

UTC Institute for Advanced Systems Engineering

Distinguished Lecture Series

Dr. Manfred Morari
Automatic Control Laboratory
ETH Zurich

THE ROLE OF THEORY IN CONTROL PRACTICE

May 7, 2014 2 – 3 p.m. Storrs Campus, UTEB 150

Abstract: More than twenty years ago, I delivered a plenary lecture with the same title at the ACC in Boston. I will go back and reflect on the successes and failures, on what we have learned and which problems remain open. The focus will be on constrained control and the real time implementation of control algorithms. I will comment on the progress we have made and how our vastly more powerful computational resources have affected the design tools we have at our disposal. Throughout the lecture, industrial examples from the automotive and power electronics domains and the industrial energy sector will illustrate the arguments.

Speaker Bio: Manfred Morari was head of the Department of Information Technology and Electrical Engineering at ETH Zurich from 2009 to January 2012. He was head of the Automatic Control Laboratory from 1994 to 2008. Before that he was the McCollum-Corcoran Professor of Chemical Engineering and Executive Officer for Control and Dynamical Systems at the California Institute of Technology. He obtained the diploma from ETH Zurich and the Ph.D. from the University of Minnesota, both in chemical engineering. His interests are in hybrid systems and the control of biomedical systems. In recognition of his research contributions he received numerous awards, among them the Donald P. Eckman Award, the John R. Ragazzini Award and the Richard E. Bellman Control Heritage Award of the American Automatic Control Council, the Allan P. Colburn Award and the Professional Progress Award of the AIChE, the Curtis W. McGraw Research Award of the ASEE, Doctor Honoris Causa from Babes-Bolyai University, Fellow of IEEE, IFAC and AIChE, the IEEE Control Systems Technical Field Award, and was elected to the National Academy of Engineering (U.S.).