

REGISTRATION: 9:30–15:30 Tallinn University of Technology Mektory House

Opening Plenary Session

Session chair – Prof. Toomas Rang

12:00–12:10 Opening commentary from the general chair BEC2014 prof. Toomas Rang

12:10–12:20 Greetings from the TUT Rector prof. Andres Keevallik

12:20–13:00 INVITED TALK: Design of Medical devices for Sleep Apnea Detection: Challenges and Future Directions

Zahra M. K. Moussavi – University of Manitoba, Canada

13:00–13:40 INVITED TALK: Highly Parallel Neural Interfaces

Maurits Ortmanns – University of Ulm, Germany

13:40–14:00 Coffee break

14:00–14:40 INVITED TALK: Climbing the VLSI Power Wall for nm Era

Rajiv Joshi – IBM, T. J. Watson Research Center, USA

14:40–15:20 INVITED TALK: Mektory: best practice for innovative students

Tea Varrak – Tallinn University of Technology, Estonia

15:45 Buses to Laulasmaa Resort and SPA

18:00 Conference Welcome Reception

TUESDAY, October 7

REGISTRATION: 9.30–15.30 Laulasmaa Resort and SPA

BUSINESS LOUNGE 1

10:00–11:20 5. Cyberphysical and cognitive systems:
Session 5.1 – Bio-Medical Applications
Session chair – Prof. Kalju Meigas

SEMINAR 1

4. Instrumentation, Communication,
Signal Processing and RF Solutions:
Session 4.1 – Filtering and Modulation of Signals
Session chair – Dr. Raul Land

SEMINAR 3

3. Test, verification and dependability:
Session 3.1 – Fault Tolerance and Reliability
Session chair – Prof. Anzhela Matrosova

11:20–11:50 Coffee break

11:50–13:10 5. Cyberphysical and cognitive systems:
Session 5.2 – Cognitive and Cyber Physical Systems
Session chair – Prof. Jüri Vain4. Instrumentation, Communication,
Signal Processing and RF Solutions:
Session 4.2 – RF-Techniques and Navigation
Session chair – Dr. Toivo Paavle3. Test, verification and dependability:
Session 3.2 – Fundamentals of Test
Session chair – Prof. Mario Schölzel

13:10–14:10 Lunch

14:10–15:30 6. Power Electronics:
Session 6.1 – Power Electronics
Session chair – Dr. Dmitri Vinnikov4. Instrumentation, Communication,
Signal Processing and RF Solutions:
Session 4.3 – Imaging and TV Measurements
Session chair – Dr. Paul Annus3. Test, verification and dependability:
Session 3.3 – Built-In Self-Test and Novel Architectures
Session chair – Dr. Sergei Kostin

15:30–16:00 Coffee break

16:00–17:40 6. Power Electronics:
Session 6.2 – Electrical Engineering
Session chair – Dr. Indrek Roasto4. Instrumentation, Communication,
Signal Processing and RF Solutions:
Session 4.4 – Analysis and Conversion of Signals
Session chair – Dr. Toomas Parve

16:00–18:20 BUSINESS LOUNGE 2

Doctoral School Session
Session chair – Dr. Eduard Petlenkov

19:00–22:00 Dinner

WEDNESDAY, October 8

10:00–11:20 1. Semiconductor devices and
analog electronics:
Session 1.1 – Semiconductor Devices and Technolo-
gies
Session chair – Dr. Ants Koel2. Digital and Embedded Systems:
Session 2.1 – Navigation Systems
Session chair – Prof. Peeter Ellervee11:20–12:00 1. Semiconductor devices and
analog electronics:
Session 1.2 – Circuits Solutions
Session chair – Dr. Reeno Reeder2. Digital and Embedded Systems:
Session 2.2 – Digital Circuit Design
Session chair – Prof. Thomas Hollstein

12:00–13:00 Lunch

Closing Plenary Session
Session chair – Prof. Toomas Rang

13:00–13:40 Power Converters with Silicon Carbide Devices

Jacek Rabkowski – Warsaw University of Technology Institute of Control and Industrial Electronics Warsaw, Poland

13:40–14:20 Multi-domain characterization of semiconductor devices

András Poppe – Department of Electron Devices Budapest University of Technology and Economics, Budapest, Hungary

14:20–15:00 High-Resolution EEG Recording System using Smart Electrodes

Jaakko Malmivuo – Department of Electrical Engineering and Automation Aalto University, Espoo, Finland

15:00–15:40 Trade Secrets and Patents and Such: What Engineers Need to Know

Daniel Foty – Gilgamesh Associates, LLC, USA

15:40–16:20 Best papers award & Conference Closing Ceremony
Prof. Toomas Rang – Tallinn University of Technology, Estonia

16:30 Buses back to Tallinn