Vortragsankündigung

Seminar Regelungssysteme LV 0430L 654

Montag, 8. Oktober 2007, 16.00 Uhr

Vortragsort: EN 220

Prof. David Levanony
Department of Electrical and Computer Engineering
Ben-Gurion University, Israel

Stochastic Linear Quadratic Adaptive Control: A Conceptual Scheme*

A conceptual adaptive linear-quadratic (LQ) control scheme is proposed. Its derivation is based on a study of a family of asymptotic maximum likelihood (AML) estimates and their associated limit sets. The geometric properties of such limit sets lead to the formulation of a time-varying, constrained optimization problem, whose solution is an inherently consistent estimate of the system's unknown parameters. When incorporated within a certainty-equivalence control scheme, these estimates yield optimal long-run LQ performance. The derivation of a recursive scheme will be briefly discussed.

* A joint work with Peter Caines