## Table of Contents

Welcom	e
Commit	ees4
G	s and Control of Nonnegative Dynamical Models with a Network Structure
С	ical-oriented Approach to Improve the Programmability of a Robotic System
Z	ogic-based Network Intrusion Detection Systems
L	n-Awareness in Model of Cyber Physical System
M P M N	udy about Smart Integrated Utilities for Smart Cities
N	truction of Industrial Parts by using 3D Scanning Techniques
N	ogic Based Diagnosis of SF6 Switching Devices
IV.	cs Identification of Fluidic Muscle-actuated Planar Manipulator Using Two Nonlinear Models
F.	mpact of Online Courses on Engineering Education
/v	cement Learning as a Service
N	Assessment Using Computer Games in Rehabilitation
L	tion of Cloud-based Social Robotics in Cognitive Exercises for Elderly People
Z	hment of Meanline Compressor Mathematical Model with Active Blade Load Distribution Control
В	NN-based Real-Time Air Quality Monitoring System

Mixed Reality Test Environment for Autonomous Cars using Unity 3D and SUM0
CAD Design of Overvoltage Protection Systems Applied to Embedde Systems in Automotive
Investigation of the Maximum Power Point Position on a DSSC Solar Cell Using Different Irradiations
Modeling of Bus Transport Operative Planning Tasks
Sensorized Psychomotor Skill Assessment Platform Built on a Robotic Surgery Phantom
Employing Process Models for Surgical Training
Human ECG Data Collection, Digitalization, Streaming and Storing
Brain Tumor Segmentation from MRI Data Using Ensemble Learning and Multi-Atlas
A Multi-Range Approach for Cultural Heritage Survey: A Case Study of a Medieval Church in Slovakia
Deductive Synthesis of Bubble–Sort Using Multisets
Shape Recognition in Drone Images Using Simplified Fuzzy Indexing Tables
Behavioral Study of Various Radial Basis Functions for Approximation and Interpolation Purposes
Advantages of Anytime Algorithm for Multi-Objective Query Optimization
Construction of a General Model for Estimating Blood Pressure using Independent Components of Facial Skin Temperature in Consideration of the Mechanism of Variation

Estimation Precision of Fastest Constant Edge Weights Algorithm over	-4
Wireless Sensor Networks with Mobile Agents	) I
Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia	
Jozef Kenyeres	
Sipwise GmbH, Brunn am Gebirge, Austria	
Synchronous Distributed Consensus Algorithms for Extrema Finding with Imperfect Communication	57
Martin Kenyeres	,,
Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia	
Jozef Kenyeres	
Sipwise GmbH, Brunn am Gebirge, Austria	
User Interface of Smart Environment Based on Human Body Gestures	<b>i</b> 5
Introduction of Innovative SAP Development Solutions at University Level	71
Tamás Orosz	•
Óbuda University, Székesfehérvár, Hungary	
Artificial Neural Network for Predicting Depressive Symptoms in Women with Positive Papanicolaou  Smear Results before and after Diagnostic Procedures	'5
<b>Tomislav Nedeljkovic</b> Clinical Center Kragujevac, Kragujevac, Serbia <i>Irena Ilic</i>	
University of Belgrade, Belgrade, Serbia	
Getting it Right the Fourth Time: Goal-driven Behavior Using Vector Space Models	<b>31</b>
The Application of Optimum Self-Tuning Fuzzy Logic Controllers in Multi-Area Power Systems	
Including UPFC	<b>37</b>
Sajjad Ahmadi*, Donya Ashtiani Haghighi**, Milad Kheyrdoust*, Fakhteh Dini***, Kasra Nasim*  * Islamic Azad University, Ardabil, Iran  ** University of Tabriz, Tabriz, Iran	
*** Shahid Beheshti University, Tehran, Iran	
Al-based Framework for Deep Learning Applications in Grinding	<del>)</del> 5
** German Research Center for Artificial Intelligence GmbH (DFKI), Saarbrucken, Germany	
You Are What You Read: The Effect of Corpus and Training Task on Semantic Absorption	
in Recurrent Neural Architectures	)1
Nancy Fulda	
Brigham Young University, Provo, USA	
FUZZY-aided PID Controller is Optimized by GA Algorithm for Load Frequency Control of	
Multi-Source Power Systems  Sajjad Ahmadi*, Saeid Hojjati Talami*, Mostafa Andalib Sahnesaraie**, Fakhteh Dini***, Bahareh Tahernejadjozam****, Yazdan Ashgevari*  * Islamic Azad University, Ardabil, Iran  ** Alborz Electric Power Distribution Company, Alborz, Iran  *** Shahid Beheshti University, Tehran, Iran  **** Power Distribution Company of Tehran, Tehran, Iran	17
Punch-to-Punch Variations in Stamping Processes	3
Thomas Bergs, Philipp Niemietz, Tobias Kaufmann and Daniel Trauth RWTH Aachen University, Aachen, Germany	

Reinforcement Learning-based Outdoor Navigation System for Mobile Robots
Classifier Comparison using EEG Features for Emotion Recognition Process
Digital Imaging Processing and Reconstruction for General Applications
Communication and Reading Comprehension among Informatics and Engineering Students
RDS Coder Emulator Applied for Didactic Purposes
Community Detection in Multiplex Networks with a Genetic Algorithm using a Semi-Aggregate Method245  Nándor Kis, Noémi Gaskó  Babeṣ-Bolyai University, Cluj, Romania
SaneNet: Training a Fully Convolutional Neural Network Using Synthetic Data for Hand Detection
Considerations about using the Shapley Value for Influence Maximization in the case of the  Weighted Cascade Model
A Novel Neural Network Architecture for Radar Clutter Classification
Deep RAN: A Scalable Data-driven platform to Detect Anomalies in Live Cellular Network  Using Recurrent Convolutional Neural Network
Online Calibration of Microscopic Road Traffic Simulator
A Review of Activation Function for Artificial Neural Network
GPU Accelerated Heat Transfer Simulation Supporting Heuristics to Solve the Inverse Heat Conduction Problem
Training of Artificial Neural Network to Solve the Inverse Heat Conduction Problem

Reconstruction of the Heat Transfer Coefficients by using Hybrid (FWA + Gradient) Approach	<b>)</b> 9
AIMCS: An Artificial Intelligence-based Method for Compression of Short Strings	11
Al Chips on Things for Sustainable Society: A 28-nm CMOS, Fully Spin-to-spin Connected 512-Spin,  Multi-Spin-Thread, Folded Halved-Interaction Circuits Method, Annealing Processing Chip	19
The Effect of Spectral Resolution Upon the Accuracy of Brain Tumor Segmentation from Multi-Spectral MRI Data32  Ágnes Győrfi*,**, Tímea Fülöp**, Levente Kovács* and László Szilágyi*,**  * Óbuda University, Budapest, Hungary  ** Sapientia University, Tîrgu Mureş, Romania	25
Determine the Optimal Switching Angles Symmetrical Cascaded Multilevel Inverter using Improved Particle Swarm Optimization Algorithm	29
Authors Index	37