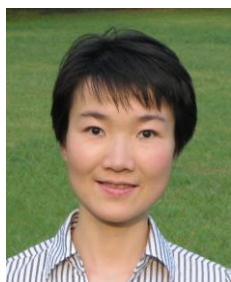


## informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz<sup>1</sup> lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

### Learning from Software Process Repository



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*Thursday, November 13<sup>th</sup> 2014, 13:00 – 14:00*  
*JKU Linz, Science Park 2, S2 048*

#### **Abstract:**

Software is an increasingly critical source of risks in products and services provided to our daily life. Historical software projects have maintained a tremendous amount of invaluable “lessons learned” during the life cycle process of system development and evolution, which, if effectively reused, will significantly reduce uncertainties of software quality. Despite decades of Empirical & Evidence-based Software Engineering (SE) research, there are too few examples in the state-of-the-art research and practice where lessons learned from one project were successfully migrated to another. We diagnose one of the problems as that lessons are documented in *scattered* and *unstructured* data-intensive and/or natural language process artifacts which rely on *tedious* and *error-prone* manual approach and sufficient *domain knowledge* to recognize. To address this problem, our solution is to automate the recognition of different types of lessons learned (e.g., classes of risks/problems/defects with resolution methods) in various types of projects and then reuse the knowledge learned for the process improvement on future system evolution. We propose a systematic framework for human-machine cooperative project lessons learning and classification that provides practical techniques and tools. We address fundamental research questions on mining and restructuring problems in lessons learned (i.e., what problems can be learned from historical projects) via integrated relevance annotations by system analysts and automated tools.

<sup>1</sup> 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 Mikroprozessor-technik (FIM), Integrierte Schaltungen, Pervasive Computing, Systems Engineering and Automation, Systemsoftware, Telekooperation

**Bio:**

**LiGuo Huang**, Associate Professor, Department of Computer Science and Engineering at the Southern Methodist University (SMU), Dallas, TX, USA. She received both her Ph.D. (2006) and M.S. from the Computer Science Department and Center for Systems and Software Engineering (CSSE) at the University of Southern California (USC). Her current research centers around mining systems and software engineering repository, software quality assurance and information dependability, process modeling, simulation and improvement, stakeholder/value-based software engineering, and software metrics. Her research has been supported by NSF, US Department of Defense (DoD) and NSA. She had been intensively involved in initiating the research on stakeholder/value-based integration of systems and software engineering and published related papers in IEEE Computer and IEEE Software. She is the reviewer for TSE, TR, JSS, JSEP, IST, IJSI and the program committee member for a number of international software engineering conferences and workshops including ICSSP, CSEE&T, PROFES, PROMISE, APSEC, Euromicro SEAA, Agile Conference, SQM, etc. She served as the Program Committee Chair of ICSSP 2012 & 2014, CSEE&T 2012 and the Asian Chair of CSEE&T 2011. She is the member of CSEE&T Steering Committee.

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