

7TH WORLD ENGINEERING EDUCATION FORUM 2017

The Era of Synergistic Collaboration

13-16 November 2017 | Berjaya Times Square Hotel, Kuala Lumpur, Malaysia



ABOUT WEEF 2017

The World Engineering Education Forum (WEEF) and Global Students Forum (GSF) 2017 are important events among the global engineering community. In the advent of the 4th Industrial Revolution ushered by the emerging technologies, with its novel Grand Challenges, complex systems and problems, is deemed as the age of collaboration. To prepare graduates who are ready to face the current and future challenges yet to be defined, as demanded by stakeholders and accrediting bodies, there are numerous calls for academics and institutions of higher education to collaborate and synergize with various sectors in designing and organizing programs and curricula to meet the desired outcomes. In today's complex world, the era of 4th Industrial Revolution success will only come with synergistic collaboration between various multi-disciplinary parties. WEEF 2017 & GSF 2017 brings together educators and leaders, industry, governmental organizations and NGOs to form fruitful and long-term collaboration, as well as to be involved with the larger international engineering education community. Workshops and plenary sessions on Industrie 4.0 and related matters will be discussed by experts from across the globe that includes: Professor Emeritus Tan Sri Dr Zakri Abdul Hamid (Malaysia), Professor Dr. Anette Kolmos (Denmark), Dr. Martin Dougiamas (Australia), Dr. Michael Milligan (USA), Mr. Xavier Fouger (France), Dr. Norman L. Fortenberry (USA), Mr. Paul Gilbert (Canada), Dr. Gatot Hari Priowirjanto (Indonesia) and Datuk Ir. (Dr) Abdul Rahim Hashim (Malaysia).

KEYNOTE SPEAKERS



Prof. Emeritus Tan Sri Dr. Zakri Abdul Hamid Science Advisor to Prime Minister of Malaysia & Joint Chairman, Malaysia Industry-Government Group for High Technology (MIGHT)
Topic: Developing Future Human Capital in Emerging Economies for Industrie 4.0



Prof. Dr. Annette Kolmos Director, UNESCO Centre for Problem-Based Learning in Engineering Science and Sustainability, Aalborg University Topic: Transforming and Sustaining Change in Higher Education for Industrie 4.0



Dr. Martin Dougiamas Founder and CEO, Moodle Pty Ltd, Perth, Australia Topic: Harnessing Emerging Technologies for Learning and Teaching in Higher Education

PLENARY SESSION 1

PREPARING GRADUATES FOR THE 4TH INDUSTRIAL REVOLUTION



Datuk Ir. (Dr.) Abdul Rahim Hj Hashim Vice Chancellor Universit Teknologi PETRONAS (UTP) Malavsia



Dr. Martin Dougiamas Founder and CEO, Moodle Pty Ltd, Perth, Australia



Dr. Norman L Fortenberry Executive Director, American Society for Engineering Education (ASEE), Washington DC, USA



Mr. Xavier Fouger Senior Director, Global Academia Programs, Dassault Systèmes, Paris,

PLENARY SESSION 2

CURRENT STATUS. CHALLENGES AND FUTURE DIRECTION OF ENGINEERING TECHNOLOGY & TECHNICAL EDUCATION



Dr. Gatot Hari Priowirianto Director, Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat



Prof. Ir. Megat Johari Megat Mohd Noor Deputy President, Malaysian Society for Engineering and Technology (MySET)



Dr. Michael Milligan Executive Director & CEO. Accreditation Board of Engineering and Technology (ABET), USA



Tan Sri Dato' Academician (Dr.) Ir. Ahmad Zaidee Laidin President, Malaysia Board of Technologists (MBOT), Malaysia

ORGANISER











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Pre-WEEF Workshops

1. 2-day Workshop on 21st Century Learning for Engaging Millennials in Higher Education

