends in Graduate Education

Session Chair: Imre Jozsef Rudas (Obuda University)
Location: Dubai Room D – Mezzanine Level
Date and Time: Wednesday 3 December, 16:00-17:30

A Boundary Spanner Intervention for Increasing Community Engagement – Framing Steps Forward
David Antoine Delaine
Universidade de São Paulo, Brazil

Engineering Education Research to Practice: A Case Study from Virginia Tech, USA
Vinod Lohani
Virginia Tech, USA

Exponentially Disruptive Innovation Driven by Service Science and the Internet of Things as a Grand Challenge Enabler in Education
Jason Jeffords^1, Patrick Kane^2, Yassi Moghaddam^1, Andrzej Rucinski^1, Zelalem Temesgen^4
\(^1University of New Hampshire, USA; ^2Cypress Semiconductors, USA; ^3International Society of Service Innovation Professionals, USA; ^4Mayo Clinic, USA

Intelligent Risk Management in Teaching Software Engineering
Lizandra Arza Pérez, Yadira Ruiz Constanten, Dasiel Cordero Morales, Dariena Ramírez Luján
Universidad de las Ciencias Informáticas, Cuba

Online Learning, Web Mining and Quality Assurance
Imre Jozsef Rudas
Obuda University (Hungary)

Parallel Session SP-21

Research in Engineering Pedagogy and Collaborative Learning

Session Chair: Barbara Kerr (York University)
Location: Dubai Room A – Mezzanine Level
Date and Time: Thursday 4 December, 11:00-12:30
Sessions Description | IGIP Sessions

**Project-Based Teaching of Geomatics: Experiences from Colombia**
Daniel Paez, Luis Alberto Rubio  
*Universidad de los Andes, Colombia*

**The Use of Field Trips in the Context of Engineering Collaborative Teaching**
Daniel Paez, Luis Alberto Rubio  
*Universidad de los Andes, Colombia*

**Improvement of Learning Outcome and its Measurement Using Social Learning Intelligence**
Girish Gopalakrishnan¹, Sudhakshina Girish¹, Suryanarayan Srinivasan¹, Babu Mallikharjuna², Kanmani B²  
¹Wiksate Solutions Private Limited, India; ²BMS College of Engineering Bangalore, India

**The Value-Added in Engineer Programs in Colombia**
Olga Rosalba Rodríguez  
*Universidad Nacional de Colombia, Colombia*

**On Quantified Performance Analysis of Highly Specialized Neurons’ in Order to Develop Reading Brain Function Using Neural Networks Modeling**
Hassan Mohamed Mustafa  
*Al-Baha, Saudi Arabia*

**Parallel Session FP-22**

**Knowledge Management and New Learning Models and Applications**

*Session Chair:* Richard David Evans *(University of Greenwich)*  
*Location:* Dubai Room B – Mezzanine Level  
*Date and Time:* Thursday 4 December, 11:00-12:30

**Evaluation of Online Assignments and Quizzes Using Bayesian Networks- Case of PC2i**
Yamna Ettarres  
*Higher School of Digital Economy HSDE/ESEN, University of Manouba, Tunisia*

**Teachers’ Attitudes towards the Use of Web 2.0 Tools in Educational Practice - A Critical Approach**
Marianthi Batsila¹, Charilaos Tsiohridis², Dennis Vavouqios², George Ioannidis¹  
¹The Open University, UK; ²The University of Thessaly, Greece; ³The University of Patras, Greece

**Ways of Qualitative Bachelors’ Training in the Field of Technical Education**
Svetlana Udartseva, Irina Yerakhtina, Viktor Yegorov, Tamara Udartseva, Valentina Gotting, Tatyana Chausova¹  
*Karaganda State Technical University, Kazakhstan*

**Context-Centered Model for the Implementation of Social Integration and Regionalization as Axes of the Minerva Academic Model of the BUAP**
German Urrego¹, Gloria Giraldo², Edgardo Cordova³  
¹Universidad de Antioquia, Colombia; ²Universidad Nacional de Colombia, Colombia; ³Benemérita Universidad Autonoma de Puebla, Mexico
Sessions Description | IGIP Sessions

Academiuss: a Web Tool for Building Collaborative Pedagogical Patterns Applied to Engineering Education
Flavio Marques Azevedo, José Aquiles Baesso Grimoni, David Delaine
University of Sao Paulo, Brazil

Parallel Session FP-23
Academic-Industry Partnership

Session Chair: Meena Parathodyil (BMS College of Engineering)
Location: Dubai Room C – Mezzanine Level
Date and Time: Thursday 4 December, 11:00-12:30

PETOE: Establishing a New Joint Talent Training Mechanism for Universities and Industrial Enterprises
Jian Lin, Sunyu Wang, Shouwen Yu, Weifeng Qiao
Center for Engineering Education, Tsinghua University, P.R. China

Research Collaboration and Knowledge Transfer between University and Industry
Josef Schlattmann
Hamburg University of Technology, Germany

Students and Staff Perspectives on Academic-Industry Partnerships in Engineering
Sivachandran Chandrasekaran, Matthew Joordens, Guy Littlefair, Alex Stojcevski
Deakin University, Australia

Increasing Importance of Industry-Institute Interaction in Engineering Education in India
Venu Madhav Gopala, Guruswamy Revana, Ramakrishna Kothuri
Padmasri Dr B V Raju Institute of Technology, India

Creating Bridges between Education, Research and Practice
Tatiana Corejova, Maria Rostasova
University of Zilina, Slovakia

Parallel Session SS-24
Integration of Externally Funded Research and Development and Higher Education Functions

Session Chair: Rauno Pirinen (Laurea University of Applied Sciences)
Location: Dubai Room D – Mezzanine Level
Date and Time: Thursday 4 December, 11:00-12:30

A Multinational Research Project as a Platform for Multi-Discipline Learning Environment.
Three Cases as a Part of the MACICO Project
Jyri Rajamäki, Mourad Daifi, Petrus Kiiski, Marko Viuhko, Tomi Töyrylä, Juhana Isohanni, Jenni Nevalainen, Mia Kivelä, Heidi Kuikka, Jaana Tarkka, Minna Alanko
Laurea University of Applied Sciences, Finland
Sessions Description | IGIP Sessions

Learning within Research, Development and Innovation Projects. Case: MACICO project
Jyri Rajamäki, Laura Tarkkanen, Krister Karppinen, Esa Jokinen
Laurea University of Applied Sciences, Finland

Samples of Externally Funded Research and Development Projects in Higher Education: Case Integration Readiness Levels
Rauno Pirinen, Eveliina Sivlén, Eeva Mantere
Laurea University of Applied Sciences, Finland

Utilization of the Integration Readiness Level in Operative Systems
Eeva Mantere, Rauno Pirinen
Laurea University of Applied Sciences, Finland

Utilization of the Integration Readiness Level in the Context of Industrial System Projects
Eveliina Sivlén, Rauno Pirinen
Laurea University of Applied Sciences, Finland

Parallel Session SS-25
Creation of New Universities in Emerging Countries

**Session Chair:** Russell Jones (World Expertise LLC)

**Location:** Dubai Room E – Mezzanine Level

**Date and Time:** Thursday 4 December, 11:00-12:30

**Panelists**
- Dmitry Kondratyev (Innopolis University)
- Fred Moavenzadeh (Masdar Institute)
- Jean-Lou Chameau (KAUST)
- Mark Weichold (Texas A&M University Qatar)

**Summary** This Special Session is dedicated to the several startup universities that aspire to change the trajectory of education and economy of their host countries – Education City in Qatar, KAUST in Saudi Arabia, Masdar Institute in Abu Dhabi, and Innopolis University in Russia. These institutions have much to offer as potential models for similar development in other emerging countries, as well as describing innovative approaches to programs that are not constrained by the limitations of existing institutions. Leaders from these institutions will describe their startup, status and plans. The discussion will focus on lessons learned and suggestions for other startup university projects.
IGIP-SPEED Young Scientist Award

**Session Chair:** Michael Auer (Carinthia University of Applied Sciences)

**Location:** Ajman Room D – Mezzanine Level

**Date and Time:** Thursday 4 December, 11:00-12:30

Diversification in Engineering Education through 'Indian Student Forum': An Experimentation Project in India

Rohit Kandakatla¹, Dhinesh Balaji Radhakrishnan²

¹KG Reddy College of Engineering and Technology, India; ²University of Petroleum and Energy Studies, India

The Impact of the 1st Argentinean Engineering Students Forum in the Training of Engineering Students and its Influence on Education

Maria Alejandra Ortíz¹, Agustín Ferrario², Karina Frontela¹, Wilfrido Oscar David Barreto¹, María Flores¹, Gabriela Alejandra Britzé¹, Ivana Gabriela Salas¹, Rocío Soledad Blanco¹, Carlos Leandro Nicolás Alizandro¹, Ulyses Omar Sbardella¹, Irina Esther Toledo³

¹Universidad Nacional de Formosa (UNaF), Argentina; ²Universidad Tecnológica Nacional (UTN), Facultad Regional Resistencia, Argentina; ³Universidad Nacional de la Rioja (UNLaR), Argentina

Parallel Session FP-31

Academic-Industry Partnership

**Session Chair:** Yacine Atif (UAE University)

**Location:** Dubai Room A – Mezzanine Level

**Date and Time:** Thursday 4 December, 14:00-15:30

New Steganography Scheme Using Graphs Product

Sidi Mohamed Douiri

Université Mohammed V, Morocco

Big Learning Data Support for Engineering Career Readiness

Eman Abu Khousa, Yacine Atif

UAE University, United Arab Emirates

Reviewing Engineering Curricula to Meet Industrial and Societal Needs

Segun Isaac Talabi, Jamiu Kolawole Odusote, Abdulganiyu Funsho, John Olorunmaiye

University of Ilorin, Nigeria

Presidential Program for the Training of Engineers. Experience of a Research University

Vasiliy Ivanov, Svetlana Barabanova, Mansur Galikhanov, Alina Guzhova

Kazan National Research Technological University, Russian Federation

On the Role of Public Policy in Engineering Education: Russian Tendencies

Vasiliy G. Ivanov, Svetlana V. Barabanova, Olga I. Lefterova

Kazan National Research Technological University, Russian Federation
Sessions Description | IGIP Sessions

**Parallel Session FP-32**

Pre-College Education and New Teaching Models

*Session Chair:* Thomas Frederick Garrison *(Washington State University)*

*Location:* Dubai Room B – Mezzanine Level

*Date and Time:* Thursday 4 December, 14:00-15:30

A Case Study of the Effects of a Resident Scientist on Teaching Experimental Design to High School Chemistry Students

- Thomas Frederick Garrison¹, Eric Hall², Michael R. Kessler¹
- ¹Washington State University, USA; ²Hoover High School, Des Moines, Iowa, USA

The Impact of Web 2.0 Edmodo Tool in Junior High School Classes: A Comparative Study

- Marianthi Batsila, Tsichouridis Charilaos
- The Open University, UK

Optional STEM Courses for Secondary Schools Designed and Implemented for Enhancement of K-12 Technology Education in Order to Excite Students’ Interest in Technology and Engineering Education

- Tiia Rüütmann
- Tallinn University of Technology, Estonia

An Analysis of Flipped Classroom Model in Calculus III

- Seifedine Kadry
- American University of the Middle East, Kuwait

Educational Programs for Freshmen Based on Forefront Scientific Researches on the Environmental Purification Project with Intense Magnetic Fields

- Tetsuo Oka, Takeshi Yamauchi, Kazuhisa Abe, Takatsune Narumi, Yuji Tanabe
- Niigata University, Japan

**Parallel Session FP-33**

Hybrid and Blended Learning

*Session Chair:* Ashraf Badawi *(Zewail City of Science and Technology)*

*Location:* Dubai Room C – Mezzanine Level

*Date and Time:* Thursday 4 December, 14:00-15:30

The Essence of Effective Presentation Skills in Engineering Education

- Sandhya Tuti, Anusha Pallothu
- K.G.Reddy College of Engineering and Technology, India

The Essence of Effective Presentation Skills in Engineering Education

- Sandhya Tuti, Anusha Pallothu
- K.G.Reddy College of Engineering and Technology, India
Sessions Description | IGIP Sessions

Playing with Maths: GeoGebra Application for Meaningful Education
Uriel Ruben Cukierman, Patricia Arnal, Paula Cerasulo, Gabriela Esperon, Beatriz Fuertes, Martin Agüero, Rafael Urdaneta, Leonardo Ibañez, Sebastian Badaro
Universidad de Palermo, Argentina

Network Cooperation in the Training of Engineering Elite for Regional Economies
Darya-Anna Kaybiyaynen
Kazan National Research Technological University, Russian Federation

Soft Skills in Engineering Education: A Practical Experience in an Undergraduate Course
Uriel Ruben Cukierman¹ ², Juan Maria Palmieri²
¹Universidad de Palermo, Argentina; ²Universidad Tecnologica Nacional, Argentina

Affordances of CSCL Platforms: A Systematic Review
Ashraf Badawi¹, Tamer Said¹, Russanne Hozayin¹, Doaa Shawky¹
¹Zewail City of Science and Technology, Egypt; ²American University in Cairo, Egypt

Parallel Session FP-34

New Learning Models and Applications

Session Chair: Dmitry Kondratyev (Innopolis University)
Location: Dubai Room D – Mezzanine Level
Date and Time: Thursday 4 December, 14:00-15:30

Using Sensors and Data-Loggers in an Integrated Mobile School-Lab Setting to Teach Light and Optics
Denis "Dionysios" Vavougios¹, Charilaos Tsibouridis², George Ioannidis¹, Aristeidis Alexias¹, Christos Argyropoulos¹, Sokratis Poulios¹
¹University of Thessaly, Greece; ²University of Patras, Greece

A Novel Educational Platform, Based on the Raspberry-Pi
Nikolaos K. Ioannou, George S. Ioannidis, George D. Papadopoulos, Athanasios E. Tapeinos
University of Patras, Greece

Algorithmic Thinking Observation: How Students of Applied Informatics Break the Mystery of Black Box Applications
Martin Cápay
Constantine the Philosopher University in Nitra, Slovak Republic

Suitably Adapted LMS Used to Teach Science to Primary School Students Using Blended Learning
Antonis I. Skellas, Despina M. Garyfallidou, George S. Ioannidis
University of Patras, Greece

Must We Be Concerned with the Massive Drop-outs in MOOC? - An Attrition Analysis of Open Courses
Christian Guetl¹ ², Vanessa Chang², Rocael Hernández Rizzardini³, Miguel Morales³
¹Graz University of Technology, Austria; ²Curtin University of Technology, Australia; ³Galileo University, Guatemala
Sessions Description | IGIP Sessions

Parallel Session SP-41

New Trends in Graduate Education

Session Chair: Richard David Evans (University of Greenwich)

Location: Dubai Room A – Mezzanine Level

Date and Time: Thursday 4 December, 16:00-17:30

Collaborative Knowledge Transfer via Wiki

Jörg Abke, Carolin Gold, Nina Kälberer, Martina Kuhn
University of Applied Sciences Aschaffenburg, Germany

Creative Game Design in Engineering and Computer Science Education

Mikhail Fominykh¹, Ekaterina Prasolova-Førland¹, Monica Divitini², Mikhail Morozov³, Andrey Smorkalov³
¹Program for Learning with ICT, Norwegian University of Science and Technology, Norway; ²Department of Computer and Information Science, Norwegian University of Science and Technology, Norway; ³Multimedia System Laboratory, Volga State University of Technology, Russia

Using Web 2.0-Based Groupware to Facilitate Collaborative Design in Engineering Education Scheme Projects

Richard David Evans¹, James Xiaoyu Gao¹, Nick Martin², Clive Simmonds²
¹University of Greenwich, United Kingdom; ²Electronic Systems, BAE Systems, United Kingdom

Gaining Hands-on Experience via Collaborative Learning: Interactive Computer Science Courses

Anna Maria Danielewicz-Betz, Tatsuki Kawaguchi
University of Aizu, Japan

An Innovative Digital Tool for Materials Related Engineering Education

Claes Fredriksson
Granta Design, United Kingdom

Moodle as an Innovative Alternative to Support the Teaching-Learning Process in School

Nathalia Katerin Valderrama Ramírez, Rogelio Manuel Alvarado Martínez, Julio César León Luquez, Plinio del Carmen Teherán Sermeño
Universidad Nacional de Colombia, Colombia

Parallel Session FP-42

Digital and Online Engineering Education

Session Chair: Alfredo Soeiro (Universidade do Porto)

Location: Dubai Room B – Mezzanine Level

Date and Time: Thursday 4 December, 16:00-17:30
Sessions Description | IGIP Sessions

Online Peer Evaluation Supported by an Expert System
Katerina Georgouli, George Fillipakis, Cleo Sgouropoulou
Technological Educational Institute of Athens, Greece

Finding Adequate Assessment Types as Function of Learning Outcomes
Alfredo Soeiro¹, Rita Falcao²
¹Universidade Porto, Portugal; ²Universidade Nova Lisboa, Portugal

A Platform Based on a LMS/WfMS for Support the Assessment of Collaborative Activities in E-learning
Amina Aouine, Latifa Mahdaoui
USTHB, Algeria

Stepping into a New Learning Environment: from Virtual to Personal. Power Electronics Case Study
Francisco David Trujillo Aquilera, Ana Pozo Ruiz, Pedro Juan Sotorrio Ruiz, José Sánchez Rodríguez
Universidad de Malaga, Spain

Learning Support of Students with eLearning Materials
Istvan Simonics
Obuda University, Hungary

Parallel Session FP-43

Virtual and Remote Laboratories

**Session Chair:** Doru Ursutiu (Universitatea Transilvania din Brașov)

**Location:** Dubai Room C – Mezzanine Level

**Date and Time:** Thursday 4 December, 16:00-17:30

Mobile Learning Applications for Technical Vocational and Engineering Education
Steffen Jaschke
University of Siegen, Germany

Decentraized Authentication Method for Accessing Pedagogical Resources in a Cloud Computing Based Virtual Organization
Hamadou Saliah-Hassane¹, Amadou Dahirou Gueye², Ibrahima Sanogo³, Samuel Ouya³, Claude Lishou³
¹University of Quebec, Montreal, Canada; ²University Alioune Diop of Bambey, Senegal; ³University Cheikh Anta Diop, Dakar, Senegal

The Position of the Remote Experiment in the Experiential Learning and S.E.C.I.
Cornel Samoila, Doru Ursutiu
University “Transilvania” of Brasov, Romania

TEMPSUS iCo-op, New Trends in LabVIEW-Moodle Integration
Doru Ursutiu¹, Cornel Samoila¹, John Bergmans²
¹University “Transilvania” of Brasov, Romania; ²Bergmans Mechatronics LLC – USA
Sessions Description | IGIP Sessions

Parallel Session FP-44
Impact of Globalization and New Learning Models & Applications

**Session Chair:** Mohamad Saleh (Institute of Technology, Blanchardstown)

**Location:** Dubai Room D – Mezzanine Level

**Date and Time:** Thursday 4 December, 16:00-17:30

**Social Learning Environments**
Juan Carlos Torres-Diaz¹, Alfonso Infante Moro², Hector Gómez¹, Pablo Torres Carrión¹, Susana Arias Tapia¹, Lorena Condolo Herrera¹, Franco Guaman Bastidas¹
¹UTPL, Ecuador; ²UHU, Spain

**Engineering Teaching and Learning: A Contemporary Globalization Style**
Mohamad Saleh
The Institute of Technology Blanchardstown, Ireland

**Training of University-Enterprise Cooperative Software Engineering Students: Teaching and Practice**
Yun Liu, Xijun Zhu, Hui Li
Qingdao University of Science and Technology

**InterUniversity Study Project: Unsuccessful Students’ Feedback**
Petra Poulova, Ivana Simonova
University of Hradec Kralove, Czech Republic

**Findings about Students with Great Discrepancy at a Web-based English Remedial Program**
Rong Zhang¹, Dale Steele², Jingping Zhang³, Li Feng⁴
¹Nishinippon Institute of Technology, Japan; ²University of East Asia, Japan; ³Shanghai Theater Academy, China; ⁴DongBei University of Finance & Economics, China

Parallel Session FP-51
New Trends in Graduate Education

**Session Chair:** Victor Murray (Universidad de Ingenieria y Tecnologia, Peru)

**Location:** Dubai Room A – Mezzanine Level

**Date and Time:** Friday 5 December, 10:30-12:00

**Multi-Environment Integrated Circuit Design Flow: A New Approach towards Efficient Lab Sessions for Electrical Engineering Students**
Muhammad Kamran Bhatti¹², Muhammad Najam Ul Islam¹, Muhammad Ali Shami¹, Zahoor Ul Haque⁴, Muhammad Adnan Bhatti¹, Abdul Hadi², Shahid Ahmed Khan², Abid Ali Minhas⁴
¹Bahria University Islamabad, Pakistan; ²National Institute of Electronics, Ministry of Science & Technology, Islamabad Pakistan; ³Al-Yamamah University, Riyadh, Saudi Arabia
Sessions Description | IGIP Sessions

Development of Curriculum Structure for Basic Courses in Engineering Mathematics
Daniela Velichova
Slovak University of Technology in Bratislava, Slovakia

Study and Application of User Interface Evaluation Techniques: Assessing an Educational Software and Redesigning a Better Interface
Bianca Antonio Gomes¹, Eliane Da Silva Alcoforado Diniz¹
¹Instituto Federal de Santa Catarina - IFSC, Brazil; ²Universidade Federal de Pelotas, Brazil

Using Handheld Mobile System for Teaching Illiterates
M. Samir Abou El-Seoud, Islam A.T.F. Taj-Eddin, Ann Nosseir
British University in Egypt, Egypt

Global Innovation Network for Entrepreneurship and Technology (GINET)
Sul Kassicieh¹, Ramiro Jordan¹, Paulo Franco², Kamil Aqi¹, Roberto Moschetta¹, Alex Lightman⁴
¹University of New Mexico, USA; ²Pontificia Universidade Católica do Rio Grande do Sul, Brazil; ³K&A Wireless, USA; ⁴Innofone, USA

Parallel Session SP-52

Women in Engineering, Partnerships & Professional Development

Session Chair: Renetta Garrison Tull (University of Maryland Baltimore County)

Location: Dubai Room B – Mezzanine Level

Date and Time: Friday 5 December, 10:30-12:00

Active Initiatives to Attract More Women to Engineering: A Case Study
Leticia Rittner, Paula Costa, Veruska Moreira
University of Campinas, Brazil

Do Women Pursue Programs in Engineering? A Case Study from the United Arab Emirates
Ahmed Imran, Mohamed Nasor, Fahar Ghalib Hayati
Ajman University of Science & Technology, United Arab Emirates

Why Girls with an Interest in IT in High-School Do Not Choose IT Career
Tanya Stanko¹, Oksana Zhirosh², Dmitry Krasnikhin¹
¹Innopolis University, Russian Federation; ²Unium, Russian Federation

Relationships between behaviors by applicants and interviewer in interview
Eiji Watanabe¹, Takashi Ozeki², Takeshi Koaham¹
¹Konan University, Japan; ²Fukuyama University, Japan; ³Kinki University, Japan

The Engineering Pavilion – an Academic-Industry Partnership Developing Engineers for the Global Community
Moses Oludayo Tade¹, Nicoleta Maynard¹, Greg Tibbits², Lesley Jolly³, Jolanta Szymakowski¹
¹Curtin University, Australia; ²Strategic Partnerships, Australia; ³University of Queensland, Australia
Sessions Description | IGIP Sessions

Parallel Session SP-53

Learning Culture & Diversity, New Learning Models & Applications

Session Chair: Istvan Simonics (Obuda University)
Location: Dubai Room C – Mezzanine Level
Date and Time: Friday 5 December, 10:30-12:00

Challenges in Global e-Learning: What Does the Literature Tell Us
Barbara Kerr
University of Ontario Institute of Technology, Canada

PDM Supported Engineering Design Education
Andreas Probst1, Detlef Gerhard2
1HTL Ried, Austria; 2TU Wien, Austria

Using Flexible e-Learning in the European Retail
Ludmila Opekarová
VŠTE České Budějovice, Czech Republic

Determinants of Education at Technical Higher Education Institutions
Lenka Hrušková
VŠTE České Budějovice, Czech Republic

Education in IT as a Means of Implementing the Strategy for the Development of the Russian IT Industry up to 2025
Petr Umnov, Dmitry Boltiansky, Dmitry Kondratyev
ANO Innopolis University, Russian Federation

Students’ Data Privacy: How Far it is Protected? Ethical Perspective
Ahmad Qasim AlHamad1, Khaled Issa Al Qawasmi2, Asma Qasim AlHamad3
1Al Fujaira College, United Arab Emirates; 2Zarqa University, Jordan; 3Dammam University, Saudi Arabia

Parallel Session DS-54

Demonstration Session

Session Chair: Maria Teresa Restivo (Universidade do Porto); Alberto Cardoso (Universidade de Coimbra)
Location: Dubai Room D – Mezzanine Level
Date and Time: Friday 5 December, 10:30-12:00

Online Materials’ Testing Tutorial - Contribution for Knowledge Integration
Maria Teresa Restivo1, Tiago Andrade2, Bruno Santos2, José Couto Marques1,2
1Universidade do Porto, Portugal; 2IDMEC-FEUP, Portugal
Sessions Description | IGIP Sessions

Let’s Work with AR in DC circuits
Maria Teresa Restivo1,2, José Rodrigues2, Maria de Fátima Chouzal1,2
1Universidade do Porto, Portugal; 2IDMEC-FEUP, Portugal

Integrated Role-Play Training System for Project Management Education On-Line Group Work Training Environment in Cooperation with an Agent System
Taichi Nakamura, Yuki Tachikawa
Tokyo University of Technology, Japan

Design of Remote Electronic Laboratory
Hakima Mostefaoui, Abdelhalim Benachenhou, Abderrahmane Adda Benattia, Said Farah
University of Mostaganem, Algeria

A User Modeling System for Adaptive Learning
Loc Nguyen
University of Science, Ho Chi Minh City, Vietnam

Demonstration of Online Experimentation Using Wireless Sensor and Actuator Networks
Alberto Cardoso1, Paulo Gil1, Maria Teresa Restivo2, Tiago Andrade2
1University of Coimbra, Portugal; 2University of Porto, Portugal

Labicom.net - the Online Laboratories Platform Demonstration 2014
Igor Titov1, Alexander Glotov2, Jakov Mikolnikov3
1Labicom.net, Russian Federation; 2Bauman Moscow State Technical University (BMSTU), Russian Federation

Parallel Session SS-55

Inter-Institutional Cooperation in Engineering Education

Session Chair: Axel Zafoschnig (Landesschulrat für Kärnten)
Location: Dubai Room E – Mezzanine Level
Date and Time: Friday 5 December, 10:30-12:00

