

# Global Engineering Education

## IEOM 2014 Conference

### Grand Hyatt, Bali, Indonesia

### January 7 – 9, 2014

## DISTINGUISHED SPEAKERS

Tuesday, January 7, 2014

**Session I Chair: Dr. Cecilia Nembou**, Vice President Divine Word University, Port Moresby Campus, Papua New Guinea

09:45 – 10:15, Tuesday, January 7, 2014



**Dr. Ezendu Ariwa**

Professor, Dept. of Computer Science and Technology,  
University of Bedfordshire, UK

**“Engineering Education in Great Britain: Engineering Education for Sustainability”**

Ezendu holds the position of Professor at University of Bedfordshire, United Kingdom, Faculty of Computer Science & Technology, with speciality in Practice in Computing. He is also a Visiting Professor at Gulf University, Bahrain, Visiting Professor, University of Lagos, Nigeria and Visiting Professor, Kano State Polytechnics, Nigeria as well as Visiting Affiliate of the Green IT Observatory, RIMT University, Australia and Visiting Affiliate of ICT University, USA. He also holds the position of Director - Technical and Non-Executive Director and Research Professor for Enterprise Projects at Sun Bio IT Solutions Pvt. Ltd, India. He is also the Chair for the IEEE Consumer Electronics Chapter, United Kingdom & Republic of Ireland (UKRI) and Chair for the IEEE Broadcast Technology Chapter, UKRI. He is a Senior Member of Institute of Electrical & Electronic Engineers (SMIEEE); Chartered FELLOW of the British Computer Society (CITP, FBCS), Fellow of the Institute of Information Technology Training (FIITT), Fellow of the Higher Education Academy (FHEA) and Fellow of the Royal Society of Arts (FRSA).

He is also a member of the Elite Group of The British Computer Society (BCS), member of British Institute of Facilities Management and Fellow of Global Strategic Management, Inc., Michigan, USA and Member of the UK Council for Health Informatics. He is the Coordinator of the Digital Enterprise Research Group (DERG), African Research in Business Group (ARBG) and working with the team to achieve African Business and Enterprise Research Observatory (ABERO) at the London Metropolitan Business School. The ABERO achieved good collaboration with multicultural SMEs in the United Kingdom, with respect to mentoring and working on joint professional development enterprise programmes. He has experience of doctoral research supervision as well as doctoral external examiner for various Universities both in the UK and internationally.

He has a good research profile and the Founding Editor-in-Chief of the International Journal of Green Computing (IJGC), Editor-in-Chief of the International Journal of Computing and Digital Systems (IJCDs), Journal of E-Technology, and the Associate Editor of the International Journal of E-Politics and the Associate Editor of International Journal of Distributed Systems and Technologies (IJDST). He is a member of Policy Co-ordination Committee of the International Research Foundation for Development (A Corporation of NGO in special Consultative status with the Economic and Social Council of the United Nations).

10:15 – 10:45, Tuesday, January 7, 2014



**Dr. Damodar Acharya**

Professor, Indian Institute of Technology Kharagpur  
Past Director (2007 - 2012), IIT, Kharagpur  
Former Chairman, All India Council of Technical Education  
Recipient of Lilian Gilbreth Award of IIIE

**“Industrial Engineering Profession and Education in India”**

Professor Damodar Acharya received his Ph.D. (in 1975) and M.Tech. in IE & OR (in 1972) degrees from IIT, Kharagpur, and B.Sc.(Engineering) degree in Mechanical Engineering with distinction (in 1970) from NIT, Rourkela. Professor Acharya has thirty seven years of diversified experience - twenty seven years of teaching and research experience at IIT, Kharagpur including Director of Indian Institute of Technology Kharagpur from 2007 to 2012, five years of experience in academic administration as Vice-Chancellor, Biju Patnaik University of Technology, Rourkela, and Chairman, All India Council of Technical Education (AICTE), New Delhi. At IIT Kharagpur, he held also several important positions, such as Head of the Department of Industrial Engineering and Management, Chairman of JEE, Dean of Sponsored Research and Industrial Consultancy, and Chairman of Vinod Gupta School of Management. As Director of IIT Kharagpur

he is taking several path breaking initiatives both in academics and administrative front to propel his Institute to newer heights. Under his leadership, the Institute has brought remarkable changes in the academic front giving quantum fillip to number of research publications, number of PhDs, number of Patents and Sponsored research earnings. He has proved himself as an individual possessing exceptional academic leadership and administrative skills.

As an academician, Professor Acharya has the distinction of supervising more than thirty Ph.D. students, and publishing more than 85 papers in journals of repute. He is a consultant to many world-class companies, such as Tata Steel, General Motors, Hindustan Lever, and Tata Chemicals, and handled projects worth more than Rs.15 crore.

His areas of interest and research include operation research, production planning and control, supply chain, and maintenance management. He is a fellow of both Indian National Academy of Engineering and National Academy of Sciences (India), and a member of several professional bodies, such as ORSI, IE(India), and IIIE.

**10:45 – 11:15, Tuesday, January 7, 2014**



**Dr. Khalid Hafeez**, Fellow NCGE; SSMBB, EFQM Assessor, Cert Proj Mgr; Cert Process Mgr; Cert NLP.  
Professor, College of Business Administration  
Management, Marketing and Public Administration  
University of Sharjah, Sharjah, UAE

**“Theory of Core Competence: A Melting Pot for Engineering and Management Education”**

Professor Khalid Hafeez is Professor in Operations Management at the University of Sharjah United Arab Emirates. Before coming to the UAE Professor Hafeez was a tenure track professor and Head of Management system group at the York Management School, University of York UK. Prior to that he has been teaching at the Bradford Management School UK Executive MBA, which has been frequently ranked amongst the top ten in Europe, where he was also the founding Director for Centre for Entrepreneurship. He has also taught on the Masters, PhD and DBA programs at the Sheffield Business school and Cardiff University UK. In terms of management responsibilities he has served as the Dean of the e-School of Business and Quality Management at the Hamdan Bin Mohammed e University Dubai, Program Director for Executive MBA, Program Director for the MSc Organizational Development and Knowledge Management, and Project Management at the Sheffield Business School. He has served as technology transfer champion for the Yorkshire Universities for 7 years and in recognition of his services for education and community he was awarded Certificate of Merit from the House of Lord UK. Professor Hafeez has completed Executive Education Training programme at the Harvard Business School USA and is also a Certified Six Sigma Master Black Belt, and Certified Project Manager and EFQM European Assessor certified from Brussels and certified NLP trainer. Over the years he has supervised more than 12 PhD students to completion has published widely in key journals such as JORS, IJPE, IJPR and IEEE Engineering Management. Professor Hafeez is an internationally acclaimed researcher with over 900 worldwide citations. His publications in the area of “core competence” which he is going to speak about in this conference (IEOM 2014) have already attracted more than 600 citations.

