Conference Program

IEEE Systems, Man and Cybernetics Society

March 11, 2012

Baylor University, Waco, TX

BAYLOR
UNIVERSITY

March 1, 2013

Dear SSST 2013 Conference Participants,

On behalf of Baylor's School of Engineering and Computer Science (ECS), it is my pleasure to welcome you to campus and the 2013 Southeastern Symposium on System Theory. We are pleased to host this year's conference.

Most of your meetings will be in the 500,000 square-foot Baylor Science Building which stands as a remarkable testament to the transformation of the Baylor campus since 2000. During that period, the university has grown in enrollment and constructed most of the buildings on the north side of campus – all while we witnessed a doubling of the engineering and computer science enrollment in the School. ECS offers numerous undergraduate and graduate programs from the traditional B.S., M.S. and Ph.D. degrees to various dual-degree tracks like the joint Master of Engineering/MBA to specialized study abroad opportunities that combine engineering with entrepreneurship and business. We also recently celebrated the opening of the Baylor Research and Innovation Collaborative (BRIC) which will serve as a showplace for the research in ECS. It will also include a business incubator and workforce technology training initiatives.

Not to be overlooked, though, is Baylor's steadfast belief in education not only as a means to transmit information but also as a transformative experience in our students' intellectual and spiritual lives. The mission of Baylor University is to educate men and women for worldwide leadership and service by integrating academic excellence and Christian commitment within a caring community. The faculty's dedication to excellent teaching, scholarship and research continues to produce outstanding graduates at both the undergraduate and graduate level.

I hope you will find the conference worthwhile and that you enjoy your stay in Waco, "deep in the heart of the Texas." Best wishes for a successful SSST 2013 conference!

Dennis L. O'Neal

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SSST 2013 Conference Committee

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Robert J. Marks II (organization chair)
Distinguished Professor of Electrical and Computer Engineering, Baylor University

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Professor of Electrical and Computer Engineering, Oklahoma State University

Special Thanks To

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Computer Systems Manager, School of Engineering and Computer Science

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SSST 2013 Schedule – March 11, Baylor Science Building

7:30- 8:45	**A235 REGISTRATION**	
8:45-9:00	**A235 Greetings & Salutations**	
	A235 Electronic Devices	**A236 Intelligent Control & Fuzzy Systems**
9:00- 9:20	#17 Failure Mechanisms in MOSFET Square-Wave Drivers for Wireless Power Transfer Applications (Beams)	#06 High Accuracy Three- Dimensional Radar Sensor Design Based on Fuzzy Logic Control Approach (Choi)
9:20- 9:40	#25 Semi Empirical CdS Transistor Model Combining Grain Defects and Semiconductor Thickness Variation (Pasupuleti)	#23 Intelligent Hybrid Vehicle Management Systems (Chin)
9:40- 10:00	#27 Memristor Drift Model Based on Conservation of Mobile Vacancies (Rudra)	#26 A Fuzzy Self Constructing Feature Clustering Algorithm for Feature Reduction (Kulkarni)
10:00- 10:20	#18 Mixed-Signal System-On-A-Chip (SoC) Verification Based on SystemVerilog Model (Choi)	#33 Unexpected Emergent Behaviors From Elementary Swarms (Roach)
10:20- 10:40	**COFFEE BREAK**	
	A235 Digital Systems	**A236 Computer Intelligence**
10:40-11:00	#28 The Use of Error Correcting Codes for Nanoelectronic Systems: Overview and Future Prospects (Hoe)	#21 Improving the Speed of Convergence of GMRES for Certain Perturbed Tridiagonal Systems (Nguyen)
11:00- 11:20	#2 Hardware Friendly Schemes to Implement Exponential Linear Phase FIR Filters (Khorbotly)	#31 On the Improbability of Algorithmic Specified Complexity (Marks)
11:20- 11:40	#20 Managing Performance and Efficiency of a Processor (Agrawal)	#32 Conservation of Information in Relative Search Performance (Marks)
	LUNCH (on your own)	
	A235 Power & Energy	**A236 Hybrid Systems & Time Scales**
1:00- 1:20	#8 Combined Direct-Indirect Adaptive Speed Control Strategy for Wind Induction Generator (Al-Olimat)	#14 Stochastic Time Scales: Quadratic Lyapunov Functions and Probabilistic Regions of Stability (Poulsen)
1:20-1:40	#10 Modeling and Control of a Micro-Grid Set up Using Photovoltaic Arrays (Al-Olimat)	#15 Observer Based Feedback Controllers on Stochastic Time Scales (Poulsen)
1:40-2:00	#11 Approximation of PV Characteristic Curves for Use in Maximum Power Point Tracking Algorithms (Garcia)	#29 On Common Quadratic Lyapunov Functions for Dynamic Normal Switched Systems (Eisenbarth)
2:00- 2:20	#16 Simulation of a Switched Series-Resonant Receiver for Wireless Power Transfer Applications (Beams)	#5 A Real-Time Initial-Condition Injection Technique for Implementation of Discrete/Continuous Control Algorithms (Johnson)
2:20- 2:40	**COFFEE BREAK**	

