



## 2010 NSF – ECCS Grantees' Conference Presentation and Poster Schedule



Attendee	Presentation Title	Order Number	Poster Session
<b>Wednesday, December 1, 2010</b>		<b>9:45 am – 12:00 pm</b>	
<b>Session 1A - Tapa Ballroom II – Moderator: Dr. Radhakisan Baheti – Energy, Power, and Adaptive Systems (EPAS)</b>			
Baheti, Radhakisan	Program Director Presentation	1	
Ajarapu, Venkataramana	An Innovative Optimal Integration of Wind and Solar Resources for Reliable and Sustainable Power Generation	2	Thurs-3
Arcak, Murat	A Structurally-Based Approach to Nonlinear Analysis and Design of Networks	3	Wed-1
Balakrishnan, A	Mathematical Theory of Aeroelasticity	4	Thurs-7
Balakrishnan, Hamsa	CAREER: Practical Algorithms for Next Generation Air Transportation Systems	5	Thurs-8
Li, Hui (Helen)	CAREER: Design, Modeling and Control of High Efficiency and High Power Density Multi-port Power Electronics Module for Hybrid Energy Systems	6	Thurs-48
Ramamoorthy, Aditya	Collaborative Research: Dynamic Mode High Density Probe Based Data Storage	7	Wed-39
Ren, Wei	CAREER: Distributed Multi-vehicle Cooperative Control - A Consensus Theoretical Approach	8	Thurs-68
Vaswani, Namrata	Change Detection in Nonlinear Systems and Applications in Shape Analysis	9	Wed-62
<b>Session 1B – Tapa Ballroom III – Moderator: Dr. Andreas Weisshaar – Communications, Circuits, and Sensing-Systems (CCSS)</b>			
Weisshaar, Andreas	Program Director Presentation	1	
Adibi, Ali	TCHCS: Collaborative Research: Optimal Hybrid RF-Wireless Optical Communication for Maximum Efficiency and Reliability	2	Wed-81
Goeckel, Dennis	Frequency-Shifted Reference Ultra-Wideband (UWB) Communications	3	Thurs-25
Jiang, Hongrui	Tunable Liquid Microlenses Actuated by Light-Responsive Hydrogels and Their Applications in Endoscopes	4	Wed-9
Wu, Min	Addressing Physical-Layer Challenges via CLAWS: Cross-Layer Approaches to Wireless Secure Communications	5	Thurs-79
Peroulis, Dimitrios	CAREER: Liquid Radio Frequency Electronics	6	Thurs-65
Qi, Minghao	Novel Hybrid Photonic-RF Ultrawideband Wireless Communications Technologies	7	Thurs-66
Silva-Martinez, Jose	High-Resolution RF to Digital Converter for Next Generation Broadband Communication Systems	8	Thurs-71
Yun, Zhengqing	Cyber-Enabled Radio Propagation Prediction for the Design of Advanced Wireless Communications Systems	9	Wed-72
<b>Session 1C – Honolulu Suite – Moderator: Dr. Pradeep Fulay – Electronics, Photonics, and Magnetic Devices (EPMD)</b>			
Fulay, Pradeep	Program Director Presentation	1	
Astratov, Vasily	Mesoscale structures and photonic devices based on coupled spherical cavities	2	Thurs-4
Biswas, Rana	GOALI: Thin Film Silicon Solar Cells on Plastic Substrates	3	Thurs-11
Brankovic, Stanko	GOALI: Phase Separated Ferromagnetic Metal - Metal Oxide/Hydroxide Nanomaterials as a Transformative Concept for Magnetic Field Sensors	4	Thurs-12
Guha, Suchismita	Light scattering studies of organic field-effect transistors	5	Thurs-28
Hu, Bin	CAREER: Research and Education in Development of Organic Spintronics Based on Spin Injection and Modification of Spin-Orbital Coupling in Magnetic Organic Light-Emitting Diodes	6	Thurs-32
Robertson, Brian	Spintronic Devices Enabled by Semiconducting Boron Carbide	7	Thurs-69
Schmidt, Holger	GOALI: Ultrafast dynamics of single nanomagnets in dense arrays	8	Wed-45
Swami, Nathan	Interconnected Molecular Devices with Patterned Polymeric Contact Layers	9	Thurs-74