**Session II Chair: Dr. Kripa Shanker**, Professor, Industrial and Management Engineering Department  
Indian Institute of Technology Kanpur, and Former Deputy Director, IIT Kanpur, India

**11:30 – 12:00, Tuesday, January 7, 2014**



**Dr. Gulnara Abitova**  
Professor  
Department of System Analyses and Control  
Eurasian National University  
Astana City, Republic of Kazakhstan

**“Engineering Education in Kazakhstan”**

Dr. Abitova holds Master's degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys at Moscow (Russian Federation), Ph.D degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work.

Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009).

Dr. Abitova was also the National Coordinator of UNESCO's Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, (ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul (Turkey, 2012).

Dr. Abitova's current research interest includes education and science; management and administration in education, science and ITC; substantial development and ecology; human research; automation and control; control systems and engineering; cybernetics; mathematical modeling; sensors and control devices; designing automation lines; robust control and robust system; cloud technology; development of ITC; cyber security; open source and intelligent system; non-destructive testing technology.

**12:00 – 12:30, Tuesday, January 7, 2014**



**Dr. Abdul Hakim Halim**

Professor, Manufacturing Systems Research Group  
Department of Industrial Engineering, Faculty of Industrial Technology  
Bandung Institute of Technology  
Bandung, Indonesia

Head, Coordinating Office for Private Higher Education Institutions, Ministry of Education and Culture, Indonesia

**"Industrial Engineering Education in Indonesia"**

Dr. Abdul Hakim Halim is a Professor at the Department of Industrial Engineering, Faculty of Industrial Technology, Bandung Institute of Technology, Indonesia. Currently he has been appointed as Head of Coordinating Office for Private Higher Education Institutions located in West Java and Banten Provinces which is directly under Director General of Higher Education, Ministry of Education and Culture, Indonesia. Dr. Halim received Ph.D. in Industrial Engineering / Manufacturing Systems from University of Osaka Prefecture, Osaka, Japan. He has published numerous journal and conference papers. His research interests are manufacturing systems, scheduling, inventory, quality control, and reliability.

**12:30 – 13:00, Tuesday, January 7, 2014**



**Dr. Amine Bermak**

Professor, Department of Electronic and Computer Engineering  
Hong Kong University of Science and Technology  
Clear Water Bay, Kowloon, Hong Kong

**"Active and Collaborative Learning in the Engineering context"**

Professor Amine Bermak received the Masters and PhD degrees, both in electrical and electronic engineering (microelectronics and Microsystems), from Paul Sabatier University, Toulouse, France in 1994 and 1998, respectively.

Over the last decade, Prof. Bermak has acquired a significant academic and industrial experience. He has taught over 20 different courses at the undergraduate and post-graduate levels. He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching. Prof. Bermak is also a two-time recipient of the "Engineering School Teaching Excellence Award" in HKUST for 2004 and 2009, respectively. He was also nominated for the 2013 Hong Kong UGC best teacher award.

Together with his students, Prof. Bermak has received five distinguished awards, including the "Best student paper award" at IEEE International Symposium on Circuits and systems ISCAS 2010 (the conference featured 1081 papers and the paper received the first prize); the 2004 "IEEE Chester Sall Award"; the IEEE Service Award from IEEE Computer Society and the "Best Paper Award" at the 2005 International Workshop on System-On-Chip for Real-Time Applications. He has published over 250 articles in journals, book chapters and conference proceedings and designed over 30 chips. He has served on the editorial board of IEEE Transactions on Very Large Scale Integration (VLSI) Systems and the Sensors Journal. He is also currently serving on the editorial board of IEEE Transactions on Biomedical Circuits and Systems and IEEE Transactions on Circuits and Systems II. Prof. Bermak is a Fellow of IEEE and IEEE distinguished Lecturer.

**Session III Chair: Dr. Irina Livshits**, National Research University of Informational Technologies, Mechanics and optics, Russia

14:00 – 14:30, Tuesday, January 7, 2014



**Dr. Erik Sundin**

Associate Professor in Sustainable Manufacturing  
Division of Manufacturing Engineering, Department of Management and Engineering  
Linköping University, Sweden  
Board Member of Industrial Engineering MSc Program at Linköping University  
Regional Editor of Journal of Remanufacturing

**"Industrial Engineering Education in Europe"**

Dr. Erik Sundin is an associate professor in manufacturing engineering at the Department of Management and Engineering of Linköping University, Sweden. He received Ph.D. in the area of *Product and Process Design for Successful Remanufacturing* and MS in Applied Physics and Electrical Engineering from Linköping University. Most of his research has been focusing around remanufacturing. Recently he is focusing on Sustainable Production and the development of Product/Service Systems (PSS). In remanufacturing Dr. Sundin is a part of a European Union project called CAN-Reman with participating researchers and companies in Germany, Spain and Sweden. The project focuses on find out how remanufacturer could start performing remanufacturing on valuable components used in the CAN-bus system in cars. In parallel He is also working in research focusing on the development of reuse and recycle flat panel displays to develop equipment for disassembly of used flat panel displays in order to recover valuable components and/or materials. During his Ph.D. research, Dr. Sundin has been analyzing several kinds of remanufacturing facilities in Sweden, Canada and Japan. The companies that have been studied are remanufacturing products such as; toner cartridges, gasoline engines, single-use cameras, brake calipers, and forklift trucks. Also, in the remanufacturing research area he has been involved in starting up the new *Journal of Remanufacturing* (Springer) in which Dr. Sundin is regional editor for European Union together with Professor Daniel Brissaud, University of Grenoble, France. Within the research area of PSS he has started up the international research network called The International PSS Design Research Community which includes researchers from Japan, Germany, Denmark, UK, France and Sweden. More locally Dr. Sundin is a part of ManuServ – Centre for service research in manufacturing industry at Linköping University. He has published numerous journal and conference papers.