	A235 Scheduling & Positioning	A236 System Connection & Security
2:40- 3:00	#13 Handoff Management with a Delay Requirement in Femtocell Networks (Reddy)	#4 System Interconnections and Combinatorial Integer Sequences (Gray)
3:00- 3:20	#22 Relay Positioning for Energy Saving in Cooperative Networks (Sivakumar)	#07 A New Passcode Based Approach for Hiding Classified Information in Images (Ullagaddii)
3:20- 3:40	#34 MobSched: Customizable Scheduler for Mobile Cloud Computing (Sindia)	#12 Stream Cipher Design Using Cellular Automata Implemented on FPGAs (Hoe)
4:00- 5:00	**WALKING TOUR OF CAMPUS** **Assemble at the registration table**.	
6:00-7:30	**SSST DINNER** **North Village Community Center**	

Information about Event Locations and Parking

Please refer to the map of the Baylor University campus included in your registration packet.

The main conference sessions are being held in the **Baylor Science Building (BSB, location C8)**, in room A325 and A236 on the 2nd floor. Conference registration and coffee breaks are nearby, in the A-wing elevator lobby.

- Nearby parking includes the **East Campus Parking Garage (PKGEC, location D9) and the lots between HSFAC and MCRARY (location C7)**.

The conference banquet will be held at the **North Village Residential Community (NVRC, location C5)**, in the North Village community center.

- If re-parking for the banquet, convenient parking is in **the Dutton Street Parking Garage (PKGDTN, location C5)**. The North Village community center is located immediately adjacent to this garage.

Conference attendees may park in any parking spot labeled "Visitor", "Student" or "F/E" with a parking pass that may be downloaded from the conference website www.ssst2013.org.

Wireless Internet Access

Conference attendees are welcome to access the internet wirelessly. **Note that all users of Baylor University's network are subject to the Technology Systems Usage Policy.** This policy along with instructions and login information are included on a separate page in your registration packet.

