informatik-Kolloquium

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

Topic: **An Efficient Scheme for Prolonging the Lifetime of Phase-Change Memories**

Presenter: **Prof. Dr. Hamid Sarbazi-Azad**
Sharif University of Technology, Tehran, Iran

Datum: **Wednesday, September 26th, 2018, 10:15**

Location: **JKU, Computer Science Building (Science Park 3), room S3 048**

Abstract:

In this talk, I will first bold the urgent need of new architectures for big data processing. The main tracks taken in my research lab (HPCAN) to store and process large amounts of data are then discussed. I will then focus on the storage architectures and talk about alternative non-volatile memory technologies and present one of our recent works on prolonging the lifetime of Phase-change main memories. One of the main drawbacks with PCMs is their short write endurance. In this talk, I will introduce a simple shift-based technique to exploit multiple bit storage capability of PCMs to improve the lifetime of the whole memory.

Short Bio:

Prof. Hamid Sarbazi-azad received his BSc in electrical and computer engineering his MSc in computer engineering from Sharif University of Technology, Tehran, Iran in 1992 and 1994, respectively. He did his PhD in computing science at the University of Glasgow, Glasgow, UK, in 2002. Currently, he is a Professor of computer engineering at Sharif University of Technology, Tehran, Iran and the head of the School of Computer Science, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran. His research interests include high-performance computer architectures, supercomputing architectures (he built the first Iranian TFLOPS supercomputer in 2007), and memory/storage systems. He received the Khwarizmi International Award in 2006, a TWAS Young Scientist Award in engineering sciences in 2007, and Sharif University Distinguished Researcher awards in 2004, 2007, 2008, 2010 and 2013. Prof. Sarbazi-azad has served as Associate editor for ACM Computing Surveys (2015-now), Associate editor for IEEE Transactions on Computers (2012-2016), and Editorial board member for Elsevier's Computers & Electrical Engineering journal (2012-now).

Einladender: Univ.-Prof. Dr. Robert Wille
Institut für Integrierte Schaltungen
Abteilung Integrierter Schaltungs- und Systementwurf

[1] Der Fachbereich (http://informatik.jku.at) besteht aus folgenden Instituten:
Application Oriented Knowledge Processing (FAW), Bioinformatics, Computational Perception, Computer Architecture, Applied Systems Research and Statistics, Computer Graphics, Formal Models and Verification, Networks and Security, Integrated Circuits, Pervasive Computing, Software Systems Engineering, System Software, Telecooperation, Signal Processing