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	Nota di contenuto	Multiclass SVM/HMM Vowels Recognition System Towards Improving Human Computer Interaction -- Numerical Simulation of the Passenger Side Airbag Deployment in Out-of-Position -- Critical Infrastructure Protection – How to Assess the Protection Efficiency -- Selection of Metrics for the Defect Prediction -- Hybrid Generalized Additive Wavelet-Neuro-Fuzzy-System and its Adaptive Learning -- Data Mining Algorithms in the Analysis of Security Logs from a Honeypot System -- About Synergy of Flows on Flower -- Estimation of Travel Time in the City Based on Intelligent Transportation System Traffic Data with the Use of Neural Networks -- Evaluation of Deletion Mutation Operators in Mutation Testing of C# Programs -- Tracing Life Cycle of Software Bugs -- Modification of Neural Network Tsang-Wang in Algorithm for CAD of Complex Systems with Higher Degree of Dependability -- Simulation and Experimental Analysis of Quality Control of Vehicle Brake Systems

Using Flat Plate Tester -- Analytical Identification of Parameters Influencing Measurement Quality Using Flat Brake Tester -- Arithmetic in Finite Fields Supporting Type-2 or Type-3 Optimal Normal Bases -- Stochastic Runge–Kutta Software Package for Stochastic Differential Equations -- The Assessment Method of the Organization of Municipal Waste Collection Zones -- NuSMV Model Verification of an Airport Traffic Control System with Deontic Rules -- Semi-Markov Model of Damage Process -- The Problem of Tyre Footprint Width Estimation by Fibre Optic WIM Sensors in Condition of Geometric Complexity -- Study of Dependencies Between Concrete Deterioration Parameters of Fly Ash-Based Specimens -- Influence of Data Uncertainty on The Optimum Inspection Period in a Multi-Unit System Maintained According to the Block Inspection Policy -- Effectiveness of Redundancy in Communication Network of Air Traffic Management System -- Resilience Assurance for Software-Based Space Systems with Online Patching: Two Cases -- A Mathematical Model to Regulate Roads Traffic in Order to Decongest the Urban Areas of Constantine City -- The Use of a Simulation Model of the Passenger Boarding Process to Estimate the Time of its Implementation Using Various Strategies -- WLAN System with Iterative Decoding of OFDM Multi-Symbols -- Context Information in a Collaborative Recommender System Deployed in Real Environment -- The Concept of the Effective Multi-Channel CSMA/CA Detector -- Clustering Context Items into User Trust Levels -- Dependability Metrics for Network Systems - Analytical and Experimental Analysis -- Assessing the Costs of Losses Incurred as a Result of Failure -- Impulse Transmission Model of Macroeconomic Cycle within the Framework of the Theory of Shocks: Aspect of Economic Security -- Multi-agent Systems for Intelligent Retrieval and Processing of Information.-Architecture for Internet of Things Analytical Ecosystem -- Optimal Path Evolution in a Dynamic Distributed MEMS-based Conveyor -- The Issue of Analyzing Measurement Data of Driving Speed in Large Urban Areas -- Implication of Availability of an Electrical System of a Wind Farm for the Farm's Output Power Estimation -- CPU Utilization Analysis of Selected Genetic Algorithms in Multi-Core Systems for a Certain Class Of Problems -- Monitoring Reliability of Embedded Systems -- Implementation Efficiency of BLAKE and Other Contemporary Hash Algorithms in Popular FPGA Devices -- Risk Analysis of Interference Railway GSM-R System in Polish Conditions -- Water Producers Risk Analysis Connected with Collective Water Supply System Functioning -- Analysis of Reshuffling Cost at a Container Terminal -- Scheduling in Grid Based on VO Stakeholders Preferences and Criteria -- Vulnerability of Passenger Transportation System – the Main Information Provided by Key Stakeholders. Case Study -- Asynchronous System for Clustering and Classifications of Texts in Polish -- Simulation-based Dependability Analysis of Systems in Multiple Time-Horizons -- Compression Codec Change Mechanisms During a VoIP Call -- Dependability Model of an Area Monitoring System with Mobile Sensors -- Supr: Adaptive Byzantine Fault-Tolerant Replication -- Flood Risk Assessment from Flash Floods in Bodva River Basin, Slovakia -- Invariant–based Performance Analysis of Timed Petri Net Models.

Sommario/riassunto

These proceedings present the results of the Eleventh International Conference on Dependability and Complex Systems DepCoS-RELCOMEX which took place in a picturesque Brunów Palace in Poland from 27th June to 1st July, 2016. DepCoS-RELCOMEX is a series of international conferences organized annually by Department of Computer Engineering of Wrocaw University of Science and Technology since 2006. The roots of the series go as far back as to the seventies of the

previous century – the first RELCOMEX conference took place in 1977 – and now its main aim is to promote a multi-disciplinary approach to dependability problems in theory and engineering practice of complex systems. Complex systems, nowadays most often computer-based and distributed, are built upon a variety of technical, information, software and human resources. The challenges in their design, analysis and maintenance not only originate from the involved technical and organizational structures but also from the complexity of the information processes that must be efficiently executed in a diverse, often hostile operational environment. Traditional methods of reliability evaluation focused only on technical resources are usually insufficient in this context and more innovative, multidisciplinary methods of dependability analysis must be applied. The diversity of the topics which need to be considered is well illustrated by the selection of the submissions in these proceedings with their subjects ranging from mathematical models and design methodologies through software engineering and data security issues up to practical problems in technical, e.g. transportation, systems.