ISSN 1976-913X (Print) ISSN 2092-805X (Electronic)

JOURNAL OF INFORMATION PROCESSING SYSTEMS Volume 17, Number 1 (Serial Number 67), February 2021

SkelGAN: A Font Image Skeletonization Method	
Debbie Honghee Ko, Ammar Ul Hassan, Saima Majeed, and Jaeyoung Choi	1
• Development of a Targeted Recommendation Model for Earthquake Risk Prevention in the Whole Disaster Chain	
Xiaohui Su, Keyu Ming, Xiaodong Zhang, Junming Liu, and Da Lei	14
· Simulation of a Mobile IoT System Using the DEVS Formalism	
Jung Hyun Im, Ha-Ryoung Oh, and Yeong Rak Seong	28
• Query Optimization on Large Scale Nested Data with Service Tree and Frequent Trajectory	
Li Wang and Guodong Wang	37
• New Two-Level L1 Data Cache Bypassing Technique for High Performance GPUs	
Gwang Bok Kim and Cheol Hong Kim	51
• An Energy Efficient Multi-hop Cluster-Head Election Strategy for Wireless Sensor Networks	
Liquan Zhao and Shuaichao Guo	63
• Default Prediction of Automobile Credit Based on Support Vector Machine	
Ying Chen and Ruirui Zhang	75
• Re-SSS: Rebalancing Imbalanced Data Using Safe Sample Screening	
Hongbo Shi, Xin Chen, and Min Guo	89
• Effective and Efficient Similarity Measures for Purchase Histories Considering Product Taxonomy	
Yu-Jeong Yang and Ki Yong Lee	107
• Multiple Properties-Based Moving Object Detection Algorithm	
Changjian Zhou, Jinge Xing, and Haibo Liu	124
• Supply Chain Trust Evaluation Model Based on Improved Chain Iteration Method	
Hongqiang Jiao, Wanning Ding, and Xinxin Wang	136

(Continued on outside back cover)



JPS

JOURNAL OF INFORMATION PROCESSING SYSTEMS

67

February

2021

- (Continued from outside front cover)
- The Future of Quantum Information: Challenges and Vision
  Dohyun Kim, Jungho Kang, Tae Woo Kim, Yi Pan, and Jong Hyuk Park
  151
- Discovering Community Interests Approach to Topic Model with Time Factor and Clustering Methods

Thanh Ho and Tran Duy Thanh 163

• Assisted Magnetic Resonance Imaging Diagnosis for Alzheimer's Disease Based on Kernel Principal Component Analysis and Supervised Classification Schemes

Yu Wang, Wen Zhou, Chongchong Yu, and Weijun Su 178

- On-Demand Remote Software Code Execution Unit Using On-Chip Flash Memory Cloudification for IoT Environment Acceleration
  - Dongkyu Lee, Moon Gi Seok, and Daejin Park 191

Optimized Chinese Pronunciation Prediction by Component-Based Statistical Machine Translation
 Shunle Zhu 203



KIPS Korea Information Processing Society

> #1002, Yongseong Biztel, Hangangno 2-ga, Yongsangu, Seoul, Korea Phone=+82-2-2077-1414 Fax: +82-2-2077-1472 Homepage: http://jips-k.org