

## IFEES Award Recipients

### A. IFEES Global Award for Excellence in Engineering Education



#### **Anette Kolmos (2013)**

Dr. Anette Kolmos has been a Professor in Engineering Education and Problem Based Learning at Aalborg University since 2008. She has also served as Chairholder for the UNESCO Chair in Problem Based Learning in Engineering Education, Aalborg University, Denmark since 2007. She was Professor with special duties in Engineering Education and Problem-Based and Project-Based Learning (PBL), Department for Development and Planning (2003 – 2008), and Visiting Professor at Chaire UNESCO de pédagogie universitaire, Université catholique de Louvain (2003). Dr. Kolmos has served in several capacities in several University and International Academic Activities including President of the European Society of Engineering Education, SEFI (2009-2011), Chair of the SEFI Working group on Engineering Education Research (2008 – 2009). In 2008, she was appointed as President-Elect of the European Society of Engineering Education, SEFI. Since 2007, she has been Chair of the national team for developing and maintaining research credits lists for the subject areas: education, subject didactics and pedagogy. Member of Programmbeirat für Hochschuldidaktik, für alle Universitäten in Baden Württemberg, Germany (2007-08). She has served as Member of the External Advisory Board for 7th Framework Programme: People, European Commission (2006-09), associate editor for the European Journal of Engineering Education, Taylor and Francis (2007-11), and from 2004-2007, was coordinator for the EU-project, Socrates project, PBL-Engineering which is developing the master programme: Problem Based Learning in Engineering and Science During the last 10 years, Dr. Kolmos has been responsible for development and implementation of more than 10 research and development projects. There has been external funding for some of these projects and Dr. Kolmos has been a project leader for all of them. These research project cover following issues, primarily within engineering education:

- Future Engineering Knowledge and Skills
- Development and evaluation of project organised and problem-based curriculum
- Change from traditional to project organised and problem-based curriculum
- Development of transferable skills in PBL and project work
- Methods for staff development
- Co-operative skills in product development and in engineering education
- PhD supervision.

As of February 2008, there are 125 publications registered in The Aalborg University Research Database. Google Scholar gives Dr. Kolmos 197 references. During her career, she has

organised several international conferences and workshops, and has given several keynotes at international conferences. She has international experience in international faculty development, as she has been running more than 30 training workshops about PBL outside Denmark. IFEEES is extremely proud to award Prof. Kolmos with its 2013 IFEEES Global Award for Excellence in Engineering Education.



### **Bopaya Bidanda (2012)**

Dr. Bopaya Bidanda joined the faculty at the University of Pittsburgh in 1987 after his doctoral degree from the Department of Industrial & Manufacturing Engineering at Penn State. His research is in the area of manufacturing systems with a special focus on Group Technology, Reverse Engineering, Cellular manufacturing, Lean Manufacturing, Human issues in manufacturing, Product Development, and Manufacturing Modernization. He is currently the Ernest E. Roth Professor and Chairman of the Department of Industrial Engineering at the University of Pittsburgh (Pitt). At Pitt, he has helped found the Manufacturing Assistance Center, the Automated Data Collection Laboratory, and more recently the Swanson Center for New Product Innovation. He has industrial experience in aerospace manufacturing, precision manufacturing and tooling accrued before graduate study. He has co-published two books with McGraw Hill (Automated Factory Handbook and Shared Manufacturing), in addition to over 100 papers in international journals and conference proceedings. He has served the Industrial Engineering profession in many roles ranging from the Director of Conferences (1999-2000) to President of the Senior Pittsburgh Chapter, to being the Program Chair for both the IE Research Conference (Phoenix 1997), and the IIE Solutions Conference (Banff, 1998). Dr. Bidanda has participated in accreditation visits to many engineering schools across the United States on behalf of the Accreditation Board for Engineering & Technology (ABET). He has actively consulted with organizations ranging from regional small and medium sized industries to national heavy engineering industries to precision luxury goods re-manufacturing. Recent examples include FedEx Ground, PPG, Schroeder Industries, Portsmouth Naval Shipyard, Pearl Harbor Naval Shipyard, Eaton-Cutler Hammer Inc., and Cartier Inc and the Department of National Defence (Canada). His research has been funded by the Federal Government (NSF, Department of Commerce), major foundations (including W.M. Keck Foundation, the Pittsburgh Foundation, the Kresge Foundation, etc.), and the State Government (Department of Labor) and private industry (FedEx Ground). He is a senior member of the Society of Manufacturing Engineers and a Fellow of the Institute of Industrial Engineers. IFEES awarded to Prof. Bopaya Bidanda with its 2012 IFEES Global Award for Excellence in Engineering Education at WEEF 2012 Buenos Aires, Argentina.



