

Table of Contents

A Novel Social Context-Aware Data Forwarding Scheme in Mobile Social Networks **1**

*Fang Xu, Huyin Zhang, Min Deng, Ning Xu, Zhiyong Wang,
Zenggang Xiong and Conghuan Ye*

KUKA youBot Integration with LabVIEW for Industrial Application **11**

Achal Agarwal, Rajat Gupta, Vinayak Agarwal, Vijayant Saini

Real-time Monitoring for Freezing and Thawing Process of Subgrade in Seasonal Frozen Regions **17**

Li MingBao, Zheng Xian, Zhang JiaWei

A Hybrid Life-Cycle Analysis and Two-Stage Stochastic Programming Model for Low-Carbon Management upon Urban Water Resources **29**

*Wencong Yue, Yanpeng Cai, Linyu Xu, Xumei Wang,
Qiangqiang Rong and Lin Liu*

Complex Systems Smart Home Security Studies based Big Data Analytics **41**

Zhao Yan

Research on Automatic Generation Control System (AGC) for Small and Medium Sized Hydropower Plants **53**

Zhong-zhe Yue, Yu-heng Yin

FSIT: Fire Safety in Trains **61**

*Amitoj Singh, Bakshish Singh, Bhupesh Grover, Gautam Bhutani,
Aniket Sharma*

Multi-objective Optimization of Machined Surface Integrity for Hard Turning Process 71

Caixu Yue, Liquan Wang, Jun Liu, Shengyu Hao

Dynamic Study of agricultural landscape pattern in the arid zone of Ningxia Based on the RS and GIS Techniques 77

Chenyang Ding, Wei Li

Development and Efficiency of Prefabricated Building Components 85

Tomas U. Ganiron Jr

Dynamic Characteristic Simulation of Helicopter Tail Drive Shaft System 95

Nie Junfeng, Yu Guangbin, Song Ye, Qu Zhigang, Zheng Minli, Zhao Xingfu

S&T Finance Network and Technological Innovation Performance: An Empirical Study of Chinese Science Park 107

Yueping, Wu and Yi, Yang

When the Future Technology is Now: Paradoxical Attitudes of Consumer and Evaluation of IoT Service 115

Won-jun Lee

Innovation Network Structure of Industrial Cluster of New Energy Vehicles in the Northeast China 127

Chen Wei, Jing Rui, Zhou Wen, Lin Chaoran

A Novel Dummy-Based KNN Query Anonymization Method in Mobile Services **137**

Huan Zhao, Jiaolong Wan and Zuo Chen

Smart Door Lock System for Elderly, Handicapped People Living Alone **155**

*Ateev Agarwal, Eesh Mehandiratta, Rohit Sanket, Rohit Samkaria,
Tanisha Gupta, Rajesh Singh, Anita Gehlot*

Implementation on Intelligent Lighting Control System of Infrared Wireless **163**

Wang Xinxin, Yun Hongli, Wang Xiaokun, Guo Jinhui

Research on a New Hybrid Optimization Algorithm based on QPSO and FNN **175**

Meng Liu, Jiayun Zhang, Yazi Wang

Applying an Intelligent Method to Estimate Air Passenger Demand: Theory and Computerized Implementation **187**

Yingxiao Zhou & Peng Zhao

Web Fusion Model of Internet of Things Based on Hierarchy Requirement Analysis **201**

YANG Hui-jun

Deregulated AGC scheme using Dynamic Programming Controller **211**

Nagendra Kumar, Purnendu Shekher Pandey

TOA Analysis Based on Energy for 60 GHz Signals **221**

Xiao-Lin Liang, Hao Zhang, Ting-Ting Lu, T. Aaron. Gulliver

Hilbert-Huang Transformation based Solar Light Noise Suppression Method **235**

Quan Jin-guo, Bai Bo, Zhang Hao and Zhang Yan

Research on Mobile Internet User Behavior Preference Based on Support Vector Machine **247**

Ye Yuan, Haigang Sheng, and Haohao Shi

Research on Speech Control Toy Car based on Single Chip Microcomputer **261**

Guo Hongtao

A Novel Multi-scale 3D Area Morphological Filtering Method for Airborne LiDAR Building Extraction **267**

Cao Zhimin, Wu Yun

Performance of Different Types of DC – DC Converter with P & O Algorithm of MPPT **277**

A. Ambikapathy, Gajendra Singh and Prabhakar Tiwari

SRRS Effects on ICF Laser Drive Beam with the Variation of Pump Light Distribution on Space **287**

Ying Liu, Dianyang Lin, Zhiwei Lu, Weiliang Zeng

A Electrochemical Sensor based on Poly (Sulfosalicylic Acid) Film Modified Electrode and Application to Phenol Detection in Oilfield Wastewater 299

Zengli Xiao, Wenlong Qin and Liangliang Shi

Distributed Frequency Control Strategy for Islanded Microgrid with Consideration of Transmission Congestion 309

Guoxing Yu, Huihui Song, Rui Hou, Yanbin Qu and Hak-man Kim

Design of Digital Campus Office Automation System Based on Portlet and Workflow 321

Xiang Haiyun, Fu Xiao

Optimization Analysis on Distribution of Temperature of a Corn Based on Fluent 329

DanHua Zhao GuoLin Li NianFeng Li

Study on Farmland Soil's Absorption Characteristics to BHC in Northeastern Industrial Polluted Area 337

Gao Ming, Hua Xiuyi, Dong Deming, Zhao Xingmin

Design and Implementation of System for Structural Health Monitoring in Horticultures 345

Meonghun Lee, HaengKon Kim and Hyun Yoe

Early Warning of Urban Residential Development Considering Sustainability Factors 355

Xu Zhao

**Experimental Analysis of Indoor Illuminance and Daylight Distribution
Compared to the Generation Performance of Silicon based PV Window
System** **369**

Doo-Sung Choi, Jun-Ho An and Jin-Seok Do