**Poster Session located in Palace Lounge, Dr. Lawrence Goldberg**

Attendee	Presentation Title	Order Number	Poster Session
<b>Wednesday, December 1, 2010</b>		<b>1:15 pm – 2:30 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 2A - Tapa Ballroom II – Moderator: Dr. Paul Werbos – Energy, Power, and Adaptive Systems (EPAS)**

Werbos, Paul	Program Director Presentation	1	
Atkeson, Christopher	Approximate Dynamic Programming Using Random Sampling	2	Thurs-5
Cherkassky, Vladimir	Development and Application of Alternative Learning Methodologies for Predictive Learning	3	Thurs-15
Harley, Ronald	GOALI: Neural Networks and Adaptive Critic Designs For Energy Security and Sustainability	4	Thurs-30
Kamalasadan, Sukumar	CAREER: A new generation of scalable intelligent supervisory loop based algorithm for complex system control and optimization	5	Thurs-38

**Session 2B – Tapa Ballroom III – Moderator: Dr. Usha Varshney – Communications, Circuits, and Sensing-Systems (CCSS)**

Varshney, Usha	Program Director Presentation	1	
Brooke, Martin	Nanoscale Particle Imaging using Near-Field Subwavelength Measurements in a 3-D Cylindrical Array of Nanometer Sized Probes	2	Thurs-13
Degertekin, Levent	Advanced atomic force microscopy using the FIRAT probe	3	Thurs-17
Jiang, Hongrui	CAREER: Biology-Inspired Super Artificial Compound Eyes (SACE) and Their Medical Applications	4	Wed-10
Mao, Shiwen	IHCS: Towards Efficient Medium Access Control for Wireless Networks	5	Thurs-51

**Session 2C – Honolulu Suite – Moderator: Dr. Samir El-Ghazaly – Electronics, Photonics, and Magnetic Devices (EPMD)**

El-Ghazaly, Samir	Program Director Presentation	1	
Bond, Daniel	GOALI: Development of a New Generation of Sensors based on Metal/Bacteria Interfaces	2	Wed-2
Huffaker, Diana	Collaborative Research: III-V Nanopillars Grown on Si Substrates	3	Wed-8
Steckl, Andrew	Electrowetting-Based Devices – From Liquid Transistors to Flexible Displays	4	Thurs-72
Zhang, Xiaojing (John)	EPDT: Nano-scale Light Emitting Diode on Silicon Cantilever for Near-field Microscopy of Nanovectors Biodistribution in Tissues and Living Cells	5	Wed-77

<b>Wednesday, December 1, 2010</b>		<b>2:45 pm – 4:00 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 3A - Tapa Ballroom II – Moderator: Dr. George Maracas – Energy, Power, and Adaptive Systems (EPAS)**

Maracas, George	Program Director Presentation	1	
Divan, Deepakraj	Dynamic Grid Control Using Virtual Quadrature Sources	2	Thurs-18
Hiskens, Ian	Uncertainty Evaluation and Mitigation in Electrical Power Systems	3	Thurs-31
Khaligh, Alireza	GOALI: Novel Integration of AC/DC Charger and DC/DC Converter for Plug-in Hybrid Electric Vehicles	4	Thurs-41
Lee, Kwang	Multi-Agent System Based Intelligent Distributed Control System for Power Plants	5	Thurs-45

Attendee	Presentation Title	Order Number	Poster Session
<b>Wednesday, December 1, 2010</b>		<b>2:45 pm – 4:00 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 3B – Tapa Ballroom III – Moderator: Dr. John Zavada – Electronics, Photonics, and Magnetic Devices (EPMD)**

