Technical Presentations:

1. Earth Science: “Monitor and understand sea level and climate from space”

By Dr. Lee-Lueng Fu, Jet Propulsion Laboratory, California Institute of Technology

Dr. Lee-Lueng Fu is a JPL Fellow and Senior Research Scientist at the Jet Propulsion Laboratory, California Institute of Technology. He has been the Project Scientist for JPL’s satellite altimetry missions for oceanographic and geodetic studies since 1988, including TOPEX/Poseidon, Jason-1, and Jason-2. He is currently the Project Scientist for the US/France joint Surface Water and Ocean Topography Mission (SWOT), which is being developed as the next generation altimetry mission for measuring water elevation on Earth.

Dr. Fu's research has been focused on the variability of sea level in relation to ocean circulation and climate. He received a B.S. degree in Physics from National Taiwan University (1972) and a Ph.D. in Oceanography from Massachusetts Institute of Technology and Woods Hole Oceanographic Institution (1980). He is a member of the U.S. National Academy of Engineering, and a Fellow of the American Geophysical Union and the American Meteorological Society. Recently he was awarded the COSPAR International Cooperation Medal for his leadership in the development and continuation of satellite altimetry missions.

1. Computer Science: “Customized Computing from Single-chip to Datacenters”

By Dr. Jason Cong

Chancellor's Professor, UCLA Computer Science Department

Director, Center for Domain-Specific Computing

Jason Cong received his B.S. degree in computer science from Peking University in 1985, his M.S. and Ph. D. degrees in computer science from the University of Illinois at Urbana-Champaign in 1987 and 1990, respectively. Currently, he is a Chancellor’s Professor at the UCLA Computer Science Department and the director of Center for Domain-Specific Computing (CDSC). He served as the department chair from 2005 to 2008. Dr. Cong’s research interests include synthesis of VLSI circuits and systems, energy-efficient computer architectures, reconfigurable systems, nanotechnology and systems, and highly scalable algorithms. He has over 400 publications in these areas, including 10 best paper awards, and the 2011 ACM/IEEE A. Richard Newton Technical Impact Award in Electric Design Automation. He was elected to an IEEE Fellow in 2000 and ACM Fellow in 2008. He is the recipient of the 2010 IEEE Circuits and System Society Technical Achievement Award "For seminal contributions to electronic design automation, especially in FPGA synthesis, VLSI interconnect optimization, and physical design automation."

Dr. Cong has graduated 32 PhD students.  Nine of them are now faculty members in major research universities, including Cornell, Fudan Univ., Georgia Tech., Peking Univ., Purdue, SUNY Binghamton, UCLA, UIUC, and UT Austin. Dr. Cong has successfully co-founded three companies with his students, including Aplus Design Technologies for FPGA physical synthesis and architecture evaluation (acquired by Magma in 2003, now part of Synopsys), AutoESL Design Technologies for high-level synthesis (acquired by Xilinx in 2011), and Neptune Design Automation for ultra-fast FPGA physical design (acquired by Xilinx in 2013).    Currently, he is a co-founder of Falcon Computing Solutions, a startup dedicated to enabling FPGA-based customized computing in cloud computing.

1. Biomedical Science & Technology: “Technologies for healthcare improvement”

By Dr. Wanwan Yang

Vice President of Research & Development at ImpeDx Diagnostics

Dr. Wanwan Yang is the VP of Research & Development at ImpeDx Diagnostics; a medical device company develops and markets a novel system for rapid detecting bacteria in blood culture specimens for use in clinical laboratories. Prior to ImpeDx Diagnostics, she worked in O-Ray Pharmaceuticals, a startup company developing sustained release formulations to deliver drugs to the inner ear. Before working in the biotech industry, she was a postdoctoral scholar/lab manager at the Jet Propulsion Laboratory. Wanwan received her Ph.D. in environmental microbiology from Caltech in 2009, where she developed a fast and low cost fluorescence assay and built a microscopy – based device to quantify food and water borne bacterial pathogens.

1. Transportation: “California High Speed Rail Update”

By Mr. Juan Carlos Velasquez

Regional Manager of California High Speed Rail Program

Juan Carlos Velasquez is the Regional Manager for the Palmdale to Burbank and Bakersfield to Palmdale sections of the 800-mile statewide California High Speed Rail program. He is responsible for the overall management of multi-disciplinary consultant teams consisting of several firms that handle planning, public outreach, conceptual and preliminary design, and the preparation of required environmental documentation. He is part of the high-speed rail Project Management Team of Parsons Brinckerhoff.

Juan Carlos has over 20 years of experience in transportation engineering and management of large infrastructure projects throughout Southern California. He has managed the preparation of corridor, feasibility and project studies, environmental reports and specifications and estimates for highway, major urban transit, railroad, and complex interchange improvement projects. His work on all phases of transportation projects has given him a thorough understanding of federal, Caltrans and public agency standards and requirements.

Prior to joining Parsons Brinckerhoff, Velasquez distinguished himself with his work on the numerous Southern California projects, including U.S. 101/State Route 23 Interchange Improvements, Interstate (I) 710 Sound Wall Feasibility Study, Sampson Way Roadway Improvements at the Port of Los Angeles, Caltrans District 8 Highway Design, Fairway Drive Grade Separation, I-5 Glendale-Hyperion Bridge Complex Study, SR 126 Corridor Feasibility Study.

Juan Carlos is a registered professional engineer. He obtained a Bachelor of Science in Civil Engineering in 1992 from California State Polytechnic University in Pomona, California. He is also a member of the Construction Management Association of America (CMAA), the American Society of Civil Engineers (ASCE), and served as Commissioner for the City of Pasadena’s Transportation Advisory Commission from 2002 to 2007.

1. Entrepreneurship: “Being an Entrepreneur”

By Mr. Dong Li, Founder and Chairman of Leoch International

Dong Li founded Leoch International Ltd. in 1999 and has built the Shenzhen-based company into one of the world’s largest makers of lead-acid batteries, used for telecommunications, as back-up power sources and in electric vehicles. Leoch is traded on the Hong Kong Stock Exchange. Mr. Dong also founded and owns Marshell Electric Vehicle Ltd. and Marxon Electronics Ltd., which also focus on new energy technologies and high-performance batteries. He has established more than 50 companies globally, with more than 15,000 employees and over $1 billion in annual revenue. Hi companies’ products are used in more than 100 countries. Mr. Dong earned an Executive MBA from the National University of Singapore and serves on a number of industry organizations, including as Vice Chairman of Guangdong High-Tech Industry Chamber, Executive Vice President of the Chinese American Federation and Honorary Chairman of the Chinese CEO Organization.