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IEEE Systems, Man, and Cybernetics Society, Singapore Chapter

Topic: **Approaches for Control of System in Adaptive Optics**
Speaker: **Prof. Oliver Sawodny**
 University of Stuttgart, Germany
Date: **7 February 2014, Friday**
Time: **11.00am to 12.00pm**
Venue: **E1-06-04** (*map of NUS can be found at <http://map.nus.edu.sg/>*)
Host: **A/Prof. Chew Chee Meng**

Abstract

In this talk, control problems in adaptive optics will be presented. After a short introduction, the functionality of these systems will be explained and ways to derive a dynamic model discussed. These approaches lead to partial differential equations, which can be analyzed by modal approaches. By the modal representation, a feed-forward control strategy by system inversion is developed and its effectiveness studied through several measurement experiments. In this talk, several methods for feedback control of these systems are discussed. Several examples of distributed parameter systems and their dynamic analysis will also be presented.

About the Speaker

Professor Oliver Sawodny received his diploma degree in electrical engineering from University of Karlsruhe, Germany in 1991 and his PhD degree from University of Ulm, Germany in 1996. In 2002 he became full professor at Ilmenau University of Technology, Germany, and joined University of Stuttgart, Germany in 2005 as Director of the Institute for System Dynamics. His research interest includes methods of differential geometry, trajectory generation, methods and application for mechatronic systems.

Admission is free. All are welcome to attend.