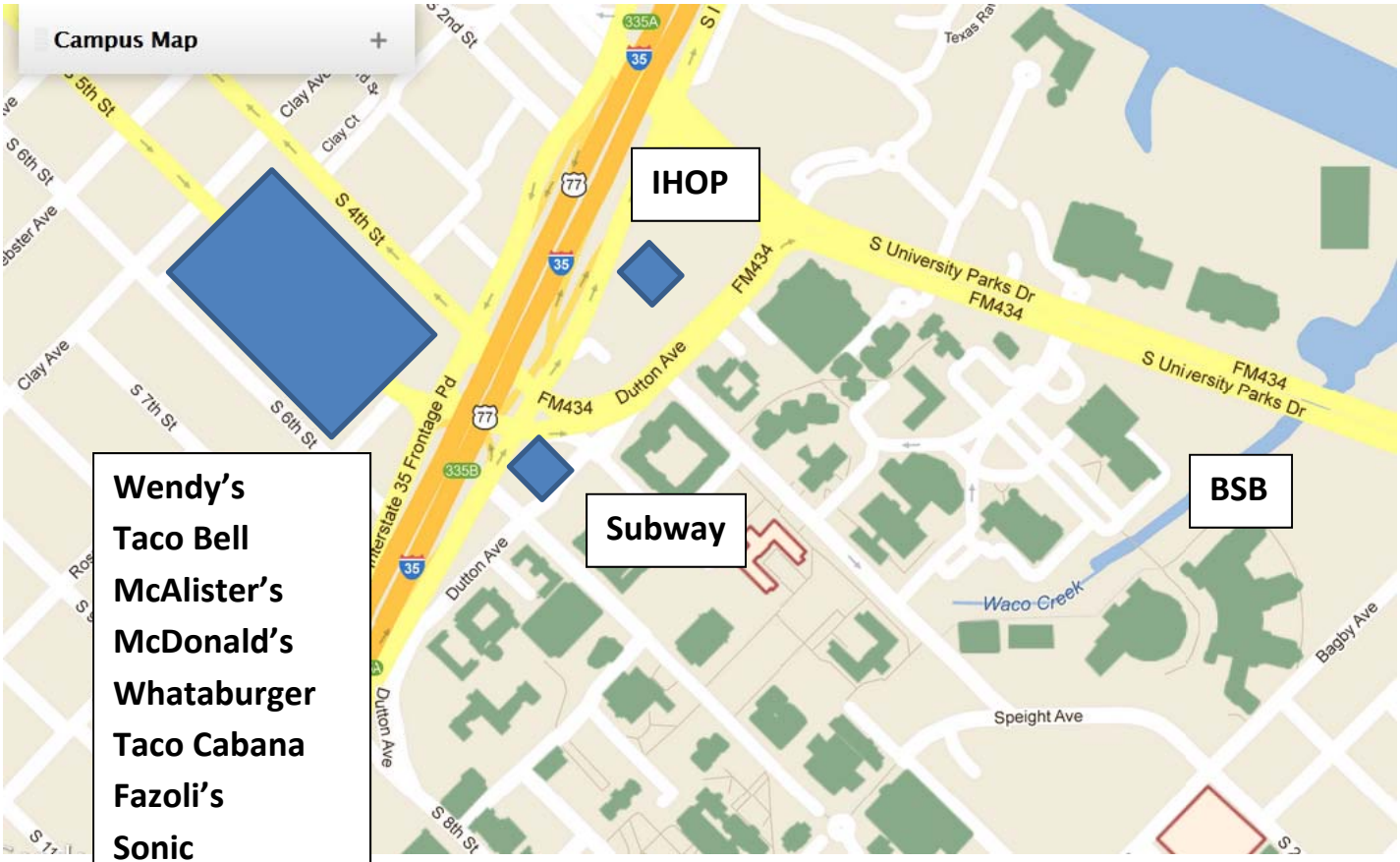
Conference Proceedings

Full papers from the conference are available at www.ssst2013.org/pp.html. This link will remain active at least until the conference proceedings appear in the IEEE Xplore database.

Places to Eat

Dining options, including seated full-service dining, are available in the Riversquare Center downtown warehouse district, at the intersection of University Parks Drive and Franklin Avenue. (From campus, go west on U. parks under IH-35, turn left at Franklin, and find Riversquare Center on the left spanning two blocks.) This includes Ninfa's, Bankok Royale, Diamondback's Steakhouse, Wingstop and others.

Nearer to campus, there is a group of restaurants roughly a 15 minute walk each way or easy to access by car. These are shown on the map below.



Wendy's
Taco Bell
McAlister's
McDonald's
Whataburger
Taco Cabana
Fazoli's
Sonic
Tres Mexican