

ISPCS 2012 – Preliminary Program

Registration desk hours

Sunday 2:30pm-4:00pm

Monday 7:00am-noon

Tuesday 2:00pm-5:00pm

Wednesday 7:00am-5:00pm

Thursday 7:00am-5:00pm

Friday 7:00am-noon

Plug-fest Program

(open only to registered plug-fest participants except for the open viewing session on Tuesday from 3-4:30PM)

Sunday, September 23, 2012

9:00 Plug-fest committee set up

3:00 Plug-fest set up by participants

5:00 End of plug-fest activity

Monday, September 24, 2012

8:00 Continental breakfast

9:00 Plug-fest session

10:15 Morning break

10:35 Plug-fest session

12:00 Lunch

1:00 Plug-fest

2:40 Afternoon break

3:00 Plug-fest

5:00 End of plug-fest activity

Tuesday, September 25, 2012

8:00 Continental breakfast

- 9:00 Plug-fest session
- 10:15 Morning break
- 10:35 Plug-fest session
- 12:00 Lunch
- 1:00 Plug-fest
- 2:40 Afternoon break
- 3:00 Open to all conference attendees for viewing
- 4:30 Plug-fest teardown
- 5:30 End of plug-fest activity

Symposium Program

Wednesday, September 26, 2012

- 8:00 Continental breakfast
- 9:00 Opening session
 - Conference Co-Chair Remarks: Kang Lee and Krishna Sankar
 - Local Arrangements Co-Chair Remarks: John Eidson and Lloyd Green
 - Program Committee Co-Chair Remarks: Radim Bartos and Lee Cosart
- 9:30 Session I: ***PTP Software Implementations***
 - Chair: Radim Bartos
 - Probing the Latencies of Software Timestamping
Benjamin Villain, Matthew Davis, Julien Ridoux, Darryl Veitch, Nicolas Normand
 - An IEEE-1588 Compatible RADclock
Matthew Davis, Benjamin Villain, Julien Ridoux, Anne-Cecile Orgerie, Darryl Veitch
- 10:20 Morning break
- 10:40 Session II ***White Rabbit***
 - Chair: Lee Cosart
 - Performance results of the first White Rabbit installation for CNGS
Maciej Lipinski, Tomasz Wlostowski, Javier Serrano, Pablo Alvarez, Juan David Gonzalez Cobas, Alessandro Rubini, Pedro Moreira
 - Distributed DDS in a White Rabbit Network: An IEEE1588 Application
Pedro Moreira, Javier Serrano, Pablo Alvarez, Maciej Lipinski, Tomasz Wlostowski, Izzat Darwazeh
- 11:30 Keynote presentation
 - Chair: John Eidson
 - Time for High-Confidence Distributed Embedded Systems***
Dr. Edward A. Lee (University of California at Berkeley)

12:30 Lunch

1:30 Promotional partner presentations

Chair: Hans Weibel

Meinberg, Heiko Gerstung, Managing Director (Platinum partner)

Symmetricom, Doug Arnold, Principal Technologist (Gold partner)

Conemtech, Ola Andersson, CEO

Crystal Instruments, James Zhuge, President

ICAP, Lloyd Green, Marketing Director

IXXAT, Tanja Rostami, Sales Engineer

Napatech, Ben Tuttle, Field Application Engineer

Omicron Lab, Christian Riesch, Hardware Developer/Project Leader

RuggedCom, Richard Harada, Senior Product Manager

3:10 Work in Progress introductions

Chair: Radim Bartos

3:20 Afternoon break

3:50 Session III ***PTP Applications: Global Finance and Power***

Chair: Kang Lee

Challenges deploying PTPv2 in a Global Financial company

Pedro V Estrela, Jan L. Bonebakker

Standard Profile for Use of IEEE Std 1588-2008 Precision Time Protocol (PTP) in Power System Applications

Galina S. Antonova

Evaluation of Precision Time Synchronization Methods for Substation Applications

David M E Ingram, Pascal Schaub, Duncan Campbell, Richard Taylor

Performance of a full-hardware PTP implementation for an IEC 62439-3 redundant IEC 61850 substation automation network

