

Contents

Part I Smart Algorithms

Adaptive Curve Tailoring	3
Trond Steihaug and Wenli Wang	
Regularizing Soft Decision Trees	15
Olcay Taner Yıldız and Ethem Alpaydın	
A Simple Yet Fast Algorithm for the Closest-Pair Problem Using Sorted Projections on Multi-Dimensions	23
Mehmet E. Dalkılıç and Serkan Ergun	
DARWIN: A Genetic Algorithm Language	35
Arslan Arslan and Göktürk Üçoluk	
Distributed Selfish Algorithms for the Max-Cut Game	45
D. Auger, J. Cohen, P. Coucheney and L. Rodier	

Part II Analysis, Modelling and Optimisation

Distributed Binary Consensus in Dynamic Networks	57
Arta Babae and Moez Draief	
Computing Bounds of the MTTF for a Set of Markov Chains	67
F. Ait-Salaht, J. M. Fourneau and N. Pekergin	
Analysing and Predicting Patient Arrival Times	77
Tiberiu Chis and Peter G. Harrison	
Optimal Behaviour of Smart Wireless Users	87
Boris Oklander and Erol Gelenbe	

Hyper-Heuristics for Performance Optimization of Simultaneous Multithreaded Processors	97
I. A. Güney, Gürhan Küçük and Ender Özcan	
A Model of Speculative Parallel Scheduling in Networks of Unreliable Sensors.	107
Zhan Qiu and Peter G. Harrison	
Energy-Aware Admission Control for Wired Networks.	117
Christina Morfopoulou, Georgia Sakellari and Erol Gelenbe	
 Part III Computational Linguistics	
Named Entity Recognition in Turkish with Bayesian Learning and Hybrid Approaches	129
Sermet Reha Yavuz, Dilek Küçük and Adnan Yazıcı	
Transfer Learning Using Twitter Data for Improving Sentiment Classification of Turkish Political News	139
Mesut Kaya, Guven Fidan and I. Hakkı Toroslu	
A Fully Semantic Approach to Large Scale Text Categorization	149
Nicoletta Dessì, Stefania Dessì and Barbara Pes	
Emotion Analysis on Turkish Texts	159
Z. Boynukalin and P. Karagoz	
A Comparative Study to Determine the Effective Window Size of Turkish Word Sense Disambiguation Systems	169
Bahar İlgen, Eşref Adalı and A. Cüneyd Tantuğ	
 Part IV Computer Vision	
Eyes Detection Combined Feature Extraction and Mouth Information.	179
Hui-Yu Huang and Yan-Ching Lin	
Depth from Moving Apertures.	189
Mahmut Salih Sayar and Yusuf Sinan Akgül	
Score Level Fusion for Face-Iris Multimodal Biometric System	199
Maryam Eskandari and Önsen Toygar	

Feature Selection for Enhanced 3D Facial Expression Recognition Based on Varying Feature Point Distances	209
Kamil Yurtkan, Hamit Soyel and Hasan Demirel	

Part V Data and Web Engineering

DAPNA: An Architectural Framework for Data Processing Networks	221
Hasan Sözer, Sander Nouta, Andreas Wombacher and Paolo Perona	

Crescent: A Byzantine Fault Tolerant Delivery Framework for Durable Composite Web Services	231
Islam Elgedawy	

Morphological Document Recovery in <i>HSI</i> Space	241
Ederson Marcos Sgarbi, Wellington Aparecido Della Mura, Nikolas Moya and Jacques Facon	

Ontological Approach to Data Warehouse Source Integration	251
Francesco Di Tria, Ezio Lefons and Filippo Tangorra	

Adaptive Oversampling for Imbalanced Data Classification	261
Şeyda Ertekin	

Part VI Wireless Sensor Networks

Energy-Aware Distributed Hash Table-Based Bootstrapping Protocol for Randomly Deployed Heterogeneous Wireless Sensor Networks	273
Ghofrane Fersi, Wassef Louati and Maher Ben Jemaa	

Sensor-Activity Relevance in Human Activity Recognition with Wearable Motion Sensors and Mutual Information Criterion	285
Oğuzcan Dobrucalı and Billur Barshan	

Routing Emergency Evacuees with Cognitive Packet Networks	295
Huibo Bi, Antoine Desmet and Erol Gelenbe	

Detection and Evaluation of Physical Therapy Exercises by Dynamic Time Warping Using Wearable Motion Sensor Units	305
Aras Yurtman and Billur Barshan	

Part VII Network Security, Data Integrity and Privacy

Commutative Matrix-Based Diffie-Hellman-Like Key-Exchange Protocol	317
Alexander G. Chefranov and Ahmed Y. Mahmoud	
Anonymity in Multi-Instance Micro-Data Publication	325
Osman Abul	
Homomorphic Minimum Bandwidth Repairing Codes	339
Elif Haytaoglu and Mehmet Emin Dalkilic	
Recreating a Large-Scale BGP Incident in a Realistic Environment	349
Enis Karaarslan, Andres Garcia Perez and Christos Siaterlis	
Uneven Key Pre-Distribution Scheme for Multi-Phase Wireless Sensor Networks	359
Onur Catakoglu and Albert Levi	
NEMESYS: Enhanced Network Security for Seamless Service Provisioning in the Smart Mobile Ecosystem	369
Erol Gelenbe, Gökçe Görbil, Dimitrios Tzovaras, Steffen Liebergeld, David Garcia, Madalina Baltatu and George Lyberopoulos	
Towards Visualizing Mobile Network Data	379
Stavros Papadopoulos and Dimitrios Tzovaras	
Infrastructure for Detecting Android Malware	389
Laurent Delosières and David García	
NEMESYS: First Year Project Experience in Telecom Italia Information Technology	399
Madalina Baltatu, Rosalia D’Alessandro and Roberta D’Amico	
Android Security, Pitfalls and Lessons Learned	409
Steffen Liebergeld and Matthias Lange	
Mobile Network Threat Analysis and MNO Positioning	419
George Lyberopoulos, Helen Theodoropoulou and Konstantinos Filis	

**Mobile Network Anomaly Detection and Mitigation:
The NEMESYS Approach** 429
Omer H. Abdelrahman, Erol Gelenbe, Gökçe Görbil and Boris Oklander

Author Index 439