Austrian Technical Colleges on the way to Tertiary Education?
Wolfgang Pachatz
Federal Ministry for Education and Women's Affairs, Austria

Creativity and Innovation Contests
Axel Zafoschnig
IGIP EC, Austria

Cross-Institutional Engineering Projects between Secondary Technical Colleges, Universities and Economy
Gabriele Schachinger
IGIP, Austria
Sessions Description | IGP Sessions

Emergency Management Module: UArctic Network Online Course
Jyri Rajamäki, Risto Hookana, Mika Gröndahl
Laurea University of Applied Sciences, Finland

Inclusion of Young Universities into the Global Academic Community – Example of Innopolis University, Russia
Elmira Khalitova, Dmitry Kondratyev
Autonomous Noncommercial Organization of Higher Education, Innopolis University, Russian Federation

Two Steps Engineering Education Programs in Raw Materials: Alignment of Secondary and Tertiary Education Programs
Peter Moser¹, Helmut Antrekowitsch¹, Wolfgang Pachatz², Alexandra Gmundtner³, Katrin Brugger¹
¹Montanuniversitaet Leoben, Austria; ²Bundesministerium für Bildung und Frauen, Austria; ³HTL Leoben, Austria

Parallel Session SS-56

Competence Development in (Online) Laboratories for a Globalized Professional World

Session Chair: Claudius Terkowsky (TU Dortmund); Dominik May (TU Dortmund)
Location: Ajman Room D – Mezzanine Level
Date and Time: Friday 5 December, 10:30-12:00

On Learning Objectives and Learning Activities to Foster Creativity in the Engineering Lab
Claudius Terkowsky, Tobias Haertel
TU Dortmund University, Germany

The Globally Competent Engineer - What Different Stakeholders Say about Educating Engineers for a Globalized World
Dominik May, A. Erman Tekkaya
TU Dortmund, Germany

Development of a Tele-Operative Testing Cell as a Remote Lab for Material Characterization
Tobias R. Ortelt, Abdelhakim Sadiki, Christian Pleul, Christoph Becker, Sami Chatti, A. Erman Tekkaya
TU Dortmund University, Germany

Emerging Technologies for Personnel Training for IT Industry in Ukraine
Valerii Bykov, Mariya Shyshkina
National Academy of Pedagogical Sciences, Ukraine

Modelling Competences - Developing a Holistic Competence Model for Engineering Education
Dominik May, Philipp Ossenberg
TU Dortmund University, Germany

Program & Speakers Bios

weef2014.org
Sessions Description | IGIP Sessions

Parallel Session WP-61

Work-in-Progress Papers

**Session Chair:** Ieda M. Santos (Emirates College for Advanced Education)

**Location:** Dubai Room A – Mezzanine Level

**Date and Time:** Friday 5 December, 14:00-15:30

Creating and Sustaining Continuous Quality Improvement towards Accreditation: Lessons Learned

Baba El-Yakubu Jibril, Omar Houache
Sultan Qaboos University, Oman

Factors Affecting Educational and Occupational Trajectories of Women in Engineering in Five Comparative National Settings: Jordan, Malaysia, Saudi Arabia, Tunisia and the United States

Ashley Ater Kranov¹, Jennifer DeBoer², Nehal Abu-Lail³
¹Global Professional Skills Assessment, LLC, and WEPAN, USA; ²MIT, USA, IFEES; ³Washington State University, USA

Utilization of Cloud Technologies in e-learning System during Campus-wide Failure Situation

Muhammad Wannous¹,², Nakano Hiroshi¹, Moutasem Shafa Amry¹, Takayuki Nagai¹
¹Kumamoto University, Japan; ²International University for Science and Technology, Syria

Work-in-Progress: Institutional Policies on Teacher Training and Engineering Teachers Training

Luciana Guidon Coelho, José Aquiles Baesso Grimoni
University of São Paulo, Brazil

Work-in-Progress: Pedagogical Development in Engineering: A collaborative Project between Saudi Arabia and Sweden

Anders Berglund¹, Arnold Pears¹, Aletta Nylen¹, Nimir Saleh²
¹Uppsala University, Sweden; ²Al Baha University, Saudi Arabia

Parallel Session FP-62

Impact of Globalization and Ethics in Engineering Education

**Session Chair:** Christina Kay White (Singapore-MIT Alliance for Technology and Research)

**Location:** Dubai Room B – Mezzanine Level

**Date and Time:** Friday 5 December, 14:00-15:30

Beyond the Engineer of 2020

Christina Kay White, Daniel Hastings
Singapore-MIT Alliance for Technology and Research, Singapore
Sessions Description | IGIP Sessions

The Characteristic Dilemmas of Managing Engineering Education
Pavel Andres, Alena Vališová
Czech Technical University in Prague/Masaryk Institute of Advanced Studies, Czech Republic

Innovative Agile Software Engineering Education: Topics, Practices, Tools, Labs, and Outcomes
Vladimir Uskov, Harika Govada
Bradley University, USA

Engineering Education in the 21st Century
Ralph Dreher¹, Gudrun Kammasch²
¹University of Siegen, Germany; ²University of Applied Science - Beuth-Hochschule- Berlin, Germany

Laying the Foundation with Innovations in Engineering Education
Milind Madhav Kulkarni
ITM Group of Institutions, India

Parallel Session FP-63
Professional and Continuing Education

Session Chair: Julia Ziyatdinova (Kazan National Research Technological University)
Location: Dubai Room C – Mezzanine Level
Date and Time: Friday 5 December, 14:00-15:30

A Virtual Community of Practice to Support Faculty Efforts to Adopt Research-based Instructional Approaches
Milind Madhav Kulkarni¹,²
¹Rowan University, USA; ²Arizona State University, USA

Computer Aided Teaching of Elliptic Curve Cryptography
Stefan Rass, Johannes Winkler
Alpen-Adria Universität Klagenfurt, Austria

Educational Proposals for Technological Careers in Developing Countries
Federico Pacheco
National Technological University, Argentina

Pedagogical Facilitation of Students’ Personal Development in the Course of Engineering Pedagogy
Petr Osipov, Julia Ziyatdinova
Kazan National Research Technological University, Russian Federation

Development and Application of Intelligent Tutoring System for Training of Engineers
Gulnara Smirnova, Rustem Sabitov, Shamil Sabitov, Bulat Sirazetdinov
KNRTU-KAI, Kazan, Russian Federation
Sessions Description | IGIP Sessions

Parallel Session FP-64
Research in Engineering Pedagogy

Session Chair: Claes Fredriksson (Granta Design)
Location: Dubai Room D – Mezzanine Level
Date and Time: Friday 5 December, 14:00-15:30

Expert vs. Novice: Problem Decomposition/Recomposition in Engineering Design
Ting Song, Kurt Henry Becker
Utah State University, USA

Research Laboratories and Training Undergraduate Students from the Freshman Level to Produce International Conference-Level Publications
Victor Murray, Cecilia Matsuno
Universidad de Ingeniería y Tecnología, Peru

Applying the Top-down Approach to Beginners in Programming Language Education
Daisuke Saito, Tsuneo Yamaura
Tokai University, Japan

Female Characteristics and Requirements in Software Engineering in Mechanical Engineering
Denise Gramß, Timo Frank, Sebastian Rehberger, Birgit Vogel-Heuser
Technische Universität München, Germany

Teaching Wireless Communication using Modern Tools
Rajeshwari Hegde, Manjunath P S, Nagabhushana B S
BMS College of Engineering, India

Parallel Session SS-71
Special Session: Talk about Teaching 2014 (TaT’14)

Session Chair: Charles Pezeshki (Washington State University); Fernando Maciel-Barbosa (Universidade do Porto)
Location: Dubai Room A – Mezzanine Level
Date and Time: Friday 5 December, 16:00-17:30

Analysis of the Program for Continuing Education of Technical Teachers on the Basis of Graduates’ Feedback Results
Tiia Rüütmann, Hants Kipper
Tallinn University of Technology, Estonia

Mobile Devices in the Classroom: Emirati Students’ Perceptions of Usage and Policies
Ieda M. Santos1, Otavio Bocheco2
1Emirates College for Advanced Education, United Arab Emirates; 2Instituto Federal Catarinense, Câmpus Rio do Sul, Brazil
Sessions Description | IGIP Sessions

Elite Engineering Education Programme Development Based On CDIO Standards
Polina Mozgaleva, Oxana Zamyatina, Kseniya Gulyaeva
Tomsk Polytechnic University, Russian Federation

Making the Case for Alternative Assessment: A Writing-Based Rubric for Self-Reflection and Improved Learning
Teresa Lee Larkin
American University, USA

From Traditional to Blended Learning: A Signals and Systems Course – First Results
Ana Maria Beltran Pavani, Guilherme Penello Temporão
Pontifícia Universidade Católica do Rio de Janeiro, Brazil

Parallel Session FP-72
Diversity Programs and Initiatives

Session Chair: Alberto Casado Lordsleem Jr. (Universidade de Pernambuco)
Location: Dubai Room B – Mezzanine Level
Date and Time: Friday 5 December, 16:00-17:30

Variant of Realization of Bachelor’s Degree Program at the University of Chemical Technologies
Olga Belyaeva, Valeriy Solomonov, Alla Frolkova
Lomonosov Moscow University of Fine Chemical Technology (MUTHT), Russian Federation

Creating New Technical Universities in Emerging Countries
Russel C. Jones
World Expertise LLC, USA

Internationalizing Engineering Education: a Language Learning Approach
Artem Bezrukov, Julia Ziyatdinova
Kazan National Research Technological University, Russian Federation

Continuing Education: Benchmarking Collaborative Process in Civil Construction Engineering
Alberto Casado Lordsleem Jr.¹, Suenne Andressa Correia Pinho¹, Emanuelle Pontes Falcão²
¹Polytechnic School of Pernambuco University, Brazil; ²Associação Brasileira de Cimento Portland, Brazil

Higher Education Internationalization: The Erasmus-Mundus Network Added Value
Abdelaziz Bouras¹, Nopasit Chakpitak²
¹Qatar University, Qatar; ²Chiangmai University, Thailand
Sessions Description | IGIP Sessions

Parallel Session FP-73

Learning Culture and Diversity

Session Chair: Elmira Khalitova (Innopolis University)
Location: Dubai Room C – Mezzanine Level
Date and Time: Friday 5 December, 16:00-17:30

Contribution of Shell Eco-Marathon Engineering Design Experience to Soft Skills Development: A Qualitative Analysis in the Asian Context
Mahmoud Abdulwahed, Sara Ahmad, Mazen O. Hasna, Saud Ghani, Mohieddine Benammar
Qatar University, Qatar

Externally Funded Research, Development and Innovation Projects as Learning Environments. Case: The MOBI project
Jyri Rajamäki
Laurea University of Applied Sciences, Finland

A Contribution to the Method of Automatic Identification of Human Emotions by Using Semantic Structures
Susana A Arias¹, Hector F Gómez¹, José Barbosa¹, Sylvie Ratté², Juan Carlos Torres-Díaz³, Pablo Vicente Torres-Carrion¹,
Juan Manuel Garcia¹, Franco Guamán Bastidas¹
¹Universidad Técnica Particular de Loja, Ecuador; ²ETS, Montreal, Canada

A Comparative Study of Engineering Education Practices between Beijing Institute of Technology and Marquette University
Qing Fei, Haoping Bu, Ru Lai
Beijing Institute of Technology, P.R. China

Training of Russian Technical College Students for International Education Activities
Tatiana Polyakova, Irina Tishkova
Moscow Automobile and Road Construction State Technical University (MADI), Russian Federation

Parallel Session FP-74

Digital and Online Engineering Education

Session Chair: Buddhi Kanmani (BMS College of Engineering)
Location: Dubai Room D – Mezzanine Level
Date and Time: Friday 5 December, 16:00-17:30

Program Educational Objectives: A Graphical Representation
Buddhi Kanmani
BMS College of Engineering, India
Sessions Description | IGIP Sessions

Managing Interaction Skills in the Engineering Pedagogy Programme
Pavel Andres, Dana Dobrovska
Masaryk Institute of Advanced Studies, CTU Prague, Czech Republic

Content Analysis and Visualizations, Tools for Social Enhanced Learning Environment
Kirsi Irmeli Kuosa, Juho Koro, Anne-Maritta Tervakari, Jukka Paukkeri, Meri Kailanto
Tampere University of Technology, Finland

A Tool for Assessing Ethical Awareness and Reasoning Development of Engineering Students
Ivan Esparragoza, Sadan Kulturel-Konak, Abdullah Konak, Gul Kremer
The Pennsylvania State University, USA

The Concept of the Integrated Management System of the Organization and Control of Knowledge in Training Engineers
Gulnara Smirnova1, Rustem Sabitov1, Shamil Sabitov1, Nataliya Elizarova1, Sergei Grigoriev2
1KNRTU-KAI, Kazan, Russian Federation; 2MCPU, Moscow, Russian Federation

Parallel Session SS-81

Special Session: Talk about Teaching 2014 (TaT’14)

Session Chair: Teresa Lee Larkin (American University);
Ana Maria Beltran Pavani (Pontifícia Universidade Católica do Rio de Janeiro)

Location: Dubai Room A – Mezzanine Level
Date and Time: Saturday 6 December, 09:00-10:30

Designing Game Methods of Educational Systems for Maritime Specialists Advanced Training
Leonid Meyler, Sergey Moiseenko
Baltic Fishing Fleet State Academy of the Kaliningrad State Technical University, Russian Federation

Developing Entrepreneurs the Future Needs Through Systematic Application of Problem-Based Learning
Charles Pezeshki
Washington State University, USA

Virtual and Remote Laboratory Implementation in Engineering Education and Research: Sharing, Use and Evaluation of Online Experiment Resources
James Uhomoibhi1, Fatma Ubwa2, Irene Ibhuuiyan1, Teresa Restivo3
1Ulster University, UK; 2Open University of Tanzania, Tanzania; 3FEUP, Portugal

Generating Solar Electricity by Solar Concentrators for Web-Based Learning in Rural Areas in Tanzania: Issues of Practice and Impacts
James Uhomoibhi1, Paul Damasen2
1Ulster University, UK; 2Open University of Tanzania, Tanzania
Sessions Description | IGIP Sessions

**Parallel Session FP-82**

**Diversity in Engineering Careers**

*Session Chair:* Saira Dawer Baig (Texas A&M University Qatar)

*Location:* Dubai Room B – Mezzanine Level

*Date and Time:* Saturday 6 December, 09:00-10:30

**Factors Related to the Early Career Settlement of Male and Female Engineering Graduates in Korea**

Myongsook Susan Oh

Hongik University, South Korea

**Value System and Realisation of Personal Potential of Female Engineering Students in Russia. The Case of the Kazan National Research Technological University**

Inna Mikhailovna Gorodetskaya, Farida Tagirovna Shageeva

Kazan National Research Technological University, Russian Federation

**The Dynamics of Impediments to the Flourishing of Engineering as a Career for Women**

Saira Dawer Baig, Muhammad Zeeshan Shakir, Khalid Qaraqe

Texas A & M University at Qatar, Qatar

**A Pictorial Mobile-based Communication Application for Non-Verbal People with Autism**

Samar El-Seoud1, AbdelGhani Karkar1, Jihad Al Ja'am2, Omar Karam1

1Brithsh University in Egypt, Egypt; 2Qatar University, Qatar

**Parallel Session FP-83**

**Digital Education and Collaborative Learning**

*Session Chair:* Tanya Stanko (Innopolis University)

*Location:* Dubai Room C – Mezzanine Level

*Date and Time:* Saturday 6 December, 09:00-10:30

**Teacher’s Learning Analytics Tools in Social Media Enhanced Learning Environment**

Anne-Maritta Tervakari, Kirsi Irmeli Kuosa, Juho Koro, Jukka Paukkeri, Meri Kailanto

Tampere University of Technology, Finland
Sessions Description | IGIP Sessions

Evaluating Adaptive Learning Model
Loc Nguyen
University of Science, Ho Chi Minh City, Vietnam

Technology in Learning and Teaching: Getting the Right Blend for First Year Engineering
Vineetha Kalavally, Chang Lun Chan, Boon How Khoo
Monash University Sunway, Malaysia

Integrating Social Web and e-Learning to Enhance Cooperation in the Building Sector
Federica Longo¹, Sonia Santoro¹, Alessandra Esposito², Luciano Tarricone², Marco Zappatore²
¹Alba Project s.r.l., Italy; ²University of Salento, Italy

Introduction of OER at the Medical University of Graz
Herwig Erich Rehatschek, Ursula Leopold, Stefan Kerschbaumer
Medical University of Graz, Austria

Parallel Session WP-84

Work in Progress

Session Chair: Ieda M. Santos (Emirates College for Advanced Education)
Location: Dubai Room D – Mezzanine Level
Date and Time: Saturday 6 December, 09:00-10:30

Work-in-Progress: Collaborative Platform for Systems Engineering
Alexis François, Antoine Lanthony
ISMEP-SUPMECA, France

A Direct Method for Teaching and Measuring Engineering Professional Skills for Global Workplace Competency: Adaptations in Progress at Two Universities in the Gulf Region
Ashley Ater Kranov¹, Maurice Danaher¹, Baba Jabril¹
¹Global Professional Skills Assessment, LLC, USA; ²Zayed University, United Arab Emirates; ³Sultan Qaboos University, Oman

Work-in-Progress: Engineering and Project-Based learning as the focus of technology education in Colombian high schools
Nicolas Felipe Gutierrez Paez, Marco Antonio Calvo Caro, Jhon Jairo Ramirez Echeverry, Fredy Andrés Olarte Dussan
Universidad Nacional de Colombia, Colombia
Sessions Description | IGIP Sessions

Parallel Session SS-91

Special Session: Talk about Teaching 2014 (TaT’14)

Session Chair: Polina Mozgaleva (Tomsk Polytechnical University);
James Uhomoibhi (Ulster University)

Location: Dubai Room A – Mezzanine Level

Date and Time: Saturday 6 December, 11:00-12:30

Social Presence in Collaborative Learning: Analysis of Interactions in Knowledge Building Community

Myint Swe Khine, Jeda Santos
Emirates College for Advanced Education, United Arab Emirates

On the Use of a 3D printer in Mechatronics Projects

Paulo Abreu, Maria Teresa Restivo, Manuel Rodrigues Quintas, Tiago Faustino Andrade, Bruno Santos, Fátima Chouzal, José Rodrigues
IDMEC - FEUP, Portugal

Virtual Internships Development in Engineering Education - A Fruitful Cooperation between Students, Academia and Companies

Marta Filipa Cortesão, Giovanna Campogiani, Patrycja Książek, Yury Smirnov
Board of European Students of Technology, Portugal

Virtual Reality: A Useful Tool in Electrical Engineering Education

M. T. Valdez1, Maria João Martins2, C. Machado Ferreira1, Fernando Maciel-Barbosa3
1Instituto Superior de Engenharia de Coimbra, Portugal; 2Academia Militar, Portugal;
3Universidade do Porto & INESC TEC, Portugal

Parallel Session FP-92

New Trends in Graduate Education

Session Chair: Moses Oludayo Tade (Curtin University)

Location: Dubai Room B – Mezzanine Level

Date and Time: Saturday 6 December, 11:00-12:30

Cooperative Education Development: Towards ICT Reference Models

Abdelaziz Bouras1, Laurent Veillard2, Stephanie Tralongo2, Michel Lenir2
1Qatar University, Qatar; 2Université Lumière de Lyon, France

Innovative Approaches to Gamification of Software Engineering Education: Research and Outcomes

Vladimir Uskov, Bhuvana Sekar
Bradley University, USA
Sessions Description | IGIP Sessions

Beyond the Lecture: Using Interactive Video Scenes in MOOCs
David Guralnick
Kaleidoscope Learning, USA

An AGEP Program Analysis: Minority Graduate Student Diversity in STEM Disciplines at Three Universities
Erika Tesla Aparakakankanage¹, Renetta Garrison Tull²
¹University of Maryland College Park, USA; ²University of Maryland Baltimore County, USA

The Use of Graphostatic Method for the “Colloid Chemistry” Course Studies
Irina Razina, Roza Bakeeva
Kazan National Research Technological University, Russian Federation

Parallel Session FP-93
Professional and Continuing Education

Session Chair: Tatiana Polyakova (Moscow Automobile & Road Construction State Technical University)
Location: Dubai Room C – Mezzanine Level
Date and Time: Saturday 6 December, 11:00-12:30

IGIP History: A Glance from the 21st Century
Viacheslav Prikhodko, Tatiana Polyakova
MADI, Russian Federation

Engineering Programs for Engineers – A Global Higher Education Perspective
Victor Barros¹, Melany Ciampi², Claudio Brito², Rosa Vasconcelos³, Luis Amaral⁴
¹Science and Education Research Council, Portugal; ²Safety, Health and Environment Research Organization, Brazil;
³Science and Education Research Council, Brazil; ⁴Universidade do Minho, Portugal

Media Usage Survey: Overall Comparison of Faculty and Students
Gerd Gidion¹, Luiz Fernando Capretz², Ken Meadows³, Michael Grosch¹
¹Karlsruhe Institute of Technology, Germany; ²Western University, Canada

Creativity Development as Indisputable Component of Long-life Education
Tatiana Tkacheva, Zoya Sazonova
MADI STU, Moscow, Russian Federation

Parallel Session SP-94
Research in Engineering Pedagogy

Session Chair: Milind Madhav Kulkarni (ITM Group of Institutions)
Location: Dubai Room D – Mezzanine Level
Date and Time: Saturday 6 December, 11:00-12:30
Sessions Description | IGIP Sessions

**An Experience in the Use of the Jigsaw Technique to Teach Object-Oriented Design**

Jose Antonio Pow-Sang  
Pontificia Universidad Catolica del Peru, Peru

**Bridging the Gap between Teaching and Practicing Engineering: How Far our Graduates are from Professionalism?**

Mohammed Salameh Ibbini  
Jordan University of Science and Technology, Jordan

**Innovation and Entrepreneurship Courses for Engineering Students in the MENA Region for Enhancement of Sustainability Literacy**

Abdel F. Isakovic  
Khalifa University, United Arab Emirates

**Online Engineering Courses: Benchmarking Quality**

Maurice Danaher  
Zayed University, United Arab Emirates

**Investigating the Extent to Which Non-Technological Aspects of Knowledge Management Are Integrated into a Financial Service Knowledge Management System**

Malika Kalam, Olufunmilola Deborah Ajumobi, Michael Kyobe  
University of Cape Town, South Africa

**IGIP Workshop 332**

**Helping Teachers Integrate and Use ICT Effectively in their Teaching Practice: Exploration of the Pedagogical Added Value of Technology Using an Innovative Tool**

**Workshop Leaders:** Genny Villa (Université de Montreal); Jacques Viens (Université de Montreal)

**Location:** Dubai Room E – Mezzanine Level

**Date and Time:** Thursday 4 December, 14:00-17:30

**Summary** This workshop aims at: 1) enabling participants to reflect on and become aware of their e-learning culture and the impact it has on their teaching practice; 2) allowing to demonstrate and facilitate participants’ understanding regarding where the pedagogical added value of technology is; and 3) boosting some change in their teaching or their intentions to integrating ICT in their practice. This workshop is addressed to university professors, teachers’ trainers, teachers, and student teachers or anyone else attending the ICL conference that is interested in the topic. Participants are invited to bring a teaching syllabus of a course or an outline for an instructional activity into which they would like to integrate ICT; and (optional) their laptop.
Sessions Description | IGIP Sessions

**IGIP Workshop 333**

**Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills**

**Workshop Leader**: Nikos Mourtos (San Jose State University)

**Location**: Ajman Room D – Mezzanine Level

**Date and Time**: Thursday 4 December, 14:00-17:30

**Summary**: This workshop will enable delegates to design effective engineering courses to teach students' process skills, such as problem solving, design, lifelong learning, critical thinking, self-assessment, change management, communication and collaboration, etc. The workshop format will combine direct instruction, individual practice, working in small groups, group sharing, and discussion. Participants will have an opportunity to design a new engineering course or revise an existing course of their choice, using their familiar technical content as a vehicle to teach students process skills. This will involve defining specific and measurable course learning objectives, identifying appropriate assessment methods for each learning objective, and most importantly, choosing appropriate instructional methods to ensure their students' development of these skills. Participants will be able to develop their own tools and processes to suit their specific programmatic and curricular needs.

**IGIP Workshop 138**

**Teaching Engineering Ethics and Professional Responsibility – Techniques and Methods**

**Workshop Leader**: Nael Barakat (Grand Valley State University)

**Location**: Dubai E – Mezzanine Level

**Date and Time**: Friday 5 December, 14:00-17:30

**Summary**: This workshop address teaching engineering ethics and professional responsibility as well as societal impact of engineering, which are topics required by accreditation standards, to be integrated and assessed within the engineering curriculum. The workshop will expose participants to different topics and techniques in teaching engineering ethics and professionalism. Participants will be engaged in exercises guiding them to plan their offering of engineering ethics to engineering students, at their respective institutions, with consideration of the unique cultural and societal aspects of different geographical locations.

**IGIP Workshop 400**

**Skills for Effective Guided Learning - Tools for Achieving Ambitious Learning and Innovation Goals**

**Workshop Leader**: Pablo Franzolini (Enzyme Advising Group); Barbara Kieslinger (Zentrum für Soziale Innovation)

**Location**: Dubai Room E – Mezzanine Level

**Date and Time**: Saturday 6 December, 9:00-12:30

This workshop will provide participants with a conceptual framework as well as simple and practical coaching tools they can use for effective guided learning, and align their learning objectives with their intrinsic motivation and identified ambitious (empowering) objectives. Presenters will share the latest development on Technology Enhanced Coaching from the EmployID project and discuss the advances and results to be expected in the next year. The workshop will start with an initial input stemming from the organizers about innovative coaching concepts and tools. Practical as well as more advanced concepts that are still at developmental stage will be presented and discussed. Participants will be exploring a set of concepts and tools in groups and can directly experiment a few approaches. In a next step, the workshop outcome will be consolidated and experiences will be shared. In a joint effort, the potential benefits shall be highlighted and recommendations for further information and uptake will be given.
Sessions Description | Regional Sessions

**India Workgroup Assembly**

**Speakers**
- R. Murugesan (Anna University of Technology / ISTE)
- N.R. Shetty (Bangalore University)
- R. Natarajan (IIT Madras)
- Rajneesh Arora (Punjab Technological University)
- K.P. Isaac (AICTE)

**Location:** Dubai Room C – Mezzanine Level  
**Date and Time:** Wednesday 3 December, 14:00-15:30

**Summary**
The Indian Society for Technical Education (ISTE) is a professional society representing the faculty members of technical institutions in the country, with activities ranging from leadership, faculty and student development; collaborative activities with industry; accreditation; and international collaboration. ISTE is a founding member of IFEES; and the Indian Engineering Deans’ Council (IEDC) and India Chapter of Global Engineering Deans Council (GEDC) have been established under the umbrella of ISTE. Engineering Deans and senior faculty members have been attending and making presentations at WEEF over the years. In line with the overall theme of the 2014 conference: Engineering Education for a Global Community, the ISTE session will focus on Indian perspectives on engineering education challenges and opportunities. Speakers will make presentations on relevant topics including the role of ISTE in promoting engineering education, quality assurance, current challenges and opportunities, India as an emerging destination for technical education, and innovations in engineering education in India.

