

## Department of Electrical and Computer Engineering

**Title: «Control of distributed control systems»**

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and  
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**Wednesday, 7<sup>th</sup> November 2012, 17:00 – 18:30**

**Room KENTP. ΠΤΕΡ. - E113, Old Campus  
University of Cyprus**

### **Abstract:**

Distributed control systems consists of a network of control systems. Examples of such systems include: underwater vehicles, aerial vehicles, autonomous guided vehicles on a container terminal, electric power systems of a region, and the distributed control system of a large-scale road network. Several case studies of the C4C Project will be described. Concepts of control of distributed control systems are formulated and several approaches to the control of these systems are reviewed. Further research and open problems are described. The lecture ends with a discussion of two more case studies of the C4C Project. The lecture is based on scientific cooperation with: Olivier Boutin, Pia L. Kempker, Jan Komenda, Tomas Masopust, Frank Ottenhof, Nicola Pambakian, Andre C.M. Ran, Jos Vrancken, and Yubin Wang. The research was financially supported by the European Commission as part of the C4C Project.

### **Biography:**

Jan H. van Schuppen is since 1 October 2012 affiliated as researcher with the the company Van Schuppen Control Research and as professor emeritus with the Department of Mathematics of the Delft University of Technology in Delft, The Netherlands. Formerly he was affiliated with the research institute Centrum voor Wiskunde en Informatica (CWI) in Amsterdam, The Netherlands. Van Schuppen's research interests include control of distributed and of hierarchical systems, control of discrete-event systems and of hybrid systems, stochastic control, realization, and system identification. In applied research his interests include engineering problems of control of motorway traffic, decentralized control of electric power systems, and control and system theory for the life sciences. He is Advisory-Editor of the journal Mathematics of Control, Signals, and Systems, was Associate Editor-at-Large of the journal IEEE Transactions Automatic Control, and was Department Editor of the journal Discrete Event Dynamic Systems. He was and is the advisor of 18 Ph.D. students, 12 post-docs, and 9 master level students. Finally, he was also the coordinator of the C4C Project (CON4COORD, Grant agreement INFSO-ICT-223844).