Hubert D Kirmann, Claudio Honegger, Diana Ilie, Ioannis Sotiropoulos

6:00 German Beer, Pretzels and IEEE 1588 product demo hosted by Meinberg

Thursday, September 27, 2012

8:00 Continental breakfast

9:00 Session IV: ***PTP Devices and Security***

Chair: Heiko Gerstung

A Fully Integrated Versatile PTP Node

Tobias Müller, Nikolaus Kerö

Slave Diversity: Using Multiple Paths to Improve the Accuracy of Clock Synchronization Protocols
Tal Mizrahi

Security improvements for IEEE 1588 Annex K - Implementation and comparison of authentication codes
Cagri Önal, Hubert D Kirrmann

A Game Theoretic Analysis of Delay Attacks against Time Synchronization Protocols
Tal Mizrahi

10:40 Morning break

11:00 Session V: ***Wireless and Sensor Networks***

Chair: Kevin Stanton

Clock Synchronization in IEEE 802.11 Wireless LANs using Physical Layer Timestamps
Reinhard Exel

Clock Synchronization for Wired-Wireless Hybrid Networks using PTP
Aneeq Mahmood, Felix Ring

Bio-inspired Synchronization of Wireless Sensor Networks for Acoustic Event Detection Systems
Felipe Nunez, Yongqiang Wang, Sachi Desai, George Cakiades, Francis Doyle

12:15 Lunch

1:30 Session VI: ***PTP in Networks***

Chair: Silvana Rodriguez

Packet Arrival Time in 1588 for 40GE/100GE
David Mendel, Herman Schmit, Divya Vijayaraghavan

A Novel Approach to the Adaptation of PTP to an NTP Network
John D MacKay, Reed Henry

Best Practices of transporting PTPv2 over RSTP networks
Amin Abdul, Richard Harada

IEEE 1588 for Redundant Ethernet Networks
Andre Komes, Cristian Marinescu

3:10 Afternoon break

3:40 Special session I

Chair: Doug Arnold

Restrictions on two-step end-to-end transparent clocks in two-way mode
Dinh Thai Bui, Michel Le Pallec, Peter Roberts

Clarification on peer delay mechanism restrictions
Dinh Thai Bui, Michel Le Pallec, Peter Roberts

Coexistence of IEEE 1588, C37.238 and 802.1AS - Issues and Recommendations
Hubert D Kirmann, Jean-Charles Tournier

Option to explicitly configure IEEE 1588 port state
John Eidson

5:00 ISPCS 2013 Invitation
Chair: Sebastian Schriegel

5:10 Plugfest report
Chairs: Doug Arnold, Heiko Gerstung, Ken Harris, Jeff Laird

6:15 Conference dinner

Friday, September 28, 2012

8:00 Continental breakfast

9:00 Special session II
Chair: John Eidson

Eliminate the “Term Master Clock”
Jeff Laird

Alternative use of the controlField in the PTP message header for an automatic TC failure detection (unicast mode)
Dinh Thai Bui, Michel Le Pallec, Peter Roberts

Path delay correction permitted with end-to-end transparent clocks
Dinh Thai Bui, Michel Le Pallec, Peter Roberts

Proposal for a Standardized Mechanism to Transfer Timing Information from an Ingress Port to an Egress Port of a PTP Transparent Clock
Richard Tse, Chris Ong

10:20 Morning break

10:40 Special session III
Chair: John Eidson

High accuracy extension/option/profile
Maciej Lipinski

Packet Arrival Time for Multi-lane Protocols
David Mendel, Herman Schmit, Divya Vijayaraghavan

Running PTP over Multiple Paths: A Proposed Extension to the IEEE 1588
Tal Mizrahi; Alexander Shpiner

Definition of a Mapping of 1588 to 802.11 Using the Newly Standardized 802.11v Time Measurement Method
Kevin Stanton

12:00 Closing session

Conference Co-Chair Remarks: Kang Lee and Krishna Sankar

Program Committee Co-Chair Remarks: Radim Bartos and Lee Cosart

12:30 Lunch