**East and Southeast Asia Workgroup Assembly**

**Moderator**
Khairiyah Mohd Yusof (Universiti Teknologi Malaysia)

**Location:** Dubai Room D – Mezzanine Level  
**Date and Time:** Wednesday 3 December, 14:00-15:30

**Summary**
The purpose of this session is to form a community of practitioners who can support each other in enhancing engineering education through systematic and scholarly practices that have impact in developing quality human capital. Facilitators will engage delegates to provide ideas and input to start the community and develop a databank of resources, experts and leaders in engineering education that can contribute expert advice, consulting, research and training courses or materials. Along with the common issues and existing local practices, support required in developing and empowering local champions in engineering education within the region will be discussed. Potential collaboration on research in engineering education will also be explored. Participation in this session is not limited to delegates from Southeast and East Asia, although more focus will be on the region. Anyone interested in contributing to the formation of the community in the form of resources, expertise, leadership or networking is invited.
Sprechen Sie MATLAB?

Over one million people around the world speak MATLAB. Engineers and scientists in every field from aerospace and semiconductors to biotech, financial services, and earth and ocean sciences use it to express their ideas. Do you speak MATLAB?

Modeling electric potential in a quantum dot. Contributed by Kim Young-Sang at HYU.

This example available at mathworks.com/lse

MATLAB®
The language of technical computing.
Speakers Bios

Arranged in alphabetical order from last name

**Aboul-Ela, M. Badr**
Executive Director  
Commission for Academic Accreditation  
Vice-President  
Arab Network for Quality Assurance in Higher Education  
Gulf Network for Quality Assurance in Higher Education  
United Arab Emirates

Dr. Aboul-Ela earned his B.Sc. and M.Sc. in Agriculture from Cairo University, and his Ph.D. from the University of Aberdeen, UK, in 1980. He held several academic administrative positions at Mansoura University and UAE University, as Chair, Director of Graduate Studies, and Dean. Through his research, he won several research prizes and awards including National Prize for Research, Egypt, 1978; Abdel-Hamid Showman’s Prize, 1988; and Presidential Distinction Medal, for Excellence in Research, 1994. He was one of the founding members of the Commission for Academic Accreditation (CAA), in the UAE when established in 2000, and was appointed as its Director in February 2007. Dr Aboul-Ela participated in numerous institutional and program accreditation review teams in the UAE, Oman, Saudi Arabia, and Bahrain.

**Agrawal, Ashok**
Managing Director for Professional Services  
Director of Outreach and Engagement  
American Society for Engineering Education  
United States of America

Agrawal, Ashok, D.M., P.E., is the managing director for professional services and director of outreach and engagement at the American Society for Engineering Education. Dr. Agrawal holds a Doctorate in Management degree from the University of Maryland University College, an MS degree in Materials Science, an MS degree in Mining Engineering from the University of Kentucky. Prior to assuming his present position, he was the vice president for Academic Affairs at St. Louis Community College at Florissant Valley. Over the last 35 years, Dr. Agrawal has served as a faculty member and administrator of engineering science and engineering technology Associates and Baccalaureate programs, and has held every professorial and administrative position from instructor to chief academic officer. Dr. Agrawal has been honored with numerous awards and recognitions. He is the recipient of the 2003 Governor’s Award for Excellence in Teaching. Agrawal is an ASEE Fellow and has served as a Program Officer at the Division of Undergraduate Education at the National Science Foundation. Agrawal has also served on several study committees of the National Academy of Engineering (NAE) committees focused towards advancing engineering education.

**Al-Atabi, Mushtak**
Dean of School of Engineering  
Taylor’s University  
Malaysia

Professor Mushtak Al-Atabi is currently the Dean of School of Engineering at Taylor’s University, Malaysia. His research interests include thermofluids, renewable energy, biomechanical engineering, engineering education and academic leadership. He is an Honorary Chair at the School of Mechanical Engineering of the University of Birmingham (UK) and the Editor-in-Chief of Journal of Engineering Science & Technology. Professor Al-Atabi published two books, “Think Like an Engineer” and “Driving Performance” and he has numerous research publications, awards and honours. He is a Fellow of the Institution of Mechanical Engineers (FIMechE) and a member of the Global Engineering Deans Council.

Professor Al-Atabi is an innovative educator; he pioneered the CDIO (Conceive, Design, Implement, Operate) and delivered the first MOOC (Massive Open Online Course) in Malaysia. He trains executives from Multinational Corporations including banks and energy companies.
Speakers Bios

AlHammadi, Zainab
American University in Dubai
United Arab Emirates

Zainab AlHammadi is a 21 year old proud to be Emirati, currently a senior student at the American University in Dubai studying her Bachelors degree in Mechanical Engineering on a scholarship from Dubai Aluminium (DUBAL). Extracurricular interests include a passion for photography as well as volunteering for various charitable organizations. Zainab is also interested in public speaking and has a dream of being a TED speaker.

Zainab has recently received a degree from the AlMaktoum College in Dundee, Scotland in Leadership, Women in Islam and Multi-culturism. She hopes to use her degree to teach young women the importance of education and having a voice in her community.

Althani, Maryam
Senior Manager
Dubai Electricity and Water Authority (DEWA)
United Arab Emirates

Maryam Althani is a Qualified Emirati Engineer holds BS in Electrical Engineering from UAE University (1998) and EMBA from Zayed University (2006). Maryam is currently serving as Senior Manager for corporate Partnership Department at Dubai Electricity and Water Authority (DEWA).

Maryam is an eminent professional on various Boards local and international such as Emirates Science Club, Dubai Quality Group, International Mensa and IEEE. Maryam has served as a Board Member of Dubai Quality Group 2009-2010 and was elevated to the position of Secretary General in 2011-2012. She is currently serving as regional coordinator for the IEEE Women in Power. She also served as the section chair of UAE section in 2012 & 2013. She formed the IEEE Women in Engineering Group (WIE) in UAE in 2003 and was the Region 8 (Europe, Africa and Middle East) WIE coordinator in 2007 & 2008 and the group achieved the best growth award across the globe during both years. She was serving the WIE global liaison for PES in 2010, 2011 and 2012.
Speakers Bios

Amon, Cristina
Dean of Applied Science & Engineering Department
University of Toronto
Canada

Cristina Amon earned her Mechanical Engineering degree from Simon Bolivar University and Sc.D. from MIT in 1988. She joined the University of Toronto in 2006 as Dean of the Faculty of Applied Science & Engineering and Alumni BioEngineering Professor in Mechanical and Industrial Engineering. She is responsible for strategic and visionary leadership of one of the world’s most distinguished Engineering Faculties with over 5000 undergraduate and 2000 graduate students. Prior to UoT, she was the Raymond Lane Distinguished Professor and Director of the Institute for Complex Engineered Systems at Carnegie Mellon University. A pioneer in the development of Computational Fluid Dynamics, her research addresses thermal transport in nanoscale semiconductors, energy systems, and biomedical devices.

Cristina Amon received numerous awards, including ASME Gustus Larson Memorial Award, ASEE Westinghouse Medal and Heat Transfer Memorial Award. She was recognized among Canada’s most Influential Women in 2012 and awarded SWE’s highest honour. She was inducted to four academies: Canadian Academy of Engineering, Spanish Royal Academy, Royal Society of Canada and U.S. National Academy of Engineering, elected fellow of all major professional societies in her field, and contributed 350 refereed articles in education and research literature.

Active in professional societies and executive boards, Cristina Amon is Director of MKS Board and served as Chair of the Global Engineering Deans Council, Chair of AAAS Engineering, and President of SWE Pittsburgh; on NSF, NRC and NAE panels and external advisory boards including Stanford, UCLA, UPenn, UIUC and Waterloo.

Andrew, Theophilus
Founder and Vice President
Board of South African Society for Engineering Educators
South Africa

Professor Theo Andrew initially qualified in electrical engineering and worked, lectured, and consulted in this field for over 29 years. He is a Fellow of the South African Institute of Electrical Engineers (SAIEE), and served as its KZN provincial branch chair and as one of its national vice-presidents. He is also a member of the International Society for the Systems Sciences (ISSS) and a founding member of the Board of the South African Society for Engineering Educators (SASEE), and currently serves as its vice president. Theo is a member of the Higher Education Quality Council of South Africa, and a member of the education committee of the Engineering Council of South Africa (ECSA). He is a recent member of the UNESCO Chair in Sustainable Urban Quality and Culture. Theo holds a PhD in the area of rural telecommunications planning from the University of Natal, and serves as a specialist reviewer for the National Research Foundation (NRF) and the EU funded EUROSA project. He was the leader of the NRF funded Research Unit in ICT and Development, and the manager of the Telkom-Ericsson Centre of Excellence in Rural Telecommunications at the Durban Institute of Technology. He has published in several international journals, and is also on the editorial board of international journals. Theo has served a total of over 15 years as Dean of the Faculty of Engineering and the Built Environment (EBE) at four institutions. He is the current Executive Dean at the Durban University of Technology.
Speakers Bios

Arora, Ranjeesh
Vice Chancellor
Punjab Technical University
India

Dr. Arora graduated as an electrical engineer from Indian Institute of Technology (IIT). Awarded a Dutch scholarship for advanced research and went to Technical University of Eindhoven, Netherlands. He has a PhD in Integrated Energy Systems from IIT. He started his career in Dept. of Electronics at Guru Nanak Dev University, where he formed the Department of Placement. He held positions as Director Placements, Dean Alumni Affair and Principal where he managed accreditation for all B.Tech programs from National Board of Accreditation.

He is Chairman & Member of various committees constituted by University Grants Commission & All India Council for Technical Education. He was on the board and governing bodies of IIT, and presently on the board & governing bodies of NBA; Punjab State Council of Science & Technology; National Institute of Technical Teachers Training & Research; Punjab School Education Board; Punjab State Board of Technical Education & Industrial Training; Pushpa Gujral Science City; Punjab Health System Corporation; and Sardar Swarn Singh Institute of Renewable Technology.

Currently, he is Vice Chancellor of PTU. Under his leadership, PTU received the e-India 2010 Award for best ICT enabled University of the Year & for Best Open & Distance Learning Initiative. He has been conferred with Dayanand Munjal Award for Manager of the Year 2011 by Ludhiana Management Association. One of his initiatives has been Technology Education Quality Improvement Program in collaboration with the World Bank wherein he managed grants for colleges affiliated to PTU. Recently, he was awarded for his contributions to Education by World Chancellor and Vice Chancellors Congress 2014.

Ashmawy, Alaa K.
Professor of Civil Engineering
Dean of the School of Engineering
American University in Dubai
United Arab Emirates

Dr. Alaa K. Ashmawy is Professor of Civil Engineering and Dean of the School of Engineering at the American University in Dubai (AUD). Prior to joining AUD, he had held teaching and research appointments at the University of South Florida in Tampa (USF), Florida, and the Georgia Institute of Technology in Atlanta, Georgia. He earned his Master’s and Ph.D. degrees from Purdue University in West Lafayette, Indiana, USA, and his Bachelor’s degree with Distinction from Alexandria University in Egypt.

He has been a member of the Global Engineering Deans Council (GEDC) Executive Committee since 2009, and was elected in 2011 as GEDC Secretary/Treasurer. He is a Program Evaluator (PEV) for ABET’s Engineering Accreditation Commission, and an active member on numerous regional and international committees on engineering accreditation, curriculum, and professional licensure. Dr. Ashmawy is the recipient of the 2004 Jerome Krivanek Distinguished Teacher Award at USF, and the 2014 President’s Institutional Effectiveness Award at AUD. He has authored three book chapters, and more than 50 technical papers in refereed journals and conferences.
Speakers Bios

Albani, Alex
Associate Professor of Architecture
American University in Dubai
United Arab Emirates

Alex Albani is an architect and an academic with 20 years of combined international experience. He began his career teaching computer applications in architecture at the University of California at Berkeley where he earned both his M.Arch and M.A. in Design. He was a CADD/BIM specialist and a store designer for multinational corporations, which included Gap Inc., Louis Vuitton, and Mexx. He began teaching CADD part time at AUD in 2007 while on a BIM consulting assignment for Dubai Festival City and joined full time in 2008 with the purpose of introducing BIM into academia.

Alex gained valuable CADD/BIM and design/build experience working on projects that ranged from creating and driving design/construction standards and policies to phasing upgrades and managing smooth technology focused transitions across Europe, Japan, and the Middle East. His CADD portfolio includes Gap stores designed and built in the UK, France, Germany, and Japan between 1999 and 2004; Mexx flagships designed and built in Casablanca, Beirut, Riyadh, and Dubai between 2005 and 2007.

Alex's contributions in academia include the ICD (Integrated Computational Design) concentration in interior design and the introduction of BIM as a core subject in architecture at AUD. He developed six new courses and was responsible for AUD’s MoU with Autodesk and for setting up AUD as the only academic Autodesk Authorized Certification Centre in the Middle East. He actively promotes BIM professional certification and BIM as the new form of practice to his students and to the regional AEC industry through AUD's Design Centre as well as the Emirates BIM user group.

Azayem, Kamal M.
Mechanical Engineering Expert
Dubai Municipality Building Department
United Arab Emirates

Graduated from Kuwait University in 1988 with a Master of Science Degree in Mechanical Engineering and member of many professional associations and societies. Working at present as a Mechanical Engineering Expert in Dubai Municipality Building Department. Within DM his main responsibilities is to coordinate and setup a green building regulations and specifications to be applied in Dubai. In 1987 worked as teaching assistance and Head of Office of Consultations and Career Development in Kuwait University. In 1992 worked as Head of Mechanical Section in a Consultancy office in Jordan. Expertise in Sustainability, Green Buildings, Building Engineering Services, Management and Planning, Quality and ISO system and BIM and CADD Systems.
Speakers Bios

Astatke, Yacob
Professor and Associate Chair
ECE Department
Morgan State University
United States of America

Dr. Yacob Astatke completed both his Doctor of Engineering and B.S.E.E. degrees from Morgan State University (MSU) and his M.S.E.E. from Johns Hopkins University. He has been a full time faculty member in the Electrical and Computer Engineering (ECE) department at MSU since August 1994 and currently serves as the Associate Chair for Undergraduate Studies. Dr. Astatke is the winner of the “2013 American Society for Engineering Education (ASEE) National Outstanding Teaching Award,” and the “2012 ASEE Mid-Atlantic Region Distinguished Teacher” Award.

He teaches courses in both analog and digital electronic circuit design and instrumentation, with a focus on wireless communication. He has more than 15 years' experience in the development and delivery of synchronous and asynchronous web-based course supplements for electrical engineering courses. He has played a leading role in the development and implementation of the first completely online undergraduate ECE program in the State of Maryland.

Auer, Michael E.
Professor of Electrical Engineering
Carinthia University of Applied Sciences Villach
Austria

Dr. Michael E. Auer is Professor of Electrical Engineering at Carinthia University of Applied Sciences Villach, Austria. His current research is directed to technology enhanced learning and remote working environments especially in engineering.

He is author or co-author of more than 180 publications and leading member of numerous national and international organizations in the field of Online Technologies.

Michael Auer is founder and chair of the annual international IEEE EDUCON, ICL and REV conferences and chair or member of the Program Committees of several international conferences and workshops.

He works as an evaluator and coordinator of European Union funded research projects and is member in expert groups of the European Commission.

Michael Auer is Founding-President and CEO of the “International Association of Online Engineering” (IAOE) since 2006, a non-governmental organization that promotes the vision of new engineering working environments worldwide. In 2009, he was appointed as member of the Advisory Board of the European Learning Industry Group (ELIG). In September 2010, he was elected as President of the “International Society of Engineering Education” (IGIP).

Furthermore, he is one of the founders and Secretary General of the “Global Online Laboratory Consortium” (GOLC). GOLC is the result of an initiative started in 2009 at MIT to coordinate the work on educational online laboratories worldwide.
Speakers Bios

Ayodele, Kayode P.
Senior Lecturer and Head of Dept
Department Electronic and Electrical Engineering
Obafemi Awolowo University (OAU)
Nigeria

Dr. Kayode P. Ayodele is a Senior Lecturer and Head of Department of Electronic and Electrical Engineering, Obafemi Awolowo University (OAU), Nigeria. He is the principal investigator of the OAU Bioinstrumentation and Neuroengineering research group, with current research focus on the acquisition and processing of neurophysiological signals for brain-machine interfaces. Another long-term interest of Dr. Ayodele is the development of remote laboratories and other pedagogical tools for use in large classes. He was a winner of the MIT iLab Junior Research Fellowship and the MIT-Total Empowering the Teachers Fellowship in 2010 and 2013 respectively. He is an Editor with the Ife Journal of Technology, and has reviewed for the IEEE Transactions on Learning Technologies. Dr. Ayodele is a member of the IEEE and the Society for Neuroscience.

Babu, Kayala Mallikharjuna
Principal
BMS College of Engineering
Bangalore
India

Professor Kayala Mallikharjuna Babu is the Principal of BMS College of Engineering, Bangalore; a premier institution in Engineering Education in India. He received his PhD and M.E. degrees from Bangalore University. His areas of Expertise are Materials, Processes, Industrial Engineering, Quality and Engineering Education. He is a Fellow of Indian Institute of Industrial Engineering and member of others professional Bodies like Institution of Engineers (India), Indian Society for Technical Education, Indian Society for Technical Education, etc. He is a sitting member of various government/university committees like, BITES, NBA, AICTE, VTU and Others. He has published 53 Technical Papers & authored six test books in Engineering. He is the recipient of Dr. J. M. Mahajan Award from IIIE, Dr. S. R. Gollapudi Award from Indian Institute of Industrial Engineering, Mumbai, Paul Harris Fellowship & Sarvepalli Radhakrishnan Award; and The Distinguished Alumnus Award* of MSRIT, Bangalore.

Baker, Nelson
Associate Professor
School of Civil and Environmental Engineering
Dean of Professional Education
Georgia Institute of Technology
United States of America

Dr. Nelson Baker is dean of Professional Education at the Georgia Institute of Technology and associate professor in the School of Civil and Environmental Engineering. He leads Georgia Tech Professional Education (GTPE), an academic division comprised of the Global Learning Centre, Georgia Tech-Savannah, the Language Institute, Georgia Tech Online, and an array of professional education courses. Last year, GTPE programs served 13,000 individuals for 25,000 enrolments, with learners representing more than half the countries in the world.

Baker’s work involves understanding technological impacts to student learning, with projects including multi-lingual, web-based intelligent simulations for problem solving and technology-based assessments. He served as president of the International Association for Continuing Engineering Education from 2009-14, and is past chair of the Georgia Board of Regents Administrative Committee on Public Service and Continuing Education. Baker is an active member of ASEE and ASCE.
Speakers Bios

Barakat, Nael
Professor and Chair
Mechanical Engineering at
Grand Valley State University
United States of America

Nael Barakat is professor and the chair of Mechanical Engineering at Grand Valley State University in Grand Rapids, MI, USA. He is also a professionally registered engineer in Ontario, Canada and a fellow of the American Society of Mechanical Engineers (ASME). Dr. Barakat is currently serving in multiple capacities within professional organizations including: chair of the Technology and Society Division – ASME, program chair of the Division of Engineering Ethics at the American Society of Engineering Education (ASEE), and executive board member of the National Institute for Engineering Ethics (NIEE).

Dr. Barakat expertise and interest is in the areas of Mechatronics, Control, Robotics, and Automation, as well as Engineering Ethics, Professionalism, Leadership, and Education. He has taught numerous courses and modules, delivered invited workshops and seminars, and conducted research on these topics.

Bastaki, Eesa
President
University of Dubai
United Arab Emirates

Dr. Eesa Bastaki is President of the University of Dubai and former CEO of the ICT Fund where he actively led the effort to create an eco-system in the UAE ICT industry, by encouraging entrepreneurship, funding R&D projects and University scholarships and implementing ICT initiatives at the school level.

During his distinguished career, he held many senior posts including Director of Education & Technology at the Dubai Silicon Oasis Authority (DSOA), Chairman of the Energy Section at the UAE University (UAEU) and Chairman of the Technology Section at the Technology & Energy Research Centre of the UAEU. Dr. Bastaki is one of the founders of DSO and RIT-Dubai, and he is the founder of the IT Centre in Al Ain Municipality.

His current professional activities include Chairman of the Technical Committee for the Emirates Energy Awards, Chairman of the Board of the Emirates Science Club, and Member of the Board of the Cultural & Science Association.

Born in Dubai, Dr. Bastaki is a UAE national scientist and researcher; he received his B.Sc. and M.Sc. degrees in Electrical Engineering from the University of California, San Diego and Ph.D. from the University of California, Irvine. His research interests are Multiple Access Communications, Coding and Synchronization.

Dr. Bastaki is the recipient of Sheikh Rashid’s Award for Scientific Excellence. In 2009, he received the UAE’s highest award “The Emirates Awards for Science, Arts and Literature” in sciences. In 2014, he received the Middle East “ICT and Knowledge Development CEO Excellence Award”.

weef2014.org
Speakers Bios

Beydoun, Wafik
Manager Research & Development Division
E&P Directorate
ADNOC
United Arab Emirates

Wafik Beydoun is Manager Research & Development Division in the E&P Directorate of ADNOC (UAE). Previously he was President and CEO of Total E&P Research & Technology USA, LLC in Houston. Previous experience includes: ARCO’s Research and Technical Services in Plano, Texas (US); since 1991 in Total including Project Leader at the Geoscience Research Centre in the United Kingdom; Seismic interpreter on UK, Congo and Angola assets; Chief Geophysicist in Angola; Area exploration manager for Blocks 17 & 33; Manager Geophysical Operations and Technology worldwide; Senior Negotiator New Ventures and Asset Management; and Business Development manager in E&P Technology and R&D. Wafik holds a Licence & Maitrise of Physics from the University of Paris VI (France), an MSc in Earth Sciences and a PhD in Geophysics, both from the Massachusetts Institute of Technology. He has over 70 publications and communications.

Beynon, John
Executive Dean
Faculty of Engineering, Computer and Mathematical Sciences
University of Adelaide
Australia

John Beynon is Executive Dean of the University of Adelaide’s Faculty of Engineering, Computer and Mathematical Sciences, following seven years as Dean at Swinburne University of Technology. Manx by birth, he spent much of his career at Sheffield University, where he held professorial positions in metallurgy and mechanical engineering. He has been President of the Australian Council of Engineering Deans and is now Chair of the Global Engineering Deans Council. He is a Fellow of Engineers Australia and the Australian Academy of Technological Sciences and Engineering, and is a Fellow of the Royal Academy of Engineering and Institute of Materials, Minerals and Mining in the UK.

Bhattacharya, Swapan
Director
National Institute of Technology Karnataka
India

Professor Swapan Bhattacharya is presently the Director of National Institute of Technology Karnataka, Surathkal, Mangalore, India. He also retains his substantive faculty position as Professor in the Department of Computer Science & Engineering, Jadavpur University, Kolkata, India. Prof. Bhattacharya had B.Sc (Physics), B.Tech (Electronics), M.Tech. (Computer Sc & Engg) and PhD (Computer Science & Engg) – all from University of Calcutta, India. He had also received M.B.A. (Operations Research) from Jadavpur University, Kolkata.

A University rank holder is all the examinations he has appeared, Prof. Bhattacharya had received Young Scientist Award from UNESCO, Sr. research Fellowship from National Research Council, USA and Gold Medal from University of Kolkata. He has been recipient ET NOW Academic Leadership Award in 2013.

In the span of 32 years of professional experience, he has been associated with various industries and academic institutions in India and abroad – these include - Indian Institute of management Joka, Indian Institute of technology Powai, Mumbai, University of Calcutta, National Institute of Technology Durgapur within India – and, Michigan State University, East Lansing, USA, Naval Postgraduate School Monterey, CA, USA, Asian Institute of Technology Bangkok, Attilim University Turkey etc. outside India.
Speakers Bios

Prof. Bhattacharya's present areas of research and teaching interest are concentrated around the broad domain of Software Engineering, Business Analytics and related aspects from the perspectives of computing. He has co-authored four books/book-chapters, supervised 16 PhD students and has published around 150 papers in various national and international platforms.

Dr. Leland Blank serves as the Professor and Dean of Engineering at the American University of Sharjah, UAE. He is professor emeritus of industrial engineering at Texas A&M University, USA. He has served as President of the Institute of Industrial Engineers and is a Fellow of the Institute. His primary professional interests are in engineering economics, applications of statistical methods, and international higher education improvement.

Besides technical articles and conference papers, Lee has authored 10 textbooks in engineering economy and engineering statistics. He has authored multiple tools to enhance student learning in engineering economy through web-based podcasts, spreadsheets and other materials. Previously, Dr. Blank worked at Texas A&M University, University of Texas-El Paso, and in industry at AT&T, Verizon, as well as gas and electric distribution companies. He is a graduate of Oklahoma State University (PhD) and St. Mary's University, Texas.

Dr. Jean-Lou Chameau is President of King Abdullah University of Science & Technology (KAUST) in Saudi Arabia. He is President Emeritus of the California Institute of Technology in the United States, which he led for seven years prior to joining KAUST.

After receiving his engineering degree in France at the Ecole Nationale Superieure des Arts et Metiers and earning his PhD in civil engineering from Stanford University, he had a distinguished career as a professor and administrator at Purdue University and the Georgia Institute of Technology (Georgia Tech). He then served as president of Golder Associates, a geotechnical consulting company, before returning to Georgia Tech as Georgia Research Alliance Eminent Scholar and vice provost for research. He became dean of its college of engineering, and then provost and vice president for academic affairs.

Throughout his career, he has been committed to fostering excellence in science and technology, as well as promoting a multidisciplinary approach to research and education. He has encouraged the development of programs in such areas as energy, medical science, and the environment. He actively promotes industry-university partnerships and the involvement of universities in economic development.

He serves on a number of public and industry boards, including the Council on Competitiveness, John Wiley & Sons, MTS, Safran, and the Academic Research Council of Singapore. He is also a member of both the French Académie des Technologies and the U.S. National Academy of Engineering, and received numerous awards for his contributions as an educator and university leader.
Speakers Bios

Charles Champion was appointed Executive Vice President Engineering in April 2010. He is responsible for research & technology, overall product architecture and concept development, the design office, integration & flight testing and continued product airworthiness. In this new position, he will continue to be a member of the Airbus Executive Committee.