**Jack Lohmann (2011)**

Dr. Jack Lohmann is Associate Provost and Professor of Industrial and Systems Engineering at the Georgia Institute of Technology. His principal responsibilities include the institutional development, review, and accreditation of the Georgia Tech's academic programs, as well as the inter-campus development of its programs located in Metz, Paris, Singapore, and Savannah (Georgia). Dr. Lohmann mostly recently served as the Associate Dean for Academic Affairs in the College of Engineering at Georgia Tech, and has also held appointments at the National Science Foundation, the University of Michigan, the University of Southern California, and l'École Centrale Paris in France.

Dr. Lohmann earned his B.S.M.E. from Oklahoma State University and his M.S. and Ph.D. in Industrial Engineering and Management at Stanford University. His research and teaching interests are in the field of capital budgeting and economic decision analysis, and he has also provided leadership in a number of engineering education initiatives involving accreditation and curriculum innovation. External sponsors of his research and educational initiatives include: AT&T, GM, Hewlett-Packard, IBM, Microsoft Research, Motorola, National Science Foundation, Procter & Gamble, Sloan Foundation, and the United Engineering Foundation. Dr. Lohmann is also Editor of the Journal of Engineering Education published by the American Society for Engineering Education, a licensed Professional Engineer, and a Fellow of the Institute of Industrial Engineers. For his accomplishments, IFEEES awarded to Prof. Lohmann the IFEEES Global Award for Excellence in Engineering Education in 2011.



**Richard M. Felder (2010)**

Dr. Richard M. Felder is the Hoechst Celanese Professor Emeritus of Chemical Engineering at North Carolina State University, Raleigh, North Carolina. He is a co-author of the book *Elementary Principles of Chemical Processes*, which has been used as the introductory chemical engineering text by roughly 90% of American universities and a number of universities elsewhere, and he has authored or co-authored over 200 education-related papers and “Random Thoughts” columns (a regularly occurring piece in *Chemical Engineering Education*) as well as numerous papers on chemical process engineering. Together with his wife, Dr. Rebecca Brent, he has presented over 600 teaching and faculty development workshops and seminars throughout the United States and abroad. Since 1991 he has co-directed the National Effective Teaching Institute under the auspices of the American Society for Engineering Education.

Richard received the B.Ch.E. degree from the City College of New York in 1962 and the Ph.D. in chemical engineering from Princeton University in 1966. He worked for the Atomic Energy Research Establishment (Harwell, England) and Brookhaven National Laboratory before joining the North Carolina State faculty in 1969. He discusses several aspects of his teaching philosophy in a September 2010 interview in the “ChE Thoughts” journal of the Bangladesh University of Engineering and Technology. Richard has received numerous awards for contributions to engineering education including the AT&T Foundation Award for Excellence in Engineering Education (1985); Outstanding Engineering Educator of the Century (one of five), ASEE Southeastern Section (1993); and the Donald L. Katz Lectureship Award, University of Michigan (1994). For his accomplishments in engineering education, IFEEES awarded him the inaugural Global Award for Excellence in Engineering Education in 2010.