Zavada, John	Program Director Presentation	1	
Agrawal, Govind	Ultracompact Nonlinear Photonic Devices with SOI Technology	2	Thurs-2
Doolittle, William (Alan)	White Light Emitter using a Self-Luminescent, Lattice Matched Substrate	3	Thurs-19
Fallahi, Mahmoud	Narrow Linewidth Frequency-Doubled Yellow-Orange Vertical-External-Cavity Surface-Emitting Laser: An Innovative Approach to Compact Low-Cost Sodium Guidestar Laser	4	Thurs-20
Huang, YongGang	Stretchable Optoelectronics and Applications in Hemispherical Electronic Eye Imagers	5	Thurs-33

**Session 3C – Honolulu Suite – Moderator: Dr. Zygmunt Haas – Communications, Circuits, and Sensing-Systems (CCSS)**

Haas, Zygmunt	Program Director Presentation	1	
Bigelow, Timothy	CAREER: Ultrasound Histotripsy System Development to Improve Cancer Treatment	2	Thurs-10
Ling, Hao	Modeling and Understanding of Radiowave Propagation in Forested Environments	3	Thurs-49
Roy, Sumit	Realizing the Internet of Things via RFID Sensor Nets	4	Wed-43
Sundaram, Hari	Collaborative Research: Design of Dense RFID Systems for Indexing in the Physical World across Space, Time, and Human Experience	5	Thurs-73

Attendee	Presentation Title	Order Number	Poster Session
<b>Thursday, December 2, 2010</b>		<b>8:00 am – 10:00 am</b>	
		<b>4:00 pm – 6:00 pm</b>	

### Session 4A - Tapa Ballroom II – Moderator: Dr. Samir El-Ghazaly – Communications, Circuits, and Sensing-Systems (CCSS)

Ghovanloo, Maysam	WiNeRS: A Multichannel Wireless Implantable Neural Recording and Stimulating System for Hippocampal Electrophysiology Research on Memory	1	Thurs-22
Glass, Jeffrey	Development of a Microfabricated, Coded Aperture Mass Spectrometer	2	Thurs-24
Jacobs, Heiko	Scaling Limits of Programmable Fluidic Self-Assembly Forming Electrical Interconnects	3	Thurs-34
Khizroev, Sakhrat	GOALI: Dynamics and Manipulation of Logic States in Coupled Nanomagnetic Arrays	4	Thurs-39
Kim, Eun Sok	Acoustic Transducers for Automatic Speech Recognition	5	Thurs-61
Kodi, Avinash	Switching Techniques and Architectures for Performance-Adaptive, Power-Aware Hybrid Opto-Electronic Interconnects	6	Thurs-43
Matsui, Hiroshi	Collaborative Research: Integration of Biomolecular Self-Assembly and Capacitance Spectroscopy on Pathogen Diagnostics-On-Chip	7	Thurs-53
Nair, Sankar	Integrated Nanosystem Combining Engineered Nanopore Devices and Hierarchical Model-Based Diagnosis Algorithms for Ultra-Rapid Biomolecule Analysis	8	Thurs-58

### Session 4B – Tapa Ballroom III – Moderator: Dr. Usha Varshney – Electronics, Photonics, and Magnetic Devices (EPMD)

Varshney, Usha	Program Director Presentation	1	
Bakir, Muhannad	Interconnect Networks for Three-Dimensional Gigascale System-on-a-Chip	2	Thurs-6
Cho, Hyoung-Jin	Collaborative:Development of a Hydrogen Discriminating Low Temperature 1-D Nanocomposite Micro-Sensor	3	Thurs-16
Gokirmak, Ali	GOALI: Side gated ultra narrow channel silicon MOSFETs and transport studies at nanometer scale	4	Thurs-26
Gong, Xun	Wireless Passive Ceramic MEMS Sensors for High Temperature Applications	5	Thurs-27
Reed, Michael	Dynamics of Capillary Force Actuators	6	Thurs-67
Lu, Wei	Nanowire-Based High-Frequency, High-Q Electromechanical Resonators	7	Thurs-50
Talghader, Joseph	GOALI: Tunable Quantum Coupling in Nanomechanical Heterostructures	8	Thurs-75

