

CPS Budapest

Participants, Venue and Program — December 1, 2014



➤ Radu GROSU: Cyber-Physical Systems Group

- Model checking and abstract interpretation techniques with reasoning about the behaviour of models of physical systems that include continuous and stochastic behaviours. Model discovery and system identification for stochastic and nonlinear hybrid systems. Generating sound model abstractions to simplify the reasoning process; and developing next-generation algorithms for controlling the behaviour of these systems.

➤ Zoltán HORVÁTH: Programming Languages and Compilers

- Programming methodology, parallel programming, functional programming

➤ Tamás KOZSIK: Parallel Patterns for Adaptive Heterogeneous Multicore Systems

- Functional programming, parallel systems, domain specific languages

➤ András LÖRINCZ: Neural Information Processing Group

- Cost and risk sensitive decision making with real-time verification capabilities for cyber-physical systems. Anomaly detection, model extension, and scalability.

➤ Kay RÖMER: Institute of Technical Informatics

- Systematic framework and toolchain to enable dependable IoT applications by taking into account all relevant environmental properties and their impact on IoT platforms and protocols. Environment-aware IoT protocols and automatic reconfigurations that meet application-specific dependability requirements.

➤ Daniel Sonntag: GERMAN RESEARCH CENTER FOR ARTIFICIAL INTELLIGENCE

- Smart factory, intelligent user interfaces, multimodal interface design and dialogue systems

➤ Vasos VASSILIOU: Next Generation Network Architectures

- Next Generation Network Architectures (IPv6, MPLS), Mobile Networks (Mobile IP, Mobile MPLS, Ad Hoc and Sensor Networks), Wireless Communications (Protocol enhancements for 3G/4G cellular networks) and QoS and Traffic Engineering for computer and telecommunication networks

➤ Edmund WIDL: Complex Energy Systems Research

- Modeling and simulation of multi-domain energy systems



Venue: Bogdánfy street 10/A: <http://www.eitictlabs.eu/about-us/our-locations/budapest-apg/visit/>

Program:

10.30-10.40 **Introduction:** Zoltán Horváth

10.40-13.00 **Activities and goals**

10.40-11.00 Radu Grosu

11.00-11.20 Tamás Kozsik

11.20-11.40 Kay Römer

11.40-12.00 Vasos Vassiliou

12.00-12.20 Edmund Widl

12.20-12.40 Daniel Sonntag

12.40-13.00 András Lörincz

13.00-14.30 Lunch

14.30-17.00 **Discussion and options**

14.30-15.00 Real-time systems

15.00-15.30 Verifiable Systems

15.30-16.00 IoT applications

16.00-16.30 Coffee Break

16.30-17.00 Model based stochastic Cyber-Physical Systems with human in the loop: energy, home, and transport

17.00-17.30 Open discussion

17.30-18.00 Wrap-up

19.00 Dinner at A38 ship: <http://www.a38.hu/en/>

