Table of Contents

| Data Mining Approach | 1 |
|--|-----|
| AF or DF, and How to Configure an Optimal Mixed AF-DF Relay System? | 17 |
| Hsiao-Hwa Chen | |
| Cyber-Physical Intelligence in the Context of Power Systems | 19 |
| Interactive Navigation of Image Collections Gerald Schaefer | 30 |
| Environmental Diversity Techniques of Software Systems | 37 |
| Multimedia Standards. History. State of Art Peter L. Stanchev | 39 |
| Application of Wavelets and Kernel Methods to Detection and Extraction of Behaviours of Freshwater Mussels | 43 |
| Test Cost Constraint Reduction with Common Cost | 55 |
| Ensembles of Bireducts: Towards Robust Classification and Simple Representation | 64 |
| Efficient Implementation of Recursive Queries in Major Object Relational Mapping Systems | 78 |
| Partial Aggregation Using Hibernate | 90 |
| High Speed Optical Coherent Transmission System Using Narrowband FM Subcarrier Multiplexing | 100 |



| Design Education for the Creativity Improvement of the Students of Engineering College | 108 |
|---|-----|
| An-Na Kang, Sang-Cho Chung, and Jin-Hee Ku | |
| Frameworks for Multi-purpose U-Health Care Interface | 120 |
| Toward New Vision of XLINK | 131 |
| Design and Implementation of Ubiquitous Pig Farm Management System Using iOS Based Smart Phone Jeong-hwan Hwang and Hyun Yoe | 147 |
| Design of Cattle Barn Management System Based on Thermal Imaging Data | 156 |
| Design and Implementation of Wireless Sensor Network Based Livestock Activity Monitoring System | 161 |
| Design of Integrated Control System for Preventing the Spread of Livestock Diseases | 169 |
| Hop-Count Based Energy Efficient Traffic Control Mechanism in Wireless Sensor Network | 174 |
| An Energy-Efficient Routing Algorithm in Wireless Sensor Networks Yong-Jae Jang, Si-Yeong Bae, and Sung-Keun Lee | 183 |
| A Study on SOAP-Based Standard Platform for the Connection Activation of Report Management Systems | 190 |
| The 4-Tier Design Pattern for the Development of an Android Application | 196 |
| A Study on the Power Divider of the Microstrip Antenna for Identification Friend or Foe Radar | 204 |

| Table of Contents | XIII |
|--|------|
| An Approach to Access the Distributed Data Based on the Multi-Agent System for Interoperability | 215 |
| Design and Implementation of a Remote Control for IPTV with Sensors | 223 |
| The end-to-end Reliability Algorithms Based on the Location Information and Implicit ACK in Delay Tolerant Mobile Networks | 229 |
| A Study on Automatic Analysis of Social Network Services Using Opinion Mining | 240 |
| On the Security of a Robust Watermarking Scheme Based on RDWT-SVD | 249 |
| Experiment and Verification of Teaching Fractal Geometry Concepts Using a Logo-Based Framework for Elementary School Children Yeonghae Ko and Namje Park | 257 |
| Secure RFID Personal Data Management Using Privacy Reference Profile | 268 |
| A Study on the Secure Home Healthcare Wireless Service | 277 |
| Cryptanalysis of the User Authentication Scheme with Anonymity Woongryul Jeon, Jeeyeon Kim, Junghyun Nam, Youngsook Lee, and Dongho Won | 285 |
| An Improved Anonymous Electronic Prescription Scheme | 293 |
| Advanced Malware Variant Detection Algorithm Using Structural Characteristic of Executable File | 301 |
| Cryptanalysis of a Group Key Transfer Protocol Based on Secret | 900 |
| Sharing | 309 |

XIV Table of Contents

| Protection Profile for Data Leakage Protection System Hyun-Jung Lee and Dongho Won | 316 |
|--|-----|
| Security Analysis on Digital Signature Function Implemented in PDF Software | 327 |
| Sunwoo Park, Changbin Lee, Kwangwoo Lee, Jeeyeon Kim, Youngsook Lee, and Dongho Won | |
| Information Technology Security Evaluation Using CERT C Secure Coding Standard | 335 |
| USN Middleware Access Control of Sensor Network and Selective Encryption of Information | 343 |
| Enhanced Code-Signing Scheme for Smartphone Applications Inkyung Jeun, Kwangwoo Lee, and Dongho Won | 353 |
| A Variant of Schnorr Identity-Based Identification Scheme with Tight | |
| Reduction | 361 |
| Implementation of Clinical Decision Support System Architecture Jeong Ah Kim, Min Hee Choi, and InSook Cho | 371 |
| ProcessCodi: A Case Study on Social BPM through Integration of SNS, Mind Map, and BPMS | 378 |
| Integrated Process Assessment Framework to Be Enforced Functional Safety | 384 |
| Guideline for Moodle Customization | 391 |
| The Development of an Interactive Digital Textbook in Middle School English | 397 |
| Construction of Online Behavior Monitoring System | 406 |
| A Bootstrapping Method for Learning from Heterogeneous Data Ngo Phuong Nhung and Tu Minh Phuong | 413 |
| Author Index | 423 |