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**Peter Sagirow Distinguished Seminar Series**

About the Peter Sagirow Distinguished Seminar Series

With this annual seminar series the Institute for Systems Theory and Automatic Control intends to honor Peter Sagirow and the decisive role he played in the development of the field of control at the University of Stuttgart. Each year a highly distinguished researcher is brought to campus to report on the state of the art, achievements and challenges in the field of systems and control.

Distributed Systems and Control
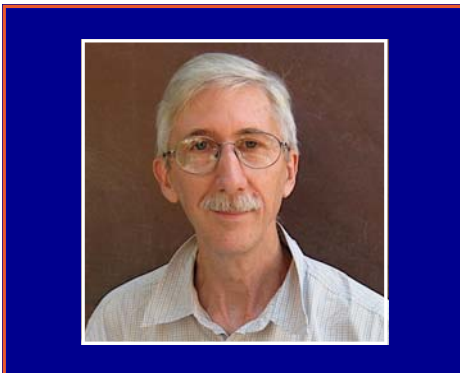
Prof. Bruce A. Francis

Electrical and Computer Engineering
University of Toronto
Toronto, Ontario
Canada

Abstract

The subject of distributed systems and control is current and vast: It includes synchronization and cooperative behaviour in nature (e.g., flocking birds), sensor networks, distributed algorithms, control over networks, and more. One interesting topic within distributed systems is that of robot networks: Systems of mobile robots that are required to cooperate in fulfilling a group task, such as mapping a region. We will review recent results in distributed robotics, explore the nature of distributed control theory, and propose topics for future research.

About the Speaker

Bruce A. Francis has held teaching and research positions at Berkeley, the University of Cambridge, McGill, Concordia, Yale, the University of Waterloo, Caltech, and the University of Minnesota.

Professor Francis has published widely on the subject of control theory. In particular, he is one of the fathers of modern H-infinity optimal control. His book „A Course in H-infinity Control Theory" (1987) was the first on the new subject he helped to pioneer.

He has received several awards, among many others two Outstanding Paper Awards for papers appearing in the IEEE Transactions on Automatic Control, the IEEE W.R.G. Baker Prize Award and has received three teaching awards at the University of Toronto.

Monday, 12 July 2010, 4:15 p.m.
Universität Stuttgart
Lecture Room: V 7.02, Pfaffenwaldring 7, Campus Stuttgart-Vaihingen