

Center for Embedded Systems

An NSF Industry/University Cooperative Research Center

Year 7: Industry Advisory Board (IAB) New Projects Meeting

May 12-13, 2015

Location: Morris Library, 7th Floor, SIUC

Academic Host: Southern Illinois University Carbondale

Agenda

Rev 4: May 8, 2015

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, review and vote on Year 7 projects
- Conduct IAB business meeting

Tuesday, May 12, 2015

7:10 am	Bus leaves Hampton Inn – to Morris Library, SIU Campus
7:30 - 8:00 am	Registration Check-in and Coffee , Morris Library 7 th Floor
8:00 - 8:20 am	Welcome & Introductions , Spyros Tragoudas, Site Director SIUC
8:20 – 8:40 am	State of the Center , Sarma Vrudhula, Center Director
8:40 – 9:00 am	NSF Message , Craig Scott, University of Washington, NSF Evaluator
9:00 – 9:15 am	Break
9:15 - 9:20 am	Presentation Format Overview , Rathish Jayabharathi, Intel Corporation; CES – IAB Chair
9:20 – 9:50 am (5 min presentations)	New Projects , year 7 proposals – GROUP 1 1.1 Debugging Errors in Failed Functional Test Sequences, PI: S. Tragoudas, T. Haniotakis, SIUC 1.2 Building Energy-Efficient, Adaptive, and Secure Wireless Sensor Node By Harnessing Randomness, PI: F. Ren, ASU 1.3 A High-Performance, QoS-aware Memory Scheduling Approach for Highly Parallel, Heterogeneous Smartphone SoCs, PI: C.J. Wu, ASU 1.4 Synchronizing Finite State Machine Controllers for Distribution Systems, PI: D. Kagaris, SIUC 1.5 Embedded Controller for Reduction of Torque Oscillations in a PMSM, PI: C. Hatziaodoni, SIUC
9:50 – 11:10 am	Poster Session , year 7 proposals – GROUP 1
11:10 - 11:20 am	Complete LIFE Forms online (10 minutes) , year 7 proposals – GROUP 1 LIFE Forms Feedback: Discussion (10 minutes) , year 7 proposals – GROUP 1
11:20 - 12:20 pm	LUNCH

12:20 – 12:55 pm (5 min presentations)	New Projects , year 7 proposals – GROUP 2 2.1 Online Personalization for Smart Wearable Healthcare Systems, PI: J. He, ASU 2.2 On the Verification of Formal Methods for Digital Embedded Control Systems, PIs: D. Kagaris, S. Tragoudas, SIUC 2.3 Dynamic Learning of Application Characteristics for Performance and Energy Management of Smartphones, S. Vrudhula, ASU 2.4 Automated Testing for Functional Coverage for Cyber-Physical Systems, PI: G. Fainekos, ASU 2.5 Exploiting 3D IC Platform to Realize Low Power and High Performance Image/Video Processing, PI: C. Lu, SIUC 2.6 Distributed Run-time Management for Multi-agent System, PI: I. Anagnostopoulos, SIUC
12:55 - 2:15pm	Poster Session , year 7 proposals – GROUP 2
2:15 – 2:35 pm	Complete LIFE Forms online (10 minutes) , year 7 proposals – GROUP 2 LIFE Forms Feedback: Discussion (10 minutes) , year 7 proposals – GROUP 2
2:15 – 2:25 pm	Break
2:25 – 3:30 pm	IAB informal networking (discussion on joint projects, research topics, misc.)
3:45 pm	Bus leaves Morris Library – to Hampton Inn
5:30 pm	Bus leaves Hampton Inn – to Walker’s Bluff Winery for dinner
10:00 pm	Bus leaves Walker’s Bluff – return to Hampton Inn

Wednesday, May 13, 2015

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

Proposal List

#	Title	PI	SCHOOL	WEB CODE
1.1	Debugging Errors in Failed Functional Test Sequences	Spyros Tragoudas, Themistoklis Haniotakis	SIU	Y7_ST_TH
1.2	Building Energy-Efficient, Adaptive, and Secure Wireless Sensor Node By Harnessing Randomness	Fengbo Ren	ASU	Y7_FR
1.3	A High-Performance, QoS-aware Memory Scheduling Approach for Highly Parallel, Heterogeneous Smartphone SoCs	Carole-Jean Wu	ASU	Y7_CJW
1.4	Synchronizing Finite State Machine Controllers for Distribution Systems	Dimitri Kagaris	SIU	Y7_DK
1.5	Embedded Controller for Reduction of Torque Oscillations in a PMSM	C.J. Hatziaioniu	SIU	Y7_CH
2.1	Online Personalization for Smart Wearable Healthcare Systems	Jingrui He	ASU	Y7_JH
2.2	On the Verification of Formal Methods for Digital Embedded Control Systems	Dimitri Kagaris, Spyros Tragoudas	SIU	Y7_DK_ST
2.3	Dynamic Learning of Application Characteristics for Performance and Energy Management of Smartphones	Sarma Vrudhula	ASU	Y7_SV
2.4	Automated Testing for Functional Coverage for Cyber-Physical Systems	Georgios Fainekos	ASU	Y7_GF
2.5	Exploiting 3D IC Platform to Realize Low Power and High Performance Image/Video Processing	Chao Lu	SIU	Y7_CL
2.6	Distributed run-time management for multi-agent system	Iraklis Anagnostopoulos	SIU	Y7_IA