

Technical Program

Time	Event		Place
8:30 – 10:00	Registration and Breakfast <i>sponsored by the Broadcom Corporation</i>		5th Floor 6th Floor
9:00 – 9:30	Welcome and Department Overview		Room 54-134
9:30 – 10:15	Research Highlights		Room 54-134
9:30 – 9:45	Overview of Circuits and Embedded Systems Research Professor Chih-Kong Ken Yang		
9:45 – 10:00	From Nanoelectronics to Nanosystems Professor Kang L. Wang, Director, Center on functional Engineered Nano Architectonics (FENA)		
10:00 – 10:15	Next Generation Sensor Networks Professor Gregory J. Pottie, Deputy Director, Center for Embedded Networked Sensing (CENS)		
10:15 – 10:45	Coffee Break and Poster Exhibits		5th and 6th Floors
10:45 – 12:45	Morning Parallel Technical Tracks		
	Circuits and Embedded Systems Session 1		Room 54-134
10:45 – 11:05	1A	Power-Area-Throughput Optimization of VLSI Signal Processing Algorithms <i>Rashmi Nanda, Victoria Wang, and Dejan Markovic</i>	
11:05 – 11:25	1B	A Hardware Friendly 4x4 Linear MIMO Detector for MIMO-OFDM Based Systems <i>Hun-Seok Kim Weijun Zhu, Jatin Bhatia, Karim Mohammed, Anish Shah, and Babak Daneshrad</i>	
11:25 – 11:45	1C	An Energy-Efficient Reconfigurable Multi-processor IC for DSP Applications <i>Guichang Zhong and Alan Wilson</i>	
11:45 – 12:05	1D	An Adaptive Low-Jitter LC-Based Clock Distribution <i>Li-Min Lee and Chih-Kong Ken Yang</i>	
12:05 – 12:25	1E	A Spur Elimination Technique for Fractional-N Phase Locked Loops Based on VCO Phase Interpolation <i>Siamak Delshadpour and Sudhakar Pamarti</i>	
12:25 – 12:45	1F	Minimal Skew Clock Embedding Considering Time Variant Temperature Variation <i>Hao Yu, Yu Hu, Chuenchen Liu, and Lei He</i>	
	Signals and Systems Session 1		Room 57-124
10:45 – 11:10	1A	Cross Layer Integrated Code Rate Control and Routing for Multi-hop Wireless Networks <i>Ju-Lan Hsu and Izhak Rubin</i>	
11:10 – 11:35	1B	Theoretical and Experimental Study of Isotropic and Non-isotropic 3D Arrays for Direction-of-Arrival Estimation <i>Shadnaz Asgari, Andreas Ali, Travis C. Collier, Ying Yao, Chiao-En Chen, Ralph E. Hudson, Kung Yao, and Charles E. Taylor</i>	
11:35 – 12:00	1C	Blind Calibration of Distributed Networked Sensors <i>Laura Balzano and Mani Srivastava</i>	
12:00 – 12:25	1D	Informed Scheduling for Belief Propagation <i>Andres I. Vila Casado, Miguel Griot, and Richard D. Wesel</i>	
12:25 – 12:45	1E	Design of Two-dimensional FIR Filters by Semidefinite Programming <i>Tae Roh and Lieven Vandenberghe</i>	
	Physical and Wave Electronics Session 1		Room 67-124
10:45 – 11:10	1A	CMOS Integrated Nano-Photonics is Now a Commercial Technology <i>Eli Yablonovitch</i>	
11:10 – 11:35	1B	Electro-optic Polymer ring Resonator Modulation up to 165 GHz <i>Bart Bortnik, Yu-Chueh Hung, Hidehisa Tazawa, William H. Steier, Jingdong Luo, Alex Jen, Byoung-Joon Seo and Harold R. Fetterman</i>	
11:35 – 12:00	1C	Dual-Frequency Multifunction Lidar <i>Rosemary Diaz, Sze-Chun Chan, and Jia-Ming Liu</i>	

