



THE UNIVERSITY OF
MELBOURNE

Mechanical Engineering

SEMINAR SERIES 2008

Dr Sven Dominka

Postdoctoral Visitor
Department of Mechanical Engineering
The University of Melbourne

22nd January, 3pm

Theatre E1
Level 3
Building 170
Mechanical Engineering

Hybrid Commissioning - from virtual to real commissioning.

MORE INFORMATION

For more Mechanical Engineering seminar information contact:

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The commissioning of complex mechatronical industrial systems like production plants is a critical phase and represents a high percentage of the overall engineering process. The malfunction of the plant, e.g. due to controller software bugs, could lead to damage of the plant. The Hybrid Commissioning method is a new approach for reducing the danger of such damages and the waste of production during the commissioning phase. Hybrid Commissioning starts with a simulation of the complete plant and the components of the simulated plant are substituted stepwise by their real counterparts. Especially for field bus driven production plants, this kind of parallel operation poses a challenge. Therefore, a supporting tool system with a specific architecture is necessary. In order to combine signal values of real and simulated components within this architecture in a useful way, a so called Merge Tool has been developed. In this seminar, the Hybrid Commissioning method and the Merge Tool is introduced and an example on the basis of a PROFIBUS DP driven production plant is given.

Sven was born in 1978 in Dachau, Germany. He graduated with a Diplom-Ingenieur (graduate engineer) degree from the Technical University of Munich, Germany, in 2002. He worked as a research assistant at the Institute of Information Technology in Mechanical Engineering, Technical University of Munich. His research area during this time was the quality assurance of embedded and mechatronical systems. Herein, he focussed on the modelling and simulation in the automotive area and of production plants. His PhD thesis was about the commissioning of production plants. At present he is a postdoctoral visitor at the Department of Mechanical Engineering, University of Melbourne.