Record Nr. UNINA9910483753503321 Theory and Engineering of Dependable Computer Systems and **Titolo** Networks: Proceedings of the Sixteenth International Conference on Dependability of Computer Systems DepCoS-RELCOMEX, June 28 – July 2, 2021, Wrocaw, Poland / / edited by Wojciech Zamojski, Jacek Mazurkiewicz, Jarosaw Sugier, Tomasz Walkowiak, Janusz Kacprzyk Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2021 3-030-76773-6 **ISBN** Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (527 pages) Advances in Intelligent Systems and Computing, , 2194-5365;; 1389 Collana Disciplina 004 Soggetti Computational intelligence **Dynamics** Nonlinear theories Artificial intelligence Computational Intelligence **Applied Dynamical Systems** Artificial Intelligence Sistemes informàtics Fiabilitat (Enginyeria) Enginyeria de programari Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Application of Assumption Modes and Effects Analysis to XMECA --Improving Effectiveness of the Risk Management Methodology in the Revitalization Domain -- Automated Music Generation Using Recurrent

Improving Effectiveness of the Risk Management Methodology in the Revitalization Domain -- Automated Music Generation Using Recurrent Neural Networks -- Non-exhaustive verification in Integrated Model of Distributed Systems (IMDS) using Vagabond algorithm -- Automatic multi-class classification of Polish complaint reports about municipal waste management -- Migration of Unit Tests of C# Programs -- Synchronization and scheduling of tasks in fault-tolerant computer systems with graceful degradation -- Comparison of selected

algorithms of traffic modelling and prediction in Smart City - Rzeszów -- Dependability Analysis using Temporal Fault Trees and Monte Carlo Simulation -- Hybrid parallel programming in high performance computing cluster.

Sommario/riassunto

This book contains papers on selected aspects of dependability analysis in computer systems and networks, which were chosen for discussion during the 16th DepCoS-RELCOMEX conference held in Wrocaw, Poland, from June 28 to July 2, 2021. Their collection will be a valuable source material for scientists, researchers, practitioners and students who are dealing with design, analysis and engineering of computer systems and networks and must ensure their dependable operation. Being probably the most complex technical systems ever engineered by man (and also—the most dynamically evolving ones), organization of contemporary computer systems cannot be interpreted only as structures built on the basis of (unreliable) technical resources. Their evaluation must take into account a specific blend of interacting people (their needs and behaviours), networks (together with mobile properties, cloud organization, Internet of Everything, etc.) and a large number of users dispersed geographically and constantly producing an unconceivable number of applications. Ever-growing number of research methods being continuously developed for dependability analyses apply the newest techniques of artificial and computational intelligence. Selection of papers in these proceedings illustrates diversity of multi-disciplinary topics which are considered in presentday dependability explorations.