Table of Contents

Corrosion Characteristics of 20G in the Environment of Heating Surface in Biomass Boilers 1

Chen Zong, Qimin Wang and Xinzhang Huang

Lightness Pretreatment with Pedestrian Detection Studies Using CH&K Algorithm for a Night Environment 9

Jun-Gyu park and Dae-Seong Kang

Characteristic Analysis of Adjustable Permanent Magnetic Coupler with Slotted Conductor Disk 17

Qingzhong Gao, Dazhi Wang and Sheng Lin

Research on Combination of Controllable Reactor and Magnetic Saturation Transformer 29

ZhiyouRen, Yan Zhao, Xiaoyu Sun, Yue Han and Xin Sun

Design and Implementation of Context Aware Sensor Tags for Distribution Measurement of Farm Products 39

YoonsikKwak, Byungju Lee, Jeongil Moon, Donghee Park, Youngsik Kwak and Seokil Song

Review on Operation Fault of High-voltage Power Transmission Lines and Effective Prevention Countermeasures 49

Cunxu Wang, Xiaolin Sun, Xiaoyu Sun and Xinxing Chi

Floor and Motion Classifying Scheme Exploiting Smart-phone for Indoor Movements 61

Younghoon Kim, Nammoon Kim and Youngok Kim

An Adaptive Network Prediction and Judgment Method for Unstable Communication on Moving Medical Vehicles 73

ZhihaoZheng, Pan He, JiashunRen and Yu Chen

Design of Open Language Laboratory Information System in Network Environment 85

HuaLv, MeiLing Jiang and ChengShuang Han

Development of a New Experimental Model to Improve Daily Living Performance Ability in TB Patients 91

Seong-Ran Lee

The Application of Building Energy Consumption Index in Campus Energy Efficiency Management Platform 103

Liang Zhao, Jili Zhang and Jinxing Ma

Comprehensive Evaluation of Forestry Desertification Based on Grey Relational Analysis 113

Li Dan and Li Lei

Study on Selective Leakage Protection System of Mine Low-voltage Grid Based on Internet of Things 123

Liu Zhongfu, Han Guiying and Shi Lixin

Applying the SPLE to Develop Smart Home Resource Management Systems 135

Jihyun Lee and Sunmyung Hwang

Electricity Demand Forecasting For High Energy-Intensive Industries of Inner Mongolia in China 151

Huiru Zhao, Zhao Ma and Nana Li

An iBeacon-based Indoor Positioning Systems for Hospitals 161

Jingjing Yang, Zhihui Wang and Xiao Zhang

Cross Layer Optimization Routing Algorithm for Wireless AD HOC 169

Hongfeng Wang, Dingding Zhou and Shi Dong

A Study on Analysis & Outlook of Smart City based on Actual Cases 181

Seong-Hoon Lee and Dong-Woo Lee

Smart Nursery Construction Based on the Idea of Cost Performance 189

Yichuan Zhang, Yao Wang and Xinzheng Li

An Enhanced Method of Face Recognition for Cloud Robot 195

Shuqing Tian, Sung Gyu Im and Suk Gyu Lee

Control and Research on Blade Vibration of Wind Turbine 203

Shu Liu, Minghao Zhang, Zisong Xiao and Zhiyou Ren

Research on the Development Strategies of New Energy Automotive Industry Based on Car Charging Stations and Battery Management 213

Jinsong Liu

A Study on Intelligent Traffic System related with Smart City 223

Byung-Tae Chun

Wind Power Short Term Forecasting based on Back Propagation Neural Network 231

Ying Gao, Guang Yang, Yanglin Ma, Mu Lei and Jiajie Duan

Temperature Change Analysis of Internal Channel and Outside Sensor for PCR Chips 241

Yeong-Hyeon Park, Chan-Young Park, Yu-Seop Kim, Hye-Jeong Song, and Jong-Dae Kim

Sensor Node Localization Based On Improved Genetic Algorithm 251

Chen Tao and Lu Min

The Research on Ad Hoc Network Routing Based On Residual Energy 259

Tong Fei and Sheng Yan Gang

Mathematical Modeling of Real-Time Scheduling for Microgrid Considering Uncertainties of Renewable Energy Sources 271

Van-Hai Bui, Nah-Oak Song, Ji-Hye Lee and Hak-Man Kim

Examination of Thai Construction Safety Factors using the Analytic Hierarchy Process 285

Thanwadee Chinda

A VLSI Implementation of High Sensitive Fingerprint Sensor using Parasitic Insensitive Charge Transfer Circuit 293

Seungmin Jung