14:30 – 15:00, Tuesday, January 7, 2014



**Dr. Eugene Rex L. Jalao**

Assistant Professor, Department of Industrial Engineering and Operations Research  
University of the Philippines Diliman  
Diliman Quezon City, Philippines

**"Industrial Engineering Education in Philippines"**

Dr. Jalao is an assistant professor of Industrial Engineering at the University of the Philippines Diliman, Department of Industrial Engineering and Operations Research. He obtained his Ph.D. in Industrial Engineering from Arizona State University in 2013. His research interests are in the fields of Decision Support Systems, Business Intelligence, Data Mining and Systems Simulation. Furthermore, he obtained his Masters of Science in Industrial Engineering degree as well as his Bachelor of Science in Industrial Engineering from the University of the Philippines Diliman in 2009 and 2007 respectively. He has five years of work experience of business analytics both here in the Philippines and in the United States of America, specifically in the Banking, Real Estate, Healthcare, and Information Technology industries. He is also a certified SAP ERP materials management consultant as well as a Matlab certified associate. He was also inducted into the Alpha Phi Mu, Industrial Engineering Honor Society.

15:00 – 15:30, Tuesday, January 7, 2014



**Dr. James C. Chen**

Professor, National Tsing Hua University, Taiwan  
Adjunct Professor, National Taiwan University, Taiwan  
Adjunct Professor, Peking University, China  
Consultant, Pou Chen International Group

**"Industrial Engineering Education and Application in Taiwan"**

James C. Chen is Professor in the Department of Industrial Engineering and Engineering Management at National Tsing-Hua University (NTHU), Taiwan. Prior to his current position, he was Chair Professor in the Department of Industrial Management at National Taiwan University of Science and Technology (NTUST), Professor in the Department of Industrial and Systems Engineering at Chung Yuan Christian University (CYCU), and a researcher at Industrial

Technology Research Institute (ITRI), Taiwan. He received a B.S. in Industrial Engineering from NTHU, Taiwan, an M.S. in Manufacturing Systems Engineering, and a Ph.D. in Industrial Engineering, both from the University of Wisconsin-Madison, USA.

Dr. Chen's current research interests include lean production and management, business process reengineering, advanced planning and scheduling, system simulation, and project management. He has been working on university-industry collaboration projects with high tech industries such as semiconductor wafer fabs and Thin Film Transistor Liquid Crystal Display (TFT-LCD) fabs in Taiwan as well as traditional industries such as footwear factories (e.g., the world's largest footwear manufacturing company, Pou Chen International Group, PCG) and apparel factories in Taiwan, China, India, Indonesia, Vietnam, Cambodia, and Fiji. He has published academic articles in European Journal of Operational Research, European Journal of Industrial Engineering, International Journal of Management Science (Omega), International Journal of Production Research, Computers and Industrial Engineering, Robotics and Computer- Integrated Manufacturing, Journal of the Society for Information Display, Displays, Applied Mathematical Modeling, and Production Planning and Control.

Dr. Chen was awarded IBM Manufacturing Research Graduate Fellowship, Outstanding Teaching Awards at CYCU, Distinguished University-Industry Collaborative Research Award at Chung Hua Picture Tubes (CPT), Distinguished Industrial Engineer Award from Chinese Institute of Industrial Engineers (CIIE), Outstanding Research Award at NTUST, Distinguished Intellectual Property and Commercialization Award at NTHU, Distinguished Research Award at NTHU, and Feature Person: Enjoying the International University-Industry Collaboration, Engineering Science and Technology Bulletin, National Science Council, Taiwan.

### Session IV Chair: Dr. Chui-Yu Chiu, National Taipei University of Technology, Taiwan

15:45 – 16:30, Tuesday, January 7, 2014



## Plenary I

**Dr. Andrew Gung**

Managing Director

Leave a Nest Singapore Pte. Ltd.

Andrew Gung is the Managing Director of Science venture company Leave a Nest Singapore Pte. Ltd. The parent company, Leave a Nest Co. Ltd, is founded by a group of Japanese Postgraduate Students 12yrs ago and is now one of the leading companies for Science and Technology venture businesses. Leave a Nest has also established network with more than 3,500 small industrial companies in Japan in a project to revive manufacturing industry in Tokyo.

Dr Andrew Gung graduated from National University of Singapore with 2nd Upper Class Honours and received a scholarship to do his PhD in Japan. In 2010, after graduating from Tokyo University of Marine Science and Technology in Marine Biotechnology, he joined this innovative company and established the first South East Asia (SEA) Branch. Since then, besides developing business for Leave a Nest, he had been involved in marketing research and product promotion for leading Japanese company (including medical and electronics devices) in SEA. Recently, he is involved in a project to establish a research base in Singapore for major IT Company.

Dr Andrew Gung is also a Lecturer for Advance Course Robotics at the Electronics Street (Akihabara) in Tokyo- a 4-year course catered for the children, to inspire the next generation of Engineers. He is currently involved in a project to bring new innovations via technology and research products linking up small industrial companies with overseas partners. Overall, Dr Andrew Gung, specializes in Science Bridge Communication Skills applied to facilitate the advance of Science and Technology via varied means (From education, technology transfer, global business development)

16:30 – 17:15, Tuesday, January 7, 2014



## Plenary II

**Dr. Abdur Rahim**

Professor, Faculty of Business Administration

University of New Brunswick, Fredericton, NB, Canada

Visiting Faculty, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia

***“Industrial Engineering Education in Middle East”***

Dr. Abdur Rahim is a Professor at the Faculty of Business Administration, University of New Brunswick (UNB), Fredericton, Canada. He joined UNB in 1983 and is a member of the Quantitative Methods area. He received his B.Sc. (Hons.), M.Sc in Statistics from the University of Dhaka, D.S. in Operations Research from the University of Rome, M.Sc. in Systems Theory from the University of Ottawa, and Ph.D. in Industrial Engineering from the University of Windsor. He teaches Management Science, Operations Management and TQM in the BBA and MBA programs. Dr. Rahim is a recognized world expert in Quality Control and Quality Management. He has taught a wide range of courses in Universities in Canada, Bangladesh, Malaysia, and Saudi Arabia. He has served as an Associate Editor of the International Journal of Systems Science, Quality Engineering, and Engineering Optimization. He is a member of the Advisory or Editorial boards for Economic Quality Control, the Journal of Quality in Maintenance Engineering, the Journal of Quality Engineering and Technology, and the International Journal of Production Research. Dr. Rahim received the

UNB Merit Award in 1992, 1999, 2000, and 2009 for his excellence performance in research, service, and teaching.

## Global Engineering Education – IEOM 2014 Conference Wednesday, January 8, 2014

**Session V Chair: Dr. Grace Kanakana, Tshwane University of Technology, South Africa**

**09:45 – 10:15, Wednesday, January 8, 2014**



**Dr. Ilham Kissani**  
Engineering & Management Science  
School of Science & Engineering  
Al Akhawayn University, Morocco

### "Industrial Engineering Education in North and Sub-Saharan Africa"

Professor Ilham Kissani holds an engineer degree in Operations Research from INSEA (Rabat, Morocco); she received a Master in Logistics and Ph.D. in Industrial Engineering from the Faculty of Engineering, Laval University, Quebec City, Canada. Later on, she joined the company of Modellium in Quebec, Canada as consultant in Supply chain management. Professor Kissani has been an active consultant to many private companies like Domtar in Canada and Axia, Natura in Brazil.

