

Table of Contents

Research on Forecasting Electricity Demand of the 13th Five-year in Hebei Province 1

Huiru Zhao, Nana Li, Yaowen Fan, Fuqiang Li and Yuou Hu

A Study on the Influence of Use of Web 2.0 Collaboration Tool Reflecting Agile Practice on the Evaluation of OS Project 11

Hyo-jung Sohn, Min-gyu Lee, Baek-min Seong and Jong-Bae Kim

Stress Analysis and Failure Prediction of Adhesively Bonded Single-lap Laminates Joints Subjected to the Tensile Loading 19

Yinhuan Yang

The Analysis on Time-dependent Reliability of Steel Structural Components under Fire Conditions 29

Qiao Mu, Gai Fangfang, Zhao Jitao and Sheng Shan

A Study on the Space Hierarchy According to the Plan Composition in Outpatient Department of Geriatrics Hospitals 37

Heangwoo Lee, Janghoo Seo, Yongseong Kim

Research on Innovative Design of Mobile Cooking Table 47

Shi Yao-jun, Wu Nai-qun and Dai Ye

Machine Learning Based Adaptive Context-Aware System for Smart Home Environment 55

M. Humayun Kabir, M. Robiul Hoque, Hyungyu Seo, Sung-Hyun Yang

The Research of Ad hoc Network Routing Protocol Based on Energy 63

Shuguang Fu

Studies of Large-scale Antenna Beamforming Technology **73**

Ma LiJie

A Study on Cooperative System between Devices to Construct Internet of Things **83**

*Chang-Su Kim, Sang-KeunYoo, Young-SicJeong,
Yong-Woon Kim, Hoe-Kyung Jung*

Design of Light Source System and Optical System for a Static Star Simulator **91**

YunhuiHao

Research on Traffic Journey Intensity of Residents Based on Gravity Model **99**

Ying Lin, Chunmei Zhong and Yong Liu

Novel Gateways and Sensor Nodes Applying an Object Identifier to Monitor Gas Facilities **111**

Hojoong Kim, Hyunjune Shin and Junho Shin

Research on Traffic Flow Mathematical Model in Urban Traffic **123**

Lifang Li

Design and Realization of Personal IoT Architecture Based on Mobile Gateway **133**

Soonuk Seol, Yejin Shin and Wooseong Kim

The Research on Hotel Customization Capability Influence Mechanism Based on Biological Double Helix Gene **145**

Liu Na, Wang Xueyuan and Yang Yu

A Study on Construction Elements of New Rural Sports Culture in China and Related Influence: an Empirical Analysis Based on Online Survey **153**

Chang Youjiang, Dong Youzhen, Tao Ganhen and Long Xiaodong

Performance Analysis of a Tour Scheduler Focusing on Time-dependent Gains for Electric Vehicles **163**

Junghoon Lee and Gyung-Leen Park

Simulation Model for the Decision-Making Behavior in Pedestrian Evacuation with Floor Field Cellular Automata Approach **175**

Dawei Zhang, Haitao Zhu and Chong Liu

Food Security Sensor Management Based on RIHA **187**

Zhehui Xiao, Dekui Li, Chinling Chen and Jinlong Zhang

Development of a Simple and Innovative Wave Energy Harvester Suitable for Ocean Sensor Network Application **197**

Olly Roy Chowdhury, Hong-geun Kim, Dong-guk Park, Yongyun Cho, Changsun Shin and Jangwoo Park

Discussion and Design of Dynamic Liquid Level Intelligent Monitoring System **211**

Guangdong Qiu, Zhijie Luo and Guofu Zhou

Light Fades and Life Prediction of LED Light Source **225**

Hong-min Wang, Jin-shan Yao and Pin Xue

Paseduluran: A Local Wisdom in Dealing with the Earthquake Disaster in Javanese Society **235**

Endy Marlina, Arya Ronald, Sudaryono and Tutut Herawan

Design and Construction of the Virtual Cloud Platform for the Laboratory **253**

Wang Kefeng and Ye FeiYue

Study and Analysis of Semiconductors for the Development of Two-layer Solar Cells **263**

Jefry Mora, Jorge Ospina and Darío Amaya

Generic Information System for Chain Stores based on Borland C++ Builder **271**

Changyu Liu, Juntao Xiong, and Bin Lu

The Smart Eye Frame Based On Internet of Things **287**

*Xin Zhenghua, Chen Guolong, Li Hong, Song Qixiang,
Xiao Meng, Lu Biao, Lu Hongmei, and Shi Yaqi*

Design & implementation of an Air Quality Monitoring System for Indoor Environment based on Microcontroller **301**

Yandong Zhang and Yang Zhao

Research on an Improved Differential Evolution Algorithm based on Three Strategies for Solving Complex Function **313**

Hao Jia

Internet of Things (IoT) Framework for u-healthcare System **323**

Yvette E. Gelogo, Ha Jin Hwang and Haeng-Kon Kim