## B. IFEES President's Award Recipients



Lueny Morell (2013)

We are proud to present this year's Presidential Award to Lueny Morell, one of IFEES' original founders and Past President, Co-Founder of the Global Engineering Deans Council (GEDC) and Co-Founder of the International Institute for Developing Engineering Academics (IIDEA), which aims at providing selected top notch leadership workshops offered by world known educators to engineering professors, deans and graduate students worldwide.

From 2002 to 2013, she was a member of HP Labs strategy and open innovation teams where she focused on catalyzing co-innovation with partners (governments, customers and universities) to bring ideas, resources and develop talent for innovation. She also was responsible for developing engineering education, curriculum innovation and development initiatives and student programs worldwide in support of HPL research and HP technology areas. During her tenure at HP she also worked on fostering capacity-building in support of economic development and engaged and partnered with private, public and NGO organizations around the world to drive innovation, quality assurance and diversity in engineering-and-science education. A licensed professional engineer, she holds a BS degree in Chemical Engineering from the University of Puerto Rico – Mayagüez and an MS degree in Chemical Engineering from Stanford University. Lueny has a 24 year career at the University of Puerto Rico, holding various positions at the Mayagüez Campus (UPRM) as well as at the system level. A full professor of Chemical Engineering, during her tenure at UPRM she was Director of UPRM's Research & Development Center, elected member to the Academic Senate and Administrative Board, Special Assistant to the Chancellor and the Dean of Engineering in charge of strategic alliances, new educational initiatives and outcomes assessment, including coordinating the ABET 2000 accreditation responsibilities. At the UPR system, Lueny was part of the staff of the Vice President of the University of Puerto Rico System, coordinating the implementation of a UPR system-wide institutional research function, and Director of the Curriculum Innovation Center of the Puerto Rico Alliance for Minority Participation (PR-AMP) Project. Lueny was

also Project Director for various NASA and NSF multidisciplinary curriculum innovation grants involving strong industry partnerships. A certified ABET evaluator, she has done professional consulting work and is member of various professional and honor societies, among them Tau Beta Pi, Phi Kappa Phi, Sigma Xi, Alpha Delta Kappa, IEEE, ASEE and AICHE. A founding member of the Puerto Rico TechnoEconomic Corridor, a multi sectorial initiative to foster economic development based on high technology, she is member of the following local, national and international advisory boards: Cal Poly San Luis Obispo College of Engineering Advisory Board, the Southern States Technology Board (appointed by the PR Secretary of Economic Development) and past member of the Worcester Polytechnic Board of Trustees. More recently, Lueny has provided leadership in Puerto Rico in the Island's quest for a knowledge based economy creating the island's Science and Technology Trust Fund which provides funds to sponsor competitive R&D in CIT and Life-sciences for universities and corporations. She is co-founder and member the Engineer of the Americas Initiative, a group leading quality assurance and mobility of professionals in the Americas, and selected to participate in developing the engineering action agenda for the US by National Academy of Engineering. With over 90 scientific and education papers, Lueny is an IEEE Senior member, an ASEE Fellow and member of various national and international boards and advisory committees including, the US National Academies Board of International Scientific Organizations, Past (and first woman) President of the International Federation of Engineering Education Societies, member of the US NSF International Advisory Committee for Science and Engineering, the NSF US Congress-mandated Committee on Equal Opportunities for Engineering and Science, the Pan American Academy of Engineering, the Editorial Board of the ASEE Journal of Engineering Education, SEFI's Industrial Advisory Board, the Advisory Board of the Student Platform for Engineering Education Development (SPEED), Co-Director of the International Institute for Developing Engineering Academics (IIDEA) and an expert of the OECD AHELO project. She has also been member of ASEE's International Advisory Committee and the US National Academy of Engineering Committees on Engineering Curriculum and Eng Education Scholarly Education Practice. Lueny has received various honors during her academic career, including the prestigious US National Academy of Engineering 2006 Bernard M. Gordon Prize for innovation in engineering and technology education and the 2009 LACCEI Academic Merit Medal for her leadership and global impact on engineering curriculum innovation and fostering industry-university partnerships in support of economic development and the Palma Real Distinction of the Universidad Tecnológica de Bolívar in Colombia in 2011. Lueny's newest venture is the New Engineering University (NEU), an institution born out of the idea that today's engineering educators "are attempting to educate 21st-century engineers with a 20th-century curriculum taught in 19th-century institutions" (James Duderstadt, President Emeritus of the University of Michigan). Headquartered in Palo Alto, USA, NEU will launch a beta program in January 2014, which involves fifty pioneering scholars who will study with industry mentors, complete real-world projects, and at year end, have earned a Master's degree. Lueny is excited to be the provost and Chief Academic Officer of this newly formed institution. Aside from all her accomplishments in engineering education around the world, she has been a dear friend to the organization of IFEEES, providing invaluable input and efforts throughout the years. This award is a token of not only her outstanding achievements in the field, but also one of thanks.