She subsequently joined the Engineering School at Al Akhawayn University. She also held short term academic positions as a visiting scholar at ESITH (Morocco) She teaches courses in the areas of supply chain management, engineering economics, modeling, optimization, probability and statistics. Her research interests fall in the areas of production processes, Lean and Green manufacturing processes, and engineering management. She has published articles in Engineering Management Journal and International Journal of Supply Chain Management.

**10:15 – 10:45, Wednesday, January 8, 2014**



**Dr. Jinwoo Park**  
Professor, Department of Industrial Engineering  
Seoul National University  
South Korea

### "IE / Management Science in Korea"

Prof. Park's field of interest is in operations management with special interest in job design and the application of information and communication technology. More specifically he has been teaching and doing research in the field of Flexible Manufacturing Systems, Computer Integrated Manufacturing Systems, Enterprise Research Planning Systems, and Supply Chain Planning Systems. Recently he is also interested in the application of RFID and the productivity measurement and management of

software development process.

Prof. Park graduated Seoul National University in 1974, and KAIST in 1976. After then he had worked for 4 years as project engineer and production planner in Hyundai International, Inc., currently the Doosan Heavy Industries, Inc. He studied in the Department of IEOR, University of California at Berkeley during 1980-1985 and earned Doctoral degree (D.Eng.) there.

Then beginning from 1985 he has been teaching in the Department of Industrial Engineering at the Seoul National University and is a former director and vice president of the Korea Institute of Industrial Engineers ([www.kiie.org](http://www.kiie.org)), and president of the Korea Operations Research and Management Science Society ([www.korms.org](http://www.korms.org)) and the Korea Simulation Society([www.simulation.or.kr](http://www.simulation.or.kr)). He has taught, consulted and performed projects with such group of companies like Samsung, Hyundai and LG.

**10:45 – 11:15, Wednesday, January 8, 2014**



**Dr. Edward Chikuni**  
Professor, Department of Electrical Power Engineering  
Cape Peninsula University of Technology  
Cape Town 8000, South Africa

Professor Chikuni has been an engineering educator for over twenty years in 3 different countries (Zimbabwe, Namibia and South Africa) and 4 Universities (University of Zimbabwe, Namibia University of Science and Technology, University of KwaZulu Natal and Cape Peninsula University of Technology). His industrial experience has spanned over 10 years. He holds a First Class degree in Engineering from the University of Sierra Leone, an MSc from the University of Manchester (UMIST) and a PhD from the University of Wales. He is a Chartered Engineer registered with the Engineering Council of the United

Kingdom. He has over 40 scientific articles in peer reviewed international conference proceedings and journals as well as two books and two book chapters. He has been very active in the engineering education fraternity and has been a regular participant at the

International Conference for Engineering Education, and was a convener for one of the conference themes: University Industry collaboration. Almost 10 of his publications are in Engineering Education. He believes very much in capacity building and developing of the youth and the encouragement of women in Engineering. He helped found the IEEE Women In Engineering (WIE) branch at the Namibia University of Science and Technology. He has particular interest in making Engineering more attractive to disadvantaged communities in Africa and his present research is in designing laboratory sets that make practical experience more accessible. Although he has spent most of his working life in Africa he has travelled widely in Europe, USA and parts of Asia and his interactions with his peers during his travels have enhanced his understanding of Education and its importance in National Development.

**Session VI Chair: Dr. Shahrin Mohamed, Universiti Teknologi Malaysia, Johor, Malaysia**

**11:30 – 12:00, Wednesday, January 8, 2014**



**Dr. Hongyi SUN**

Coordinator, Community of Practice for Discovery and Innovation  
Program leader, Engineering Doctorate in Engineering Management (International, Provisional)  
Associate Professor, Dept. of Systems Engineering and Engineering Management (SEEM)  
City University of Hong Kong

**“Culture and Innovation Education for Engineering Students: The PIPE Model at City University of Hong Kong”**

Dr. SUN Hongyi holds a Bachelor degree in Computer Science from Harbin University of Science and Technology, a Master's degree in Management Engineering from the Harbin Institute of Technology (HIT), both in China, and a Ph.D. in Technology Management from Aalborg University in Denmark. Dr. SUN received a Certificate of Pedagogy in Higher Education from Bergen University in Norway in 1997. He has taught at the Harbin Institute of Technology in China (1986-1990) and the University of Stavanger in Norway (1994-1998).

Currently Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, where he also serves as programme leader and founding deputy programme leader of the Engineering Doctorate programme in Engineering Management, EngD (EM). His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation education. Dr. SUN resides on the editorial board of the International Journal of Technological Innovation, Entrepreneurship and Technology Management, the International Journal of Learning and Changes and International Journal of Quality and Reliability Management.

Dr. SUN has twice been the winner of the Teaching Excellence Award at the City University of Hong Kong and has won several other awards in innovation education His cross-disciplinary PIPE model and his learner-centered approach motivate students to actively acquire a broad range of new knowledge along the innovation process. Dr. SUN's teaching methods, reported in academic conferences and journals, have become widely recognized. He has become a regular speaker on innovation education and innovation management.

**12:00 – 12:30, Wednesday, January 8, 2014**



**Dr. Franz-Josef Kahlen, AFAIAA, AIAA SciTech14 GEPC Tech Chair**

Associate Professor, Department of Mechanical Engineering  
University of Cape Town  
Upper Campus, Rondebosch, South Africa

Prof. Franz-Josef Kahlen is an associate professor in mechanical engineering at the University of Cape Town, South Africa. He received Dipl-Ing from RWTH Aachen, Germany, MSc from University of Tennessee, USA and Ph.D. from University of Central Florida, USA. His research areas are manufacturing and operational excellence, systems thinking/problem solving and lasers and photonics. Dr. Kahlen focuses on operational excellence using the principles of lean manufacturing for engineering competency development. Research is underway to understand the human and

engineering factors in complex systems and complex system failures, and to identify the lessons learned from such research. He has published about 35 papers in journals and conferences and hold 2 US-patents for a Rapid Manufacturing process together with co-inventors and provisional South African patents.

