Computational and Implementation Issues in Robust Controller Design for Time Delay Systems

on
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at
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Abstract

Time delays appear in many control applications such as tele-operations, transport systems, communications, biological and chemical processes, etc. It is well known that, for systems with transport delay, all stabilizing controllers have a certain predictor structure. This is true for robust controllers for more general class of retarded and neutral time delays. In this talk we will focus on the numerical computational issues and implementation of such controllers.

Speaker

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Hitay Ozbay received his Ph.D. in Control Sciences and Dynamical Systems from the University of Minnesota in 1989. Dr. Ozbay was a Professor of Electrical and Computer Engineering at The Ohio State University (1991-2006), prior to joinging Bilkent University in 2002, on leave from OSU. Dr. Ozbay has authored/co-authored many technical papers in the area of robust control of infinite dimensional systems, and engineering applications of this theory. His research interests include biological systems modeling analysis and control, flow control problems in communication networks, design of PID controllers for unstable plants with time delays, and aerodynamic flow control.