### Session 4C – Honolulu Suite – Moderator: Dr. Paul Werbos – Energy, Power, and Adaptive Systems (EPAS)

Lewis, Frank	Adaptive Dynamic Programming for Continuous-Time Systems and Networked Agents on Graphs	1	Thurs-47
O'Connell, Robert	QMHP: Decoherence and Entanglement Decay in Nanosystems and Applications to Quantum Information Systems	2	Thurs-59
Pati, Ranjit	CAREER:Theory and modeling of a mono-molecular field effect organic transistor (MOLFET)	3	Thurs-62
van Schilfgaarde, Mark	QMHP: Quasiparticle Self-consistent GW Approximation as a Framework for ab initio Device Simulation	4	Thurs-76
Vasileska, Dragica	Collaborative Research: Quantum Simulator for Modeling Quantum Dot Photodetectors	5	Thurs-77
Webb, Kevin	Information in Optical Speckle	6	Thurs-78
Wunsch, Donald	Computer Go -- A Proxy for Key Open Challenges and Opportunities in Computational Intelligence	7	Thurs-80
Younger, A. Steven	Fixed-Weight Learning Neural Networks on Fast Optical Hardware	8	Thurs-83

Attendee	Presentation Title	Order Number	Poster Session
<b>Thursday, December 2, 2010</b>		<b>10:15 am – 12:00 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 5A - Tapa Ballroom II – Moderator: Dr. John Zavada – Electronics, Photonics, and Magnetic Devices (EPMD)**

Haglund, Richard	Control of ultrafast plasmonic structures by a metal-insulator transition	1	Thurs-29
Jiang, Hongxing	1.54 micron optical amplifiers and emitters based upon erbium doped III-nitrides grown on silicon	2	Thurs-36
Knoesen, Andre	GOALI: Ultrahigh Sensitivity and Selectivity in Surface Plasmon Resonance Detection	3	Thurs-42
Mookherjea, Shayan	CAREER: Chip-scale low-power nonlinear optics using coupled resonators and CROWs	4	Thurs-55
Muth, John	TCHCS: Defining the Boundaries of Free Space Underwater Communications	5	Thurs-56
Nahata, Ajay	Novel Capabilities and Devices Using Plasmonic Lattices in Conventional and Exotic Metals	6	Thurs-57
Paiella, Roberto	GaN-based quantum-structure devices for THz light emission and photodetection	7	Thurs-60

**Session 5B – Tapa Ballroom III – Moderator: Dr. Zygmunt Haas – Communications, Circuits, and Sensing-Systems (CCSS)**

Bhattacharyya, Shuvra Shikhar	Collaborative Research: Design and Integration of Complex Digital Systems for High Energy Physics	1	Thurs-9
Farhang-Boroujeny, Behrouz	Next Generation Communication Networks Using Multicarrier Filter Bank	2	Thurs-21
Jiang, Anxiao (Andrew)	Collaborative Research: BRAM: Balanced RANk Modulation for data storage in next generation flash memories	3	Thurs-35
Jiao, Dan	CAREER: From O(N) to O(M): Scalable Algorithms for Large Scale Electromagnetics-Based Analysis and Design of Next Generation VLSI Circuits	4	Thurs-37
Joyner, Valencia	Collaborative Research: 3D Integrated Imaging Receivers for 10-Gb/s Free Space Optical MIMO	5	Wed-11
Zhang, Tong	Collaborative Research: GOALI: New Algorithm and Architecture Solutions for Ultra-High-Throughput Single Carrier Communication System Geared to High Capacity Storage	6	Wed-74

**Session 5C – Honolulu Suite – Moderator: Dr. George Maracas – Energy, Power, and Adaptive Systems (EPAS)**

Lev-Ari, Hanoch	Customized Wavelets for Analysis of Fault Transients in Power Systems	1	Thurs-46
Mazumder, Sudip	Hybrid-Modulation based High-power High-frequency and Scalable SiC Polyphase Fuel-cell Inverter for Power Quality and Distributed Generation	2	Wed-27
Shin, Yong-June	CAREER: Diagnostics and Prognostics of Electric Cables in Aging Power Infrastructure	3	Wed-47
Siegel, Stefan	Cycloidal Propeller Wave Energy Converter	4	Wed-48
Sprintson, Alex	Modeling of Catastrophic Failures in Power and Communication Systems: Supporting Design, Preparation and Recovery	5	Wed-56
Suryanarayanan, Siddharth	Collaborative Research: A holistic approach to customer-driven microgrids	6	Wed-59
Trzynadlowski, Andrzej	Collaborative Research: High-Efficiency Gearless Power Conversion Systems with Silent Permanent-Magnet Machines	7	Wed-61

