Table of Contents

Particle Swarm Optimization for Digital Image Watermarking	1
A Hardware Design for Portable Continuous Wave Diffuse Optical Tomography	9
An XML-Based Data Model for Moving Object Database	19
Improving Response Time, Availability and Reliability through Asynchronous Replication Technique in Cluster Architecture of Web Server Cluster Aznida Hayati Zakaria, Wan Suryani Wan Awang, Zarina Mohamad, Ahmad Nazari Mohd Rose, and Mustafa Mat Deris	29
Change Detection in Ontology Versioning: A Bottom-Up Approach by Incorporating Ontology Metadata Vocabulary	37
Controlling Multi Algorithms Using Round Robin for University Course Timetabling Problem	47
Strategy Modeling and Classifier Training for Share Trading Yain-Whar Si, Weng-Lon Lei, and Chi-Chong Chiu	56
BT+-tree: A New Index for Temporal Information in Web Pages	68
Rough Set Approximations on Granular Structures and Feature Characterizations	79
Recursive Query Facilities in Relational Databases: A Survey	89
Semantic Constraint-Based XML Updating	100



Coupling Ontology with Rule-Based Theorem Proving for Knowledge Representation and Reasoning	110
On Defining Functional Dependencies in XML Schema	120
The Lower and the Upper Systems of Rules in Tables with Missing Values	132
Data Warehouse Discovery Framework: The Foundation	142
Data Warehouse Discovery Framework: The Case Study	155
An Elitist-Ant System for Solving the Post-Enrolment Course Timetabling Problem	167
An Improved Back Propagation Neural Network Algorithm on Classification Problems	177
Great Deluge Algorithm for Rough Set Attribute Reduction	189
Syntactic Reordering for Arabic-English Phrase-Based Machine Translation	198
The Concept of Indiscernibility Level of Rough Set to Reduce the Dendrogram Instability	207
Dual Quorum Replication (DQR): A Protocol for Data Replication in Data Grid	226
Fingerprint Area Detection in Fingerprint Images Based on Enhanced Gabor Filtering	234
Portable Brain-Heart Monitoring System	241

Table of Contents	XIII
Dermatologic Diseases and Fingerprint Recognition Eva Brezinova, Martin Drahansky, and Filip Orsag	251
Changes in Cognitive Performance Due to Three Types of Emotional Tension	258
Mi-Hyun Choi, Su-Jeong Lee, Jae-Woong Yang, Ji-Hye Kim, Jin-Seung Choi, Jang-Yeon Park, Jae-Hoon Jun, Gye-Rae Tack, Dae-Woon Lim, and Soon-Cheol Chung	
Amino Acid Substitution Positions on the VP7 and NSP4 Molecules of Rotavirus Circulating in China	265
A Time-Frequency HRV Processor Using Windowed Lomb Periodogram	273
Molecular Markers Associated with Low Temperature Tolerance in Winter Wheat	283
Improving the Ability of Mining for Multi-dimensional Data Yong Shi and Tyler Kling	291
Hospital RFID-Based Patient u-Healthcare Design over Wireless Medical Sensor Network	29 9
Author Index	309