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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Basic Concepts: Academic State of the Art and Industrial State of Practice -- Robust Fault Detection in Aircraft Control Surface Servo-Loop: Oscillatory Failure Case -- Robust Fault Detection in Aircraft Control Surface Servo-Loop: Runaway and Jamming -- Non-conservative H-infinity/H2 FDD Design: LTI Case -- H-infinity/H2 FDD Design for LPV Case -- An Active Fault-tolerant Flight Control Strategy -- Final Remarks.
Sommario/riassunto	Fault Diagnosis and Fault-Tolerant Control and Guidance for Aerospace demonstrates the attractive potential of recent developments in control for resolving such issues as improved flight performance, self-protection and extended life of structures. Importantly, the text deals with a number of practically significant considerations: tuning, complexity of design, real-time capability, evaluation of worst-case performance, robustness in harsh environments, and extensibility when development or adaptation is required. Coverage of such issues helps to draw the advanced concepts arising from academic research back towards the technological concerns of industry. Initial coverage of basic definitions and ideas and a literature review gives way to a treatment of important electrical flight control system failures: the oscillatory failure case, runaway, and jamming. Advanced fault detection and diagnosis for linear and nonlinear systems are described. Lastly recovery strategies appropriate to remaining actuator/sensor/communications

resources are developed. The authors exploit experience gained in research collaboration with academic and major industrial partners to validate advanced fault diagnosis and fault-tolerant control techniques with realistic benchmarks or real-world aeronautical and space systems. Consequently, the results presented in Fault Diagnosis and Fault-Tolerant Control and Guidance for Aerospace, will be of interest in both academic and aerospace-industrial milieux. Advances in Industrial Control aims to report and encourage the transfer of technology in control engineering. The rapid development of control technology has an impact on all areas of the control discipline. The series offers an opportunity for researchers to present an extended exposition of new work in all aspects of industrial control. .

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