2010 First ACIS International Symposium on Cryptography, and Network Security, Data Mining and Knowledge Discovery, E-Commerce and Its Applications, and **Embedded Systems**

(CDEE 2010)

Qinhuandao, Hebei, China 23 – 24 October 2010



IEEE Catalog Number: CFP1060M-PRT ISBN:

978-1-4244-9595-5

2010 First ACIS International Symposium on Cryptography, and Network Security, Data Mining and Knowledge Discovery, E-Commerce and Its Applications, and Embedded Systems

CDEE 2010

Table of Contents

Message from the General Chair Message from the Symposium Chairs Program Committee and Reviewers	xii
	xiii
	xiv
Keynotes	xvi
Symposium on Computing and Algorithms	
A Method for Nonlinear Equation's Simple Roots	3
Feng Gao	
A Parallel Algorithm Based on Prefix Tree for Sequence Pattern Mining	6
Algorithms for Parallel Machine Scheduling on Any Number of Machine	12
An Optimization Model of Elevators Group Zoning Dispatching and Its	
Application	18
Donghua Wang and Baofeng Li	
ARMA Model Parameter Optimized Estimate Method	22
Atuomorphism Group of Simple Lie Algebra C_q[x^±1, y^±1, z^±1]/C	27

Block Diagonalization and a Numerical Method of the Eigenproblem for an n×n Normal Matrix	31
Xi-juan Lou, Hai-jun Chen, and Liu Jie	
Completeness of Random Exponential Systems in the Weighted Banach Space	34
Yan Feng and Liu Xiaoling	
Discussion of Complex integration on Complex Contours	38
E-convex Bilevel Programming	41
Extrapolation Methods to Compute the Hypersingular Integral on Interval	44
Fuzzy Set Model of Locality Problem in Ubiquitous Computing	49
Legendre Wavelets Method for Nonlinear Fractional Differences Equation	53
Mathematical Method of a New Fast BEM for 2D Potential Problems	57
Note on Two- <i>φ</i> -Tolerance Competition Graphs	59
Ohba's Conjecture is True for Graphs K_6,3*t,2*(k-2t-4),1*(t+3)	63
On the Ruin Probability for a Dependent Risk Model under the Heavy-Tailed	67
Random Approximation with Weak Contraction Random Operator and Random Fixed Point Theorem for Nonexpansive Random Mapping	71
Research and Design of Data Analysis Method Based on Intelligence Computation	76
Wandui Mao, Lihua Wang, Yu Lei, Haiguang Xu, and Changxin Shao	
S*-pairwise Compactness in L-bitopological Space	81
Shrinking Projection Methods for a Sequence of Hemi-Reltively Nonexpansive Mappings in Banach Spaces	86
Lingmin Zhang, Suhong Li, Zuoli Chen, Juan Du, and Mingjing Gao	
Some Limit Properties for Nonhomogeneous Tree Indexed Markov Chains	91

Spline Estimate of Nonlinear Trend for Time Series	95
Studying About Mechanism of Pronunciation "mum" Based on Method of Functional Data Analysis	99
Chen Yizhi and Li Jinchang	
The Bilinear Form of a Class of Lie Algebra	104
The Calculation of the Customer Potential Value Using Association Algorithm	108
The Complete Asymptotic Expansion for the Operators of Bleinmann-Butzer and Hahn-Durrmeyer with Double Parameters <i>a, ß</i>	114
The High Order Zero-Difference Representation of the Solutions to a System of Vandermonde Linear Equations	116
The MacWilliams Relations of Liner Codes over F_2+uF_2	119
The Reliability Analysis of the Repairable System	123
The Research of Singularity about 3D Potential Problem FM-BEM	126
The Dual of a Special Martingale Hardy Space	129
The Existence of the Solution of the Extended General Mixed Variational Inequalities	135
The Generalization of Trichotomy and Its Application	139
TR-BFGS Algorithm for Multi-layer Feed-Forward Neural Networks	143
Universal Adjoint Action for Quantum Algebra <i>wsl_q</i> (2)	147
Variational Inequality on a Class of Variable Coefficient Elliptic Boundary Value Problems	151

Symposium on Information Security and Applications A Comparable Study on PNCC in Speaker Diarization for Meetings157 Qiao Li, Qing Fan, Yunpeng Xiao, and Weiping Ye A Data Hiding System Based on Length of English Text......161 Liu Cuilin, Shen Yongjun, Zhang Guidong, and Di Changyan A MAS Application Research in City Traffic System167 Chunmei Chi and Feng Gao A Method of Security Gradation against RSA IEA170 Tan Wen-Xue, Pan Mei-sen, Wang Xi-Ping, and Shu Xiao-He A New Coding Algorithm for Information Security Based on Strong Calculation and Uniform Scattering175 Hongxia Zheng and Xianyang Zeng Study of the Thinning Algorithm for Thenar Palmprint179 Qiulin Zhang and Xijun Zhu Analysis of Divisibility in Thenar Palmprint with Texture Features183 Xijun Zhu and Dazhuan Liu Applying a Multi-paradigm Approach to Implementing Wireless Sensor Network Based River Monitoring187 Jo Ueyama, Danny Hughes, Ka Lok Man, Sheng-Uei Guan, Nelson Matthys, Wouter Horré, Sam Michiels, Christophe Huygens, and Wouter Joosen Base on the BP Network of Chinese Studies Recognitions System192 Du Chunmei, Dai Changming, and Zhao Jianguang Comments on Cache-Timing Attacks on Stream Ciphers196 Matt Henricksen Comparison between Nonnormal Process Capability Study Based on Two Jie Rong Yang, Xiang Dong Song, and Zhe Ming Context-Aware Service-Oriented Architecture for Power Distribution Systems206 Kaiyu Wan and Vasu Alagar Density-Based Data Streams Subspace Clustering over Weighted Sliding Jiadong Ren, Shiyuan Cao, and Changzhen Hu Design and Implementation of Campus Data Sharing Based on the Web Shuyuan Yang and Xiaoqing Lu Improving VQ Index Compression with Modified Relative Index Table221 Hung-Min Sun, Bying-He Ku, Chung-Chi Wu, and Ting-Yu Lin