Charles Champion began his professional career with Aérospatiale as an engineer in aerodynamics. He held various positions in the Manufacturing before being in charge of the single-aisle aircraft final assembly lines. During this period, his responsibilities included the development of the A321 final assembly line in Hamburg.

In 1993, Mr Champion was promoted to Director of Airbus Programmes at Aérospatiale’s headquarters in Paris. He returned as Managing Director of the Future Large Aircraft military transport project, starting a new business for Airbus in the military field.

In 1997 Charles Champion joined Airbus Industrie as Vice President Sales for Eastern and Southern Europe and Commonwealth of Independent States, in charge of Airbus’ commercial activities for 25 countries. He also held the position of Product Executive for Airbus Single Aisle Programme, before being appointed Head of the A380 programme, until the successful certification of the A380 in 2006.

From 2007 to April 2010, Charles Champion was Executive Vice President in charge of Customer Services. He graduated from the Ecole Nationale Supérieure de l'Aéronautique et de l'Espace in Toulouse, and holds a Master of Science degree from Stanford University.

Marita Cheng was named the 2012 Young Australian of the Year for her work with Robogals Global. While in her second year at university, Marita founded Robogals Global in 2008 as a response to the traditionally low levels of participation by women in engineering and technology. Robogals uses fun and educational activities to teach schoolgirls about engineering and the difference that engineers make to our lives. Robogals has run robotics workshops for 25,000 girls across 375 schools in Australia and now has 23 chapters across Australia, the United Kingdom, the United States and Japan.

In 2013, Marita graduated with a Bachelor of Engineering (Mechatronics) and a Bachelor of Computer Science on a Paterson Scholarship from the University of Melbourne. In her final year at university, and a month after finishing up her duties at Robogals, Marita founded 2Mar Robotics, a company creating wheelchair-mounted robotic arms for people with limited upper limb mobility. 2Mar Robotics participated in Melbourne University’s Melbourne Accelerator Program in 2013 and aims to release a product by the end of 2014.

Born and raised in Cairns, Marita now lives in Melbourne. As well as running her robotics startup, Marita sits on the boards of Robogals Global and the Foundation for Young Australians.
Speakers Bios

Costa, Antonio  
Engineering Teacher and Researcher  
ISEP  
Portugal

Antonio Costa, with a PhD on electrotechnical and computer engineering, is a nine-year CDIO practitioner/mentor, as well as engineering teacher and researcher at ISEP (Portugal) since 1991.

In 2005, he leaded the application of CDIO in the informatics engineering bachelor programme. He contributed to CDIO’s adoption in the systems engineering bachelor programme in 2008.

Since 2009, he is responsible for programme accreditation and certification at ISEP, with eleven engineering bachelor/master programmes achieving the EUR ACE® quality seal from ENAEE. Since 2006, he is informatics engineering capstone project course coordinator.

Nowadays he does research on bio-informatics and computing subjects at an R&D unit in ISEP. In the past at ISEP, he has been programme director, scientific council member and vice-president, as well as general council member and adviser at Porto Polytechnics Institute.

Antonio is ACM member since 2006 and professional member since 2011, and sponsor of the ISEP ACM Student Chapter, promoting professional talks, industry presentations and entrepreneurship events.

He is also a security forensic expert in Portuguese courts, as well as acrobatics gymnastics judge and pro-bono technical consultant/web manager at several non-profit organizations.

Cukierman, Uriel Rubén  
Universidad Tecnologica Nacional  
Argentina

Uriel Rubén Cukierman received a professional degree in Electronic Engineer from the Universidad Tecnologica Nacional (UTN), Argentina and a master degree in Enterprise Information Systems Management from the Universidad Politecnica de Madrid (UPM), Spain. He is currently working on his PhD thesis in the area of Learning Sciences at the Universidad de Buenos Aires (UBA), Argentina. He is the Dean of the School of Engineering at the Universidad de Palermo (Argentina) and Professor at UTN. Prof. Cukierman has worked as a College Teacher and University Professor for over thirty years in electronics, computing, multimedia and learning technologies. He is also a member of the IFEES and GEDC Executive Committees. Prof. Cukierman has been the Co-Chair of the previous event WEEF 2012 in Buenos Aires, Argentina.
Speakers Bios

Dajani, Hassan
Managing Director Building and Construction
Bentley System Middle East
United Arab Emirates

Hassan Dajani, PE, PMP is Bentley System’s Managing Director Building and Construction Middle East. Mr. Dajani obtained his Master’s degree in Construction Management from the University of Southern California (USC). He holds another Master’s and a Bachelor’s in Civil Engineering, both from the California State University at Long Beach.

Mr. Dajani is a Civil PE (California, 1983) and a PMP (Kansas, 2005), and is also a member of the CE Department Advisory Board at the AUD. Past Board Memberships include Board of Director for Arabtec Construction LLC, Arabtec India, and Arabtec Engineering Services.

With 34 years’ experience in Project Management, Estimation, Business Development, Project Controls, IT, ERP, BIM and MIS. He has worked and consulted for the Bechtel Corporation, CCC and Alcatel-Lucent. He founded IPC, a Project Management consulting firm, which advised several major Electric Utility companies.

Most recently, at Arabtec, Hassan played a big part in aiding Arabtec become the leading contractor in the UAE, and was instrumental in securing many of their Projects, Joint Ventures (JVs) and facilitated their International expansions. This has enabled Arabtec become an “ENR Top 225 Global Contractor” several years in a row.

de Graaff, Erik
Professor
Department of Development and Planning
Aalborg University
Denmark

Erik de Graaff (PhD) is professor at the department of Development and Planning at Aalborg University. Dr. de Graaff is recognized as an international expert on PBL. He contributed to the promotion of knowledge and understanding of higher engineering education with numerous publications and through active participation in professional organizations like SEFI, IGIP, IFEES and ALE. He has published over 200 articles and papers and he has presented more than 70 keynotes and invited lectures on various topics related to PBL in higher education. Since January 2008, he is Editor-in-Chief of the European Journal of Engineering Education.

DeBoer, Jennifer
Assistant Professor
Engineering Education
Purdue University
United States of America

Dr. Jennifer DeBoer is currently Assistant Professor of Engineering Education at Purdue University. Her research is situated at the critical intersection of engineering education, technology, comparative education policy, and development. She is motivated by the need for greater understanding of how contextual factors (socio-cultural, physical, and economic characteristics of the learning environment) moderate the relationship between STEM education opportunities, formal and informal education, and development. Currently, she is investigating the use and effectiveness of online learning programs and the participation of women and underrepresented groups in engineering training around the world. Dr. DeBoer also serves as co-director of the International Institute for the Development of Engineering Academics (IIDEA), which is focused on establishing a global network of engineering faculty development programs to disseminate learning about the transformation of engineering education worldwide.
Speakers Bios

**Delaine, David A.**  
Vice President - Student Engagement  
International Federation of Engineering Education Societies (IFEES)  
Escola Politécnica da Universidade de São Paulo  
Brazil

David A. Delaine has a Ph.D. in electrical engineering from Drexel University, in Philadelphia, USA. He currently serves as an executive member of the International Federation of Engineering Education Societies (IFEES), as Vice President for Student Engagement. IFEES aims to strengthen engineering education practices around the world. He has recently completed his tenure as a Fulbright Scholar and is currently performing research as a FAPESP postdoctoral researcher with Prof. Dr. Jose Roberto Cardoso at the Escola Politécnica da Universidade de São Paulo for his project titled "Assessing the Impact of One Boundary Spanner on University-wide STEM Educational Engagement" where he will attempt to optimize community/university relations for broadening participation in the STEM fields. He has ambitions to significantly diversify and broaden the global pipeline of STEM talent and help guide the evolution of the methods used to develop engineers.

**Didion, Catherine**  
Senior Program Officer  
National Academy of Engineering  
United States of America

Catherine Didion is a Senior Program Officer at the National Academy of Engineering (NAE). Her portfolio includes the Diversity of the Engineering Workforce Program with a charge to provide staff leadership to NAE’s efforts to enhance the diversity of the engineering workforce at all levels. In addition, Didion is the Director of the Committee on Women in Science, Engineering, and Medicine. This is a standing committee with a mandate to work as a focal point on gender across the three National Academies – National Academy of Sciences, National Academy of Engineering and the Institute of Medicine.

**Dorninger, Christian**  
General Director  
Ministry for Education, Arts and Culture  
Austria

Christian Dorninger is born 1954 in Steyr, Upper Austria. Degrees in engineering (physics) and teaching profession in physics and mathematics in upper secondary schools 1981; foreign studies in Switzerland and Germany, change to local school board of Vienna 1986, change to Federal Ministry of Education 1988, responsible for technical schools, colleges of engineering, business schools and colleges in various constellations. General Director for vocational and professional education in Austria since 2013. Experience with distance learning environments in higher education (Fernuniversität Hagen, BRD). Director of an institute to develop education standards and competence oriented tasks and materials for last exams in secondary education.
Rana El Chemaitelly, holds a BE in Mechanical Engineering 1993, AUB Penrose Award 1993, and Master’s in Engineering Management 2008. In 2009 she launched her second venture The Little Engineer®, a Beirut-based Edutainment centre geared towards engaging young minds in science, technology, engineering and mathematics through proven hands on learning activities to unleash their full potential in pre-engineering skills while highlighting robotics, renewable energies and latest technologies working in parallel on their leadership and presentation skills. For her initiative and business plan, she was recognized as one of MENA’s most promising entrepreneurs by the Massachusetts Institute of Technology in 2009. She was awarded the “Coup de Coeur Femme by “Medventures” for the Mediterranean in 2010, selected the woman entrepreneur by the American Embassy to participate in the International Visitor Leadership Program “IVLP” 2011, won the Cartier Women Initiative for the MENA region in 2011 and the Green Mind Award in 2012. In 2013, The little Engineer signed a strategic Partnership with Airbus Middle East to deliver regional workshop for youth.

She is working hard to be a voice of change in the Arab World by investing in young minds, our future leaders, preparing them for the challenging future, while at the same time aiming high to empower woman in her community, country and around the world.

Ivan E. Esparragoza is an Associate Professor of Engineering and Director of Engineering Technology and Commonwealth Engineering at Penn State University. He has BSc, MS, and Ph.D. degrees in Mechanical Engineering. His professional interests are in engineering design education, innovative design, global design, and global engineering education.

Dr. Esparragoza has received several recognitions including the LACCEI Merit Causa for Outstanding Service, Penn State Brandywine Distinguish Teaching Award, George Franz Advising and Mentoring Award, Penn State Engineering Society Teaching Award, Penn State Teaching Fellow Award and the International Engineering Educator Honoris Causa “Ing.Paed.JGIP h.c.” He is actively involved in the Latin American and Caribbean Consortium of Engineering Institution (LACCEI) as VP for Finances and member of the Administrative Board and in the International Federation of Engineering Education Societies (IFiEES) as VP for the Americas and First VP.
Speakers Bios

Falade, Funso Alphonsus
Professor of Civil Engineering
University of Lagos
Nigeria

Falade Funso Alphonsus is a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998.

Prof. Falade has authored 60 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also contributed to two (2) textbooks. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 40 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement Processes etc.

Prof. Falade is a member of some professional bodies both locally and internationally. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st and 2nd African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002 and 20th – 22nd September, 2004 respectively. He is the President of African Engineering Education Association. He was appointed UNESCO Consultant in 2005.

Fouger, Xavier
Senior Director
Global Academia Programs
Dassault Systemes
France

An Industrial Engineer, Xavier Fouger started his career as Science Attaché at the French embassy in Vienna, in charge of science and technology cooperation. With DS since 1990, he developed new digital processes to enhance collective innovation in German, Korean and Japanese automotive manufacturers. He created the corporate organization in charge of global academia programs.

In 2005, he introduced in France a national STEM program for 11,500 high school students mentored by 500 university students. He designed cutting-edge digital learning programs for secondary and vocational education in the USA, Malaysia, and Canada and initiated PLM competency centres in India, China, Brazil, Mexico, Colombia, South Africa, Vietnam and Argentina. A founding member of IFESs, VP of SEFI, he was instrumental in the creation of the GEDC. He manages educational research on virtual labs, collaborative systems engineering, crowd-based curriculum creation, 3D in MOOCs, “flipped lab” and virtualization of textbooks and learning devices.

He led/leads Dassault Systemes’ participation in educational research consortia funded by the DARPA in USA, the European Commission or the French National Research Agency. He regularly provides lectures and seminars on innovation management.
Speakers Bios

Fransson, Torsten
Educational Director
EIT KIC InnoEnergy
The Netherlands

Torsten Fransson is Educational Director of the KIC InnoEnergy branch of the European Institute of Innovation and Technology. He held positions at BBC and EPFL in Switzerland, and KTH, Sweden, where he is Professor of Heat and Power Technology. He has been visiting scientist at GE Aircraft Engines, Naval Postgraduate School, Florida State University and Duke University. He is presently member of the Board of Directors of the Swedish TURBOPOWER Research Centre, the Chair of the Supervisory Board of ECATA (“European Consortium of Advanced Training in Aeronautics”) as well as the KTH representative of the European university network T.I.M.E. (“Top International Managers for Europe”). He was elected for several consecutive terms to the Board of Directors of the International Gas Turbine Institute. At KTH he has been Head of Department of Energy Technology, the Energy Centre and the School of Energy and Environmental Technology.

He is a “Chevalier de L’Ordre National du Mérite” in France, and has received the ASME Dedicated Service Award. He is a three-time Best Paper of The Year recipient in the ASME International Gas Turbine Institute.

Prof. Fransson is a Fellow of the ASME and a Senior Member of the AIAA; a Member of the Swedish Royal Physiographic Society and the Swedish Royal Engineering Academy. He published more than 200 scientific papers together with various co-researchers.

His research interests spans over aerodynamics and aeroelasticity in turbomachines. He has been involved in various aspects of e-learning over 20 years.

Franzolini, Pablo
External Expert and Advisor
European Commission
Spain

Pablo Franzolini is a certified Coach, Economist and MSc. in Information Systems by the London School of Economics, he has more than 10 years collaborating with R&D projects to increase the reach and impact of Technology Enhanced Learning in Europe, and lately exploring how TEL can be potentiated with coaching skills to support informal learning in organizations.

He is an external expert and an advisor for the European Commission in the societal challenge 6 “Inclusive, Innovative and Reflective Societies” under the H2020 framework programme, and is now contributing to the projects Learning-Layers.eu and EmployID.eu where a coaching competency framework is being created to support public employment practitioner’s career transformation.
Speakers Bios

Gilbert, Paul
Chief Executive Officer
Quanser
Canada

As the CEO of Quanser, Paul Gilbert is responsible for the development and execution of the company’s business vision. Mr. Gilbert has over two decades of experience developing technology companies in North America, along with a wealth of international experience developing global partner relationships and R&D-oriented projects. Mr. Gilbert joined Quanser in 2002 and has successfully taken the company to its current position as the world leader in its field. Prior to joining Quanser, Mr. Gilbert held positions as CEO for FTT Ltd. and President of Strapex Canada. He also held senior engineering positions in the Aerospace Division of Schlumberger UK and led the company’s Canadian Sales and Marketing team in the Electricity Management sector. Mr. Gilbert holds an MBA from the Ivey School of Business as well as a Bachelor of Mechanical Engineering from the University of Southampton, UK.

Goossens, Marc
Director and Executive Officer
European Society for Engineers and Industrialists (SEII)
Belgium

Since 2005, Marc has been a Director and Executive Officer of the European Society for Engineers and Industrialists (SEII), a non-profit-making association created in 2004 with the aim of fostering the essential role of engineers in society in general and in industry in particular, an objective that they achieve through organizing events and participating in activities organized by other groups or associations, including the European Commission.

Marc’s speciality in SEII is Engineering Education, particularly in relationship with the needs of industry. This brought him to participate actively in the Erasmus Lifelong Learning Programme EUGENE (European and Global Engineering Education), in activities of SEFI (European Society for Engineering Education) and in the annual conferences organized by CLAIU-EU (a European Association of Engineers). He also participated in the 2012 and 2014 IACEE World Conference, respectively in Valencia and in Stanford, which led him to become a Member of the Council of this association.

Marc received his Engineering Master degree in Physical Sciences (Nuclear Physics) from the University of Liège (Belgium) in 1966. He worked successively at the University of Liège (one year), in industry (9 years), at the University of Liège again (3 years) and as a self-employed worker until he retired in 2009.

From 1987 to 1992, he was a member of the non-profit-making association “L’Entreprise de Demain” (“The Enterprise of Tomorrow”), and more precisely of its working group on the “Competitiveness of Enterprises.”
Speakers Bios

Grant, Marcia A.
Provost
Ashesi University College
Ghana

A veteran of either creating or transforming higher education institutions in Africa, the Middle East and South Asia, Dr. Marcia A. Grant brings special skills to diagnosing problems in existing university programs and in creating appropriate solutions to help both faculty and students succeed in these cultures. She is currently Provost of Ashesi University College, in Berekuso, Eastern Region, near Accra, Ghana.

Before going to Ghana, Dr. Grant spent over six years in Pakistan, implementing new programs using participatory pedagogy and teaching critical thinking. She was Director of Planning for the Faculty of Arts and Sciences of Aga Khan University in Karachi, and then Vice Rector of Forman Christian College in charge of academic affairs. Dr. Grant also worked to help HRH Princess Lolowah al-Faisal start Effat University for women in Jeddah, Saudi Arabia.

Coming out of a background of International Affairs, she taught at Oberlin College, was director of the Edward S. Mason Program for mid-career government officials at the Kennedy School of Government at Harvard, and was a Foreign Service officer with USIA, organizing the Fulbright Program in Mexico and working as a cultural attaché in Paris.

Educated at Swarthmore College, the Fletcher School of Law and Diplomacy at Tufts University, her doctorate is from the London School of Economics and Political Science. In 2007, she received an honorary Doctorate of Law from Swarthmore in 2007 in recognition of her work in higher education.

Hachem, Wissam
Vice President
Learning & Development
Etihad Airways
United Arab Emirates

Wissam Hachem is Vice President of Learning & Development at Etihad Airways. He is responsible for the design and implementation of the people development strategy across Etihad Airways and Etihad Airport Services.

Wissam is a HR professional with over 21 years’ experience in the airline industry. He joined Etihad Airways in its infancy in 2005 and has since held several key positions in Talent Acquisition and Learning & Development.

In 2007, Wissam was appointed Head of Corporate Development and Emiratisation. He played an instrumental role in setting-up local talent initiatives for the airline, which placed an emphasis on attracting talented UAE nationals into Etihad Airways. These initiatives laid the foundations for a successful company-wide Emiratisation strategy which remains a top HR priority today.

In his current capacity as Vice President of Learning & Development, Wissam focuses on building airline-specific capabilities among the company’s talent pool. He and his team provide business-aligned leadership development solutions, best-in-class performance management, talent succession strategies and company-wide career development to over 17,000 employees at Etihad Airways.

With Etihad Airways set to treble in size in the coming years, Wissam’s focus is on building individual capability to drive an outstanding organisational performance.
Speakers Bios

Hashim, Hosnia
Vice President Operations
Kuwait Foreign Petroleum Exploration Company
Kuwait

Hosnia Hashim is an executive of the Kuwait oil sector, with a career shaped by more than 25 years of professional experience, reaching the highest roles so far assumed by a woman in the upstream sector of Kuwait.

She became Vice President of Operations of Kuwait Foreign Petroleum Exploration Company (KUFPEC), on June 16, 2013, and is accountable for all the international operations of the oil sector of the State of Kuwait, in 15 countries spanning three continents. Before her appointment, Ms. Hosnia had been Deputy Managing Director of North Kuwait asset of Kuwait Oil Company (KOC) and was Deputy Managing Director of West Kuwait Asset.

A Kuwaiti national, she earned a Bachelor of Science degree in Chemical Engineering from Kuwait University, and joined Kuwait Oil Company as a production engineer, developing her experience with extensive contributions to the Kuwait upstream business. She sits on the Board of Directors of the Kuwait National Petroleum Company (KNPC); and a member of the Boards of the Petrochemical Industries Company PIC and the Kuwait Drilling Company KDC. She is the Chair and the founder of the pioneer Middle East initiative for the promotion of professional women, the KOC Professional Women Networking.

Hosnia was the Chair of the Middle East Board of Directors of the Society of Petroleum Engineers (SPE), and Regional Director for the Middle East, North Africa and India region. She is a Board member of Hope Foundation, a Kuwaiti humanitarian initiative with a global outreach.

Hasna, Mazen
Vice President and Chief Academic Officer
Qatar University
Qatar

Dr. Mazen Hasna received his BSc. degree in 1994 from Qatar University. He then went on to obtain a Master’s of Science from the University of Southern California in 1998, and a PhD in 2003 from the University of Minnesota, all in Electrical Engineering, majoring in communications engineering.

In 2003, he joined the electrical engineering department at Qatar University as an assistant professor, and was appointed as the department head in 2005. In 2007, he was appointed as the associate dean for academic affairs at the College of Engineering and in 2008, he became the Dean of that college. In February 2013, Dr. Hasna was appointed as the vice president and chief academic officer of QU.

Dr. Hasna has been a very active member of the QU leadership team not only through the various administrative roles he assumed over the years, but also through his valuable contributions to its administration. He served on various university committees including the Strategic Planning Steering Committee, the Student Judiciary Committee and the Professional Conduct Committee. Outside the University, he also serves as a board member of the joint management committee in Qatar Mobility Innovation Centre, and the national committee for licensing engineers and consulting offices. He is a published author of many academic studies on communication engineering and engineering education, a senior member of IEEE, and a founding member of the Qatari society of engineers.
Speakers Bios

Hill, Bryan
Assistant Dean
College of Engineering
Director
UAteach program
University of Arkansas
United States of America

Bryan Hill is Assistant Dean in the College of Engineering, director of the UAteach program, and adjunct faculty in the Master of Science in Operations Management program. Bryan is currently the primary investigator on several projects aimed at preparing and diversifying the engineering pipeline, totalling over $1M a year in research expenditures.

As part of the Engineering Career Awareness Program (ECAP) at the University of Arkansas (U of A), Bryan has over 10 years’ experience in recruiting and retaining underrepresented engineering students. Between 2007-2014, ECAP’s work helped grow minority enrolment by 192.7%, with a 149.5% rise in female undergraduates in engineering.

Bryan was part of the initial ECAP team who developed the program concept and directed the implementation and continual improvement of ECAP. This initial team made a dream list of best practices, all guided by research, to recruit, retain and graduate financially needy, and underrepresented engineering students. The team agreed that with the nation’s changing demographic mix, engineering was not sustainable if it remained the domain of white men. The program offers a full range of academic, financial and social support to remove the barriers that underrepresented students face in completing an engineering degree. ECAP also has partnerships with feeder institutions targeting diverse transfer students. As program director, Bryan has been instrumental in not only developing ECAP but also in creating significant funding streams and industry partnerships, as well as innovative recruitment techniques.

Hoyer, Hans J
Secretary General - IFEES
Executive Secretary - GEDC
Resident Scholar in Global Engineering
Marquette University
United States of America

Hans J Hoyer is Secretary General of IFEES, Executive Secretary of the GEDC, and since 2012, Resident Scholar in Global Engineering at Marquette University. He is an Honorary Professor in Peru, Kazakhstan and India, serves globally on various boards and engineering education advisory committees and has written on international and engineering education issues.

Previously, he has lived and worked throughout Asia, Latin America, Africa, Europe and the Middle East, leading several international development programs. He was CEO of World Links, a spin-off of the World Bank focusing on secondary education, teachers’ education, and on-line collaborative learning.

He has a Ph.D. from American University, completed a postdoc at the OAS, was Visiting Scholar at the MIT Centre for International Studies, and was a Fellow at Harvard’s School of Education and School of Government. He served as graduate dean at the School for International Training and Adjunct Professor at George Mason University.
Speakers Bios

Hultin, Jerry MacArthur
Senior Presidential Fellow
New York University
United States of America

Jerry Hultin strives to promote innovative uses of technology for a better world, especially to increase jobs and economic growth, and educate young people progressively. Currently, he serves as a Senior Presidential Fellow at New York University, the largest private university in the United States with portal campuses in New York City, Abu Dhabi and Shanghai.

At NYU, Jerry helps design programs for innovation, creativity, and entrepreneurship. Previously, Jerry was president of the Polytechnic Institute of NYU, which he lead through substantial growth, including a 60% increase in enrolment; its merger with NYU to become the NYU Polytechnic School of Engineering; a rise in graduate engineering program rankings; expansion of graduate online education; award-winning K-12 STEM programs; and an increased presence in China, India, and the Middle East. The school’s new business incubators rank among the top-20 worldwide, and have generated over $250 million in economic activity.

Hundley, Stephen P.
Chair and Professor
Department of Technology Leadership and Communication
Purdue School of Engineering and Technology
Indiana University-Purdue University Indianapolis
United States of America

Stephen P. Hundley is Chair and Professor in the Department of Technology Leadership and Communication in the Purdue School of Engineering and Technology at Indiana University-Purdue University Indianapolis (IUPUI). He also serves as IUPUI’s Associate Vice Chancellor for Strategic Initiatives, where he is involved in campus-level strategic planning and other related projects. Stephen teaches undergraduate and graduate courses in leadership development, human resource management, and organizational research. He has received numerous honors for his work, including recent awards presented by the Corporate Member Council of the American Society for Engineering Education and the World Association for Case Method Research and Application.

Furthermore, Stephen is co-Principal Investigator involved in research and education projects competitively-funded by the National Science Foundation, Military Family Research Institute, Employ Indy, and Indiana Campus Compact, among others. Stephen regularly researches, writes, consults, and presents on topics related to organizational effectiveness, HR management, learning and development strategies, and higher education administration. In addition to several journal articles, technical reports, and conference proceeding papers, he has authored books on workforce engagement, employee engagement, and adult learners. He holds a Ph.D. from American University in Washington, D.C.
Speakers Bios

Hussain, Najmul
Project Director
Dubai World Central
United Arab Emirates

As a Program and Project Management Professional who has more than 15 years of managing and delivering diverse and challenging projects and has successfully managed to integrated a blend of Aviation, Information Technology, Telecom, Civil, and Infrastructure projects towards the benefits realization of the overall strategy of the organizations that he has worked for.

He is currently working as a Project Director on UAE “Dubai World Central” - a multi-phase development estimated at US$ 33 billion, comprises of 6 major developments with Al Maktoum International Airport; at its core.

Najmul Hussain has extensive education and experience in the field of project management. He is one of the few people in the world to have obtained the prestigious Program Management Professional (PgMP©) Certification. He is also certified as a Project Management Professional (PMP©) and Risk Management Professional (RMP©) by the Project Management Institute (PMI ©) with considerable experience in Organizational Project Maturity Modeling (OPM3©). He is the Founder and Vice President of Project Management Institute Chapter (PMI UAE Chapter), one of the largest professional associations in the UAE. He is a well-recognized lecturer for professional project management certifications in the UAE and an Adjunct Lecturer for Australia’s Chifley’s Business School.

