

Center for Embedded Systems

An NSF Industry/University Cooperative Research Center

Year 5: Industry Advisory Board (IAB) Mid-term Update Meeting

January 14-15, 2014

IAB Host / Location: Intel Corporation, Chandler, AZ , CH7-100

Academic Host: Arizona State University

Agenda

Revised: January 12, 2014

Objectives

- Provide a forum for NSF, CES IAB members, faculty, and students to interact and discuss research projects, areas of interest, and opportunities
- Deliver a brief update on Center activities, mid-term update on Year 5 projects
- Conduct IAB business meeting

Tuesday, January 14, 2014

7:30 - 8:00 am	Registration Check-in and Light Breakfast , Intel Corporation 5000 W. Chandler Blvd., Bldg. CH7-100, Chandler, AZ 85226
8:00 – 8:20 am	Welcome , Sarma Vrudhula, Director, Center for Embedded Systems Paul C. Johnson, Dean, Ira A. Fulton Schools of Engineering, Arizona State University Directors' Opening Remarks , Sarma Vrudhula (ASU) and Spyros Tragoudas (SIUC) Introductions / Chair Transition , Byron Gillespie, Intel Corporation; CES – outgoing IAB Chair / Rathish Jayabharathi, Intel Corporation; CES – incoming IAB Chair
8:20 – 8:30 am	NSF Message , Rita Rodriquez, CISE Program Director, NSF CISE/CNS; Alex Schwarzkopf, Consultant, NSF ENG/OAD
8:30 – 9:30 am	Keynote Address / Q&A Session , Dr. Xenofon Koutsoukos, Associate Professor, Electrical Engineering and Computer Science, Vanderbilt University, <i>Science of System Integration for Cyber-Physical Systems</i>
9:30 – 9:40 am	Agenda / Format Overview , Rathish Jayabharathi, Intel Corporation; CES – IAB Chair
9:40 – 9:50 am	BREAK
9:50 – 10:10 am (3 min presentations)	Mid-term Updates , year 5 projects – GROUP 1 1.1: Multicore Simulator Critical Path Analysis, Luke Pierce (for Spyros Tragoudas), SIU 1.2: Readout Integrated Circuit for Fast Imager, Hugh Barnaby, ASU 1.3: Ground Work for Embedding a Field Oriented Motor Controller into a Single System on a Chip, Constantine Haziadoniu, SIU 1.4: I2AV: Integrate, Index, Analyze, and Visualize Energy Data for Data-driven Simulations and Optimizations, K. Selcuk Candan, ASU 1.5: An Effective Test Strategy Based on Coverage Driven ATPG, Ahish Mysore Somashekar (for Spyros Tragoudas & Themistoklis Haniotakis), SIU 1.6: Visual Interface for Metric Temporal Logic Specifications, Georgios Fainekos, Yoshihiro Kobayashi, ASU

10:10 – 11:30 am	Poster Session , year 5 projects – GROUP 1
11:30 am – 12:10 pm	Complete LIFE Forms online (20 minutes) , year 5 projects – GROUP 1 LIFE Forms Feedback: Discussion (20 minutes) , year 5 projects – GROUP 1
12:10 – 1:10 pm	LUNCH
1:15 – 1:35 pm (3 min presentations)	Mid-term Updates , year 5 projects – GROUP 2 2.1: Achieving Energy-efficient Mobile Computing Through Explicit Data Communication and Global Power Management, Carole-Jean Wu, ASU 2.2: Towards Predictable Execution of Safety-Critical Tasks on Mixed-Criticality Multi-Core Platforms, Harini Ramaprasad, Dimitrios Kagaris, SIU 2.3: Parallelization of Embedded Control Applications on Multi-core Architectures: A Case Study, Georgios Fainekos, Yann-Hang Lee, ASU 2.4: Adaptive Compressive Sensing Techniques for Low Power Sensors, Haibo Wang, Spyros Tragoudas, SIU 2.5: Reliable Wireless Communications in Aircrafts and Other Challenging Environments, Xiangwei Zhou, SIU
1:35 – 2:55 pm	Poster Session , year 5 projects – GROUP 2
2:55 – 3:35 pm	Complete LIFE Forms online (20 minutes) , year 5 projects – GROUP 2 LIFE Forms Feedback: Discussion (20 minutes) , year 5 projects – GROUP 2
3:35 – 3:45 pm	BREAK
3:45 – 4:15 pm	Excerpts from “How to Build a Committed IAB” presentation & discussion , Byron Gillespie, Intel Corporation; CES – past IAB Chair
4:15 – 4:35 pm (3 min presentations)	Mid-term Updates , year 5 projects – GROUP 3 3.1: Performance Optimal Control of a System of Interconnected Components Under Thermal and Energy Constraints, Sarma Vrudhula, ASU 3.2: Registration and Fusion of EVS and SVS Runway Images for Embedded Systems, Lalit Gupta, SIU 3.3: Concurrency and Scheduling Analysis of Real-time Embedded Software on Multi-core Processors, Yann-Hang Lee, ASU 3.4: Synthesis and Design of Robust Threshold Logic Circuits – FRP, Spyros Tragoudas, Haibo Wang, SIU; Sarma Vrudhula, ASU 3.5: Improving Usability of Multi-core DSPs, Jian Cai (for Aviral Shrivastava), ASU
4:15 – 5:15 pm	Poster Session , year 5 projects – GROUP 3
5:15 – 5:55pm	Complete LIFE Forms online (20 minutes) , year 5 projects – GROUP 3 LIFE Forms Feedback: Discussion (20 minutes) , year 5 projects – GROUP 3
6:15 pm	Happy Hour & Dinner (all) , Poolside @ Hilton Phoenix Chandler, 2929 W. Frye Rd., Chandler, AZ 85224, tel: 480-899-7400

Wednesday, January 15, 2014

8 am – 11 am	Light Breakfast, IAB meeting (closed session), Intel Corp. , Rathish Jayabharathi, Intel Corporation; CES – IAB Chair
--------------	--