

 **informatik-Kolloquium**

Der Fachbereich Informatik der Johannes Kepler Universität Linz¹ lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Prof. Dr. Tomas Bures

Department of Distributed and Dependable Systems
Charles University, Prague

Software Aspects of Smart Cyber-Physical Systems

Fr Dec. 5, 13:30, JKU, S3 218

Abstract:

In smart cyber-physical systems (sCPS) the interplay of software control with the physical environment has a prominent role. Nowadays, sCPS are expected to (i) effectively deal with the issues of distribution, scalability, and environment dynamicity, (ii) control their emergent behavior, and, at the same time, (iii) be versatile and tolerant in face of changes and threats. Although approaches that individually meet the above requirements of sCPS already exist, their synergy in a comprehensive software engineering framework is far from trivial. In this talk, we will pinpoint the important characteristics of engineering sCPS in an attempt to show that they introduce distinct challenges to traditional software engineering. We argue that this can be addressed by a synergy and adaptation of existing models and abstractions and describe the DEECo component model as our proposal towards such a synergy.

About the speaker:

Tomáš Bureš is an associate professor at the Department of Distributed and Dependable Systems. He received his Ph.D. degree in 2006 also from Charles University. In the meantime, he held 1 year postdoctoral researcher position at Mälardalen University, Sweden. Currently, he is also a visiting professor at Institut für Informatik, Ludwig-Maximilians-Universität München, Germany. He specializes in component-based development, cyber-physical systems and generative programming. He co-authored over 40 referred articles and served as program committee chair and/or member of numerous international conferences.

o.Univ. Prof. Dr. Hanspeter Mössenböck
Institut für Systemsoftware

¹ Der Fachbereich (<http://informatik.jku.at>) besteht aus folgenden Instituten: Anwendungsorientierte Wissensverarbeitung (FAW), Bioinformatik, Computational Perception, Computer-Architektur, Computergrafik, Formale Modelle und Verifikation, Informationsverarbeitung und Mikroprozessortechnik (FIM), Integrierte Schaltungen, Pervasive Computing, Systems Engineering and Automation, Systemsoftware, Telekooperation