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# Mathematical and Computer Modelling

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## Editorial

### Financial IT and Security

Due to the development of wire/wireless internet technology, various on-line financial transaction services are introduced and the numbers of transaction are increasing also with the technology. However, since new attacking methods which interrupt normal financial transactions (phishing, keyboard information hacking, memory leakage, network channel hooking etc.) appear, they have become obstacles on the development of financial transactions which considers the importance of trust more than any other on-line services. New security technology and management system in terms of user identification and authentication, financial transaction denial prevention, and guarantee etc. are developed to minimize such on-line financial transaction damages. In this special issue, we have reviewed research trends regarding financial IT security technology and management system which should guarantee trust more than financial transactions. Papers on practical as well as on theoretical topics and problems are invited.

- Anonymity and Privacy
- Authentication and Identification
- Biometrics
- Certification and Authorization
- Commercial Cryptographic Applications
- Transactions and Contracts
- Digital Cash and Payment Systems
- Financial Regulation and Reporting
- Game Theoretic Approaches to Security
- Identity Theft, Spam, Phishing and Social Engineering
- Micro Finance and Micro Payments
- Monitoring, Management and Operations
- RFID-Based and Contact-less Payment Systems
- Risk Assessment and Management
- Secure Banking and Financial Web Services
- Securing Emerging Computational Paradigms
- Security and Risk Perceptions and Judgments
- Security Economics
- Smartcards and Secure Tokens

We received lots of manuscripts. Each manuscript was blindly reviewed by at least three reviewers consisting of guest editors and external reviewers. After the review process, 25 manuscripts were finally selected for this special issue. The selected papers are as follows:

1. Probabilistic Trust aware Data Replica Placement Strategy for Online Video Streaming Applications in Vehicular Delay Tolerant Networks
2. CVaR Measurement and Operational Risk Management in Commercial Banks Based on Peak Value Method of Extreme Value Theory
3. Option Valuation by a Self-exciting Threshold Binomial Model
4. The Study of Defined Buying Factors Affecting Trust Building and Service Performance in E-commerce
5. B2B Evaluation Framework on e Financial Guarantee Service
6. Blind Image Watermarking Method based on Chaotic Key and Dynamic Coefficient Quantization in DWT Domain
7. Multi-Recastable E-Bidding Game with Dual-Blindness
8. Is ISMS for the Financial Organizations Effective on their Business?
9. A Novel Smart Card and Dynamic ID based Remote User Authentication Scheme for Multi-server Environment

10. MSRC: (M)icropayment (S)cheme with Ability to (R)eturn (C)hanges
11. A Novel Image Based Implicit Password Authentication System (IPAS) for Mobile and Non-Mobile Devices
12. A Study on the Security of Internet Banking and Financial Private Information in South Korea
13. Fast Segmentation and Adaptive SURF Descriptor for Iris Recognition
14. Use of Geometric Features of Principal Components for Indexing Biometric Database
15. Verifier-based Computation- and Communication-Efficient 3EKE Protocols
16. A Study on Business Opportunity for Small Smart Devices in Finance
17. A Novel Authenticated Encryption Scheme With Convertibility
18. A Secure Electronic Cash Based on a Certificateless Group Signcryption Scheme
19. Identity-based Partially Blind Signature in the Standard Model for Electronic Cash
20. A new logo Watermarking based on Redundant Fractional Wavelet Transform
21. Legitimate-Reader-Only Attack on MIFARE Classic
22. User Efficient Recoverable Off-Line E-Cash Scheme with Fast Anonymity Revoking
23. On Gender Differences in Consumer Behavior for Online Financial Transaction of Cosmetics
24. Design and Implementation of Efficient Defense Mechanism against ARP Spoofing Attacks using AES and RSA
25. Goal-driven Approach for Adaptive Service Composition using Planning

Finally, we would like to thank all authors for their contributions to this special issue. We also extend our thanks to the following external reviewers for the excellent job that they did in reviewing the manuscripts.

*Guest Editors*

Prof. Hangbae Chang\*

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