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| Autore                  | Theilliol Didier  |
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| Descrizione fisica      | 1 online resource (352 pages)   |
| Collana                 | Studies in Systems, Decision and Control, , 2198-4190 ; ; 467   |
| Altri autori (Persone)  | KorbiczJozef<br>KacprzykJanusz  |
| Disciplina              | 515.642   |
| Soggetti                | Automatic control<br>Computational intelligence<br>Dynamics<br>Nonlinear theories<br>Control and Systems Theory<br>Computational Intelligence<br>Applied Dynamical Systems  |
| Lingua di pubblicazione | Inglese   |
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| Livello bibliografico   | Monografia  |
| Nota di contenuto       | H_infinity Stochastic State-Multiplicative Uncertain Systems-Robust Luenberger Filters -- Anticipating the Loss of Unknown Input Observability for Sampled LPV Systems -- Luenberger Observer Design for Robust Estimation of Battery State of Charge with Application to Lithium-Titanate Oxide Cells -- Fault Detection and Diagnosis of PV Systems Using Kalman-Filter Algorithm Based on Multi-Zone Polynomial Regression -- Parity-Space and Multiple-Model Based Approaches to Measurement Fault Estimation -- Online Condition Monitoring of a Vacuum Process Based on Adaptive Notch Filters. |
| Sommario/riassunto      | The book consists of recent works on several axes either with a more theoretical nature or with a focus on applications, which will span a variety of up-to-date topics in the field of systems and control. The main market area of the contributions include: Advanced fault-tolerant   |

control, control reconfiguration, health monitoring techniques for industrial systems, data-driven diagnosis methods, process supervision, diagnosis and control of discrete-event systems, maintenance and repair strategies, statistical methods for fault diagnosis, reliability and safety of industrial systems artificial intelligence methods for control and diagnosis, health-aware control design strategies, advanced control approaches, deep learning-based methods for control and diagnosis, reinforcement learning-based approaches for advanced control, diagnosis and prognosis techniques applied to industrial problems, Industry 4.0 as well as instrumentation and sensors. These works constitute advances in the aforementioned scientific fields and will be used by graduate as well as doctoral students along with established researchers to update themselves with the state of the art and recent advances in their respective fields. As the book includes several applicative studies with several multi-disciplinary contributions (deep learning, reinforcement learning, model-based/data-based control etc.), the book proves to be equally useful for the practitioners as well industrial professionals.

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