Einladung zum Vortrag

09. Januar 2018, 16.00 Uhr c.t.
Universität Bremen | Cartesium Rotunde

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Model-Based Testing Cyber-Physical Systems: Theory and Practice

Cyber-physical systems are the results of the tight integration of computation, control, and communication. Hence, their mode-based design involves hybrid and multi-disciplinary models addressing discrete behaviour, integrated with continuous dynamics along with (often asynchronous) communication. In this talk, we focus on model-based conformance testing of such systems and present an overview of the theories of conformance testing adapted to this domain. Then, we present some of our ongoing research results towards a practical framework for model-based testing cyber-physical systems.

Based on joint work with: A. Aerts (TU Eindhoven, NL), H. Araujo (F.U. Pernambuco, Brazil), G. Carvalho (F.U. Pernambuco, Brazil), N. Khakpour (Linneaus U., Sweden), M. Mohaeeqi (Uppsala, Sweden), M.A. Reniers (TU Eindhoven, NL), A. Sampaio (F.U. Pernambuco, Brazil), M. Taromi Rad (Halmstad, Sweden)

Biografie

Mohammad Reza Mousavi is a professor of Data-Oriented Software Engineering at University of Leicester, UK.

Prior to that, he has been a guest professor of Software Engineering at Chalmers / Gothenburg University and professor of Computer Systems Engineering at Halmstad University, Sweden. He received his Bachelor and Masters degree from Sharif University of Technology, Iran and his Ph.D. in Computer Science in 2005 from TU Eindhoven, The Netherlands.

Since then, he has been postdoctoral researcher (2006-2007) at Reykjavik University, Iceland, and assistant and associate professor (2005-2013) at TU Eindhoven.

His research interests are in formal semantics and verification and his main current research area is in model-based testing, particularly applied to software product lines and cyber-physical systems. He is a co-author of more than 100 peer-reviewed scientific papers and a textbook published by the MIT Press.

Mohammad is the editor-in-chief of Science of Computer Programming and a member of the academic editorial board of PeerJ Computer Science. He has been leading several research initiatives and industrial collaboration projects on automotive systems and software and their validation, verification, and certification.

Dieser Gast wurde von Jan Peleska eingeladen.