MIDI-Based Software for Real-Time Network Performances	226
Shengzhong Yuan, Yongzhao Lu, and Hong He	
Research on Enterprise Bionic and ERP Application	231
Research on the Governance Structure of Urban Commerce Zone Based on Life Cycle Evolution	235
Security Design on Construction Machinery Running Attention System	239
Study of Members Damage Early-Warning System for Frame Structures Based on Neural Network	243
Study of Noise Reduction about Economic Time Series Data Based on ICA	249
Study on the Self-Organization Evolutionary Process of Cluster Innovation Based on the Theory of Knowledge Flow Chen Wang, Hai-yan Yan, Bo Xu, and Yang Zheng	253
System Architecture Directions for Tangible Cloud Computing	258
T-Chord: A Two-Layer Routing Model for Chord	263
Technique and Application of End-Hopping in Network Defense	266
Text Clustering by 2D Cellular Automata Based on the N-Grams	271
The Design and Implementation of Application Communication Based on Embedded Network Terminal	278
The Security Research of Network Access Control System	283
The Study of Island Remote Sensing Image Enhancement	289
Towards a Unified Framework for Cyber-Physical Systems (CPS)	292

Symposium on Information and Control

A New Kind of Indirect Adaptive Fuzzy Control Which Based on Type-2 Fuzzy	000
Systems Cui-yi Xiao, Ying Yu, Yanrong Dong, and Jian-ping Liu	299
A Research on Discrimination of CET-4 Writing Test Based on Sugeno Measure	207
Shi Weixuan and Huang Yaohua	
Analysis of the Factors Affecting the Income of the Farmers in Rural Tourism of Dujiangyan City on the Base of Regression Model	311
Junzhang He, Guozhu He, Bo Yi, and Peng Li	
CAE Applied to Dynamic Optimal Design for Large-Scale Vibrating Screen	316
Clear-Level Robot Based on Laser Control and Measurement	321
Constructing Copulas on the Parabolic Boundary of Kendall's Tau-Spearman's Rho Region	324
Zhiqiang Zhang and Xiaoyi Yang	
Construction of Combination Forecasting Model and Related Validation——Based on Combined Forecast of Sales Tax and Enterprise Income Tax in Heilongjiang Province	328
Comparison between Nonnormal Process Capability Study Based on Two	
Kinds of Transformations Jie rong Yang, Xiang dong Song, and Zhe Ming	332
Design of Fault Diagnosis Instrument for Speed Control System Based on Virtual Instrument	337
Di Chang-an, Jiang Dong-dong, and Kong De-ren	
Easily Create Context Help	341
Fuzzy Comprehensive Evaluation Model in Work of Teacher Recruitment	346
Global Robust Stability Analysis Interval Bidirectional Associative Memory Neural Networks with Inverse Lipschitz Neuron Activations Yaning Gu, Deyou Liu, Jingwen Zhang, and Wenjuan Wu	349
Line-Skeleton Extraction of 3D Meshes Based on Geometry Segmentation	354

Conditions of Pseudomonas Aeruginosa	358
Jing Tian, Jing Wang, Yong-Jun Zhou, Han-Ping Dong, and Li Yu	
Precision Virtual Spectrum Analyzer	362
Mingming Zhang, Jinyao Li, and Longxu Li	
Research on the Influence Factors of the Braked Force Coefficient	366
Resistance Capability of Irradiation Room by Explosive Load	370
T-Colorings of Multigraphs	374
The Decision Model Research Based on Cooperative Game with Interest Subject of Venture Capital Investment	378
The Designing of Serial Communication Based on RS232	382
The Development Stage Positioning Research for an Innovative City	385
The Exploitation of Electronic Government Administration System Applied to Submission	390
The Improvement of Transductive Support Vector Machine and Its Application to the Environmental Monitoring of Greenhouse Plant Growth	393
The Processing Method of Chinese Characters in TCL Scripting Language	398
The Standard S Control Chart with Run Rules	401
Three-Motor Synchronous Speed-Regulation System Based on RBF Neural Network Control	405
To Improve the Measurement of the Brewster Angle and the Refractive Index	
of the Glass by Using CCD and Spectrometer	410
Unified Approach to Construct 8X8 Binary Matrices with Branch Number 5	413
Andh an la dan	447