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Titolo	Advances in diagnostics of processes and systems : selected papers from the 14th International Conference on Diagnostics of Processes and Systems (DPS), September 21-23, 2020, Zielona Gora (Poland) // Jozef Korbicz, Krzysztof Patan, Marcel Luzar, editors
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ISBN	3-030-58964-1
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (VIII, 184 p. 58 illus., 33 illus. in color.)
Collana	Studies in systems, decision and control ; ; Volume 313
Disciplina	610.28563
Soggetti	Artificial intelligence - Medical applications Artificial intelligence - Engineering applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Hybrid health-aware supervisory control framework with a prognostic decision-making -- Reconguration of nonlinear faulty systems via linear methods -- Tri-valued evaluation of residuals as a method of addressing the problem of fault compensation effect -- Leader-following formation control for networked multi-agent systems under communication -- Regular approach to additive fault detection in discrete-time linear descriptor systems -- Descriptor principle in residual filter design for strictly Metzler linear systems -- Hierarchical model for testing a distributed computer system -- Diagnostics of rotary vane vacuum pumps using signal processing, analysis and clustering methods -- Neural modelling of steam turbine control stage -- Diagnostic of calves body temperature by using thermal imaging camera and correction of camera errors -- Intruder detection on mobile phones using keystroke dynamic and application usage patterns -- . Application of deep learning to seizure classification -- Patient managed patient health record based on blockchain technology.
Sommario/riassunto	This book contains a collection of 13 carefully selected papers contributed by researches in technical and partial medical diagnostics as well as fault-tolerant control and constitutes a comprehensive study

of the field. Nowadays technical diagnostics and fault-tolerant control are a field of intensive scientific research that covers well-established topics along with emerging developments in control engineering, artificial intelligence, applied mathematics and statistics. At the same time, a growing number of applications of different fault diagnosis methods, especially in the electrical, mechanical, chemical and medical areas, are being observed. The aim of the book is to show the bridge between technical and medical diagnosis based on analytical and artificial intelligence methods and techniques. The book is divided into three parts: I. Fault-Tolerant Control and Reconfiguration, II. Fault Diagnosis of Processes and Systems, III. Medical Applications. The book is of interest to scientists, engineers and academics dealing with the problems of designing technical diagnosis and fault-tolerant control systems. Its target readers are also junior researchers and students of control, artificial intelligence and computer engineering.

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