His formal education includes a Master’s Degree in Business Administration and a Bachelor’s Degree in Applied Science. His recent accolades include winning the “Project of the year” award in 2013 from ITP Group for best Telecom Infrastructure implemented in the Middle East.

Isaac, Kuncheria P.
Member of Secretary
All India Council for Technical Education
India

Prof. (Dr.) Kuncheria P. Isaac, Ex-Director of Technical Education, Govt. of Kerala, became a Member of Secretary of All India Council for Technical Education on June 2, 2011 after 32 years of service in the academic field. He holds a Bachelor’s degree in Civil Engineering from College of Engineering, Trivandrum, a Masters Degree in Transportation Engineering (Civil Engineering) from IIT Madras and Ph.D from Bangalore University. He joined as Lecturer in the Technical Education Department of Kerala and subsequently became Director of Technical Education.

He specializes in Transportation Engineering and is instrumental in establishing a Transportation Engineering Division at College of Engineering, Trivandrum. He is a leading consultant and researcher in this area of specialization. He developed the process of Manufacturing Manufactured Sand ‘M Sand’, an alternative to river sand. He was the coordinator of State Technical Agency for PMGSY scheme and coordinated a large number of training programs for engineers in Design, Construction and Maintenance of Roads.

He has more than 50 publications in National and International journals and conferences and coordinated several research projects as well as supervised research works leading to Ph.D. As Principal and Director of Technical Education, he is instrumental in establishing the Centre for Engineering Research and Development in Kerala, Research Park at the College of Engineering Trivandrum and several new initiatives for the development of Technical Education in the State of Kerala.
Speakers Bios

Jalote, Pankaj
Director
IIIT-Delhi
India

Pankaj Jalote is the Director of IIIT-Delhi (Indraprastha Institute of Information Technology Delhi). Earlier he has been an Assistant Professor at University of Maryland College Park, Chair Professor at IIT Delhi, and Head of Computer Science Department at IIT Kanpur. He has also been Vice President at Infosys for 2 years, Visiting Researcher at Microsoft in Redmond for 1 year, and Interim Vice Chancellor of Delhi Technological University (DTU) for six months. He has a B.Tech. from IIT Kanpur, MS from Pennsylvania State University, and Ph.D. from University of Illinois at Urbana-Champaign. He is the author of five books, some of which have been translated in Chinese, Japanese, Korean etc, and the Indian edition of his text on Software Engineering was adjudged the bestselling book by the publisher. His main area of interest is Software Engineering. He has served on the editorial boards of IEEE Transactions on Software Engineering, Intl. Journal on Empirical Software Engineering, and IEEE Trans. on Services Computing. He is a Fellow of the IEEE and INAE.

Jimack, Peter
Dean of the Faculty of Engineering
University of Leeds
United Kingdom

Peter has serves as Dean of the Faculty of Engineering at the University of Leeds since August 2010. Leeds is one of the largest Universities in the UK and, as such, has one of the largest Engineering Colleges – with over 3000 students working across five academic Schools. Peter’s background is in Computational Science and Engineering and his research focuses on the development and application of fast and efficient numerical algorithms for Engineering problems, particularly those involving fluid flows: he is Director of multidisciplinary Graduate program supported by the UK’s Engineering and Physical Sciences Research Council: “EPSRC Centre for Doctoral Training in Fluid Dynamics at Leeds”. As Dean, Peter is keen to grow international partnerships for the University, and to contribute to the global agenda in engineering education. He also promotes strong engagement with industry at all levels, from influencing the undergraduate curriculum through to undertaking applied research and knowledge transfer.

Jones, Russel C.
Consultant
World Expertise LLC
United States of America

Russel C. Jones is a private consultant, working through World Expertise LLC to offer services in education and quality assurance in the international arena. He is currently assisting Innopolis University in Kazan, Russia, in its startup. Prior to this activity, he had a long career in education: faculty member at MIT, department chair in civil engineering at Ohio State University, dean of engineering at University of Massachusetts, academic vice president at Boston University, President at University of Delaware, Founding President at Masdar Institute of Science and Technology (Abu Dhabi), and Senior Advisor at Khalifa University of Science and Technology (Abu Dhabi). Dr. Jones earned bachelors, masters, and doctoral degrees at Carnegie Institute of Technology.
Kanmani, Buddhi  
Professor and Head of the Department  
Telecommunication Engineering  
BMS College of Engineering  
India

B Kanmani, obtained her Bachelors in Electronics and Communication Engineering from Nagarujuna University in 1987, M.Tech. degree in Digital communication from Indian Institute of Technology, Kanpur in 1990, and PhD from the Indian Institute of Science Bangalore (IISc) in the year 2006. She has been with BMS College of Engineering, Bangalore, since 1995, and has to her credit 31 publications. She has personally presented papers in IEEE conferences held in Singapore, Florida and Arizona. Currently serving as Professor and Head, department of Telecommunication Engineering, she teaches under-graduate courses on Analog Signal Processing, Digital Signal Processing, Analog Communication and Digital Communication. Her domain of interest is signal processing and signal processing education. She is Senior Member IEEE and Life Member ISTE.

Katsouleas, Tom  
Vinik Dean and Professor  
Electrical and Computing Engineering  
Pratt School of Engineering  
Duke University  
United States of America

Tom Katsouleas became the Vinik Dean and Professor of Electrical and Computing Engineering at the Pratt School of Engineering in July 2008. Dean Katsouleas received his bachelor’s and Ph.D. in physics from the University of California, Los Angeles. He joined the faculty at UCLA and later at the University of Southern California where he served as Associate Dean of Engineering and Vice Provost of Information Technology Services. His research interests include the use of plasmas as novel particle accelerators and light sources, for which he received the 2011 Plasma Science Achievement Award from the IEEE. During his tenure at Duke, he has overseen significant growth in the research and graduate programs at Pratt, which has been one of the fastest-rising engineering schools in national rankings over the past five years. He also co-led the founding of the NAE Grand Challenge Scholars program for undergraduate students, which has been endorsed by the National Academy of Engineering and is currently in development at more than 65 engineering schools across the nation.

Khalidi, Abdurrahman  
Executive Engineering Leader  
General Electric  
Qatar

Dr. Abdurrahman Khalidi is currently the executive engineering leader for Power Generation Services in Middle East & Africa. In his current role, he leads several engineering teams in Product service, Application, Performance, Edison, and Repair Engineering. Previously, Abdurrahman was the Middle East North Africa regional engineering leader for GE Oil & Gas based in Doha, Qatar from 2010 until 2013. Before coming to the region, Dr. Khalidi spent 10 years as a senior researcher at GE Global Research Centre, in Niskayuna, New York working on various GE projects in the field of O&G, Healthcare, Power generation, and aviation.

Dr. Khalidi has filed 24 US patents in various fields of technology, 14 of which have already been granted. Dr. Khalidi received his PhD degree from Cornell University in 2002 where his research work was in the area of Health Monitoring of Dynamic Systems using advance Signal processing techniques.
Speakers Bios

Khalitova, Elmira
Leading Specialist for International Relations
Innopolis University
Russia

Ms. Elmira Khalitova has extensive experience in the international arena. As Innopolis University’s Leading Specialist for International Relations, Ms. Khalitova represents the university to the global academic and government communities. She is in charge of establishment and development of the global partnership network of Innopolis University and its international marketing.

Prior to joining Innopolis University, Ms. Khalitova served as the Leading Specialist-Expert of the Department for Coordination of International and Economic Relations at the Plenipotentiary Representative Office of the Republic of Tatarstan (RT) to the Russian Federation, Moscow, Russia. Her responsibilities included consulting on international and economic issues relevant to the RT with the Russian Federal authorities, cooperating with the diplomatic corps of foreign states and international organizations; and analysing prospects for international and economic cooperation with potential partners.

Ms. Khalitova has a Specialist Degree in International Relations and graduated summa cum laude from Kazan (Volga Region) Federal University, Russia; she has obtained Master’s Degree in European Law (LL.M. Eur.) at the University of Hamburg / Europa-Kolleg Hamburg, Germany. Currently she is working on her PhD thesis in European Law.

Kianmehr, Peiman
Assistant Professor Civil Engineering
American University in Dubai
United States of America

Dr. Kianmehr’s expertise is in water and environmental engineering, with emphasis on water & wastewater treatment and sustainable development of stormwater handling systems. His research works involve characterization of waste activated sludge, sustainable development of bio-resource energies and water infrastructure. Prior to joining AUD, he worked with Environment Canada on the design and operation of wastewater treatment reactors. Between 1999 and 2004, he directed various design, planning, and QC projects in the field of hydraulic engineering including water supply and transmission, earth dam and flood control projects. One of his current research interests is to evaluate the quality and quantity of stormwater in new developments in Dubai and to propose sustainable solutions for local stormwater handling systems. In this pathway, his team has conducted a comprehensive study regarding the applicability of permeable concrete pavements in UAE. Peiman is a member of the Water Environment Federation (WEF) and the Water Environment Association of Ontario (WEAO).
Speakers Bios

Kieslinger, Barbara  
Senior Scientist  
Centre for Social Innovation – ZSI  
Austria

Dr. Barbara Kieslinger is a senior scientist at the Centre for Social Innovation - ZSI, Vienna, Austria. Her main expertise acquired over the last 20 years is in e-Learning and social media in education, international project management and research & grant management. Online social networks and social capital are her personal research interest. Over the years, she established an important professional network worldwide. She is a member of various international conference programme committees and serves as external expert for the European Commission. In her current project at ZSI, she is coordinating a team of 10 partners across Europe that is introducing learning innovations in Public Employment Services.

Kilpatrick, Peter  
Matthew H. McCloskey Dean of Engineering  
Professor of Chemical Engineering  
University of Notre Dame  
United States of America

Peter Kilpatrick is the Matthew H. McCloskey Dean of Engineering at the University of Notre Dame and as Professor of Chemical Engineering, positions he has held since January 2008. He received his A.B. in Chemistry from Occidental College and his PhD in Chemical Engineering from the University of Minnesota. He served on the faculty of North Carolina State University in Chemical Engineering from 1983 to 2007, as Department Head from 1999 to 2007, and as Founding Director of the North Carolina Biomanufacturing Training and Education Centre, a unique learning and training facility. Dr. Kilpatrick is the author of more than 90 refereed journal articles in the areas of colloid and interfacial science, and molecular self-assembly, particularly as they apply to energy and to bioseparations. He is also the holder of 13 patents. At Notre Dame, the College has grown by more than 40% in number of faculty members, and more than 60% in external research funding.

Kinsara, Abdul Raheem Abdul Rahman  
Associate Professor  
Department of Nuclear Engineering  
King Abdulaziz University  
Saudi Arabia

Dr. Abdul Raheem Abdul Rahman Kinsara is an Associate Professor, Department of Nuclear Engineering, King Abdulaziz University. He has a Bachelor degree in Nuclear Engineering, from King Abdulaziz University, a Masters degree in Nuclear Engineering from University of Missouri, and a Doctorate degree in Nuclear Engineering from University of Missouri. He held positions as Director and Head Supervisor General of the University Services Department; Director, Postgraduate Studies and Scientific Research, Faculty of Engineering, King Abdulaziz University; and is currently Vice Dean, For Administration and Finance of the College of Engineering.
Speakers Bios

**Kondratyev, Dmitry**  
Chief Executive Office  
Innopolis University  
Russia

Dr. Kondratyev is a self-made entrepreneur, scientist and professional educator with an outstanding 20-year career in education – from teaching part-time to building from scratch, growing and leading a network of educational centers where over 100,000 study courses were completed. Dmitry devotes most of his time to building relationships with universities, colleges, public and private schools and uses his experience to promote new approaches and technologies in education.

Dmitry is currently focused on the development of a new IT university for 5000 students – Innopolis University. The University grants bachelor, masters and PhD degrees with an immersive pre-university STEM education system in collaboration with the leading global universities.

Dmitry’s previous project Unium is a network of more than two dozen private pre-university educational centers where 500+ teachers teach 10,000+ students, producing revenue close to $10M per year. Unium has never received any outside financial support or investments. Dr. Kondratyev has constructed a bright example of applying customer-oriented business philosophy to education, thereby creating a standout in Russia where education is traditionally public, non-commercial, and customer-unfriendly.

He graduated from the Moscow Institute of Physics and Technology (PhysTech) in 1999. In 1997, he founded one of the first career centers in Russia “PhysTech Career” with a grant from the MIPT alumni club. From 2002 to 2006, Dmitry Kondratyev assisted the Rector of MIPT, coordinating efforts of different MIPT subdivisions on developing projects and applications to obtain grants from the Ministry of Science and Education and other financing. He received Ph.D. in Physics in 2004.

**Konzali, Nadia**  
Project Director  
International Civil Aviation Organisation (ICAO)  
United Arab Emirates

Eng. Nadia Konzali, Project Director under International Civil Aviation Organisation (ICAO) direction, is leading COSCAP-Gulf States project since September 2010. She is a Graduate Engineer from Ecole Nationale de l’Aviation, French school ENAC (1989), and private airplane pilot (license obtained in France in November 1987).

She is also a qualified ISO 9001 Auditor, and Audit leader certified under EN ISO 9102, in France in 2002. Presently, in addition to the project management and coordination in the Gulf States, she is acting as an aircraft airworthiness expert. The project is financed and steered by COSCAP-G5 member States, which are presently United Arab Emirates (UAE), State of Kuwait and Kingdom of Bahrain.

Nadia Konzali’s experience is gained through her years within Air France Industries (Paris-Roissy, France), as Airbus 340 Engineering Department manager (mechanics and electrical systems); six years with Bureau Veritas (Paris, France), as Project Manager for technical assistance and advice to Civil Aviation Authorities (around 20 CAAs in the world); and five years with Egis Avia (Egis Group), French company, as Project Manager, supervising and directing worldwide Projects, financed by the World Bank and European Commission for the enhancement of safety level and capabilities of Civil Aviation Authorities and Administrations.
Speakers Bios

**K RTE, L INDA**  
Director of Distance Education Programs  
College of Engineering  
North Carolina State University  
United States of America

Linda Krute is the Director of Distance Education Programs for the College of Engineering at North Carolina State University. After completing her PhD program at Oklahoma State University, her professional experience has been related to teaching and administration of distance engineering education programs. Dr. Krute administers several distance education programs at NC State, which includes 15 online graduate degree programs, two Bachelor of Science in Engineering degree programs, and online professional development courses.

She is an active member and fellow of the American Society for Engineering Association and the International Association for Continuing Engineering Education (IACEE).

**Kumar, Sunil**  
Dean of Engineering  
New York University, Abu Dhabi  
United Arab Emirates

Sunil Kumar is the Dean of Engineering at New York University Abu Dhabi. Prior to this, he was the Graduate Dean and Associate Provost at New York University Polytechnic School of Engineering. Sunil is a professor of mechanical engineering with interests in thermal-fluid systems, fire dynamics, laser and radiation propagation and interaction with materials, and applied mathematics.

He obtained a PhD in Mechanical Engineering from the University of California at Berkeley and MS degrees in Mechanical Engineering and Applied Mathematics from the State University of New York at Buffalo. His undergraduate degree is from the Indian Institute of Technology at Kharagpur.
Speakers Bios

Ángela Laguna Caicedo is a Panamanian civil engineer. She is the Dean of the Universidad Tecnológica de Panama (UTP) Faculty of Civil Engineer. She received her Civil Engineering diploma degree from UTP (1984), as well as her Environmental Engineering MSc and Basic Engineering Sciences MSc degrees. She has postgraduate studies in higher education. Prior to her election as Dean, she was the Director of the Experimental Engineering Center, one of the research centers of the UTP. She was the Secretary of the Panamanian Engineers and Architects Society (2006) and the President of the Panamanian Chapter of the AIDIS (Interamerican Environmental Engineering Society). At February 2014, Dean Laguna Caicedo was the President of the XII Iberoamerican Meeting of Engineers and Architects Women, developed in Panama City, with the participation of more than 400 professional women from Latin America and Spain. Recently, Professor Laguna Caicedo became the GEDC Latin America President.

Tod A. Laursen is the President of Khalifa University of Science, Technology and Research, in Abu Dhabi, United Arab Emirates. Prior to this, he was Professor and Chair of the Department of Mechanical Engineering and Materials Science at Duke University (USA) where he also held academic appointments in civil engineering and biomedical engineering, and served as Senior Associate Dean for Education in Engineering from 2003-2008. In the latter capacity, he had oversight responsibility for all undergraduate and graduate engineering programs at Duke University.

Dr. Laursen earned his PhD and MS postgraduate degrees in Mechanical Engineering from Stanford University and a BS in the same subject from Oregon State University. He specializes in computational mechanics. He has published over 100 refereed journal articles, conference papers, book chapters, and abstracts in this field, as well as authoring or co-editing 2 books. His particular focus is development of methods to analyse contact, impact and frictional phenomena, in highly nonlinear and complex systems.

He is a Fellow of both the American Society of Mechanical Engineers and the International Association of Computational Mechanics, and belongs to the American Society of Civil Engineers, the American Society for Engineering Education, and the United States Association for Computational Mechanics, and Tau Beta Pi. He served as an at-large member of the Executive Committee for the United States Association for Computational Mechanics between 2007 and 2010, and has served on the scientific advisory committees of several prominent national and international congresses in computational mechanics.
Speakers Bios

Lee, Tom
Chief Education Officer
Quanser
Canada

Dr. Tom Lee leads the development of the vision and strategy for transforming Quanser’s high performance mechatronics product line into real-world solutions for the research and educational marketplace. Having spent over twenty years in a wide range of business and technical positions within progressive technology companies, Dr. Lee is experienced at guiding the transformation of niche technologies into market-focused solutions. Dr. Lee holds a Ph.D. in Mechanical Engineering and Master of Applied Science and Bachelor of Applied Science degrees in Systems Design Engineering from the University of Waterloo. He also is an adjunct professor in Systems Design Engineering at the University of Waterloo. Before joining Quanser in 2011, Dr. Lee was Vice President, Applications Engineering and Chief Evangelist for Maplesoft, a mathematical and analytical software company in Waterloo, Canada.

Leidi, Yvonne
Human Resources Manager - Middle East and North Africa
Tenaris
Italy

Yvonne Leidi is the Human Resources Manager for the regions of Middle East and North Africa, at Tenaris Global Services. After earning her Bachelor’s Degree at Università Cattolica del Sacro Cuore in 2005, she joined the HR department at Tenaris where she served in the Talent Acquisition, Training, and Development functions. She was responsible for the hiring, learning, and professional development of the company’s engineers in the North Sea, Africa, and the Middle East. This was an experience which provided her a deep understanding of the educational and career advancement needs of both fresh graduate engineers, and experienced ones. Yvonne relocated to the UAE in April 2014, where she continues to manage different HR functions, as well as the Industrial Programs of the region’s young engineers.

Liu, Ang
Visiting Assistant Professor
Aerospace and Mechanical Engineering Department
University of Southern California
United States of America

Professor Ang Liu is a visiting assistant professor in the Aerospace and Mechanical Engineering Department at University of Southern California. He is manager of the Viterbi iPodia Program and research affiliate of the International Academy of Production Engineering (CIRP).
Speakers Bios

Gisela has extensive experience working in developed and emerging markets as an Operations Director, public and private sector consultant, and contributing to a number of educational initiatives.

With a doctoral degree in architecture and specialization in sustainability, she is also an architectural engineer by profession. Among the iconic projects she has worked or lead in Europe, the Middle East and Australasia are, for example; the Palms in Dubai, Dubai Metro, Masdar and over 30 high rises, with individual project values of up to US$500 million.

Among her public sector work has been the enhancement of efficiencies in government departments, drafting legislation relevant to the industry and implementing developmental decisions while reporting directly to the Sheikh. She was responsible for 80% of the Emirates annual budget in the field of Public Works, Infrastructure, Public Works in the field of Design and Project Management.

Gisela held an Operations Director position for a multi-million US$ group of companies with responsibility for more than 3,500 staff and has also worked with some of the region's leading consultancies while acting as the region's representative to the United Nations in New York on Built Environment for several years. She has also held senior positions in academia in Britain, New Zealand and the United Arab Emirates. Among her academic roles, she has established new departments, research institutes, secured funding and designed new campuses.

---

Professor Stephen Lu is David Packard Chair in Manufacturing Engineering at University of Southern California. His interests and expertise are in design thinking, collaborative engineering, technological innovation, and education reform. He has published over 330 papers, books, and chapters, and served on many journals’ editorial boards, including Chief Editor of the International Journal of Collaborative Engineering. At USC, he founded the IMPACT Research Laboratory, created the Product Development Engineering Master degree, and directs the Viterbi iPodia program. In 2012, he led the establishment of the iPodia Alliance, a global consortium of leading universities to promote the “classrooms-without-borders” paradigm based on borderless interactive learning. He is a senior Fellow of ASME and CIRP (International Academy of Production Engineering). He has received many prestigious domestic and international awards, including honorary professorships from six foreign universities and two Presidential recognitions in the USA and Germany.
Speakers Bios

Mandal, Hasan
Vice President and the Director
Research and Graduate Policies
Sabanci University
Turkey

Dr. Hasan Mandal received his BSc from Middle East Technical University (Turkey) in 1987 and PhD from University of Newcastle (UK) in 1992. He stayed at same university as postdoctoral research associate during the period of 1992-1996. In the period of 2007-2008, he was at Karlsruhe University as Alexander von Humboldt Fellow.

In 1996, he joined the Department of Ceramic Engineering at Anadolu University. He became the Head of Department (1999), Dean of the Faculty of Engineering (2004), Chairperson of Turkish Engineering Deans Council (2006), Vice Rector of Anadolu University (2010), Chairperson of Global Engineering Deans Council (GEDC-2009), The First President of the International Federation of Engineering Education Societies (2009-2011). He is currently Vice President and the Director of Research and Graduate Policies at Sabanci University/Istanbul.

He is currently serving as the Coordinator of European Higher Education Area (EHEA) Advisory Board, formed by the Commission of Higher Education of Turkey, the Board Member in Gebze Technological Development Park, Inovent (Innovative Ventures Co), Vice President of University-Industry Collaboration Centres Platform (USIMP), Board Member of TUBITAK - TTO Support Group. He has been also one of the founders the MDA Advanced Ceramics Ltd, which is an active R&D company on Ceramic Materials in Turkey. He is a member of World Innovation Foundation and World Academy of Ceramics.

He has co-authored over a hundred publications and three patents. He was honoured by twenty awards including TUBITAK Science Award and European Ceramic Society, Stuijts Award.

Marca, Paul
Executive Director
Stanford Centre for Professional Development (SCPD)
Stanford University
United States of America

Mr. Paul Marca is the Executive Director at Stanford Centre for Professional Development (SCPD), Stanford University. He spent 25 years in various roles at the SCPD and currently directs the portfolio of over 250 graduate and professional courses annually to industry customers. As a member of the senior management team, his duties include leading 70 professionals in developing, marketing and delivering engineering professional education to industry. He has been instrumental in developing and implementing SCPD international portfolio in Singapore, China, India, Korea, and South Africa and numerous European countries. In 2013, he launched a joint online certificate program between the School of Engineering and the Graduate School of Business: the Stanford Innovation and Entrepreneurship certificate. This is the first formal online education cooperation between the schools.

He developed a number of innovative university-industry and university-university partnerships to extend Stanford’s educational reach with effective ‘go-to-market strategies’. Paul also advised universities, corporations and governmental organizations how to develop and extend education as a means to sustain innovation. During 2012, Paul was asked to participate on Stanford University’s Presidential Advisory Committee on Technology in Higher Education. The committee was asked to review Stanford’s strategy and policies related to massively open and online courses (MOOCs) and now serves on the Vice Provost for Online Learning’s Advisory Council. Externally, Paul has served as an advisor to numerous start-ups and currently serves as advisor to WhalePath. He has also presented workshops around the globe on connecting innovation, strategy and execution. Paul has B.A. in Communication from Stanford University.
Speakers Bios

May, Dominik
Research Associate
Centre for Higher Education
Germany

Dominik May studied industrial engineering at the TU Dortmund University. Since 2010, he has worked as a research associate at the Centre for Higher Education in different projects for teaching and learning in engineering education at TU Dortmund University. Within the ELLI project, Dominik May is also engaged with virtual learning environments in the work package ‘mobile learning’. He is a member of the research group Engineering Didactics with the aim to bring together different research groups that deal with future engineering education. Since 2011 Dominik May has offered several transnational online courses for engineering students – e.g. in cooperation with the University Of Virginia (Charlottesville, VA, USA). In these courses, the students work on engineering issues with global implications in transnational project teams. The courses’ aim is to develop appropriate skills to communicate and work effectively in international project teams and by this to develop skills increasingly required in the global workplace.

May, Gary S.
Dean
College of Engineering
Georgia Tech
United States of America

Gary S. May received the B.S. degree in electrical engineering from the Georgia Institute of Technology in 1985 and the M.S. and Ph.D. degrees in electrical engineering and computer science from the University of California at Berkeley in 1987 and 1991, respectively.

He is currently Dean of the College of Engineering at Georgia Tech. In that capacity, he serves as the chief academic officer of the college and provides leadership to over 400 faculty members and more than 13,000 students in the fourth ranked engineering program in the nation. Prior to his current appointment, Dr. May was the Steve W. Chaddick School Chair of the School of Electrical and Computer Engineering at Georgia Tech from 2005-2011. His research is in the field of computer-aided manufacturing of integrated circuits, and his interests include semiconductor process and equipment modeling, process simulation and control, automated process and equipment diagnosis, and yield modeling. Dr. May is an IEEE Fellow, as well as a Fellow of the American Association for the Advancement of Science.

Miller, Richard K.
President and Professor
Olin College of Engineering
United States of America

Richard K. Miller was appointed President and Professor at Olin College of Engineering in 1999. Previously, he served on the faculty of engineering at the University of Iowa (Dean of Engineering), USC (Associate Dean of Engineering), and UCSB. Dr. Miller’s research interests are in innovative engineering education and applied mechanics where he has authored many publications and given numerous keynote presentations. A member of the U.S. National Academy of Engineering (NAE), he received the NAE’s 2013 Gordon Prize for Innovation in Engineering and Technology Education. In addition, he received the 2011 Donald E. Marlowe Award from the American Society for Engineering Education for creative and distinguished administrative leadership. He served as chair of the U.S. National Science Foundation’s Engineering Advisory Committee and on advisory committees for the World Bank, NAE, Harvard University, Stanford University, US Military Academy at West Point, and other institutions. Dr. Miller earned a B.S. degree from the University of California, Davis, where he received the 2002 Distinguished Engineering Alumnus Award. He earned his M.S. from MIT and Ph.D. from the California Institute of Technology, where he received the 2014 Caltech Distinguished Alumni Award.
Speakers Bios

Milligan, Michael K. J.
Executive Director
ABET
United States of America

Michael K. J. Milligan is Executive Director of ABET, a non-profit organization that accredits over 3,300 college and university programs in the disciplines of applied science, computing, engineering, and engineering technology located in 30 countries. In this role, Milligan leads a full-time staff headquartered in Baltimore, Maryland, supporting the operations of over 2,200 accreditation experts. Milligan is responsible for all aspects of ABET’s global operations, and reports directly to the Board of Directors, which is comprised of members appointed by ABET’s 34 member societies.