**12:30 – 13:00, Wednesday, January 8, 2014**



**Prof. Dr. Shahrin Mohamed**

Chairman of the Society of Engineering Education of Malaysia  
Chairman, Engineering Deans Council  
Universiti Teknologi Malaysia

**“Engineering Education in the 21st Century : Malaysian Perspectives”**

Prof. Shahrin is the Dean of Civil Engineering Faculty, Universiti Teknologi Malaysia and currently the President, Society of Engineering Education Malaysia. With over 29 years of academic experiences, deeply involved in the planning, managing and assuring the quality academic programmes nationally he is also the Associate Director at the Engineering Accreditation Department, Board of Engineers,

Malaysia and involved extensively as an auditor for Malaysian Qualification Agency.

He holds B.Eng. (Hons) Civil Engineering, Department of Civil Engineering, University of Liverpool, UK, M.Phil in Structural Engineering, Department of Civil Engineering, University of Newcastle Upon Tyne, UK and PhD in Civil Engineering, Department of Civil Engineering, University of Sheffield, UK.

To date he had written four books and more than 60 journals, seminars and conferences papers both at the national and international level. These papers addressed his research findings as well as sharing experiences on the teaching and learning practices. He has been conducting more than 100 lectures/workshops related to Outcome Based Education (OBE), ISO 9000, and Academic Quality Assurance.

### Session VII Chair: Dr. Tasho Angelov Tashev, Technical University of Sofia, Bulgaria

14:00 – 14:30, Wednesday, January 8, 2014



#### Dr. Ajay K Garg, PE

Professor, TUT Business School, Faculty of Management Sciences  
Tshwane University of Technology  
Pretoria, South Africa

Dr. Ajay Garg obtained Bachelor's and Master's qualifications in first class with distinction from Indian school of Mines Dhanbad, India during the year 1987 (Mining Engineering) and 1990 (Longwall Mine Mechanisation) respectively. He further graduated from FMS, New Delhi with MBA qualification in 1994 and was awarded Doctorate of Business Leadership from SBL, University of South Africa during 2003. He has 25 years of industry, academic and administrative experience. Dr. Garg is currently employed at TUT business school, where he is responsible for teaching Research methodology course and responsible for all Masters and Doctoral research coordination work. The Business School is the largest in terms of post graduate student enrolment at the university. Prior to joining TUT, he set up Mining Engineering department at University of Botswana and also worked for Botswana Government for more than a decade. He has taught several Engineering and management courses at graduate programs and supervised a number of Masters students successfully.

Dr. Garg has widely published in Engineering and Management fields in reputable journals, his publications are spread around the world. He is an Established Researcher, a Rating that he received from NRF (National Research Foundation) of South Africa based on his quality of publications and contributions made. Dr. Garg also advises mineral industry in Africa. Currently he is special advisor to a Canadian based NGO and provides advice to several Central African Governments (DRC, Rwanda, Burundi, Tanzania, etc.) in the mineral sector in the implementation of mineral certification scheme. He was instrumental in the implementation of Kimberley process Certificate Scheme (KPCS) in Botswana and also represents NGOs in committees of KPCS.

14:30 – 15:00, Wednesday, January 8, 2014



#### Dr. Riyanarto Sarno

Professor & Head of Research Laboratory  
Informatics Department  
Faculty of Information Technology  
Institut Teknologi Sepuluh Nopember  
Surabaya Indonesia 60111

Riyanarto Sarno is Professor and Head of Research Laboratory at the Department of Informatics, Institut Teknologi Sepuluh Nopember, Indonesia. Currently he leads research collaboration with Kumamoto University Japan, Research Center of Indonesia Agriculture Ministry and Higher Education Directorate of Indonesia Education Ministry. He was an Adjunct Professor at the University of New Brunswick Canada, Visiting Professor at University of Toronto, Visiting Professor at Ryerson University, Visiting Professor at University Technology Malaysia and Visiting Professor at Seneca College Toronto. He received Ir. degree in Electrical Engineering from Bandung Institute of Technology in 1983 and Drs. degree in Economics from Padjajaran University in 1985. He earned MScand PhD in Computer Science from the University of Brunswick Canada in 1988 and 1992, respectively. He is currently the head of the Lab-based Education Enterprise Intelligent Systems. His research and teaching interests include Enterprise Computing, Business-IT Alignment, Business Process Modeling, Process Aware Information Systems and Process Mining.

15:00 – 15:30, Wednesday, January 8, 2014



#### Dr. Kurt Junshean Espinosa

Chair, Department of Computer Science  
University of the Philippines Cebu

Prof. Espinosa is an assistant professor and currently the chairperson of the Department of Computer Science at the University of the Philippines (UP) Cebu. He obtained his Masters in Computer Science from the University of the Philippines Diliman where he was a recipient of the Engineering Research and Development for Technology (ERDT) scholarship. His research interests are intelligent tutoring, sentiment analysis, social network analysis, health informatics, SMS platforms, and ICT for education. He has published and reviewed a number of journals and



conference proceedings in those fields. He developed a framework and implementation model for ICT integration in basic education using Delphi methodology. He was part also of a multidisciplinary research on algorithms for emotion recognition in call centers. Currently, he has ongoing researches on dengue epidemic simulation, crime modelling and prediction, sentiment analysis in social networks, emotion diffusion models, and e-learning. He has taught Machine Learning, Data Structures, and Web Engineering. He is a training consultant of some IT companies in Cebu. Moreover, he has an experience working in banking, finance, and insurance industries of multinational companies. He is also active in the startup community and has previously served the Incubator Manager of UP Cebu Technology Business Incubator - among the Philippines' most successful startup incubators. He is an active member of the Cebu Educational Development Foundation for Information Technology (CEDF-IT).

**Session VIII Chair: Dr. James C. Chen, Professor, National Tsing Hua University, Taiwan**

**15:45 – 16:30: Wednesday, January 8, 2014**



## Plenary III

**Dr. Bala Bharadvaj**

Leader of Engineering, Operations & Technology for Boeing India  
Managing Director of Boeing Research & Technology-India

Dr. Bala Bharadvaj is currently Boeing's leader of Engineering, Operations & Technology in India. He is also the MD of the Boeing Research & Technology Center in Bangalore. In these roles, he provides leadership to Boeing's Research, Technology and Engineering activities in India, to develop new technologies and develop mutually beneficial partnerships with Academia, Government organizations, and industry.

Bala has been with Boeing since 1987, and worked in Southern California for over twenty years before relocating to India in 2009. He has held various leadership positions in Technology Development, Technology Integration, Engineering, Program Management and Strategic Planning. Prior to joining Boeing, he was a member of the faculty of the Aerospace & Mechanical Engineering at Boston University, Boston.