12:00 – 12:45	1D	Processing Parameters for the Development of Glass/Ceramic MEMS Janet Stillman, <i>Jack Judy</i> , and Henry Helvajian	
12:45 – 2:30	Lunch <i>Sponsored by Conexant Systems, Inc</i>		Engr. IV Patio
1:00 – 2:30	Poster Exhibits		Fifth Floor
2:00 – 2:30	Special Session on Cognitive Radios: <i>Cognitive Radio Research – Professor Gregory J. Pottie</i>		Room 54-134
2:30 – 4:30	Afternoon Parallel Track Sessions		
	Circuits and Embedded Systems Session 2		Room 54-134
2:30 – 2:50	2A	A 2.2 Gb/s CMOS Differential QPSK Direct-Conversion Analog Baseband Receiver for 60-GHz Links Minghui chen and <i>Frank M.C. Chang</i>	
2:50 – 3:10	2B	Modeling Op Amp Nonlinearity in Switched-Capacitor Sigma-Delta Modulator Khaled M. Abdelfattah and <i>Behzad Razavi</i>	
3:10 – 3:30	2C	60 GHz CMOS Differential Power Amplifier Using On-Chip Transformers for Compact Design Tim Larocca and <i>Frank M.C. Chang</i>	
3:30 – 3:50	2D	A System for Coarse Grained Memory Protection in Tiny Embedded Processors Ram Kumar, Akhilesh Singhanian, Andrew Castner, and <i>Mani B. Srivastava</i>	
3:50 – 4:10	2E	A New Energy-Aware Embedded Platform for Networked Sensing Dustin McIntire and <i>William J. Kaiser</i>	
4:10 – 4:30	2F	Software Radio Implementation of Short-range Wireless Standards for Sensor Networking Thomas Schmid and <i>Mani B. Srivastava</i>	
	Signals and Systems Session 2		Room 57-124
2:30 – 2:50	2A	On-the-fly Synthesis of Correct-by-Design Embedded Control Software Giordano Pola and <i>Paulo Tabuada</i>	
2:50 – 3:10	2B	Game Theoretic Approaches for Multi-User Resource Allocation in Cognitive Radio Networks Fangwen Fu, Yi Su, and <i>Mihaela van der Schaar</i>	
3:10 – 3:30	2C	Energy-Optimized Image Communications on Resource-Constrained Sensor Platforms Dong-U Lee, Hyungjin Kim, Steven Tu, Mohammad Rahimi, Deborah Estrin, and <i>John D. Villasenor</i>	
3:30 – 3:50	2D	A Distributed Sampling Scheme Based on Innovations Diffusion in Sensor Networks Zhi Quan, William J. Kaiser, and <i>Ali H. Sayed</i>	
3:50 – 4:10	2E	Bayesian Selection of Non-faulty Sensors Kevin Ni and <i>Gregory J. Pottie</i>	
4:10 – 4:30	2F	A 2x2 Multistrata Space-Time Block Code Michael Samuel and <i>Michael P. Fitz</i>	
	Physical and Wave Electronics Session 2		Room 67-124
2:30 – 3:00	2A	Analysis and Applications of Microwave Electronics Catherine Allen, Darren Goshi, Anthony Lei, Cheng-Jung Lee, and <i>Tatsuo Itoh</i>	
3:00 – 3:30	2B	A Miniaturized Elliptic-Card UWB Antenna for Wireless Communications Keyvan Bahadori and <i>Yahya Rahmat-Samii</i>	
3:30 – 4:00	2C	Beyond the Performance Limit with Switched Electrically Small Antennas Xiaojing Xu and <i>Y. Ethan Wang</i>	
4:00 – 4:30	2D	Advanced Accelerator Research at UCLA: 40 GeV Energy Gain in Less than One Meter Miaomiao Zhou, <i>Chan Joshi</i> , and <i>Warren Mori</i>	
4:45 – 5:45	Reception		Edward K. Rice Conference Room 6764 Boelter Hall