Milligan earned a Ph.D. from The University of Texas at Austin, an M.S.E. from the University of Massachusetts, and a B.S. from Michigan State University—all in electrical engineering. He also earned an M.B.A. from Western New England College. Milligan is a senior member of IEEE, a member of the Tau Beta Pi Engineering Honor Society, and a registered professional engineer in Colorado and Maryland.

Millin, Alan
Consultant Trainer
Society of Engineers
United Arab Emirates

Alan Millin is a Chartered Engineer, Chartered Environmentalist, Registered Scientist and LEED Accredited Professional. He delivers green building core concepts and LEED training on behalf of the UAE Society of Engineers and has been a trainer with the Society for more than 10 years. He has over 40 years’ experience within the HVAC industry and is a facilities management consultant and trainer, supporting organizations and individuals across the region. He holds an MBA in Leadership and Sustainability and is also an executive coach.

Minster, Jean-François
Senior Vice President
Scientific Development
Total
France

Jean-François Minster obtained a diploma of the Ecole Polytechnique and a Doctorate of the Institut de Physique du Globe of Paris (French institute of geophysics).

In 1981, he created the laboratory for Physics and Chemistry of the Hydrosphere of the Institut de Physique du Globe of Paris, then the laboratory of Oceanography and Geophysics of Toulouse which he managed from 1985 to 1996. He worked on the study of meteorites, volcanism, and ocean currents the oceanic cycle of the carbon in relation with climate, and satellite oceanography. From 1990 to 1996, he also occupied the function of Director of the Institute of the Earth sciences of Toulouse. In 1996, he took the direction of the Institut National des Sciences de l'Univers at the Centre National de la Recherche Scientifique (CNRS).

From 2000 to 2005, Jean-François Minster was Chairman and Chief Executive Officer of the Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER). In 2005 and 2006, he was Scientific Director General of the Centre National de la Recherche Scientifique (CNRS). He is corresponding member of the Academy of Science and member of the Academy of the Technologies. On October 1, 2006, Jean-François Minster was nominated Senior Vice President, Scientific Development of Total SA.
Speakers Bios

Moavenzadeh, Fred
President
Masdar Institute of Science and Technology
United States of America

Dr. Fred Moavenzadeh was named the President of Masdar Institute of Science and Technology on July 1, 2010 to support the Masdar Institute’s mandate of transforming Abu Dhabi emirate into a leading source of advanced technologies and highly skilled human capital. Widely recognized for his innovative role in building global institutions and developing new models of teaching and research through international initiatives in education, science and technology, Dr. Moavenzadeh has had a long and distinguished career at Massachusetts Institute of Technology. At MIT, he has served as the director of the Technology and Development Program, the Centre of Construction Research and Education and the Centre for Technology Policy and Industrial Development. Dr. Moavenzadeh received his master’s degree from Cornell University and his PhD from Purdue University.

Mohd-Yusof, Khairiyah
Director
Centre of Engineering Education
Universiti Teknologi Malaysia
Malaysia

Dr. Khairiyah Mohd-Yusof is the Director of Universiti Teknologi Malaysia (UTM) Centre of Engineering Education (CEE), which promotes research and scholarly practices in engineering education. She has been an invited speaker in conferences and workshops in Asia, Europe and North America and had co-chaired international conferences, such as the 2013 International Research Symposium on Problem Based Learning (PBL) and the 2013 Research in Engineering Education Symposium (REES). Currently, Dr. Khairiyah is on the Editorial Board of the ASEAN Journal of Engineering Education, the Journal of Engineering Education, IChemE Journal on Education for Chemical Engineers and the Journal of PBL in Higher Education. She is also a Master Trainer for the Malaysian Ministry of Education Higher Education Leadership Academy, the Secretary for the Society of Engineering Education Malaysia (SEEM), and a board member of the Research in Engineering Education Network (REEN).

Morell, Lueny
Principal
Lueny Morell & Associates
United States of America

Lueny Morell, MS, PE, is Principal of Lueny Morell & Associates, a consulting group that provides higher education leaders mentoring in areas related to innovation and curriculum/learning environments. From 2013 to 2014, Lueny was Provost & Chief Academic Officer at NEU, developing a new platform to educate engineers and technologists in Silicon Valley, California. Before NEU, Lueny worked 11 years at HP Labs in the Strategy, Open Innovation and University Relations teams. From 1978 to 2002 Lueny was full professor of Chemical Engineering at the University of Puerto Rico where she held positions of Associate Dean of Engineering, Director of R&D and Assistant to the Chancellor. A co-founder and past president of the International Federation of Engineering Education Societies and the Global Engineering Deans Council, she also catalysed the foundation of SPEED. Lueny is an IEEE Senior Member, ASEE Fellow, ABET Commissioner, and has received various recognitions, including the prestigious US National Academy of Engineering Gordon award for innovations in the engineering curriculum. She is passionate about engineering education innovation and fostering partnerships as pillars for economic development.
Speakers Bios

Moropoulou, Antonia
Professor
National Technical University of Athens
President - Technical Chamber of Greece
Vice President
Administrative Council of the European Society for Engineering Education
Greece

Antonia Moropoulou, is currently Professor at the National Technical University of Athens, Greece, Vice President of the Technical Chamber of Greece and Vice President of the Administrative Council of the European Society for Engineering Education. She is a Chemical Engineer, PhD, Full Professor at the Section of Materials Science and Engineering of the School of Chemical Engineering. She was elected as Contracted Professor in IUAV University of Venice (1993), Visiting Professor at Princeton University (1995-1996) and has served as Vice Rector of Academic Affairs of NTUA (2010-2014). She is a world class expert in building materials and the preservation of monuments that comprise the World’s Cultural Heritage, scientific coordinator of more than 80 National, European and International research competitive programs and author of 1 book, 2 monographies, 15 chapters in books and 454 scientific publications. In 2012, she was awarded the ‘YPATIA’ Award by the ‘Association of Hellenic Women Scientists’.

Mourtos, Nikos J.
Professor and Program Director
Aerospace Engineering
San Jose State University
United States of America

Dr. Nikos J. Mourtos is a professor of Aerospace Engineering and the Director of the Aerospace Engineering Program at SJSU. He received his BSME from the University of Patras, Greece (1980) and his M.S. (1982), Engineer (1983), and Ph.D. (1987) degrees in Aeronautical and Astronautical Engineering from Stanford University. He has served as the Faculty Instructional Development Coordinator for the College of Engineering (1996-2002), Faculty-in-Residence for Innovative Pedagogy for the Centre for Faculty Development and Support at SJSU (1998-2002), the Assessment Coordinator in the Department of Mechanical and Aerospace Engineering (2002-2006), and the Assistant Director for the Centre for Faculty Development and Support at SJSU (2006-2008). Dr. Mourtos has developed and taught more than 20 courses in a variety of engineering subjects. His research interests encompass aerodynamics, aircraft design, as well as any aspect of teaching and learning in engineering education.

Murugesan, R.
President
Indian Society of Technical Education
India

Dr. R. Murugesan is presently the President for Indian Society of Technical Education. He was the former Vice Chancellor of Anna University of Technology Madurai as Vice-Chancellor. Dr. R. Murugesan did his M.E. (Structural Engineering) and subsequently Ph.D in Civil Engineering at Coimbatore Institute of Technology, Coimbatore. He has an illustrious career of over 33 years in academic arena and has about 28 international journal/conference publications and 27 national journal/conference publications to his credit. He has authored 18 books in various disciplines. For seven terms, he was the National Executive Council Member of ISTE (Indian Society for Technical Education) and served as National Students Advisor for Institution of Engineers. He also played a vital role as the Member of Committee for making Tamil as medium of instruction for engineering institutions.
Speakers Bios

Dr. Murugesan has visited USA, Canada, Singapore, Malaysia, Thailand, United Kingdom, Belgium, Netherland, Germany, Austria, Italy, Switzerland, Mauritius, France, Dubai, Tunisia, Egypt, China, South Korea and Australia. He has an inborn acumen towards research and has guided several research scholars. He is also a life member in various professional bodies like Indian Society for Technical Education, New Delhi Institution of Engineers (India), Kolkata, Quality Circle Forum of India, Hyderabad and Institution of Valuers, Kolkata.

Dr. Josephine Nabukenya is a Dean of the School of Computing and Informatics Technology (CIT), at Makerere University, Uganda. She earned her PhD in Information Systems (Collaboration Engineering) from Radboud University Nijmegen, the Netherlands in 2008. Her research focuses on issues related to Collaboration Engineering; Analysis and Design of Information Flow; Business Process Modeling; Enterprise Engineering and Requirements Engineering. She is a member of the Software and Enterprise Engineering (S&EE) research group of SCIT; the Enterprise Engineering (EE) research network; and the Group Decision and Negotiation (GDN) research group. Josephine is also a Professional member of the Association of Computing Machinery (ACM), and a Program Committee member for several journals and conferences such as CEJCS, IJICR, GDN, HICSS, ECIS, PRET, and CBI, among others. Josephine lectures and conducts research supervision of graduate students in Information Systems and Software Engineering specialties and related fields.

Josephine is a member of the Makerere University Senate and Council, and serves on the University Council Committees of: Quality Assurance, Gender and ICT; Staff Development and Social Welfare; Senate Committees of: Academic Board of the College of Engineering, Design Art and Technology; and Board of Research and Graduate Training. She is also an observer member of the Global Engineering Deans’ Council (GEDC).

Dr. Jihad S. Nader is Provost and Chief Academic Officer, and Professor of Finance at the American University in Dubai (AUD). He was previously Dean of the School of Business Administration, Dean of Executive Programs and Professional Services, and MBA Program Director at AUD. His academic and professional career spans over thirty-five years during which he was a Citibank officer, a faculty member, and an administrator at the American University of Beirut, the University of Toronto, Wilfrid Laurier University in Waterloo, Canada, Concordia University in Montreal (Associate Dean), the Emirates Institute for Banking and Financial Studies (Director of Studies), and AUD. Professor Nader has been actively involved in consulting for numerous academic and training institutions, business firms, professional bodies, and government agencies in North America, Europe and the Middle East. His research on financial institutions and markets, corporate finance, pension plan design and liability valuation, real estate lease valuation, banking education, and other topics, is published in leading academic and professional journals. He is a member of the editorial boards of several refereed journals in the USA and the UK. Claims, a leading risk management journal in the USA, ranked one of Dr. Nader’s books, The Manager’s Concise Guide to Risk (Wiley Finance Series), among the “Top 10 Risk Management Books” published in 2002. Dr. Nader is the recipient of several awards for excellence in teaching and research. He holds B.B.A. and M.B.A. degrees from the American University of Beirut and a Ph.D. from the University of Toronto.
Speakers Bios

Nasr, George E.
Dean
School of Engineering
Lebanese American University
Lebanon

George E. Nasr is currently Professor of Electrical Engineering and Dean of the School of Engineering at the Lebanese American University (LAU), Lebanon. Professor Nasr earned his Ph.D. in Electrical Engineering from the University of Kentucky in 1988. He joined LAU in 1993 after holding faculty positions at the University of Kentucky and at Valdosta State University.

Dr. Nasr has played a major role in the establishment and development of the School of Engineering at LAU since 1995. In October 2006, Dr. Nasr was appointed Dean of the School where he led the efforts for the first ABET accreditation of the undergraduate engineering programs at LAU effective October 2009.

Dr. Nasr authored numerous publications in refereed international journals and conference proceedings. His research interests include mathematical modeling and optimization, and engineering education. Dr Nasr has been active in the engineering education circles and is an ABET program evaluator. He is a member of the Executive Committee of the Global Engineering Deans Council, a member of the ASEE Engineering Deans Council and a senior member of IEEE.

Natarajan, Ramamurthy
Chairman of the Board
IT Education Standards of Karnataka
Co-Chairman - Engineering Education Forum
Indian National Academy of Engineering
India

R Natarajan received his B.E. degree in Mechanical Engineering from the University Visvesvaraya College of Engineering; M.E. degree of the Indian Institute of Science, Bangalore; M.A.Sc and Ph.D degrees from the University of Waterloo, Canada. He worked as a National Research Council Fellow in Canada, and as a Humboldt Research Fellow in Germany.

He served as Director of the Indian Institute of Technology, and Chairman of The All India Council for Technical Education. He was Vice-President of The Indian National Academy of Engineering, and Chairman of the Research Council of the Central Fuel Research Institute. He is currently Chairman of the Board for IT Education Standards of Karnataka, and Co-Chairman of the Engineering Education Forum of the Indian National Academy of Engineering.

He is a Fellow of Indian National Academy of Engineering, Indian Society for Technical Education, National Academy of Social Sciences, Institution of Engineers (India), Indian Institution of Plant Engineers, National Foundation of Indian Engineers, Indian Institution of Materials Management, and Madras Science Foundation.

He has been conferred Honorary Doctorate Degrees by The University of South Australia, Jawaharlal Nehru Technological University, Kanpur University, Nagarjuna University, Purvanchal University and NIT, Agartala.

He has been a Member of the Editorial Boards of Fuel, Fuel Science and Technology, Indian Journal of Technical Education, and Staff and Educational Development International; Editor of The Journal of The Steam and Fuel Users’ Association of India, and The Journal of Plant Engineering. He is on the Editorial Board of International Journal of Engineering Education and of the Journal of Engineering Education.
Speakers Bios

Obiazi, Adagbonyin Moses O.
Chairman
Committee of Deans of Engineering and Technology of Nigerian Universities
Nigeria

Engr. Prof. Adagbonyin Moses O. Obiazi was born at Agbor in Delta state. He attended the prestigious Ika Grammar School, Agbor from 1974 to 1979 obtaining the West African School Certificate with Distinction. He proceeded immediately to the University of Benin to study Electrical/Electronic Engineering, graduating in 1984 with 2nd Class Hons, Upper Division. He had his Master’s Degree in Electrical Engineering from the University of Lagos in 1991 and capped it with a PhD in Electrical Power and Machines from Ambrose Alli University, Ekpoma, supervised by the renowned Engr. Prof. Philip Kuale.

He started his working career in the Federal Polytechnic University, Auchi in 1985 after his NYSC in Sokoto State. In the quest for higher levels of engagement, he joined the services of then Bendel State University, Ekpoma (now, Ambrose Alli University) in 1987 where he has risen through the ranks from Graduate Assistant to his current status as a Professor of Electrical Engineering and Dean of the Faculty of Engineering and Technology. He was the Head of Department of Electrical/Electronic Engineering [1997-1999], Sub-Dean of the Faculty of Engineering and Technology, Member of the University Senate and Member/Chairman of over 40 University committees/panels. He is currently serving as the Chairman of the Central Bank intervention Projects in Ambrose Alli University. In Sept 2012, he was elected Chairman, Committee of Deans of Engineering and Technology of Nigerian Universities [CODET].

Oh, Myongsook Susan
Department of Chemical Engineering
Hongik University
Korea

Myongsooks Oh is a professor of Chemical Engineering Department at Hongik University in Seoul. She obtained a B.S. degree in chemical engineering from the University of California at Berkeley, and Sc. D. from Massachusetts Institute of Technology (MIT). Before joining Hongik University, Dr. Oh was associated with Lawrence Livermore National Laboratory (LLNL) and Texaco, Inc. in the U. S.

Her main research is focused on the area gasification slag rheology and refractory corrosion. The other area that Dr. Oh devotes her effort is to develop women in engineering program and educational contents. She also served several government committees such as Energy Technology Advisory Committee and New and Renewable Energy Committee. She is a member of the National Academy of Engineering of Korea (NAEK). She served as a member of a CAETS (Council of Academies of Engineering and Technological Sciences) working group for low carbon energy technologies, representing NAEK.
Speakers Bios

Packhem, Joe
Marquette University
United States of America

Joe Packhem is pursuing his Masters degree in Civil Engineering at Marquette University in Wisconsin, USA. He is currently writing a thesis on seismic moment resisting frame connections in steel. In addition to being a student, Joe works at the Masonry Advisory Council creating standard designs and details for a brick high-rise. He also advises engineers and architects in the state of Illinois and gives educational presentations on masonry. Joe volunteers with SPEED and has served as the External Affairs Officer for 2013-2014.

He helped with planning for the Inter-generational Panel Discussion for both the 2014 and 2013 WEEF conferences and has been conducting engineering education research with students in SPEED as well as professionals in IFEES and Quanser. In his spare time, Joe works on inventions for water treatment of contaminated water sources.

Pirinen, Rauno
Principal Lecturer in Research and Development
Laurea University of Applied Sciences
Finland

The founder of the Integrative Research, Education and Regional Development Model (Integrative Model) at Laurea University of Applied Sciences. He is responsible for collaborative development of master studies in the field of information systems and services at Laurea and the network of Universities of Applied Sciences. Teaching and learning by research and development, supervising thesis and advancing research continuums of doctoral and postdoctoral studies. Current interest’s areas of postdoctoral research includes adoption and strategic use of information systems; knowledge transforms in regional-national-global innovation systems; integration of higher education, research and regional development; emergent service system issues; and theoretical foundations.

His dissertations investigated the realization of research and development (R&D) functions in a university of applied sciences (UAS) and the realisation of the regional development task of higher education in response to new regional and national challenges.
Speakers Bios

Pokholkov, Yury
President
Association for Engineering Education
Russia

Yury Pokholkov, Professor, Doctor of Technical Sciences holds the position of President of the Association for Engineering Education of Russia since 1999, all-Russian organization that aims to improvement of engineering education and engineering profession involving educational, scientific and technological aspects. A lot of efforts have been made by AEER to develop and improve the system of public professional accreditation and certification of professional engineers in Russia. Under the leadership of Prof. Pokholkov AEER has become full member of ENAEE, Washington Accord, IFEES, SEFI, APEC, etc.

Prof. Pokholkov has vast experience in university management and international cooperation being Rector of National Research Tomsk Polytechnic University (1990-2008) and current Head of Department of Management and Technology in Higher Professional Education at TPU. A member several professional and public academies, Yury Pokholkov has gained public and professional acknowledgment and government awards: Honoured Worker of Science and Engineering of Russian Federation, Honorary Professor at Jilin University, Medal of the Czech Technical University in Prague, Johann Joseph Ritter von Prechtl Medal of TU Wien.

His scientific publications (more than 230 including 9 monographs) are in the field of electrical engineering, as well as management and quality assurance in engineering education.

Quadrado, José Carlos
Professor of Electrical Machines
Instituto Superior de Engenharia de Lisboa (ISEL)
Portugal

José Carlos Quadrado is an innovative and experienced president of engineering institute and an international leader in engineering education worldwide. Being a coordinating full professor of electrical machines in the Instituto Superior de Engenharia de Lisboa (ISEL), Portugal, he participates as a board member is several international engineering and engineering education societies in several continents. Author of over 100 international publications, several patents as well as international technical prizes and scholarships, he is a visiting professor in several universities around the world. Director of the Portuguese Observatory on University Strategic Management Best Practices, he was nominated by the Portuguese Science and Technology Minister, as a National Bologna Expert Group member. Founding member of the Global Engineering Deans Council (GEDC), he currently holds the position of President of the International Federation of Engineering Education Societies (IFEES).
Speakers Bios

**Ríos, Jaime Bonilla**
Dean  
School of Engineering and Information Technologies  
Campus Monterrey, Tecnológico de Monterrey  
Mexico

PhD in Interdisciplinary Engineering (Polymer Rheology) from Texas A&M University (1996); Master in Chemical Engineering from Rice University (1984); BSc. in Chemistry from Tecnologico de Monterrey (1980). He has been Consultant for Industrias del Alcali; Vitro; CYDSA; Total Petrochemicals, USA; has conducted collaborative research with colleagues from Rice University; Technical University of Hamburg-Harburg; Joahannes Kepler University, Centro de Investigacion en Quimica Aplicada (Mexico); has been Visiting Professor at Rice University. Administrative positions at Tecnologico de Monterrey: head of the Chemistry Program (1998-2001), Director for Research and Continuing Studies (2001-2004), Director for Alumni Affairs and for the Life and a Career Centers (2004-2009), since 2009 is Dean for the School of Engineering and Information Technologies. Full professor at the Chemical Engineering and the Mechanical Engineering Departments. Teaches and conducts research on rheology, polymer composites and mathematical modeling of polymer processes. Member of the Instituto Mexicano de Ingenieros Quimicos, Society of Plastics Engineering, President of the Latin American and Caribbean Consortium of Engineering Institutions (LACCEI), Global Engineering Deans Council (GEDC) and Chair for the GEDC Latin American Chapter.

**Sadoway, Donald R.**
John F. Elliott Professor of Materials Chemistry  
Department of Materials Science and Engineering  
Massachusetts Institute of Technology  
United States of America

Donald R. Sadoway is the John F. Elliott Professor of Materials Chemistry in the Department of Materials Science and Engineering at the Massachusetts Institute of Technology. He obtained the B.A.Sc. in Engineering Science, the M.A.Sc. in Chemical Metallurgy, and the Ph.D. in Chemical Metallurgy, all from the University of Toronto. The author of over 150 scientific papers and holder of 19 U.S. patents, his research is directed towards the development of rechargeable batteries for grid-level storage and environmentally sound technologies for the extraction of metals. He is the founder of two companies, Ambri and Boston Electrometallurgical. Viewed over 1,500,000 times, his TED talk from February 29, 2012 is a narrative about inventing inventors as much as it is about inventing technology. In 2012, he was named by Time magazine as one of the 100 Most Influential People in the World.

**Salazar, David Garza**
Vice Provost  
Undergraduate Education  
Tecnológico de Monterrey  
Mexico

Dr. David Garza Salazar is Vice Provost for Undergraduate Education at Tecnológico de Monterrey, responsible for the educational model, curriculum, faculty development and academic quality of over 50 academic programs and 55,000 students in 26 Campus. He received his B.Sc. in Computer Sc. and Engineering from Tecnológico de Monterrey in 1985 and obtained a Ph.D. in Computer Sc. from Colorado State University in 1996. He has been author of multiple journal/conference and book articles, and worked as consultant in different industry projects. He has held different academic positions at Tecnologico de Monterrey such as Dean of the School of Engineering and President of the Monterrey Campus. Dr. Garza Salazar is a member of professional societies and organizations such as ASEE, IEEE, ACM, Sigma Xi, and Phi Kappa Phi. He has been Chair of the Global Engineering Deans Council (GEDC) and advisor of the different industry and government boards.
Speakers Bios

**Schächter, Vincent**  
Vice President  
Research and Development  
Total  
France

Dr Vincent Schächter is Vice President, Research and Development, at Total New Energies. In his current position, he is responsible for Total’s R&D programs and partnerships in cleantech, including solar (Photovoltaics and CSP), energy storage and biotechnology. The network of R&D partnerships he is developing includes SunPower, start-ups such as Amyris or AEP, as well as several academic laboratories in the US and in Europe. Before moving to TOTAL in 2009 to start the biotechnology R&D effort, Vincent Schächter was head of the Computational Systems Biology Laboratory at the Institute for Genomics of CEA (Commissariat à l’Energie Atomique), a large French government research organization. Previous positions include Director of Bioinformatics Research at Hybrigenics SA, a biotechnology company and Director of Bioinformatics at Genoscope, the French national Genome Centre. Vincent Schacht holds a PhD in mathematics from the Ecole Normale Supérieure in Paris.

**Schlosser, Joachim**  
Technical Manager Academia EMEA  
MathWorks  
Germany

Dr. Joachim Schlosser leads a European team of Engineers at MathWorks, advising users of MATLAB and Simulink on solutions to solve their challenges in education. His motivation is to assist engineers making the world a little better, to save energy and resources, and keeping up innovation. Before joining MathWorks, Joachim Schlosser worked at BMW and other automotive OEMs consulting and researching in simulation and embedded systems development as well as design process analysis. Being a computer scientist, with a PhD from Technical University of Munich, he strives to bring different disciplines together and create a creative environment. He is author of a several books and blogging.

**Schroeder, Rachel**  
Head of Employment Marketing for Airbus  
Head of Employment Marketing Strategy  
Airbus Group  
France

During nine years with Airbus in North America, Rachel worked in Strategic & Business Planning and Investor Relations. She moved to Toulouse in 1995 to join Airbus S.A.S. working in Technical Marketing and supporting the Chief Commercial Officer. In 2003, Rachel became Head of A380 Communications, during the A380’s roll-out, first flight and first customer deliveries. From 2007 to 2009 Rachel combined A380 and Environmental Communications within the Strategy and Strategic Communications department, notably launching the first edition of Airbus’s Fly Your Ideas challenge - a student competition about aviation and the environment which attracted 2500 participants in the first year and now in its third edition the competition involves over 380 universities worldwide and has received UNESCO patronage.
Speakers Bios

Rachel is now Head of Employment Marketing for Airbus and Head of Employment Marketing Strategy for Airbus Group, where amongst other things she is responsible for the development of strategic university relationships worldwide and has been supporting Airbus during a period of record recruitment. In this role, Rachel has recently launched the second edition of the GEDC Airbus Diversity Award, an Airbus initiative created to recognize and encourage diversity in the Engineering.

Schuh, Günther
Professor for Production Engineering
RWTH Aachen University
Germany

Born on November 19, 1958 in Cologne/Germany, Dr. Schuh is a Member of the Board of Directors of the Laboratory for Machine Tools and Production Engineering (WZL), of Fraunhofer-Institute for Production Technology (IPT) and of Research Institute for Rationalization at Aachen University (FIR). He is also a Member of the German Academic Society of Production Engineering (WGP), Full Member of CIRP (The International Academy for Production Engineering), Member of ACATECH - The National Academy of Science and Engineering and Member of several supervisory and administrative boards. In 1988, he completed his studies of Mechanical Engineering and Business Administration and PhD at RWTH Aachen University. Since, he has held positions as Senior Researcher (Chief Engineer) at the Laboratory for Machine Tools and Production Engineering (WZL) of the RWTH Aachen; Founder and President of the GPS Complexity Management Inc., Software and Consulting Company in St. Gallen (Switzerland), Aachen (Germany) and Atlanta (USA); Senior lecturer of Operations Management and Industrial Theory at the University of St. Gallen (HSG), Habilitation at the University of St. Gallen; Professor for "Operations Management" and member of the board of directors of the Institute of Technology Management at the University of St. Gallen; Professor for Production Engineering at RWTH Aachen University; and Vice-Rector at RWTH Aachen University.

