

U.S. National Academy of Engineering— Chinese Academy of Engineering
2011 China-America Frontiers of Engineering Symposium
March 28-30, 2011
Irwin M. Jacobs Qualcomm Hall
San Diego, California

Program

Co-chairs: Zhigang Suo, Harvard University, and Zhihua Zhong, Hunan University

Sunday, March 27

7:30-9:30 p.m. Registration/welcome reception *Oasis Restaurant and Patio*

Monday, March 28

From 6:30 a.m. Breakfast at the hotel. *Oasis Restaurant and Patio*

7:15-8:15 Looping vans between hotel and Qualcomm

8:00 Gather in hotel lobby to walk to Qualcomm

8:30 Welcome – Lance Davis, Executive Officer, NAE *Qualcomm Hall*
 Roberto Padovani, Executive Vice President
 and CTO, Qualcomm
 Ji Zhou, President, Chinese Academy of Engineering

Opening Remarks – Zhigang Suo, Committee co-chair (U.S.)
 Zhihua Zhong, Committee co-chair (China)

9:00 **OCEAN ENGINEERING**
 Session co-chairs: Huajun Li, Ocean University of China, and Leigh McCue-Weil, Virginia Tech

Technology Drivers for Deepwater: What is Coming Next
James Maher, Horton Wison Deepwater

New Technology Opens the Door for Deepwater Development
Dagang Zhang, China Offshore Oil Engineering Company

10:30 Break

11:00 *Measuring Flows in the Ocean: A Case for Further Sensor Development and Testing*
 Alexandra Techet, Massachusetts Institute of Technology

Applications of Computational Hydrodynamics in Ocean Engineering
Pengzhi Lin, Sichuan University

12:30 p.m.	Lunch	<i>S Cafe</i>
1:45	Poster Session I (#1's stand by posters)	
2:30	Poster Session II (#2's stand by posters)	
3:15	Break	
3:45	WIRELESS COMMUNICATION Session co-chairs: John Smee, Qualcomm, and Zhisheng Niu, Tsinghua University <i>The Untethering of Information: Wideband High-Throughput Wireless Communication in the mm-Wave Bands</i> Ali Niknejad, University of California, Berkeley <i>Cognitive Wireless Communications: A Solution for Efficient Multiple Networks Coexistence</i> Wenhui Xiong, University of Electronic Science and Technology of China	
5:15	Break	<i>S Cafe</i>
6:00	Reception	<i>N Patio</i>
7:00	Dinner	<i>N Lobby</i>
	Dinner Speech: <i>Innovations in Wireless Technology</i> Dr. Irwin M. Jacobs, Co-founder and Director, Qualcomm	

Tuesday, March 29

From 6:30 a.m.	Breakfast at the hotel	<i>Oasis Restaurant and Patio</i>
7:15-8:15	Looping vans between hotel and Qualcomm (or walk)	
8:30	Greeting from Charles M. Vest, President, NAE WIRELESS COMMUNICATION (cont.) <i>Next-Generation Wireless Communications: Telehealth</i> Urbashi Mitra, University of Southern California	

Cooperative Wireless Networks for Better Green Services

Yang Yang, Shanghai Institute of Microsystem and Information Technology

10:00

Break

10:30

BIOINSPIRED ENGINEERING

Session co-chairs: Jing Cheng, Tsinghua University School of Medicine, and William Murphy, University of Wisconsin

Molecular-level Bioinspired Engineering: Design and Preparation of New Synthetic Biomaterials for Regenerative Medicine

Timothy Deming, University of California, Los Angeles

Current Progress in Stem Cell Technology: Realistic Opportunity for a New Frontier in Personalized Medicine

Fanyi Zeng, Shanghai Jiao Tong University

12:00 noon

Lunch

S Cafe

1:00 p.m.

Bioinspired Microfluidic Approaches for Cell and Organism-based Applications

Jianhua Qin, Dalian Institute of Chemical Physics

Bioinspired Tissue Engineering Approaches for the Formation of Complex Tissues

Helen Lu, Columbia University

2:30

Break

3:00

Tours at Qualcomm: Qualcomm Museum, QRC, and Manufacturing Floor

5:00

Reception/Dinner

S Cafe

Wednesday, March 30

From 6:30 a.m.

Breakfast at the hotel.

Oasis Restaurant and Patio

7:15-8:15

Looping vans between hotel and Qualcomm (or walk)

8:30

ADVANCED VEHICLES AND MOBILITY

Session co-chairs: Weiwen Deng, Jinlin University, and Madhu Raghavan, General Motors

The Path to Commercial Autonomous Cars: The DARPA Urban Challenge and Beyond

Paul Rybski, Carnegie Mellon University

Edison2's Winning Solution for the X-Prize and the Future

Brad Jaeger, Edison2

10:00

Break

10:30

Design of Forward Collision Warning Systems Using Relative Acceleration Estimation and Multi-Object Tracking

Bo-Chiuan Chen, National Taipei University of Technology

Enhanced Routing for Intermittently Connected Mobile Vehicular Network and Wireless Intelligent Sensing System

Tianle Zhang, Beijing University of Posts and Telecommunications

12:00 noon
lawn

Lunch

S Café or

12:30 p.m.

Bus departs for San Diego International Airport