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Sommario/riassunto

This book provides a basic understanding of adaptive control and its applications in Flight control. It discusses the designing of an adaptive feedback control system and analyzes this for flight control of linear and nonlinear aircraft models using synthetic jet actuators. It also discusses control methodologies and the application of control techniques which will help practicing flight control and active flow control researchers. It also covers modelling and control designs which will also benefit researchers from the background of fluid mechanics and health management of actuation systems.The unique feature of this book is characterization of synthetic jet actuator nonlinearities over a wide range of angles of attack, an adaptive compensation scheme for such nonlinearities, and a systematic framework for feedback control of aircraft dynamics with synthetic jet actuators.