### **Eduardo Silva Sanchez (2013)**

Eduardo Silva is a lawyer, and ex-secretary of the Presidency of Colombia and specialist in Administrative Law. He is currently a consultant and Licensed Tutor. He studied civil engineering at the National University of Colombia (1959–1964) and also earned degrees in Mathematics and Physics from the same university from 1968 to 1970. He earned his Master's degree in Economics at the Universidad de los Andes (1971), Bogotá. Mr. Silva began his teaching career at the Faculty of Mathematics, National University of Colombia, as an instructor of differential calculus in Engineering and geometry instructor in Architecture. At the Colombian School of Engineering, he was made professor and head of the physics department. He has taught physics class at the school since its beginning, through which have passed more than 8,000 engineering students, many of whom are widely recognized professionals. He served as Secretary General for 15 years and was named president in December 1989, a post he held for 11 years. Following that, from 2003 to 2006, he served as Director of Basic Sciences of the institution. The highlights of this stage of his career include forming undergraduate programs in electrical engineering and industrial engineering. He also created different study centers, which today have become the focus of the programs of specialization and expertise in the current engineering school. In 1989, the school had 2,000 students and by 2000 this figure had doubled. Mr. Silva has participated in numerous national and international seminars, conferences on the teaching of engineering from 1971 to date and has been linked to the government sector and union as a member of the Board of Directors of the Colombian Society of Engineers, Quality advisor in the Urban Development Institute of Bogota. Professor Silva participated in the creation of the National Accreditation System in Colombia, which pioneered engineering design through the SAAPI system (1993). In the area of external evaluation in Colombia, since 1996, he proposed the creation by the Colombian Institute for the Promotion of Higher Education. In the same vein, he promoted and currently heads the Basic Sciences Review-EXIM-ACOFI initiative to assess engineering students to 50% of their studies, a program in which since 2007 more than 5,000 students have participated. As an initiative of the Colombian Association of Faculties of Engineering (ACOFI), he has directed and has been lecturer at the Teacher Training Seminar, teaching program development for teachers of the faculties, schools and engineering programs. Over 300 teachers from 30 higher education institutions have been involved through the modules developed in different cities of Colombia. In 2010 he had his first international experience in Ecuador. He has served as President, Legal Representative and Executive Director of ACOFI. Since 2007, he has been an active



member of the research group, Educating – Engineering Education-recognized by the Department of Administrative Science, Technology and Innovation Colombia (Colciencias). In 2008, together with the Ministry of Education and the Association of Universities of Colombia (ASCUN), in which he was assigned to encourage the training of engineers in Colombia, which resulted in agreements to support dual degree programs. Since 2011, he has participated as an Advisory Board Member in the International Institute for Developing Engineering Academics (IIDEA) training institute which aims to disseminate the learning of engineering education worldwide. We are pleased to recognize Mr. Silva's numerous accomplishments, particularly in South America, and to present him with the 2013 IFEEES Presidential Award.