During his long career in academia and industry, Bala has contributed to a variety of projects spanning analysis, design, lab testing and flight testing. He has (A) developed computational codes for aerodynamic analysis of airplanes and helicopters; (B) held key leadership positions in major NASA-Industry aeronautical initiatives; (C) led teams to integrate new technologies into the C-17 strategic airlifter; and (D) led the development of long-range technology plans for Boeing Defense, Space & Security Systems.

During this journey, Bala has been recognized with several awards, from such organizations as the Sigma Xi Scientific Research Society; National Aeronautics and Space Administration (NASA); Boeing in Long Beach; and the American Society of Engineers of Indian Origin. Bala holds multiple degrees in Engineering and Management: B. Tech. with Distinction in Aeronautical Engineering, from IIT Madras, India; M.S. and Ph.D. degrees in Aerospace Engineering from the Georgia Institute of Technology in the US; and MBA from the University of California at Irvine, California.

Bala is an Associate Fellow of the American Institute of Aeronautics & Astronautics, and a member of Beta-Gamma-Sigma Business Honor Society. He is also an active member of SAEINDIA (where he chairs the Aerospace Board) and NASSCOM Engineering Council.

**16:30 – 17:15: Wednesday, January 8, 2014**



## Plenary IV

**Dr. Gisele Ragusa**

Associate Professor, Viterbi School of Engineering  
University of Southern California  
Division of Engineering Education  
Chair, USC STEM Consortium  
University Park Campus, Los Angeles, California, USA

Dr. Ragusa serves as the Associate Director of Education at CREATE. She is an associate professor and the Director of the Center for Outcomes Research and Evaluation. She is jointly appointed in the Rossier School of Education and the Viterbi School of Engineering's Division of Engineering Education. Her research interests and areas of expertise include: teacher education and retention, literacy education, teacher education supervision, content literacy, early childhood special education, deaf education, engineering education as well as assessment and measurement in STEM education. She teaches courses in literacy and language development, courses in learning theory, human development courses, and teacher education research courses. Prior to joining USC Rossier, Dr. Ragusa held an appointment as an assistant professor in special education and bilingual education at California State University, Northridge in addition to a faculty position at Pacific Oaks College. She has taught in distance learning for more than ten years. She is active in many professional associations in the early childhood, distance learning, engineering education, program evaluation and special and deaf education fields. She has been the principal investigator on several federal grants through the US Department of Education and the National Science Foundation.

# Global Engineering Education – IEOM 2014 Conference

## Thursday, January 9, 2014

**Session IX Chair: Dr. Muhammad Abid**, Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Pakistan

**10:15 – 10:45: Thursday, January 9, 2014**



**Prof. Dr. Tasho Angelov Tashev**  
Dean, Faculty Management and Administration  
English Language Faculty of Engineering  
Technical University of Sofia, Sofia, Bulgaria

Dr. Tasho Tashev is professor and dean of the English Language Faculty of Engineering at the Technical University of Sofia, Bulgaria. He structured the Faculty into three Departments: Industrial Engineering, Business Computing, and E-Management. The Faculty provides higher engineering education, recognized in the EU countries. Dr. Tashev is Chair of the annual International Conference "Challenges to the Higher Education and Research in the 21st Century". His research areas are industrial engineering, program assurance of the measuring instruments, intelligent measuring systems. Over the years he has supervised more than 10 Ph.D. students. Dr. Tashev has published in numerous journals and conference papers.

**10:45 – 11:15: Thursday, January 9, 2014**



**Dr. C. B. Gupta**  
Professor, Department of Mathematics  
Birla Institute of Technology & Science (BITS)  
Pilani, India

A recipient of Shiksha Rattan Puraskar 2011, Best Citizens of India award 2011, Glory of India award 2013, listed in Marquis who is who in Science and Technology in the world 2010 and 2013 and listed in top 100 scientists of world in 2012, Dr. C. B. Gupta who is presently working as a Professor in the Department of Mathematics, Birla Institute of Technology and Science, Pilani (India) obtained his Master's degree in Mathematical Statistics and Ph. D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/ co-authored 12 books on the topics Probability and Statistics, quantitative Methods, Optimization in Operations Research, Advance Discrete Mathematics, Engineering Mathematics I, II, III, Advance Mathematics etc. He is also on the editorial board of a number of national and International journals and also reviewer of many national and international journals.

Dr. Gupta is a member on various academic and management committees of many Institutes/ Universities. He has participated in more than 30 national and International conferences in which he has delivered invited talks and chaired technical sessions. He has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSC, New Delhi and AICTE, New Delhi etc.

**Session X Chair: Dr. Budi Santosa**, Surabaya Institute of Technology (ITS), Indonesia

**11:30 – 12:00: Thursday, January 9, 2014**



**Dr. Abdurazzag Ali Aburas**  
Faculty of Engineering and Natural Sciences  
International University of Sarajevo  
Ilidza, 71000, Sarajevo, Bosnia and Herzegovina

Abdurazzag Ali Aburas received his Bachelor's degree in Computer Sciences Tripoli University, Tripoli-Libya in 1987. He obtained his Master degree in Computer & Information Technology and PhD in Digital Image Processing from Dundee University and DeMontFort University, UK in 1993 and 1997 respectively. He worked in Jordan and UAE universities for five years and Electrical and Computer Engineering Department, Kulliyah of Engineering, International Islamic University Malaysia. Present time, he is working as Assist. Prof. International University of Sarajevo. He has more than 50 publications in different international conferences and several papers in international journals. He has got two research patents in

Image processing filed. Recently, he gives consultation for IT Company as senior software developer. His areas of research interest are

Curriculum development, Digital Signal / image / video processing, Coding and Compression, Wavelets, Fractal and Image / Voice Pattern Recognition, Human Computer Interaction, E and M Learning, wireless Communications, Algorithms, Web-applications. He is a member in IEEE, HCI-UK, ARISE and IMA Societies. He was a Member Board of Studies of Engineering Curriculum development (Review and Improvement). Dept of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia. He introduced two new course curriculums for HCI (2001) and Programming for Engineering (2008). He is Coordinator of Cloud Computing and Mobile Research Group – CCMRG at IUS present time and Coordinator of Software Engineering Research Group – SERG (2006-2009), IIUM. He has published new book based Engineering Education.

