8th Workshop on Embedded and Cyber-Physical Systems Education
WESE

Tampere, Finland
Oct. 11th, 2012
ES education requires tearing down the wall between CS and EE
Cyber-physical systems and embedded systems

CPS = ES + physical environment

Cyber-physical systems

Embedded systems ("computers in physical environments")

Embedded systems ("small computers")

☞ CPS education comprises ES education; challenges!
CPS education requires tearing down the walls between more disciplines

medicine, statistics, ME, biology
Past, present and future

- 1st WESE 2005: Jersey City, US, see //www.lulu.com
- 2nd WESE 2006: Seoul, Korea, see //www.lulu.com
- 3rd WESE 2007: Salzburg, Austria, see //www.lulu.com
- 4th WESE 2008: Atlanta, see //www.lulu.com
- 5th WESE 2009: Grenoble, see ACM digital library
- 6th WESE 2010: Scottsdale, see ACM digital library
- 7th WESE 2011: Taipei, see ACM digital library
- 8th WESE 2012: to take place during ESWEEK at Tampere on Oct. 12th, ACM digital library
- 9th WESE 2013: Montreal, Canada, 10/3/2013
Committee

Organizers
Peter Marwedel, TU Dortmund, D
Jeff Jackson, The University of Alabama, USA
Kenneth Ricks, The University of Alabama, USA

International Program Committee
Seta Bogosyan, University of Alaska, Fairbanks, USA
Alex Dean, North Carolina State University, USA
Tei-Wei Kuo, National Taiwan University, Taipeih, Taiwan
Sin Ming Loo, Boise State University, USA
Jogesh Muppala, Hong Kong University of Science and Technology
Falk Salewski, Lacroix Electronic, D
Mariagiovanna Sami, U. Lugano, CH
Jonathan Sprinkle, University of Arizona, Tucson, USA
Stewart Tansley, Microsoft Corp., USA
Shiao-Li Tsao, National Chiao Tung University, Hsinchu, Taiwan
Martin Törngren, Royal Institute of Technology, Sweden
Cooperating societies

- In cooperation with ACM SIGBED
- In cooperation with EMSIG (follow-up of Artist NoE)
- Indirectly with the parent of EMSIG, EDAA
Programme

08:30 Registration & get-together, coffee
09:30 Opening
09:45 Invited Keynote: Jeff C. Jensen, Edward A. Lee, Sanjit A. Seshia (UC Berkeley, USA):
Teaching Embedded Systems the Berkeley Way
10:30 Dorsa Sadigh, Sanjit A. Seshia, Mona Gupta (UC Berkeley, USA):
Automating Exercise Generation: A Step towards Meeting the MOOC Challenge for Embedded Systems
11:00 Kerstin Bauer, Klaus Schneider (U. Kaiserslautern, D):
Teaching Cyber-Physical Systems: A Programming Approach
11:30 Lunch
13:00 Seiko Akayama, Shin Kuboaki, Kenji Hisazumi, Takao Futagami, Teruaki Kitasuka (Kyushu U., Afrel Corp., Toyo Corp., Kumamoto U., Japan):
Development of a Modeling Education Program for Novices using Model-Driven Development
13:30 Gu-Min Jeong, Dong-Byeong Kang, Sung-Soo Lim, Nikil Dutt (Kookmin U., Korea; UC Irvine, USA): An Advanced Course Design for Mobile Embedded Software through Android Programming
Programme

14:00 Steffen Jaschke, Steffen Büchner, Sigrid Schubert, Andre Schäfer, Rainer Brück (U. Siegen, D): Competence Oriented Embedded Systems Course for Computer Science Students


15:00 Break


16:00 Bailey Miller, Frank Vahid, Tony Givargis (UC Riverside, USA): RIOS: A Lightweight Task Scheduler for Embedded Systems

16:30 Discussion: Embedded and Cyber-Physical Systems Education in the Age of Online-Learning

17:00 Wrap-up

17:30 Close