Semaan, Alexandra
American University in Dubai
United Arab Emirates

Alexandra is a Civil Engineering student, currently completing her Masters degree in Construction Management at the American University in Dubai. She is currently working at Tenaris in the position of Global Trainee after working at the American University in Dubai for 2 years as the Engineering Lab Coordinator.

In March 2013, Alexandra joined the Student Platform for Engineering Education Development (SPEED) as an organizing member of the 9th Global Student Forum-Cartagena. Currently she is serving as the local chair for the 10th GSF, which will be taking place in Dubai in December 2014. Being involved in every aspect of the GSF organization, Alexandra got the chance to broaden her knowledge in the field of Engineering Education and the issues and challenges being faced in this field.
Speakers Bios

Sheikh, Sohaib Qamar
IT and Communication Systems Consultant
Ove Arup and Partners Ltd
United Kingdom

Sohaib Sheikh the Pre-University Activities Coordinator for IEEE Region 8. Under this role, he is responsible for developing, supporting and promoting IEEE’s Pre-University programs for STEM education in Europe, Middle East and Africa. His main focus lies in utilizing the support of local communities in customizing and expanding the STEM education programs to all parts of the Region including areas which are not easily accessible. In his day job, Sohaib works as an IT and Communication Systems Consultant at Ove Arup and Partners Ltd where he is part of the team responsible for delivering complex ICT solutions for large-scale infrastructures. He is a telecommunication and networks engineer, and has studied for his degrees and research at National University of Computer and Emerging Sciences, Queen Mary University of London, and City University London.

Shetty, N.R.
Visiting Professor and Fulbright Scholar
University of Texas - Austin
United States of America

Prof. N.R. Shetty had a brilliant academic career and obtained his B.Sc. (Honours) in Physics with Electronics as a special subject from Madras University, M.Sc. (Opto-Electronics) from University of Essex (U.K.) and Ph.D. from Dept. of Electrical Engineering of IIT Bombay. He had held the position of Professor and Principal of Karnataka Regional Engineering College, Surathkal, Vice-Chancellor (two terms) of Bangalore University, Member Secretary and Chief Executive, Indira Gandhi National Centre for the Arts, New Delhi. Prof. Shetty has over thirty-five years of teaching experience at Post Graduate Level and Research experience in the areas of Microwave Engineering, Quantum and Opto Electronics, Solid State Physical Electronics, etc.

He was a Visiting Professor and Fulbright Scholar at University of Texas, Austin, USA and a UNESCO Fellow at Essex University, Colchester and Standard Telecommunication Labs. Harlow (U.K.) and was the receipt of Visitorship of the British Council to visit British Universities. Presently, he is Chairman, National Advisory Committee on Entrepreneurship Development Cell, Dept. of Science & Technology, Government of India, New Delhi, Chairman, ISTE Working Professionals Learning Project, Bangalore, Chairman, Sir M. Visveswaraiyah Memorial Foundation, Bangalore and Executive Committee Member, VTU, Belgaum. Prof. Shetty was the President, ISTE from 2006-2011. He has been elected as Vice-President of International Federation of Engineering Education Societies (IFiEES), Washington DC, USA for a period of two years.
Speakers Bios

Simon, Monique  
Head of University Relations  
Total  
France

Monique Simon is Head of University Relations at Total. In this capacity, her role is to create and maintain a talent pipeline for short, medium and long-term recruitment needs globally, and increase awareness of employer brand worldwide with students, educators, and industry professionals. Her previous roles include Career Manager in Exploration and Production, Diversity Manager for E&P, Subsidiary Training Coordinator, and Head of HR Development at the corporate level. Prior to Total, Monique worked for 11 years as a management consultant with Arthur D. Little’s Energy Practice, based in Houston then Paris. In this role, Monique worked with industry majors, independents, NOCs and contractors, focusing on strategy, portfolio management, privatizations, mergers and acquisitions, business process reengineering, organizational design and organizational effectiveness. She is an active member of the Society of Petroleum Engineers, and represented Total on the SPE Talent Council from 2007-2010. Her publications include “A Joint HR/Technical Discipline Approach to Recruitment, Development and Retention of Talent Worldwide”, (International Petroleum Technology Conference Kuala Lumpur 12/ 2008), and “Increasing and Enhancing the Supply of Petroleum Industry Talent”, (Journal of Petroleum Technology 01/ 2009).

Monique has a BSc in International Business Administration with a major in Finance from USIU's Mexico City campus (now Alliant).

Small, Edgar P.  
Associate Professor of Civil Engineering  
American University in Dubai  
United Arab Emirates

Dr. Edgar P. Small is an Associate Professor of Civil Engineering at the American University in Dubai, where he has served since August of 2007 following his tenure at the US Department of Transportation. With over 25 years of experience in academics, government service, construction and consulting, Dr. Small brings a wealth of experience to the classroom. His specialty areas are infrastructure management and construction engineering. He applies his knowledge in these areas through educational efforts at both the undergraduate level, within the ABET-accredited School of Engineering, and the graduate-level through the Masters of Science in Construction Management (MSCM) program. He is passionate for education to improve the skills of professionals responsible for management of construction projects within Dubai and the UAE.

Soeiro, Alfredo  
Associate Professor  
Academic Director and Vice-President Civil Engineering  
Universidade do Porto  
Portugal

Speakers Bios

**Steinberg, Laura J.**
Professor - Civil and Environmental Engineering Department
Dean - College of Engineering and Computer Science
Syracuse University
United States of America

Laura J. Steinberg is Dean of Syracuse University’s College of Engineering and Computer Science and Professor in the Civil and Environmental Engineering Department. She is the newly-elected Secretary/Treasure of the GEDC and has also served on the working group for GEDC/Airbus Diversity Award.

Dean Steinberg scholarship focuses on the management of natural and man-made disasters. She has worked extensively with investigators from many countries in studying problems of risk, vulnerability, and emergency preparedness around the world. Other focus areas for her research include environmental contaminant modeling and the diffusion of technological innovation.

Among her initiatives as Dean at Syracuse University over the last six years are the infusion of opportunities for creative expression in engineering curriculum; emphasis on diversity in faculty hiring; creation of collaborative research and student exchanges with overseas universities; leadership of a grass-roots strategic planning effort by the engineering college; and significant growth in the college’s research focus areas of cybersecurity, energy engineering, and biomaterials.

Dean Steinberg holds a bachelor’s degree in civil and urban engineering from the University of Pennsylvania and master’s and doctoral degrees in Environmental Engineering from Duke University. Prior to joining academia, Dean worked as an engineering consultant.

**Stojcevski, Alex**
Head of Electrical & Electronics and Engineering
Deputy Head - School of Engineering
Deakin University
Australia

Professor Alex Stojcevski is the Deputy Head of School, and the Head of Electrical & Electronics and Engineering in the School of Engineering at Deakin University.

Alex holds a Doctor of Philosophy degree, Masters by research degree in Electrical and Electronics Engineering, and a Bachelor degree in Electrical Engineering. He also holds a Masters degree in Educational Leadership and a Masters degree in Project Based Learning (PBL) in Engineering and Science from Aalborg University in Denmark.

Prior to joining Deakin University in February 2012, Professor Stojcevski held a number of senior positions such as Director of the Office for PBL at Victoria University, and Associate Dean Learning and Teaching at Swinburne University of Technology. Alex has also held numerous external positions such as external Professor of Aalborg University, Council member of the European Engineering Education Society, and is currently in the editorial board of the European Journal of Engineering Education as well as a current international member of the consultative committee of the Centre for Problem Based Learning in Engineering and Sustainability, Aalborg University under the auspices of UNESCO.

Alex’s research interests are in electrical engineering, micro grid technologies, project and design based learning, educational leadership, and distance education. He has published over 200 book chapters, journals, and conference articles and has given a number of internationally invited presentations.
Speakers Bios

Subic, Aleksandar
Head of School of Aerospace, Mechanical and Manufacturing Engineering
Dean of Engineering
RMIT University
Australia

Professor Aleksandar Subic is the Dean of Engineering at RMIT University and Head of School of Aerospace, Mechanical and Manufacturing Engineering. He has over 25 years of experience in education and research having worked at universities and research organizations worldwide. In this position, he is also responsible for the operation of the RMIT Advanced Manufacturing Precinct, Sir Lawrence Wackett Aerospace Research Centre, DSTO Centre of Excellence in Aerodynamic Loading, and research nodes of a number of national programs including CRC’s, ARC Industry Transformation Hub and NHMRC CoE. Prof. Subic is a Fellow of IEAust, Fellow of SAE and Fellow of IEF. Concurrent with his academic appointments he held external appointments on Board of Directors of national Society of Automotive Engineers, national Aerospace and Aviation Industries Association, national Cooperative Research Centres, on a number of Research Advisory Boards, Editorial Boards of international journals and other notable international appointments. He is the Editor in Chief of International Sports Technology Journal published by Routledge (Taylor & Francis) and of International Journal of Sustainable Design published by Inderscience. He has published around 300 international peer reviewed publications to date including books, book chapters, journals and conferences and has undertaken and led multimillion-dollar high impact research projects and developments in advanced engineering design and manufacturing funded by national government agencies and industry worldwide.

Tekinay, Sirin
Dean of Engineering and Natural Sciences
Kadir Has University
Turkey

Professor Sirin Tekinay is the Dean of Engineering and Natural Sciences at Kadir Has University, Istanbul, Turkey. After a twenty year career in the USA, she returned to her home country to serve as the founding Vice Rector for Research at Ozyegin University for three years. Previously, she was tenured faculty of Electrical and Computer Engineering at New Jersey Institute of Technology. In 2005, she joined the United States National Science Foundation as Program Director where she served as the founding chair of the 750 M USD program called “Cyber Enabled Discovery and Innovation,” and managed her home program for Communications. Prof. Tekinay holds nine patents and has authored numerous publications in her field. She has graduated six doctoral students. Her areas of interest include network science, mobile networks, sensor networks, and applications. At her current post, she has founded the first fabrication laboratory in Turkey; “FabLab Istanbul,” and the first Urban Engineering Research Centerand Master’s Program.

Terkowsky, Claudius
Scientific Coordinator
Engineering Education Research Group
Centre for Higher Education
TU Dortmund University
Germany

Claudius Terkowsky is scientific coordinator of the Engineering Education Research Group at the Centre for Higher Education at TU Dortmund University in Germany. He studied educational sciences, sociology, educational psychology and cultural anthropology with a special research interest in designing of technology-enhanced learning environments.

As senior researcher, he is currently involved in two third party funded research projects in the field of higher engineering education concerning fostering creativity, and designing of actual, remote and virtual laboratory experiences. He is also a certified trainer in higher education. In recent years, he has developed and implemented several workshop formats for teachers and students in higher education, particularly in the fields of fostering creativity and laboratory teaching. He is member of the Global Online Laboratories Consortium educational committee (GOLC), the International Association for Online Engineering (IAOE), the German Society for Higher Education (DGHD), and the Society for Media in Science and Education (GMW).
Speakers Bios

**Thomas, Gareth**  
Academic Marketing Manager for the Education Business  
MathWorks  
The Netherlands

Gareth is World Wide Academic Marketing Manager for the Education Business in the MathWorks. He aims to inspire people of all ages about technology and share the magic that MathWorks brings to the table when learning, teaching, researching and solving problems that accelerate the pace of engineering and science. You can find Gareth on LinkedIn and Google+. Gareth studied at Instituto Superior Tecnico and has a MSc in Control Engineering. He has since worked in 4 different countries and has been in the MathWorks for over 5 years and today plays a key role in defining the strategy that the company takes regarding Academia, from a technical and business perspective.

**Tien, Norman C.**  
Dean - Faculty of Engineering  
The University of Hong Kong  
Hong Kong

Prof. Tien is Dean of the Faculty of Engineering at The University of Hong Kong. Prof. Tien is an expert in the area of micro and nanotechnology including micro-electromechanical (MEMS) systems.

Prior to joining The University of Hong Kong, Prof. Tien was Dean and Nord Professor of Engineering at Case Western Reserve University, Cleveland, Ohio.

Prof. Tien received his Doctor of Philosophy from University of California, San Diego, Master of Science from University of Illinois, and Bachelor of Science from University of California, Berkeley.

**Tlili, Boutheina Kzadri**  
Associate Professor  
Department of Electrical Engineering  
Rochester Institute of Technology - Dubai  
United Arab Emirates

Boutheina Kzadri Tlili joined the Department of Electrical Engineering at RIT Dubai as an associate professor in 2010. Dr. Tlili earned her PhD ('94) in Electrical Engineering from Michigan State University. Prior to joining RIT, she was the program director of the Computer Engineering program at Michigan State University-Dubai. Dr. Tlili was an associate professor and program coordinator of Electrical and Computer Engineering program at the American University in Dubai from 2004-2008.

Her area of Specialty is Applied Electromagnetic. Her research interest include Antenna analysis and design, Electromagnetic Theory, Field propagation in complex media and Microwave electronics. She has published many articles in international conferences.

Dr. Tlili is an IEEE senior member and IEEE Women in Engineering chair for the UAE section. Under the leadership of Dr. Tlili, the WIE UAE section won an international award "IEEE WIE affinity group of the year award".
Speakers Bios

Tormasov, Alexander
Provost
Innopolis University
Russia

Prof. Alexander Tormasov is a scientist, educator and software artisan with more than 30 years of experience in the field of high technology. As Innopolis University Provost, Alexander develops and implements education and research strategies. He also teaches and mentors students at the Moscow Institute of Physics and Technology (MIPT), where he holds the position of Full Professor in Computer Science heading Theoretical and Applied Computer Science Chair, and does Computer Science research at Parallels - global high-tech company with leading positions in virtualization and automation, where as Chief Scientist he is in charge of advanced research and educational projects as well as Parallels’ patent portfolio. In addition to these activities, he manages Student Centers for Science and Education chartered to facilitate collaboration between Universities and IT industry. Starting from 2014, he is a Chair of the IEEE Computer Society Russian Branch. Alexander is an author of more than 130 U.S. patents.

Prof. Tormasov graduated from the MIPT with summa cum laude in 1987. He received Doctor of Science (Habil.) degree in Mathematical modeling, distributed systems and virtualization technologies from the same university in 2008.

Udpa, Satish
University Distinguished Professor
Executive Vice President for Administrative Services
Michigan State University
United States of America

Satish Udpa serves Michigan State University (MSU) as the Executive Vice President for Administrative Services and University Distinguished Professor. He served as the Dean of the College of Engineering and Chair of the Electrical and Computer Engineering Department at MSU before his current appointment. Prior to joining MSU in 2001, Dr. Udpa was the Whitney Professor of Electrical and Computer Engineering at Iowa State University. He was on the faculty at Colorado State University prior to his stint at Iowa State University. Udpa’s research interests span the broad area of materials characterization and nondestructive evaluation (NDE). He is the technical editor of the Electromagnetic Nondestructive Testing Handbook published by the American Society for Nondestructive Testing. He serves as the editor of the IEEE Transactions on Magnetics and is the regional editor of the International Journal of Applied Electromagnetics and Mechanics. Dr. Udpa is a Fellow of the U.S. National Academy of Inventors, Institute of Electrical and Electronics Engineers (IEEE), the American Society for Nondestructive Testing, the Indian Society for Nondestructive Testing and the Engineering Society of Detroit.
Speakers Bios

**Vedula, Krishna**
Professor of Chemical Engineering  
Dean Emeritus  
Francis College of Engineering  
University of Massachusetts Lowell  
United States of America

Krishna Vedula is Professor of Chemical Engineering and Dean Emeritus, Francis College of Engineering, University of Massachusetts Lowell. Dr. Vedula is currently founder and executive director of the Indo-US Collaboration in Engineering Education (IUCEE) facilitated initially by ASEE. IUCEE has the objective of improving quality and global relevance of engineering education in India and US. He is has also been the President of IFEES (International Federation for Engineering Societies) from 2010 to 2012.

Dr. Vedula is well recognized globally for his contributions to engineering education, research, administration and outreach. He is internationally recognized for his research in processing and properties of materials for high temperature applications. He a Fellow of American Society for Metals (ASM) and a Fellow of the American Society for Engineering Education (ASEE). Dr. Vedula has B.Tech (IIT Bombay, 1967), M.S. (Drexel University, 1969) and Ph.D. (Michigan Tech University, 1980) degrees in Materials Engineering. He has 30 years academic teaching and research experience in materials science and engineering as well as engineering administration, at Case Western Reserve University, Iowa State University and University of Massachusetts Lowell.

**Venkatpathy, Aswin Karthik Ramachandran**
TU Dortmund University  
Germany

Aswin Karthik Ramachandran Venkatpathy is a Master Student at TU Dortmund, Germany studying Automation and Robotics. He is a Human-Machine Systems enthusiast with Bachelors in Electronics and an Entrepreneur with experience in Internet technology services company. He is now currently working as a Research Assistant at Modern Human-Machine System research group. Aswin's work with SPEED started in 2009 at SPEED-INDIA workshop series. His interests and work towards engineering education grew after being one of the moderators for SPEED’s inter-generational panel at the 1st WEEF in Lisbon, Portugal as a student leader impacting Engineering Education by Project Based Learning. He was the External Affairs Officer of SPEED from 2012 – 2013 contribution to the organization and its structure. He is the International Chair for the 10th Global Student Forum and continuously involved with the activities of SPEED Chapter in India.
Speakers Bios

Viens, Jacques
Director
Department of Psychopedagogy and Andragogy
University of Montreal
Canada

Viens started in 1984 a faculty career in educational technology at the University of Montreal focusing mainly on innovative educational uses of technologies. In the ’90, he was a principal researcher of the Canadian TeleLearning Network of Centres of Excellence. In 2000, with other Quebec’s experts in educational technology and distance learning he launched the Centre inter-universitaire de recherche sur le télé-apprentissage (CIRTA). He also worked with the Kiev Glushkov Institute to launch and support a UNESCO chair on the use of technologies and distance education in Ukraine. In 2002-2004, he was at the TECFA unit of the University of Geneva to run an action research evaluating and supporting innovative pedagogies for the Swiss Virtual Campus. In 2007, he was appointed Director of the CIRTA. In 2010, he collaborated with the Hamdan Bin Mohammed University to launch of ICTLC Consortium. Lately in June 2014, he became Director of the Department of Psychopedagogy and Andragogy.

Villa, Genny
e-Learning and Instructional Design Consultant
English Montreal School Board
Canada

Genny Villa is an e-Learning and Instructional Design Consultant with a large experience in professional development and training. She specializes in designing and implementing interactive methodologies. Ms. Villa seeks to help professionals from diverse backgrounds to acquire and apply pedagogical strategies to improve their teaching and facilitate students’ learning. Her current research activities involve the operationalization of innovative ICT models through training interventions implemented from a pedagogical engineering perspective and with an emphasis on the pedagogical added value of technology. Working in teacher training programs at university level, she aims at responding to the increasing demands for highly qualified teachers and lecturers integrating ICT in their teaching practice.

Watford, Bevlee
Director
Center for Enhancement of Engineering Diversity
United States of America

As the Director of CEED, Dr. Watford is the visionary of this highly successful and innovative program, which has become a model program of academic support and mentoring at Virginia Tech and numerous other universities. Since its inception in 1992, Dr. Watford and her staff have designed a place at Virginia Tech devoted to diversifying the engineering workforce through increased participation of African American, Hispanic American, American Indian and other students (both male and female) of all racial and ethnic backgrounds. Her efforts have resulted in substantial increases in the retention and graduation rates for all students, particularly those from under-represented groups.
Speakers Bios

She has over 20 years of experience in the design and implementation of successful programs that have increased diversity within the field of engineering. Dr. Watford shares her passion for creating points of access for underrepresented groups into STEM fields through strategic partnerships within the university, with colleagues at other universities and schools, community partners and with industrial leadership. These collaborative exchanges have been achieved through multi-institutional grants, research projects, and development activities with community and industrial partners. In addition, Watford has focused her research efforts on engineering education, particularly the research and implementation of activities that enhance the recruitment and retention of undergraduate students. The University, NSF, organizations such as NACME and corporations such as ExxonMobil have recognized her leadership in this area through awards and grants that support her work.

Dr. Mark H. Weichold is a professor of electrical engineering at Texas A&M University, having joined the faculty at TAMU in 1982 and been engaged in many aspects of engineering education over the past 30 years. He was part of a team whose work led to the establishment of Texas A&M University at Qatar in 2003. In January 2007, Dr. Weichold became dean and CEO of TAMUQ. Since then, Texas A&M at Qatar has grown to more than 500 currently enrolled students, including 40 graduate students, and nearly 80 full time faculty members. Of the 500+ graduates, nearly half are Qatari nationals. Texas A&M at Qatar is also home to a research program with more than 140 projects aligned closely in support of the Qatar National Vision 2030 and involving collaborators from around the world. Dr. Weichold currently serves on the Qatar Foundation Academic Bridge Program Board of Governors and has served on the Board for the Community College of Qatar.

Christina White completed her doctoral degree from Columbia University where she studied humanitarian engineering education. Dr. White is currently a postdoctoral research associate with the Singapore MIT Alliance for Technology and Research where she is exploring global competencies and 21st century skills in engineering education. Dr. White is the founding director of the Grand Challenges Scholars and K12 Partners Program at The University of Texas at Austin; an interdisciplinary program where students from all majors can earn a formal certificate for their research and work with Grand Challenges. Much of her interests are in developing design-based curriculum and entrepreneurial opportunities with Grand Challenges. Dr. White serves as a mentor in an incubator for student-based startup companies and hopes to continue to help universities encourage engineering as an engine for economic growth. Recently, she joined the National Academy of Engineering Grand Challenges Scholars Program committee and is beginning to working with universities around the world to design Grand Challenges Scholars Programs.
Speakers Bios

Williams, Rochelle L.
Director of Professional Development, Research and Meetings Services
ABET
United States of America

Dr. Rochelle L. Williams is the Director of Professional Development, Research and Meetings Services at ABET Headquarters in Baltimore, MD. She oversees the planning, production, and execution of all ABET meetings and professional development offerings and is responsible for providing educational opportunities on program assessment for continuous improvement worldwide. This includes ABET’s Institute for the Development of Excellence in Assessment Leadership (IDEAL), ABET’s Program Assessment Workshops, and the ABET Symposia. Additionally, Dr. Williams is responsible for partnering with faculty and industry to conduct robust technical education research.

Dr. Williams received her BS in Physics from Spelman College, the Master of Engineering degree in Mechanical Engineering and her Ph.D. in Science and Mathematics Education from Southern University. Her research interests include assessment and quality management systems, human capital management, broadening participation in technical education and repositioning HBCUs for the future.

Williamson, Kirsten
Chief Executive Officer
Petrus Communications
France

Kirsten Williamson is Chief Executive Officer of Petrus Communications, a global communications agency she founded in 2002. Petrus Communications is an award-winning team of international employer marketing and research consultants. Petrus enables leading companies worldwide to understand and engage with the global education community to attract and develop the talent they need. Working with universities, NGOs and student associations Petrus has implemented projects such as graduate and internship programme communications, industry-university partnerships, employer brand communications, strategic market analysis and internal engagement, in over 100 countries worldwide.

Kirsten regularly speaks at leading industry conferences on themes such as developing employability skills, and building bridges between industry and institutions.

Wouters, Frank
Former Deputy Director General
International Renewable Energy Agency (IRENA)
United Arab Emirates

Frank Wouters possesses over 24 years of international experience in the field of renewable energy. He has held several senior management positions in leading organizations and institutions in the fields of renewable energy and sustainability. From 2009 to 2012 he served as the Director of Masdar Clean Energy, a developer and operator of renewable power generation projects, where he was responsible for projects representing enterprise value of more than $3bn in Asia, Africa and Europe, among which were the 100MW Shams CSP plant in Abu Dhabi and the 630MW London Array offshore wind farm. In September 2012, he was appointed Deputy Director-General of IRENA, a position he held for two years. Frank Wouters holds a Master’s degree in Mechanical Engineering from Delft University of Technology, The Netherlands.
Speakers Bios

Yortsos, Yannis C.
Dean
Viterbi School of Engineering
University of Southern California
United States of America

Yannis C. Yortsos is Dean of the Viterbi School of Engineering at the University of Southern California, the Chester F. Dolley Professor of Chemical and Petroleum Engineering, and holder of the Zohrab A. Kaprielian Dean’s Chair in Engineering. He was appointed dean in 2005. Yortsos had served as senior associate dean for academic affairs at the Viterbi School from 2001 to 2005. He was chairman of the USC Department of Chemical Engineering from 1991 to 1997. Yortsos received his B.Sc. degree from the National Technical University, Athens, Greece, in 1973, and M.Sc. and Ph.D. degrees from the California Institute of Technology in 1974 and 1979 respectively, all in chemical engineering. Yortsos is a member of the U.S. National Academy of Engineering (NAE), since 2008, and the secretary of his section. In 2013, he was elected as Associate Member of the Academy of Athens. He received the Ellis Island Medal of Honour in 2014. He currently serves on the Executive Committee of the Engineering Deans Council as well as on the Executive Committee of the Global Engineering Deans Council. His research interests are in the flow, transport and reaction processes in porous media and constricted flow geometries.

Zafoschnig, Axel
VET Chief Inspector for Technical Colleges
Ministry of Education
Austria

Axel Zafoschnig is an IGIP EC Member and the VET Chief Inspector for Technical Colleges in Carinthia, Austria. He works for the Ministry of Education, as well as for the Regional Board of Education and for the Teacher Training University. As Head of the Department of Vocational Education and Training in the Kärnten Region, it is his task to pedagogically monitor and supervise the Technical Colleges (HTL) in particular and to foster the implementation of the Austrian National Qualifications Framework. As a VET expert, he is also involved in curriculum design, quality management and faculty development, as well as in the cooperation with industrial enterprises and with potential employers of HTL graduates. In the field of Engineering Pedagogy, it is his genuine interest to exchange ideas and opinions with education experts from other countries and to strengthen the ties between these experts and IGIP, the International Society of Engineering Pedagogy.

Zutin, Danilo G.
IGIP Secretary
Senior Researcher CCOL
Carinthia University of Applied Sciences
Austria

Danilo G. Zutin has graduated in electrical engineering at the State University of Sao Paulo (UNESP), Brazil, and obtained his Master degree in Systems Design (specialization in Remote Systems) at the Carinthia University of Applied Sciences in Villach, Austria. His research interests are in the field of remote engineering, online labs, remote control of devices and software development for online labs. Danilo G. Zutin is currently a senior Researcher and team member of the Centre of Competence in Online Laboratories and Open Learning (CCOL) at the Carinthia University of Applied Sciences (CUAS), Villach, Austria, where he has been engaged in projects for the development of online laboratories.