Date: 10-11 November 2017

Coordinator: 1. Prof. Dr. Khairiyah Mohd Yusof, Universiti Teknologi Malaysia

2. Dr. Syed Ahmad Helmi Syed Hassan, Universiti Teknologi Malaysia

3. Dr. M. Tazli Azizan, Universiti Teknologi PETRONAS Registration Fee: US\$50 (WEEF), US\$100 (non-WEEF)

2. 1-day Workshop on Engineering Education Innovation for Industrie 4.0

Date: 12 November 2017

Coordinator: Cordinated by Quanser Consulting Inc. *Registration Fee: US\$50 (WEEF), US\$150 (non-WEEF)*

3. 1/2 day Workshop on Introduction to Design Thinking

Date: 13 November 2017

Coordinator: 1. Prof. Lueny Morell, InnovaHiEd

2. Prof. Dr. Uriel Cukierman. InnovaHiEd

3. Dr. Rosa Buxeda, BioTalents, University of Puerto Rico

4. Prof. Dr. Wilson Rivera, University of Puerto Rico

Registration Fee: US\$30 (WEEF), US\$70 (non-WEEF)

4. 1/2 day Workshop on Creating Reflection Activities for Engineering Education

Date: 13 November 2017

Coordinator: 1. Prof. Dr. Jennifer Turns, University of Washington, USA 2. Prof. Dr. Cynthia Atman, University of Washington, USA

Registration Fee: US\$30 (WEEF), US\$70 (non-WEEF)

5. 1/2 day Workshop on Active Learning Modules – Bringing Hands-on Experience to the Classroom

Date: 13 November 2017

Coordinator: Prof. Dr. Yacob Astatke, Morgan State University Registration Fee: US\$30 (WEEF), US\$70 (non-WEEF)

Workshops During WEEF

 $\label{eq:workshop 1 - Developing Integrated STEM Education Activities} Workshop 1 - Developing Integrated STEM Education Activities$

Workshop 2 – Evaluation (or Analysis) of the Efficiency of Online Experimentation in Engineering Education

Workshop 3 - Complex Problem Solving: Supporting Students Systematically using Cooperative Problem Based Learning

Workshop 4 - Entrepreneurship in Action - Beyond Technology Development and Entrepreneurship 101

Workshop 5 - Industrie 4.0

Workshop 6 - Introduction to TRIZ

Workshop 7 - Knowledge Discovery Made Accessible? An Interactive Session for Data Mining Student Records

Workshop 8 - Acquiring the 21st Century Competencies through Design Based Learning in Engineering Education

Special Sessions

SS 1 - Integeneration Panel (SPEED)

Ms. Avneet Hira, SPEED, USA

SS 2 - STEAM Education: Developing the Talent Pipeline

- a. Prof. Dr. Edward Reeve, International Technology and Engineering Educators Association (ITEEA), USA
- b. Asst. Prof. Dr. Tiamyod Pasawano, *Rajamangala University of Technology Thanyaburi, Thailand*

SS 3 - Quality Assessment

- a. Prof. Dr. Jarka Glassey, Newcastle University, UK
- b. Prof. Dr. Julia Williams, *Rose-Hulman Institute of Technology, USA*
- c. Assoc. Prof. Dr Naziha Ahmad Azli, *Universiti Teknologi Malaysia*

SS 4 - Entrepreneurship in Engineering Education

- a. Paul Gilbert, Quanser Consulting Inc.
- b. Prof. Ramiro Jordan, *University of New Mexico, USA*
- c. Prof. Kamariah Ismail, *Universiti Teknologi Malaysia*

SS 5 - TBC

Ms. Rovani Sigamoney, UNESCO

SS 6 - Exploring Grand Challenges & UN Sustainable Development Goals Alignment as Global Engineers

Dr. Christina White, University of Texas, USA

SS 7 - Career Promotion Pathways in Academia

- a. Prof. Dr. Rose Aslinda Alias, *Universiti Teknologi Malaysia*
- b. Dr. Rhys Morgan, *Royal Academy of Engineering, UK*
- c. Dr. Kimberly Burdett, *UNSW Sydney, Australia*

SS 8 - Initiating and Sustaining Transformations and Change in Engineering Education