**Yu Shouwen (2012)**

Professor Yu Shou Wen is a Professor and former Senior Administrator of Tsinghua University, Beijing, P.R. China, and a member of the Education Committee of the Chinese Academy of Engineering, Deputy Director of Chinese Experts Committee of Engineering Education Accreditation. He is Vice-President of International Congress on Fracture (ICF11,2001-2005), ICF Honor fellow, Vice President of Society of Higher Education of China. He also is Vice-President and Dean of the Graduate School of Tsinghua University (1992-1999). YU co-authored five books and published 350 scientific and technical papers, and almost 50 papers in the field of Engineering Education. He has twice been awarded the National Natural Science Awards of China. Prof. Yu played an instrumental role in the Tsinghua University's Center for Engineering Education (CEE), a cross-disciplinary research center for engineering education studies, which opened in January 2009. At that time, YU was named Director of the CEE's Academic Affairs Committee.

Yu has been the principal actor in the partnership between Tsinghua University and the International Institute Developing Engineering Academics (IIDEA). The participants who attend these workshops represent almost all provinces in China – not a small feat for this vast country. Through this initiative and others, YU is a leader in the reform of engineering education in China. IFEEES recognized Prof. Shouwen's work in engineering education across China with its 2012 President's Award.



### **Claudio Borri (2012)**

Professor Claudio Borri received his Degree in Civil Engineering in 1978 and Ph.D. in Structural Mechanics in 1981 (Bochum). He has served as Research Associate (1983-90), as Associate Professor (1991-2002), and later as Full professor of Computational Mechanics of Structures and Chair of Wind Engineering, at the University of Florence (Italy), where he is currently the Vice-Dean for International Affairs. In 1991 he was the co-founder of CRIACIV, the Inter-University Research Centre on Building & Environmental Aerodynamics, 6 Italian Universities and the oldest of this kind in Italy (equipped with a large scale facility, a Boundary Layer wind tunnel). In 2004 Borri was elected as the Head (Director) of CRIACIV, a position in which he still serves today. In 2008, he was appointed to serve in the Steering Committee of TP-Wind (Technology Platform Wind Energy, Brussels), under the auspices of the European Commission. In 2009, he served as a member of the Panel of Experts of the ERC European Research Council for the domain Physical & Engineering Sciences. In June 2010, he was appointed by the Italian Ministry of Infrastructures as a Member of the higher advisory Board (Scientific Committee) of the “Stretto di Messina” Spa for the design and construction of the ever largest suspension bridge (3,300 m) across the strait of Messina (Calabria-Sicily). Borri is Editor/Co-Editor of 4 books (3 proceedings of international conferences), Author/CoAuthor of approx 230 scientific publications and 2 textbooks. He has been awarded in 1994 with the “Max Plank Research Award” in Structural Mechanics by the Max Plank/A. von Humboldt Found in Germany; in 2001 he received an “Honorary Doctor Degree in Engineering Sciences” by the University of Architecture, Civil Engineering & Geodesy (UACEG) of Sofia, Bulgaria and in 2006 he received the “Ing.-Paed. IGIP Honoris Causa” by the University of Tallinn in Estonia. After having served as President of SEFI (2005-07), Borri was elected as the Founding President of IFEEES. Borri has been a leader of several European large projects: he was President and Legal Representative of E4, TREE, TREE-DISS and EUGENE Thematic Networks and of the EUR-ACE Implementation Project (2006-2008) within Socrates II. Borri has also led in other large projects to foster Education in Science and Technology in Eastern Europe (under TEMPUS). Borri has been frequently appointed as a member of Accreditation Panels in Europe and overseas, including the SWISS Peer Review programme, CTI visits in France, an accreditation visit at TPU in Tomsk, Russia, and several pilot visits in Engineering institutions in Italy (which yet lacks an accreditation agency). During the last 15 years, Borri has been appointed as expert evaluator for several research grant agencies in Europe and oversea: Excellency Initiative (by the Wissenschaftsrat of the Federal Republic of Germany) for RWTH Aachen and TU-Muenchen; Czech national Grant agency, Cyprus State agency for Research, and ACOFI in Mexico. IFEEES awarded to Prof. Borri its 2012 IFEEES President’s Award in Buenos Aires, Argentina.