### 12:00 – 12:30: Thursday, January 9, 2014



#### **Dr. Muhammad H. Zaman**

Associate Professor & Associate Chair for Undergraduate Affairs  
Department of Biomedical Engineering  
Associate Director, Kilachand Honors College  
Boston University, USA

#### **"Engineering Education in Africa: Impact for Development and Sustainability"**

Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development, Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in engineering education and curriculum development in resource limited countries. As the co-Director of UN Economic Commission for Africa's Biomedical Engineering Initiative, he is actively involved in creating and sustaining biomedical engineering programs across various institutions in Africa including universities in Kenya, Zambia, South Africa, Ethiopia and Uganda. He has won numerous awards in teaching and educational research, these include awards from IEEE Education Society, IEEE EMBS Young Investigator Award, American Society for Engineering Education and The University of Texas Board of Regents. His work has been profiled by BBC, The New York Times, National Public Radio, Popular Science, Scientific American and others. His research is funded by USAID, UN Economic Commission, NIH, National Science Foundation, Gates Foundation and other international private and public organizations.

### 12:30 – 13:00: Thursday, January 9, 2014



#### **Dr. Abdel Magid Hamouda**

Professor and Chairman  
Mechanical and Industrial Engineering Department  
Qatar University, Qatar

#### **"Innovation and Entrepreneurship in Higher Education: Status; Challenges and Future Trends"**

Dr. Hamouda joined Qatar University as Professor and Chairman of Mechanical and Industrial Engineering Department in 2006. Prior to this appointment, Dr. Hamouda was holding joint appointments in University Putra Malaysia, at the Faculty of Engineering as well as the Institute of Advanced Technology where he was the founding program manager in computational Science and Engineering. He was also a research manager at the Road Safety Research Centre (RSRC), University Putra Malaysia. Dr. Hamouda is corresponding member for the American Academy of Mechanics (AAM), member of the American Society of Mechanical Engineering (ASME), and member of the Institute of Electrical and Electronic Engineers (IEEE). He is also a senior member of Institute of Industrial Engineering (IIE), USA, Member of the Institute of Mechanical Engineers (IMechE), UK; and Member of the Institute of Highway Transportation, UK.

Dr. Hamouda has supervised/supervising more than 15 Ph.D. and more than 50 Master degree students (By Research Thesis). Furthermore, he has published over 300 papers of which 120 Journal Publications. He has often been invited as keynote and invited speaker for various conferences, seminars and workshops. He has several US and Malaysian patents, and has edited several conference proceedings. He is editor-in-chief of international journal of virtual technology and multimedia, Deputy Editor in-Chief of Journal Achievements in Materials and Manufacturing Engineering and Editor of Engineering and Applied Sciences Journal. He set in the editorial board of many international journals. His research focuses on advanced design tools, development of novel materials and structures with enhanced performance. Key focus areas of his research are characterization of advanced materials, developing new design concepts, multifunctional and smart structures, design evaluation, crashworthiness, robotics, Lean management as well as Artificial intelligence and adaptive control.

He and his co-workers have received a number of prestigious awards; Gold Medal at the British Invention Show Alexandra Palace, UK, in 2004 and 2006, Silver Medal and Bronze at the 32nd International Exhibitions on Inventions, New Techniques and Products, Geneva, Switzerland, and another Silver Medal at the 63rd IENA, Nuremberg, Germany. In December 2007, he won the 2nd place at the Arab Business Plan competition in Amman, Jordan. Dr. Hamouda was selected by the Organization of Islamic Countries (OIC) as one of the 200 Top scientists within the OIC courtiers.

He Chaired and organized a good number (about 50) of symposium and international conferences in the areas of composite materials and computational mechanics in different parts of the world namely, Ireland, Japan, USA and Malaysia. He is assessor/ examiner to academic programs and faculty academic promotion to many universities. Dr. Hamouda is approached regularly by the members of the media for clarification of engineering issues concerning the public safety and invention; to name few Reader's Digest magazine and Women's Weekly manganese.

## Session XI Chair: Dr. Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

14:00 – 14:30: Thursday, January 9, 2014



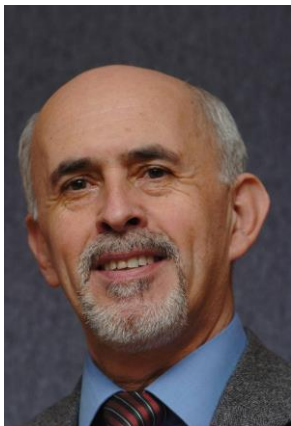
### Dr. Bidyut Kumar Bhattacharyya

Professor, Mechanical Engineering Department  
Director, School of Safety & Occupational Health Engineering  
Bengal Engineering & Science University  
Shibpur, Howrah, West Bengal, India

Bidyut Kumar Bhattacharyya received B.Sc from Calcutta University, Kolkata, India, B.E. in Mechanical Engineering from SVR NIT, Surat, MS in Production Engineering from Faculty of Technology, M.S University, Baroda, Gujrat, and Ph.D. from Jadavpur University, Kolkata, India. He has certificate of Training on TQM - Japan Union of Scientist & Engineers (JUSE), Tokyo, Japan. Dr. Bhattacharyya has 8 years industrial experience in M.N.Dastur, Hindustan Motors and TTK Group in Quality Assurance Department. He was visiting faculty at Jadavpur University, Institute of Engineers – India, and Academic Staff College, IOLC, Haldia. Dr. Bhattacharyya co-chaired, 16th International Conference On Industrial Engineering & Engineering Management, China and member of National Sectoral Innovation Council on Occupational Safety and Health (OSH) by the Ministry of Labour and Employment, Government of India.

He has provided many keynote speeches. His research areas are Advanced Manufacturing System, Industrial Engineering, Quality & Production Management, Human Resource Management, Operation Research, and Safety & Occupational Health. Dr. Bhattacharyya has supervised many doctoral students and published many conference and journal papers. He is a Member of Academic Council, School of Management Science, Bengal Engineering and Science University, India.

14:30 – 15:00: Thursday, January 9, 2014



### Dr. Ali R. Kaylan

Professor, Department of Industrial Engineering  
Chair of the Graduate Program in Engineering and Technology Management  
Bogazici University, Istanbul, Turkey

#### "Industrial Engineering Education in Turkey"

Ali R. Kaylan is a professor of Industrial Engineering and the Chair of the Engineering and Technology Management graduate program at Bogazici University in Istanbul. After completing his undergraduate studies in 1973 in the Mechanical Engineering Department of Bogazici University, he pursued his graduate studies in the Department of Industrial Engineering and Operations Research at Syracuse University in the U.S.A. He has received his M.S. degree in 1975 and Ph.D. in 1979 both from the same University. He joined the Industrial Engineering Department of Bogazici University in 1979. He was promoted to full professorship in 1990.

He has served as the Industrial Engineering Department Chair and the Information Technology Director of the Bogazici University. He was elected as the Engineering Dean for two terms during 2000-2006.