In January 2010, Danilo G. Zutin was appointed Secretary General of the International Association of Online Engineering and in the following year Secretary General of IGIP (International Society for Engineering Education). He is author or co-author of more than 30 scientific papers published in international journals, magazines and conferences.
Technical Publishing, Advisory and Education concerning:
Architecture, Building, Construction, Energy, Environment,
H&S, Procurement, Public Work, Surveying

PERIODICALS - ONLINE SERVICES - E-BOOKS - DATABASES
SOFTWARE - ADVISORY SERVICES

www.legislazionetecnica.it
areaformazione.legislazionetecnica.it
ltshop.legislazionetecnica.it
Sponsors

Corporate Platinum Sponsor

Airbus

Airbus is the world’s leading commercial aircraft manufacturer whose customer focus, commercial know-how, technological leadership and manufacturing efficiency have set the standard for the aviation industry.

Airbus has a proactive approach to working with Universities around the world to support the development of future talent. This includes implementing strategic programmes such as the Airbus University Board as well as engaging with relevant academic and student networks.

Airbus also creates and supports initiatives to inspire young people from all backgrounds and profiles to develop the skills needed for the exciting opportunities available in the aviation industry.

Platinum Sponsor

Innopolis University

Innopolis University, being the first Russian university with a focus on advanced computer science and its applications, is an intellectual driving force for the development of the national IT industry. Its mission is to produce excellent specialists and to create and commercialize break-through technologies.

Quality of education and research is ensured by close cooperation with business and leading academic institutions, e.g. Carnegie Mellon University and National University of Singapore.

We invite:
- World-class professors and IT-experts – to teach and do research;
- IT-companies – to become our industry partners;
- Science and technology universities – to explore prospects for collaboration;
- Students and young IT-professionals – to receive appropriate education and become demanded specialists.
Sponsors

Gold Sponsors

Dassault Systèmes

The Dassault Systèmes ecosystem of knowledge includes thousands of education institutions and a wide range of education partners. This ecosystem supports students from the early discovery of 3D at school through to more sophisticated 3DEXPERIENCES at University, from e-learning to high quality instructor-led education services. The ecosystem includes a comprehensive set of learning opportunities for users, students, and educators culminating in official certifications.

Total

Total is a leading energy player on the international stage and the fifth-largest publicly-traded integrated international oil and gas company in the world.

Almost 100,000 Total employees leverage their acknowledged expertise to discover, produce, refine and convert oil and gas to provide products and services for customers worldwide. Total is also broadening its offering by developing energies that can partner oil and gas — today, solar energy and tomorrow, biomass.

As a responsible corporate citizen, Total focuses on ensuring that its operations consistently deliver economic, social and environmental benefits.
Sponsors

Silver Sponsors

Mathworks

MathWorks is the leading global provider of software for Technical Computing and Model-Based Design. Over 1,000,000 engineers and scientists, in more than 100 countries, on all seven continents use MATLAB and Simulink.

The MATLAB and Simulink product families are fundamental computational tools at the world’s educational institutions. Adopted by more than 5000 universities and colleges, MathWorks products accelerate the pace of learning, teaching, and research in engineering and science. MathWorks products also help prepare students for careers in industry worldwide, where the tools are widely used for collaborative new product development.

National Instruments

NI provides powerful, flexible technology solutions that accelerate productivity and drive rapid innovation. From daily tasks to grand challenges, NI helps engineers and scientists overcome complexity to exceed even their own expectations. Customers in nearly every industry—from healthcare and automotive to consumer electronics and particle physics—use NI’s integrated hardware and software platform to improve our world.
Sponsors

Bronze Sponsors

ABET
ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied science, computing, engineering, and engineering technology. ABET accredits over 3,300 programs at more than 680 colleges and universities in 24 countries. ABET provides specialized, programmatic accreditation that evaluates an individual program of study, rather than evaluating an institution as a whole.

ABET accreditation, which is voluntary and achieved through a peer review process, provides assurance that a college or university program meets the quality standards established by the profession for which the program prepares its students.

ABET is recognized by the Council for Higher Education Accreditation (CHEA).

North Carolina State University
The College of Engineering at North Carolina State University offers 21 masters and 13 PhD degrees on campus and 15 online master degree programs. Whether a student is enrolled as an on-campus or online student, the academic rigor and degree requirements are the same.

Quanser
Quanser is a leading developer of experiments and courseware for teaching control systems design, hands-on. Their open-architecture control solutions are used worldwide by thousands of universities, colleges, research laboratories and commercial organizations. With ABET aligned courseware and modular workstations, Quanser’s control laboratory equipment helps universities captivate the brightest minds, motivates them to succeed and produces graduates with industry-relevant skills.

Spectratronix
Spectratronix is a division of Consultix dedicated to Electronics research and innovation-enabling solutions, particularly signal generation, manipulation, RF system design, and testing. Electronics has the full potential to change our world and regulate its rhythm. Spectratronix aims at enabling talents everywhere to make that change happen. Keeping an eye towards myriad emerging applications, we present our modular platform C700 to provide innovators with the ultimate flexibility, scalability, and implementation speed.

C700 deliberately optimizes performance, Cost, and form-factor from basic up to most complex requirements.
Special Sponsors

University Supporters

Corporate Supporters
Official Airline Partner

Emirates Airline

Dubai-based Emirates airline is a global connector of people and places with services to 147 destinations in 84 countries in Europe, North America, South America, the Middle East, Africa, South Asia and Asia-Pacific. Launched in 1985, the airline has received more than 500 international awards in recognition of its efforts to provide unsurpassed levels of customer service.

Financially self-sustained and unprotected, Emirates carried 44.5 million passengers in the 2013-14 financial year and declared a net profit of US$ 887 million. The airline currently has a fleet of 230 all wide-bodied aircraft, with another 292 aircraft pending delivery.

Official Business Media Partner

Forbes Middle East

Forbes Middle East is the licensed Middle Eastern version to the world renowned Forbes magazine and extends the Forbes brand of journalism across the MENA region. Forbes Middle East’s distinctive editorial style attracts a readership community of Billionaires, Powerful Arab Men and Women, Entrepreneurs, C-Level executives, government officials and investors united by a belief in the spirit of free enterprise and entrepreneurial values.

Across the region, Forbes Middle East is setting the pace for preemptive business journalism. By uncovering trends and anticipating opportunities in the regional marketplace, each monthly issue, brings top executives the information critical to their success – in both Arabic & English language editions. Forbes Middle East is the guiding compass for investments and best practices in the Arab region.

The magazine researches and publishes original and relevant Lists/Rankings, based on the criteria of neutrality, authenticity, commitment to the methodology of scientific research and the quality of standards set globally by Forbes Media, US.

Media Partners

Legislazione Tecnica

Technical Publishing, Advisory and Education. Since 1933 the more reliable and influential benchmark for providing interpretation, best practices and support for technicians industry in Italy.

World Education Congress

World Education Congress is a Platform for Educationist, Suppliers of Technology, Leaders in Training who are passionate about the future of Education, guided by the Advisory Council who helps in the strategic success of the program. The World Education Congress aim at Building future leaders for a better world.
## Exhibition Index

<table>
<thead>
<tr>
<th>Exhibitors</th>
<th>Stand No</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABET</td>
<td>S16</td>
</tr>
<tr>
<td>Abu Dhabi University</td>
<td>S9</td>
</tr>
<tr>
<td>AEFIS</td>
<td>S12</td>
</tr>
<tr>
<td>American University in Cairo</td>
<td>S6</td>
</tr>
<tr>
<td>American University in Dubai</td>
<td>S1</td>
</tr>
<tr>
<td>Dassault Systèmes</td>
<td>S4</td>
</tr>
<tr>
<td>Dubai Business Events</td>
<td>S5</td>
</tr>
<tr>
<td>Forbes Middle East</td>
<td>S10</td>
</tr>
<tr>
<td>Innopolis University</td>
<td>S18</td>
</tr>
<tr>
<td>National Instruments</td>
<td>S14</td>
</tr>
<tr>
<td>North Carolina State University</td>
<td>S11</td>
</tr>
<tr>
<td>Qatar University</td>
<td>S7</td>
</tr>
<tr>
<td>Quanser</td>
<td>S15</td>
</tr>
<tr>
<td>Society of Engineering - UAE</td>
<td>S2</td>
</tr>
<tr>
<td>SpectraTonix</td>
<td>S17</td>
</tr>
<tr>
<td>WEEF 2015</td>
<td>S8</td>
</tr>
</tbody>
</table>
ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied science, computing, engineering, and engineering technology. ABET accredits over 3,300 programs at more than 680 colleges and universities in 24 countries. ABET provides specialized, programmatic accreditation that evaluates an individual program of study, rather than evaluating an institution as a whole.

ABET accreditation, which is voluntary and achieved through a peer review process, provides assurance that a college or university program meets the quality standards established by the profession for which the program prepares its students.

ABET is recognized by the Council for Higher Education Accreditation (CHEA).

Abu Dhabi University (ADU) was chartered as a private institution of higher learning in the year 2000 under the patronage of H.H. Sheikh Hamdan Bin Zayed Al Nahyan, the Ruler’s Representative in the Western Region and President of Abu Dhabi University Board of Trustees. ADU currently serves over 6500 students from 68 different nationalities at two campuses. ADU has four Colleges: College of Arts and Sciences; College of Business Administration; College of Engineering; and University College; all of which is open to students from all nationalities and uses the American model of higher education.

AEFIS is the web-based assessment management solution that facilitates the collection and application of real-time assessment data. The scalable platform enables the continuous quality improvement of curriculum and fosters personalized learning by engaging administrators, faculty, students, alumni and industry. Furthermore, AEFIS is implementing innovative concepts in instructor support such as the Instructional Decision Support SystemTM (IDSSTM) and supports innovative outcomes based program design and continuous application of assessment data.

The American University in Cairo (AUC) is a premier English-language institution of higher learning. The university is committed to teaching and research of the highest caliber and offers exceptional liberal arts and professional education in a cross-cultural environment. AUC builds a culture of leadership, lifelong learning, continuing education and service among its graduates and is dedicated to making significant contributions to Egypt and the international community in diverse fields. Chartered and accredited in the United States and Egypt, it is an independent, not-for-profit, equal-opportunity institution. AUC upholds on the principles of academic freedom and is dedicated to excellence.
American University in Dubai | S1

The American University in Dubai is a private, nonsectarian institution of higher learning founded in 1995. AUD’s enrollment in 2013-2014 averaged 2,700 students. In Spring 2014, over one hundred nationalities were represented in the AUD student body. AUD offers both undergraduate and graduate degrees and Certificates in Middle Eastern Studies and Professional Teaching.

In addition to courses in their chosen program/major, undergraduate students in all disciplines must follow a curriculum in Arts and Sciences. This is in fulfillment of the general education portion of their degree requirements.

Through its Center for English Proficiency (CfEP), the university also conducts Intensive English programs designed to develop university-level English language skills in students requiring additional language study before commencing university.

The university’s faculty possess appropriate academic credentials. Furthermore, many are or have been practicing professionals of note. In terms of faculty composition, North Americans have the highest representation of any national group.

ABOUT THE SCHOOL OF ENGINEERING, AUD

The School of Engineering at the American University in Dubai provides students with a unique opportunity to experience American-style engineering education in one of the fastest growing and most diverse metropolitan areas in the world. The School’s educational experience provides students with the knowledge needed for technical excellence in engineering, while emphasizing the role of general education, ethical and social responsibility, and life-long learning in the personal and professional growth of future engineers.

The School offers undergraduate programs leading to Bachelor of Science degrees in Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering. In addition, the School offers a Master of Science in Construction Management. Our curricula are supported by state-of-the-art labs and facilities, a diverse group of faculty with outstanding expertise and solid ties with the professional community. With local and international accreditations in place, and through a broad education grounded in cultural diversity and technical excellence, our graduates continue to be highly sought at both the regional and global levels.

Dassault Systèmes | S4

The Dassault Systèmes ecosystem of knowledge includes thousands of education institutions and a wide range of education partners. This ecosystem supports students from the early discovery of 3D at school through to more sophisticated 3DEXPERIENCES at University, from e-learning to high quality instructor-led education services. The ecosystem includes a comprehensive set of learning opportunities for users, students, and educators culminating in official certifications.
Exhibitors

Dubai Business Events | S5

The DBE’s aim is to further develop and increase Dubai’s share of the international MICE and special events markets, whilst maximizing the economic prospects of Dubai. This division of the Department of Tourism and Commerce Marketing is responsible for the following:

- Coordination, creation and presentation of a customized bid document based upon clients RFP or RFI.
- Sourcing written endorsements from key political and tourism industry contacts.
- Coordination of initial site inspection for two individuals.
- Introduction to key local industry and government contacts.
- Confirmation of sponsorship information specific to bid, sponsorship applied to Dubai-based activities.
- Confirmation of Dubai’s promotional booth at previous congresses to build attendance.
- Confirmation of Dubai information booth during the Dubai congress.
- Provision of all other convention bureau services to client.

The main goal is to establish the Emirate as a leading business tourism destination. We do this by helping you plan, organize and manage every aspect of your MICE and special events. From selecting the perfect convention and exhibition venue to choosing the ideal hotel, helping you with airline bookings to arranging local guides and ambassadors, our experienced staff will take care of all the details so you can be confident that your event will be an outstanding success.

The DBE’s service standards are accredited by Lloyd’s Register Quality Assurance LRQA as part of the BestCities Global alliance, convention and visitor bureaus that deliver the world’s best service experience for the meeting industry; further assurance that your event is in very safe hands.

Forbes Middle East | $10

Forbes Middle East is the licensed Middle Eastern version to the world renowned Forbes magazine and extends the Forbes brand of journalism across the MENA region. Forbes Middle East’s distinctive editorial style attracts a readership community of Billionaires, Powerful Arab Men and Women, Entrepreneurs, C-Level executives, government officials and investors united by a belief in the spirit of free enterprise and entrepreneurial values.

Across the region, Forbes Middle East is setting the pace for preemptive business journalism. By uncovering trends and anticipating opportunities in the regional marketplace, each monthly issue, brings top executives the information critical to their success – in both Arabic & English language editions. Forbes Middle East is the guiding compass for investments and best practices in the Arab region.

The magazine researches and publishes original and relevant Lists/Rankings, based on the criteria of neutrality, authenticity, commitment to the methodology of scientific research and the quality of standards set globally by Forbes Media, US.
Exhibitors

Innopolis University | S18

Innopolis University, being the first Russian university with a focus on advanced computer science and its applications, is an intellectual driving force for the development of the national IT industry. Its mission is to produce excellent specialists and to create and commercialize break-through technologies.

Quality of education and research is ensured by close cooperation with business and leading academic institutions, e.g. Carnegie Mellon University and National University of Singapore.

We invite:
• World-class professors and IT-experts – to teach and do research;
• IT-companies – to become our industry partners;
• Science and technology universities – to explore prospects for collaboration;
• Students and young IT-professionals – to receive appropriate education and become demanded specialists.

National Instruments | S14

NI provides powerful, flexible technology solutions that accelerate productivity and drive rapid innovation. From daily tasks to grand challenges, NI helps engineers and scientists overcome complexity to exceed even their own expectations. Customers in nearly every industry—from healthcare and automotive to consumer electronics and particle physics—use NI’s integrated hardware and software platform to improve our world.

North Carolina State University | S11

The College of Engineering at North Carolina State University offers 21 masters and 13 PhD degrees on campus and 15 online master degree programs. Whether a student is enrolled as an on-campus or online student, the academic rigor and degree requirements are the same.

Qatar University | S7

Qatar University is an intellectual and scholarly community characterized by open discussion, the free exchange of ideas, respectful debate, and a commitment to rigorous inquiry. The University is also an active member in several prestigious regional and international associations, including the Union of Arab Universities, the league of Islamic Universities, and the International Association of Universities, to name just a few. Qatar University offers over 60 specializations (the widest range in the country), and boasts substantial research and academic infrastructure, as well as the reputation as a leading center for research in the country.
Exhibitors

Quanser | S15

Quanser is a leading developer of experiments and courseware for teaching control systems design, hands-on. Their open-architecture control solutions are used worldwide by thousands of universities, colleges, research laboratories, and commercial organizations. With ABET aligned courseware and modular workstations, Quanser’s control laboratory equipment helps universities captivate the brightest minds, motivate them to succeed and produces graduates with industry-relevant skills.

Society of Engineers | UAE – S2

Society of Engineers - UAE was established since 1979 to provide excellent services to the engineering sector in the UAE by accrediting their qualifications to practice in the UAE. Society of Engineers is a semi-government sector & a non-profit organization who strives to provide great services to our 35,000 members. Our Vision: "National Pioneering to engineers, gulf extension, international contact and an engineering reference for the public and private sectors". We are recognized by the ISO – 9001:2008 in 2004. We became a member of Arab Engineers Federation in 1984, World Federation Engineering Organization in 1985 and Gulf Engineering Union in 1986. We have 3 centers, Training & Development Center, Arbitration Center and Employment Center. We issue different publications and we have been accredited as certified Test Center for international examinations and Registered Education Provider of PMI.

Spectratronix | S17

Spectratronix is a division of Consultix dedicated to Electronics research and innovation-enabling solutions, particularly signal generation, manipulation, RF system design, and testing.

Electronics has the full potential to change our world and regulate its rhythm. Spectratronix aims at enabling talents everywhere to make that change happen. Keeping an eye towards myriad emerging applications, we present our modular platform C700 to provide innovators with the ultimate flexibility, scalability, and implementation speed.

C700 deliberately optimizes performance, Cost, and form-factor from basic up to most complex requirements.

World Engineering Education Forum (WEEF) 2015 | S8

WEEF – World Engineering Education Forum 2015
Engineering Education for a Resilient Society
Florence, September 20-24, 2015
www.weef2015.eu
SUBSCRIBE NOW!

Please send an SMS with the word ‘subscription’ to
+971 50 1007621
or email us at subscription@forbesmiddleeast.com

FOR ADVERTISING INQUIRIES
Contact us at
+971 4 4408975
or send us an email at advertising@forbesmiddleeast.com

www.forbesmiddleeast.com

ALSO AVAILABLE ON THE APP STORE

CONNECT WITH US

/forbes.ME +/ Forbes middleast /forbesME @forbesmiddleast
Stay updated with all program information by downloading WEEF2014 event app on your devices.
Venue Map
WEEF 2014 General Information

Session Halls Location
Maktoum Hall A, B & C are located on the Ground Floor.
Dubai Rooms A, B, C, D, E & Ajman BC, D are located on the Mezzanine Floor.
Bubble Lounge is located on the Mezzanine Floor.

Registration Desks
Registration desks will be located at the entrance of Maktoum Hall and will be operating per the following schedule:
Wednesday, Dec 3 07:30 am – 05:30 pm
Thursday, Dec 4 08:00 am – 05:30 pm
Friday, Dec 5 08:00 am – 05:30 pm
Saturday, Dec 6 08:00 am – 11:00 am

Registration Badges
Participants are kindly requested to wear their name badge at all times while attending WEEF2014. We regret that participants not wearing their badges will not be allowed access to the sessions and exhibition. Lost or forgotten badges can be re-issued at a USD 50 Fee at the registration desks onsite.

Exhibition Access Schedule
Access timings for Registered Delegates:
Wednesday, Dec 3 08:30 am – 05:30 pm
Thursday, Dec 4 08:30 am – 05:30 pm
Friday, Dec 5 08:30 am – 05:30 pm
Saturday, Dec 6 09:00 am – 01:30 pm

Access timings for Exhibitors
Wednesday, Dec 3 07:30 am – 06:30 pm
Thursday, Dec 4 07:30 am – 06:30 pm
Friday, Dec 5 07:30 am – 06:30 pm
Saturday, Dec 6 07:30 am – 02:30 pm

Food and Beverages
Complimentary tea, coffee, light refreshments will be provided during the breaks at the Exhibition Area. Lunches are for invited guests only. You may choose to dine at one of the venue’s cafes or restaurants, all within walking distance from the sessions hall.

WEEF2014 Lunches and Dinner
As per the program, a number of sponsored lunches and dinners will be taking place during WEEF2014. Access to these events is by invitation only. Tickets for invited delegates will be distributed at the time of registration. For delegates not taking part in the sponsored lunches, there are plenty of food and beverages outlets conveniently located within the Dubai World Trade Centre that can suit any taste and budget. Sandwich Kiosks and coffee shops are located just outside Maktoum Hall. A variety of outlets are also located just outside the Plaza Area and licensed restaurants can be found in the Ibis and Novotel which are connected to the DWTC.

WIFI
Wifi will be available in the Sessions and Exhibition Halls of WEEF2014 for registered delegates. For login and access information please contact the registration desks in front on Maktoum Hall.
WEEF 2014 General Information

Friday Prayer
Delegates wishing to partake in the Friday Prayer on December 5 can meet at the entrance of Maktoum Hall by the registration desks at 11:40 am. Our staff will be escorting the group to the nearest Mosque, which is located at approximately 15 minutes walking distance.

Dubai City Tour for Registered Accompanying Person
Accompanying person who have registered and paid their fees latest by 4pm on December 3rd are welcome to join the Dubai City Tour which is scheduled from 09:00 am to 01:00 pm on Thursday 4th December. The meeting point is in front of Maktoum Hall by the registration desks at 08:45 am on December 4th. From there participants will be escorted to the buses.

All participants must wear their accompanying person badge to access the tour. The tour will be conducted in English and the return to the Dubai World Trade Centre is expected at 01:00 pm. It is recommended to wear comfortable clothes and shoes. Please note that the tour does not include lunch.

Parking
Both paid and free parking is available at the Dubai World Trade Centre.
For Paid parking, the multi-storey parking behind Sheikh Rashid Hall is the most convenient to access Maktoum Hall.
For Free outdoor parking the area located off 312th road close to the Convention Gate entrance is the most convenient to access Maktoum Hall.

Dubai Metro
WEEF2014 Participants can very conveniently access the Dubai World Trade Centre by using the Dubai Metro. The most convenient stop is the "World Trade Centre" stop on the Red Line.

Non Smoking Policy
As per Dubai Municipality Law, smoking is prohibited throughout the entire venue. Corresponding fine will be charged to all violators. Smoking is allowed in designated outdoor areas.
Useful Information

Banks
Many international banks are represented by branches in Dubai. Bank hours vary, but in general are open from 08.00 to 14.00, Sundays to Thursdays, and 08.00 – 12.00, Saturdays.

Currency Exchange
The monetary unit is Dirham (AED), which is divided into 100 fils. It is fixed to the US dollar at a current rate of US$1 = Dhs3.675. Exchange houses are usually operational from 10.00 – 22.00 inside Shopping Malls from Sundays through Saturdays.

Working Hours
Government offices are open from 07.00 – 15.00, Sunday to Thursday, while private companies normally operate between 09.00 – 18.00. Some establishments have three to four-hour break from 13.00, and resume operations in the evening from 16.00 or 17.00 until 21.00.

Weekend
The weekend comprises Friday and Saturday for government offices and most private companies. There are, however, certain offices that remain open on Saturdays and operate half-day (until 13.00 or 14.00) on Thursdays.

Climate
The UAE has a sub-tropical, arid climate. May to September is summer, when temperatures range between 40°C and 48°C. However, during the winter months, temperatures range from 10°C to 30°C. Rainfall is predominately in winter and amounts to some 13cm annually.

Clothing
Summer clothing may be worn for most of the year, but the temperature can drop during the winter. At the pool or on the private beaches, swimwear is quite acceptable, but when in the city and public areas, care should be taken not to offend anyone by wearing clothing that may be considered revealing.

Religion
Islam is the official religion of the UAE, which is widely practiced by Emirati nationals as well as expatriates originating from other Arab countries, Pakistan, Africa and India, amongst others. Dubai, as is the entire UAE, is tolerant of other religions. Worship services or mass in churches or chapels are available to visitors and residents who profess a different faith.

Language
The official language is Arabic but English is widely spoken and understood throughout the country.
Useful Information

Local Time
Gulf Standard Time: +4 hours GMT

Photography
Normal tourist photography is acceptable but like anywhere in the world, it is courteous to ask permission before photographing people, especially local women.

Media
There are three English language newspapers published in Dubai. International newspapers, magazines and journals can be bought at bookshops and supermarkets. Dubai has both Arabic and English commercial radio and television stations, as well as access to international satellite TV programming.

Communication
The international dialing code for in-coming calls is +971. Calls to and from land-lines within Dubai are free of charge and direct dialing is possible for more than 170 countries. GPRS and WAP services are also available. A GSM international roaming service for mobile phones is available for over 60 countries. Internet services are also available for non-subscribers from regular phone lines.

Transportation
To travel around the city, there are major means of transportation available; taxi, bus, tour, metro, and rental cars or private cars. There is a good network of roads in the city, and public transportation is low to reasonably priced, safe and plentiful.

Alcohol
There are designated clubs and restaurants in hotels that are allowed to serve alcohol to non-Muslims, outside of which public consumption of alcohol is prohibited.

Bargaining
Bargaining is expected in the souq and is quite usual in most shopping areas in Dubai. Vendors are very open to negotiating prices and will quite often drop their initial price, particularly for a cash sale.

Tipping and Gratuities
Tipping is not expected, but is commonly practiced in the Emirate. Gratuities to stay at hotels are at your discretion. Most restaurants add service charges to the bill (16%). If this charge is not included, add 10% of the total of the bill. Taxi drivers do not expect to be tipped. Supermarket baggers, bag carriers and windscreen washers at petrol stations are generally given Dhs 2.
Useful Information

Electricity
The electricity supply in Dubai is 220/240 volts at 50 cycles. Standard, British square three-pin plugs are the norm in most hotels. US-made appliances may need a transformer.

Water
The tap water in Dubai is safe to drink. But locally bottled mineral water is generally served in hotels and restaurants.

Safety Services
The Dubai Police has highly efficient law enforcement and emergency procedures in place. Law enforcement officers are also generally courteous and helpful to visitors and residents alike. However, for emergencies you may call the following numbers:

998 – Ambulance services
999 – Police
997 – Fire
999 – Helicopter Service

Major Tourist Attractions
Bastakia Area
Burj Al Arab
Burj Khalifa
Diera City Centre
Desert Safari
Dubai Creek
Dubai Festival City
Dubai Fountain
Dubai Mall
Dubai Marina
Dubai Walk
Gold, Spice and Textile Souks
Jumeirah Beach Residence
Jumeirah Mosque
Jumeirah Palm Island
Karama District
Mall of the Emirates
Madinat Jumeirah Souk
Wild Wadi Waterpark
Notes
Notes
Organized by

- Special Thanks to all our Supporters & Sponsors -

Participating Organizations

Government Supporter
Corporate Platinum Sponsor
Platinum Sponsor

Gold Sponsors

Silver Sponsors

Bronze Sponsors

Conference Organizers
Official Airline Partner
Official Business Media Partner
Media Partners

weef2014.org
Thank you for joining us in Dubai for the World Engineering Education Forum 2014.