Attendee	Presentation Title	Order Number	Poster Session
<b>Thursday, December 2, 2010</b>		<b>1:15 pm – 2:30 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 6A - Tapa Ballroom II – Moderator: Dr. Andreas Weisshaar – Communications, Circuits, and Sensing-Systems (CCSS)**

Kahn, Joseph M.	Exploiting Spatial Dimensions in Multimode Fiber Using Adaptive Optical Signal Processing	1	Wed-13
Kim, Sang Wu	Fault-Tolerant Cooperative Communication in Large-Scale Wireless Networks	2	Wed-18
Liu, Hui	Design and Prototyping for Network Convergence	3	Wed-22
Liu, Yonghe	Collaborative Virtual Observation in Dynamic Environments	4	Wed-23
Zhang, Tong	Design of Energy-Efficient Programmable Signal Processing Accelerators in 3D Integrated Heterogeneous Multi-Core Processor for Mobile Multimedia Communication	5	Wed-75

**Session 6B – Tapa Ballroom III – Moderator: Dr. Pradeep Fulya – Electronics, Photonics, and Magnetic Devices (EPMD)**

Miller, Casey	Reflection-based Spintronics	1	Thurs-54
Khizroev, Sakhrat	Protein-based Disk Recording	2	Thurs-40
Khondaker, Saiful	Planar gated organic photovoltaic device	3	Wed-16
Mazumder, Sudip	Photonically-triggered SiC-GaN and Superjunction based High-gain, High-temperature, and High-voltage Bipolar Power Transistor	4	Wed-28
Sun, Nian	Novel Tunable Microwave Magnetoelectric Composite Materials and Devices with Metallic Magnetic Thin Film Materials	5	Wed-57

**Session 6C – Honolulu Suite – Moderator: Dr. Radhakisan Baheti – Energy, Power, and Adaptive Systems (EPAS)**

Kandlikar, Satish	An Anti-Fouling Smart Surface With Controllable Nanostructures For IC-Cooling and MEMS Applications	1	Wed-14
Kelly, Kevin	NIRT: Synthesis, Actuation and Control of Single-Molecule Nanocars	2	Wed-17
Kurinec, Santosh	GOALI: Heterogeneous Integration of Compound Semiconductor Material with Silicon CMOS	3	Wed-21
Pidaparti, Ramana	MEMS Device for Molecular Sorting and Pumping with Moving Boundaries	4	Wed-36
Sooryakumar, R.	Investigation of Photo-Reversible Glass States: Science & Photonic Applications	5	Wed-54

<b>Thursday, December 2, 2010</b>		<b>2:45 pm – 4:00 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 7A - Tapa Ballroom II – Moderator: Dr. Samir El-Ghazaly – Electronics, Photonics, and Magnetic Devices (EPMD)**

Metlushko, Vitali	The Challenge of Integrating Magnetic Nanostructures into Functional 3-D Devices	1	Wed-26
Petrou, Athos	New approaches to injection and detection of spin polarized electrons into semiconductor structures	2	Wed-35
Shi, Yong	MEMS Umbrella-Shaped Actuator with Active Structure for Medical Applications	3	Wed-37
Brand, Oliver	Use of Novel Excitation Schemes for Resonant Microcantilevers in Liquid-Phase Sensing Applications	4	Wed-3
Joyner, Valencia	BRIGE: Multi-Spectral, High-Frequency Imaging Sensors for Frequency-Domain Biomedical Imaging	5	Wed-12