- a. Prof. Dr. Anette Kolmos, *Aalborg University, Denmark*
- b. Prof. Emanuella Tilley, *University College London,*
- c. Prof. John Mitchell, University College London, UK
- d. Prof. Dr. Julia Williams, *Rose-Hulman Institute of Technology, USA*

SS 9 - Women in Engineering

- a. Ms. Sharifah Zaida Nurlisha Syed Ibrahim, *MMC*Oil & Gas Engineering Sdn. Bhd., Malaysia
- b. Assoc. Prof. Ashley Ater Kranov, *Washington State University, USA*
- c. Dr. Zahra Atiq, *Purdue University, USA*

SS 10 - The Potential of Emerging Technologies in Engineering Education

- a. Prof. Dr. James Wolfer, *IIndiana University South Bend, USA*
- b. Prof. Paulo Menezes, *University of Coimbra, Portugal*
- c. Prof. Dr. Maria Teresa Restivo, *International* Society of Engineering Education (IGIP), Portugal

SS 11 - Effective Learning in Engineering Education

- a. Dr. M. Tazli Azizan, *Universiti Teknologi PETRONAS*
- b. Prof. Dr. Stephanie Farrell, Rowan University, USA
- c. Prof. Dr. Jennifer Turns, *University of Washington, USA*

SS 12 - University-Industry Collaboration

- a. Assoc. Prof. Dr. Arham Bin Abdullah, *MOHE, Malaysia*
- b. Dr. Nor Azmi Alias, CREST Malaysia

SS 13 - Discipline-Based Engineering and Science Education Community

Dr. Norman L. Fortenberry, ASEE, USA

SS 14 - Technology-Enhanced Learning

- a. Dr. Martin Dougiamas, Moodle Pty. Ltd., Australia
- b. Prof. Dr. Yacob Astatke, *Morgan State University, USA*
- c. Mr. Ken Dunstan, *MathWorks Asia Pacific, Australia*

SS 15 - Multi-Disciplinary Service Learning & Community Involvement

- a. Prof. William Oakes, Purdue University, USA
- b. Dr. Aznah Nor Anuar, *Universiti Teknologi Malaysia*

Post-WEEF Workshops

 2-day workshop on Integrating Design and Service Learning/Community Engagement Within the Engineering Curriculum

Date: 17-18 November 2017

Coordinator: Prof. Dr. William Oakes, Purdue University, USA Registration Fee: US\$70 (WEEF), US\$200 (non-WEEF)

 2-day Workshop on Making Academic Change Happen (MACH)

Date: 17-18 November 2017

Coordinator: Prof. Dr. Julia Williams, Rose-Hulman Institute of Technology, USA

Registration Fee: US\$70 (WEEF), US\$200 (non-WEEF)

For the **registration of the Pre & Post WEEF Workshops**, please contact the below persons in charge:

Ms Faizah Jaffri email : faizah-sps@utm.my

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TechnologistsDr. Rhys Morgan, *Royal Academy of Engineering,*

SS 16 - Quality and Mobility of Engineers and

SS 17 - World Class University, Quality, Accreditation & Ranking

- a. Datin Paduka Ir. Dr. Siti Hamisah Tapsir, *Ministry* of Higher Education, *Malaysia*
- b. Dr. Michael Milligan, ABET, USA
- c. Assoc. Prof. Dr. Maria Angeles Martin Prats, *University of Seville, Spain*
- d. Prof. Dr. Zainuddin Abdul Manan, *Universiti Teknologi Malaysia*

SS 18 - Design & Innovation

- a. Prof. Dr. Cynthia Atman, *University of Washington*, *USA*
- b. Mr. Xavier Fouger, Dassault Systèmes SE, France
- c. Dr. Ang Liu, *University of New South Wales*

SS 19 - Exploring Engineering Education Research, Publication and Networking

Prof. Roger Hadgraft, *University of Technology Sydney, Australia*

SS 20 - Intersociety Working Group on Society Management

- a. Dr. Norman L. Fortenberry, ASEE, USA
- b. MyCEB

Contact the Forum Secretariat:

c/o MCI Management Malaysia Sdn Bhd

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