During that period, he was a member of the Steering Committee of the Turkish Engineering Deans Council. He was elected as the General Secretary of this Council for the period December 2003 – May 2006. Being a founder member of the Turkish Association for Evaluation and Accreditation of Engineering Programs, he participates as an evaluator in the accreditation process of Industrial Engineering Programs in Turkey.

Prof. Kaylan has also been active in KalDer, the Turkish Quality Society. He was the President of this Society during 2008-2010. Besides, during his membership in the Executive Committee for 12 years, he has served as the Chairman of the National Quality Award Steering Committee, the Head of of the Advisory Board of the Turkish Customer Satisfaction Index and the Head of the Editorial Board for the Turkish quality journal entitled as *Quality First*. He is a founder board member of R&D Engineers and Managers Association.

15:00 – 15:30: Thursday, January 9, 2014



### Dr. Yun-Hae Kim

Professor, Korea Maritime and Ocean University, Korea  
Vice-President, Korean Society for Engineering Education, Korea  
Editor-in Chiefs, Nano Hybrids, Advanced Engineering Forum, IJOSE, JOET  
Director and Editor, Korean Society of Composite Materials (KSCM)

Yun-Hae Kim is a founder of Asian Conference for Engineering Education (ACEE) and Chair of the 3rd ACEE2013. He holds the position of Professor at the Division of Marine Equipment Engineering, Korea Maritime and Ocean University, Korea, with major in Composite Materials. He is also the Vice-president of the Korean Society for Engineering Education (KSEE). He was a Visiting Professor at National Institute of Standards and Technology (NIST, 1997-1998), U.S.A. and a Visiting Professor, The University of

Tokushima (2004-2005), Japan. He was the Coordinator of The First International On-Board Seminar for the Development of Environment-friendly Technology and Secretariat General of International Conference on Marine Engineering funded by Busan Metropolitan City.

He was a Vice-Director of Marine Equipment Research Institute (KMOU), Director of Busan Techno-Park Branch(KMOU), Division Chief (Marine Equipment Engineering)(KMOU), Director of the Innovation Center for Engineering Education, Director of Center of the Teaching and Learning, Chair of the 1st Asian Conference of Engineering Education 2009, Chairmen of the ISMST 2010, Chairmen of the 2nd International On-board Symposium, Editor of the Korean Society of Composite Materials, Vice-president, The Korea Society for Engineering Education (KSEE). He is the Editor-in-Chiefs, International Journal of Ocean Science Engineering (IJOSE), Nano Hybrids, Advanced Engineering Forum, The Korean Society of Ocean Engineering. He is the Editor of Composite Research.

Awards Busan Mayor Prize from Busan Metropolitan City, Prize of The University of Tokushima, Japan, Best Paper Prize, Korean Society of Marine Engineers, Jang, Young-Sil Prize, Best Ministry Award in Korea, Nominated in Marquis Who's who, 2008-2013, Nominated in IBC, UK, Appointed as the 100 Scientist in 2008, IBC, UK, and Innovation Award for Engineering Education, Ministry of Education in 2011.

He is a Chair of the 3rd Asian Conference of Engineering Education 2013(ACEE2013) and he is a Chair of the 7th Advanced Materials Development and Performance (AMDP) 2014. He is the Co-chairs of 2nd International Conference Mechatronics and Control Engineering, ICMCE2013, International Forum on Mechanical and Material Engineering 2013, IFMME2013 and 3rd International Conference on Advanced Engineering Materials and Technology, AEMT2013. International Conference on Sensors, Measurement and Intelligent Materials, ICSMIM2013.

He gave Special lecture for the Japanese Students in Mexico, 2006-2007, Keynote speech, 1st Asian Conference on Engineering Education 2009 (ACEE2009), Korea, Special lecture at Dali University, 2010, China, Keynote speech, ISMST 2010, China, Invited lecture at the 2nd International On-Board Symposium, 2010, Japan, Invited lecture at the Korean Society of Composite Materials, 2010, Korea, Special lecture, The University of Tokushima, Summer school, 2010, Japan, Keynote speech, 2nd Asian Conference on Engineering Education 2011 (ACEE2011), Japan, Keynote speech, Nanocon012, 2012, Pune, India, Keynote Speech, IUSWNM2013, Cochin, India, Keynote Speech, National Taiwan University, 2012, Taiwan, Keynote speech, 1st IJSEE2013, Busan, Korea, Keynote speech, 2nd IJSEE2013, Kumamoto, Japan, Keynote speech, IUSWNM2012, 2013, India, Keynote speech, ICMCE2013, 2013, Dalian, China, Keynote speech, IFMME2013, 2013, Gwangzhou, China, Keynote speech, AEMT2013, 2013, Zhangjiajie, China, The University of Tokushima, Summer school, 2013, Japan, Keynote speech, ICACME2013, 2013, Beijing, China.

## Session XII Chair: Dr. Bernardo Villarreal, Universidad de Monterrey, Mexico

15:45 – 16:30: Thursday, January 9, 2014



### Plenary V

**Dr. Paulo Augusto Cauchick Miguel**

Adjunct Professor, Department of Industrial and Systems Engineering  
Federal University of Santa Catarina – UFSC  
Brazil

#### [“Industrial Engineering Education in Brazil: Fast Growing and Future Perspectives”](#)

Paulo Augusto Cauchick Miguel obtained his PhD in Manufacturing Engineering from the School of Manufacturing and Mechanical Engineering at the University of Birmingham, UK. His industrial experience in Brazil includes working as a manufacturing engineer for Varga/TRW and Bendix/Allied automotive brake system companies. He is an Adjunct Professor at the Department of Industrial and Systems Engineering of the Federal University of Santa Catarina (UFSC) in Florianópolis, Brazil as well as contributes to the Post-graduate Program in Industrial Engineering at the University of São Paulo (USP). He is currently an Associate Editor of Revista Produção. His primary research interests are in the areas of product development management, project management, quality and environmental systems, and engineering education.

16:30 – 17:15: Thursday, January 9, 2014



### Plenary VI

**Ing. Oscar Gamboa C., MSc.**

**Coordinador**

**Maestria en Sistemas Modernos de Manufactura**

**Instituto Tecnológico de Costa Rica**

#### [“Engineering Education in Latin America”](#)

Oscar Gamboa is a Full Professor (Cathedraticus) at the Technological Institute of Costa Rica, and Director of the M.Sc. Program in Manufacturing Modern Systems. He earned his Bachelor and Master of Science degree in Production Engineering at Tech Institute of Costa Rica and his experience is supported in more than 20 years as a researcher, trainer and consultant in operations planning and scheduling in factories located in North and Latin America.