Attendee	Presentation Title	Order Number	Poster Session
<b>Thursday, December 2, 2010</b>		<b>2:45 pm – 4:00 pm</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 7B – Tapa Ballroom III – Moderator: Dr. Paul Werbos – Energy, Power, and Adaptive Systems (EPAS)**

Kuzyk, Mark	QMHP - Numerical Optimization of Molecular and Nano-Scale Structures for Nonlinear-Optical Applications	1	Thurs-44
Chen, Jie	Fundamental Performance Limitations of Networked Control Systems	2	Wed-4
Datta, Aniruddha	Modeling and Control in Cancer Genomics	3	Wed-5
Kumar, Ratnesh	GOALI: Monitoring and Reconfiguration for Fault-Tolerance of Embedded Control Software with Automotive Applications	4	Wed-20

**Session 7C – Honolulu Suite – Moderator: Dr. Zygmunt Haas– Communications, Circuits, and Sensing-Systems (CCSS)**

Lubecke, Victor	GOALI - Wireless Life Monitoring Transponders	1	Wed-25
Narayanan, Krishna	GOALI : Collaborative Proposal: Advanced Coding and Signal Processing	2	Wed-32
Patwari, Neal	CAREER: RF-Sensing Networks for Radio Tomographic Environmental Imaging	3	Wed-34
Refai, Hazem	Disaster Area Wireless Network	4	Wed-40
Yang, Mei	Energy-Efficient and Reconfigurable Network-on-Chips for IP Integration in Complex SoC Systems	5	Wed-69

Attendee	Presentation Title	Order Number	Poster Session
Friday, December 3, 2010		8:00 am – 10:00 am	
		4:00 pm – 6:00 pm	

### Session 8A - Tapa Ballroom II – Moderator: Dr. Kawthar Zaki – Communications, Circuits, and Sensing-Systems (CCSS)

Rosenbaum, Elyse	Electrical Overstress Protection for System-in-a-Package	1	Wed-42
Xie, Huikai	Free-Space Interferometric Endoscopic Optical Coherence Tomography Based on Rapid Scanning Micromirrors	2	Thurs-81
Zhang, Xin	Development of a novel optomechanical uncooled metamaterial-enhanced active Terahertz detection imager	3	Thurs-84
Chabanov, Andrey	NIRT: Optics on a nanoscale using polaritonic and plasmonic materials	4	Thurs-14
Kim, Seongsin (Margaret)	BRIGE: Infrastructure of Terahertz Imaging and Sensing Technology	5	Wed-19
Namkoong, Gon	BRIGE:Triple-Wavelength White Light Emitters using Nitride/Oxide Heterostructure	6	Wed-31
Rzchowski, Mark	NIRT: Active Nanostructures with Giant Piezo-response	7	Thurs-70
Snoke, David	Picosecond Pulse Generation by Transverse Mode-Locking of Monolithic Vertical-Cavity Surface-Emitting Lasers	8	Wed-52

### Session 8B – Tapa Ballroom III – Moderator: Dr. John Zavada – Electronics, Photonics, and Magnetic Devices (EPMD)

Nahata, Ajay	Waveguide Emitters and Coherent Detectors for a Compact, Robust Terahertz Spectroscopy System	1	Wed-30
Webb, Kevin	Polaritonics Platform for Terahertz Signal Processing, MultipleScattering, and Field Enhancement	2	Wed-64
Wessels, Bruce	Nonlinear photonic crystal devices	3	Wed-65
Zhao, Yiping	Integration of Aligned Nanorod Array Structures into Fiber Raman Probes	4	Wed-78
Rinzler, Andrew	The Science and Technology of Carbon Nanotube-Semiconductor Heterojunction Contact Devices	5	Wed-41
Snider, Gregory	Interfacing CMOS and Self-Assembled Nanostructures	6	Wed-51
Washburn, Sean	Collaborative Research: Atomic-scale study of friction for nano-electromechanical structures	7	Wed-63
Zaslavsky, Alexander	GOALI: Germanium-on-insulator tunneling transistors	8	Wed-73

