

# Fall 2013 IAB & Research Review - Agenda

**Research Review Posters & Plenary (CLOSED)**  
Members, Researchers, and By-Invitation Visitors with 12-month NDA

**18 September 2013**  
**Sutardja Dai Hall, Banatao Auditorium + Blum Hall**

<b>Time</b>	<b>Speaker, Event / Topic Information</b>
08:00	<b>Registration &amp; Continental Breakfast</b> Sutardja Dai Hall, Atrium
08:45	<b>John Huggins</b> Open Research Review Welcome & Announcements
08:50	<b>Session I Chair: Ali Javey</b>
08:55	<b>Plenary 1: Michael Lorek</b> Standard CMOS-Based, Fully Integrated Stick-On Electricity Meters for Building Sub-Metering [BPN705]
09:10	<b>Plenary 2: Erh-Chia Yeh</b> One-Step Point-of-Care Quantitative Nucleic Acid Detection based on Digital Plasma Separation [BPN679]
09:25	<b>Plenary 3: Alina Kozinda</b> Carbon Nanotube Films for Energy Storage Applications [BPN606]
09:40	<b>Morning Research Overviews (4 Faculty Groups)</b> <b>Clark T.-C. Nguyen, Kris Pister, Ming C. Wu, Luke P. Lee</b>
10:20	<b>MORNING POSTER SESSIONS (4 Groups)</b> <b>100 and 110 Blum Hall</b>
11:20	<b>Session II Chair: Bernhard E. Boser</b>
11:25	<b>Plenary 4: Robert Schneider</b> Capacitive-Piezoelectric Micromechanical Filters [BPN682]
11:40	<b>Plenary 5: Ryan Going</b> Photo-MOSFET with Single Crystalline Germanium on SOI by Rapid Melt Growth [BPN609]
11:55	<b>Lunchtime Research Overviews (4 Faculty Groups)</b> <b>Liwei Lin, Bernhard E. Boser, Ali Javey, Dorian Liepmann</b> Current BioMEMS and Microfluidics Research
12:35	<b>LUNCH</b> 100 Blum Hall
13:20	<b>MIDDAY POSTER SESSION (4 Groups)</b> <b>100 and 110 Blum Hall</b>
14:25	<b>Session III Chair Ming C. Wu</b>
14:30	<b>Plenary 6: Dr. Niels Quack</b> 3D Imaging: Sub-mm Resolution Ranging using a Chip-scale MEMS FMCW LIDAR Source
14:45	<b>Plenary 7: Richard Przybyla</b> Ultrasonic 3D Rangefinder on a Chip [BPN485]
15:00	<b>Plenary 8: Kevin Chen</b> Macroscale Flexible Sensor System [BPN698]
15:15	<b>Afternoon Research Overviews (4 Faculty Groups)</b> <b>Michel M. Maharbiz, Albert P. Pisano, David A. Horsley, Richard M. White</b>
15:55	<b>AFTERNOON POSTER SESSION (4 Groups)</b> <b>100 and 110 Blum Hall</b>
16:55	<b>SESSION IV Chair: Albert P. Pisano</b>
17:00	<b>Plenary 9: Dr. Jim Cheng</b> Nanoprinting of MEMS and Electron Devices [BPN394] [BPN658] [BPN693]
17:15	<b>Plenary 10: JoJo Chang</b> Magnetic Microcoils: A Versatile Technology Platform for Microfluidics [BPN645]
17:30	<b>Plenary 11: Dr. Ayden Maralani</b> SiC Semiconductor Devices and ICs as Gate/Base Drivers in Power Electronics [BPN638] [BPN644] [BPN614]
17:45	<b>END SESSION</b> Voting Completion & Announcements
18:15	<b>Mixer and Awards Banquet</b> Hearst Memorial Mining Building, Moore Lobby

**BSAC Industrial Advisory Board/ Executive Committee**  
Closed Session, Members Only, to review research directions and Center operations

**19 September 2013**  
**Hearst Memorial Mining Building, Room 290**

<u>Time</u>	<u>Speaker, Event / Topic Information</u>
07:45	<b>Light Continental Breakfast</b> 290 Hearst Memorial Mining Building
08:30	<b>John Huggins</b> Convene IAB: Topical Agenda
08:40	<b>Richard Tsina</b> Plenary Topic Results & Voting Comments
08:50	<b>ALL</b> Discussion of Center
10:30	<b>John Huggins</b> Close IAB

**BSAC Workshop: Piezo MEMS (CLOSED)**  
Members, Researchers and By-Invitation Visitors with 12-month NDA

**19 September 2013**  
**Sutardja Dai Hall, Banatao Auditorium**

<u>Time</u>	<u>Speaker, Event / Topic Information</u>
11:00	<b>David A. Horsley</b> Overview of Topic and Session
11:15	<b>Clark T.-C. Nguyen</b> Raising the Q's of Piezoelectric Resonators
11:45	<b>Sayeef Salahuddin</b> On the Possibility of Mechanically-Driven Ferromagnetic Resonance
12:15	<b>Liwei Lin</b> Electrospun FiberPiezo for Energy Harvesting
12:30	<b>LUNCH</b>
13:30	<b>Michel M. Maharbiz / Dongjin Seo</b> Neural Dust: Ultrasound to Enable Chronic Brain-Machine Interfaces
14:00	<b>David A. Horsley</b> Piezoelectric Micromachined Ultrasonic Transducers
14:30	<b>Albert P. Pisano</b> Aluminum Nitride/SiC Harsh Environment Sensor Cluster for Infrastructure Monitoring
15:00	<b>Adjourn</b>

**MIG Workshop: Illuminating the Fog: MEMS and Sensors, Enablers for the Internet of Things**  
**19 September 2013**  
**Sutardja Dai Hall, Banatao Auditorium (OPEN to all MIG members, Visitors, and BSAC Members)**

<u>Time</u>	<u>Speaker, Event / Topic Information</u>
15:30	<b>Karen Lightman</b> Open Session
15:45	<b>Dr. Flavio Bonomi</b> <b>Vice President, Advanced Architecture Research, CISCO</b> The Cloud, Fog Computing, Wireless Networks and the Internet of Things
16:30	<b>Al Heshmati</b> <b>Sr. Director, Software Systems, InvenSense</b> Sensor Fusion of the Future
17:00	<b>Break</b>
17:15	<b>Dave Rothenberg</b> <b>Marketing Director, Movea</b> Data Fusion, Context Awareness and Indoor Navigation: A Marketer's Perspective on Sensor-Based Mobile Apps and Services
17:45	<b>Mike Stanley</b> <b>Manager, Smart Sensor Fusion, Freescale</b> Power Impacts on Sensor and Sensor Fusion Design
18:15	<b>Conclusions and Wrap</b>
18:30	<b>Mixing Reception</b> Kvamme Atrium, Sutardja Dai Hall
20:00	<b>Adjourn</b>