

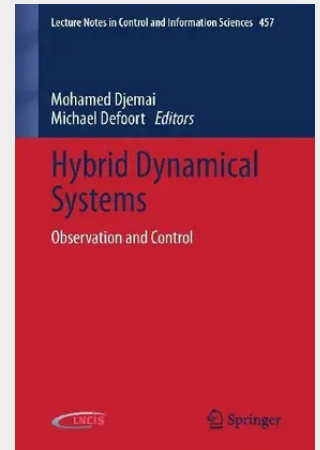
Hybrid Dynamical Systems

This book is a collection of contributions defining the state of current knowledge and new trends in hybrid systems – systems involving both continuous dynamics and discrete events – as described by the work of several well-known groups of researchers.

Hybrid Dynamical Systems presents theoretical advances in such areas as diagnosability, observability and stabilization for various classes of system. Continuous and discrete state estimation and self-triggering control of nonlinear systems are advanced. The text employs various methods, among them, high-order sliding modes, Takagi–Sugeno representation and sampled-data switching to achieve its ends. The many applications of hybrid systems from power converters to computer science are not forgotten; studies of flexible-joint robotic arms and – as representative biological systems – the behaviour of the human heart and vasculature, demonstrate the wide-ranging practical significance of control in hybrid systems. The cross-disciplinary origins of study in hybrid systems are evident.

Academic researchers and graduate students interested in hybrid and switched systems need look no further than *Hybrid Dynamical Systems* for a single source which will bring them up to date with work in this area from around the world.

This book is a collection of contributions defining the state of current knowledge and new trends in hybrid systems $\hat{\cdot}$ systems involving both continuous dynamics and discrete events $\hat{\cdot}$ as described by the work of several well-known groups of researchers. Hybrid Dynamical Systems presents theoretical advances in such areas as diagnosability, observability and stabilization for various classes of system. Continuous and discrete state estimation and self-triggering control of nonlinear systems are advanced. The text employs various methods, among them, high-order sliding modes, Takagi–Sugeno representation and sampled-data switching to achieve its ends. The many applications of hybrid systems from power converters to computer science are not forgotten; studies of flexible-joint robotic arms and $\hat{\cdot}$ as representative biological systems $\hat{\cdot}$ the behaviour of the human heart and vasculature, demonstrate the wide-ranging practical significance of control in hybrid systems. The cross-disciplinary origins of study in hybrid systems are evident. Academic researchers and graduate students interested in hybrid and switched systems need look no further than Hybrid Dynamical Systems for a single source which will bring them up to date with work in this area from around the world.



106,99 €

99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319107943

Medium: Buch

ISBN: 978-3-319-10794-3

Verlag: Palgrave Macmillan

Erscheinungstermin: 03.11.2014

Sprache(n): Englisch

Auflage: 2015

Serie: Lecture Notes in Control and Information Sciences

Produktform: Kartoniert

Gewicht: 5969 g

Seiten: 332

Format (B x H): 155 x 235 mm