### Session 8C – Honolulu Suite – Moderator: Dr. George Maracas – Energy, Power, and Adaptive Systems (EPAS)

Lu, Wu	III-Nitride Heterojunction Field Effect Transistors for Biological Sensing	1	Wed-24
Porter, Lisa	Novel molecular engineering and processing approaches for high-performance organic transistor devices: the role of polymer structure and morphology	2	Wed-38
Ruden, P.Paul	Organic Semiconductor Spin Injection and Spin Transport	3	Wed-44
Solin, Stuart	Collaborative Research: Nanoscopic Metal-Semiconductor Hybrid Elements and Arrays	4	Wed-53
Tom, Harry	Synthesis and characterization of half-metallic ferromagnetic oxides for organic semiconductor spintronic devices	5	Wed-60
Wohlgenannt, Markus	Organic Magnetoresistive Devices for Pen-Input Display Applications	6	Wed-66
Wu, Mingzhong	Novel Magnetic Nano Films and Devices for Millimeter Wave Communications	7	Wed-67
Xu, Bingqian	Controlling, modulating, and monitoring the electronic and mechanical properties of molecular junction devices at single-molecule level	8	Wed-68



Attendee	Presentation Title	Order Number	Poster Session
<b>Friday, December 3, 2010</b>		<b>10:15 am – 11:45 am</b>	
		<b>4:00 pm – 6:00 pm</b>	

**Session 9A - Tapa Ballroom II – Moderator: Dr. Pradeep Fulay – Electronics, Photonics, and Magnetic Devices (EPMD)**

Khondaker, Saiful	CAREER: Engineering and Parallel Fabrication of Single Electron Transistor Devices Using Carbon Nanotubes	1	Wed-15
Hastings, J. Todd	CAREER: Reference Compensation for Localized Surface-Plasmon Resonance Sensors	2	Wed-7
Sun, Nian	CAREER: Low-temperature Spin Spray Synthesized Magnetoelectric Nanocomposite Films for Novel RF and Microwave Devices	3	Wed-58
Xue, Jiangeng	CAREER: Very High Efficiency Organic-Based Photovoltaic Cells - Novel Nanostructure and Photon, Exciton, and Electron Management	4	Thurs-82
Zutic, Igor	CAREER: Spin-Polarized Transport and Spintronic Devices	5	Wed-80
Panchapakesan, Balaji (Baloo)	CAREER: Carbon Nanotube based Photo-Mechanical Actuators	6	Wed-33

**Session 9B – Tapa Ballroom III – Moderator: Dr. Radhakisan Baheti – Energy, Power, and Adaptive Systems (EPAS)**

Martins, Nuno Miguel	CAREER: Distributed control of dynamic systems using a wireless communication medium: two new paradigms	1	Thurs-52
Mitter, Sanjoy	Control over Networks	2	Wed-29
Schuster, Eugenio	CAREER: Nonlinear Control of Plasmas in Nuclear Fusion	3	Wed-46
Simaan, Marwan	Collaborative Research: Patient-Adaptive Feedback Control of Rotary Heart Assist Devices	4	Wed-49
Spong, Mark	Control of Multi-Agent and Networked Systems	5	Wed-55
		6	Wed-50

**Session 9C – Honolulu Suite – Moderator: Dr. Andreas Weisshaar – Communications, Circuits, and Sensing-Systems (CCSS)**

Pamarti, Sudhakar	Dithering Techniques for Delta-Sigma Modulator Based Digital-to-Analog Converters	1	Thurs-63
Zhang, Weili	Terahertz Response of Unique Composite Metamaterials	2	Wed-76
Singh, Rahul	Collaborative Research: Development and Evaluation of Reflective THz Medical Imaging for Skin Burns	3	Wed-79
Yang, Yaling	Proactive Cross-Layer Adversary Localization for Hostile or Harsh Wireless Environments	4	Wed-70
Yang, Yuanyuan	A Framework for Mobile Data Gathering in Wireless Sensor-Actuator Networks	5	Wed-71
Pamarti, Sudhakar	Multi-wire Signaling for Chip-to-Chip Electrical Communications	6	Thurs-64