Center for Embedded Systems
An NSF Industry/University Cooperative Research Center

Year 6: Industry Advisory Board (IAB) New Projects Meeting
May 13-14, 2014
Location: Morris Library, 7th Floor, SIUC
Academic Host: Southern Illinois University Carbondale

Agenda
Revised: May 7, 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, discuss and approve Year 6 projects
- Conduct IAB business meeting

Tuesday, May 13, 2014

7:10am	**Bus leaves Hampton Inn –** to Morris Library
7:30 - 8:00 am	**Registration Check-in,** Morris Library 7th Floor
8:00 - 8:20 am	**Welcome**, Spyros Tragoudas **Opening Remarks & Introductions**, Spyros Tragoudas, Sarma Vrudhula
8:20 - 8:50 am	**NSF Message,** Alex Schwarzkopf – Consultant, NSF ENG/OAD
8:50 - 9:10 am	**Agenda / Format Overview,** Rathish Jayabharathi, Intel Corporation; CES – IAB Chair
9:10 - 9:25 am	**Break**
9:25 - 9:50 am (5 min presentations)	**New Projects**, year 6 proposals – GROUP 1 1.1 Multi-core Simulator using GPGPU Platforms, PI: S. Tragoudas, SIUC 1.2 Parallelization of Embedded Control Applications on Multi-core Architectures: A Case Study, PIs: G. Fainekos, Y. Lee, ASU 1.3 Concurrency and Scheduling Analysis of Real-time Embedded Software on Multi-core Processors, PI: Y. Lee, ASU 1.4 Energy-aware Application Scheduling for Heterogeneous and Parallel Smart Phone Architectures, PI: C. Wu, ASU 1.5 Towards Predictable Execution of Safety-Critical Tasks on Mixed-criticality Multi-core Platforms, PIs: D. Kagaris, H. Ramaprasad, SIUC
9:50 - 10:50 am	**Poster Session**, year 6 projects – GROUP 1
10:50 - 11:30 am	**Complete LIFE Forms online (20 minutes)**, year 6 proposals – GROUP 1 **LIFE Forms Feedback: Discussion (20 minutes)**, year 6 proposals – GROUP 1
11:30 - 12:30 pm	**LUNCH**
12:30 – 12:55 pm (5 min presentations)	**New Projects**, year 6 proposals – GROUP 2 2.1 Exploiting Hybrid Memory Architecture of Modern Multi-core DSPs, PI: A. Shrivastava, ASU 2.2 A Layout-aware Methodology for Path-delay Fault Grading and Diagnosis, PIs: S. Tragoudas, T. Haniotakis, SIUC 2.3 Design of Ultra-low Power Circuits for Compressive Sensing in Mobile Devices, PIs:

	S. Vrudhula, Y. Cao, ASU 2.4 Comparison of Image Processing Algorithms on Micro-array Architectures and GPGPU Platforms, PI: S. Tragoudas, SIUC 2.5 Reliable Wireless Communications in Aircraft and Other Challenging Environments, PI: X. Zhou, SIUC
12:55 - 1:55 pm	**Poster Session**, year 6 proposals – GROUP 2
1:55 - 2:35 pm	**Complete LIFE Forms online (20 minutes)**, year 6 proposals – GROUP 2 **LIFE Forms Feedback: Discussion (20 minutes)**, year 6 proposals – GROUP 2
2:50 – 2:55 pm	**Break**
2:55 – 3:25 pm (5 min presentations)	**New Projects**, year 6 proposals – GROUP 3 3.1 Performance Optimal Control of a System of Interconnected Components Under Thermal and Energy Constraints (YEAR II), PI: S. Vrudhula 3.2 Synchronizing Finite State Machine Controllers for Distribution Systems, PI: D. Kagaris, SIUC 3.3 Automated Testing for Functional Coverage for Cyber-Physical Systems, PI: G. Fainekos, ASU 3.4 Optimized Switching Pattern Generator Embedded into an SoC, PI: C. Hatziadoniu, SIUC 3.5 Background Invariant Laser-spot Detection and Tracking for Embedded Systems, PI: L. Gupta, SIUC 3.6 Adaptive Compressive Sensing Techniques for Low Power Sensors, PIs: H. Wang, S. Tragoudas, SIUC
3:25 - 4:20 pm	**Poster Session**, year 6 proposals – GROUP 3
4:20 - 5:00 pm	**Complete LIFE Forms online (20 minutes)**, year 6 proposals – GROUP 3 **LIFE Forms Feedback: Discussion (20 minutes)**, year 6 proposals – GROUP 3
5:15 pm	**Bus leaves Morris Library –** to Hampton Inn
6:00 pm	**Bus leaves Hampton Inn –** to Rustle Hill Winery for Dinner
9:10 pm	**Bus leaves Rustle Hill Winery –** return to Hampton Inn

Wednesday, May 14, 2014

7:30 am	**Bus leaves Hampton Inn –** to Morris Library
8:00 - 11:00 am	**IAB meeting (closed session)**
11:15 am	**Bus leaves Morris Library –** return to Hampton Inn