

Table of Contents

Research into Key Techniques of the Agricultural Greenhouse Monitoring System Based on Internet of Things 1

Zhong-fu Liu, Jun-xing Zhang and Shao-min Li

Controlling Home Appliances in IOT Environment 11

Gourav Garg, Devang Goyal, Himanshu Aggarwal, Kriti Baidail and Gaurav Verma

Research on Innovative Design of Shared Refrigerator 19

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

Experimental Study of Factors Affecting the 7075 Aluminum Alloy Thin-walled Parts Milling Force 29

Fengyun Yu, Lin Wu, Yunliang Fu, Yanyan Guo, Can Zhao and Xufeng Wang

ALED System to Provide Mobile IoT Assistance for Elderly and Disabled 35

Nikhil Chaudhari, Akash Gupta and SSV Raju

Fuzzy Logic Control Strategy for Parallel Hybrid Excavator 51

Miao Xu, Dingxuan Zhao and Tianyu Li

Obstacle Avoidance for AGV with Kinect Sensor 65

Jianping Han, Xiaoxiao Wang

Grey Correlation Analysis between Industrial Structures and Carbon Emission in Guangxi Beibu Gulf Economic Zone **75**

Zhang Fang

Environmental Effect Evaluation of Agricultural Production Activities Based on Analytic Hierarchy Process Model **83**

Gao Jie and Zheng Mingliang

A Smart Building Automation System **91**

*Rohit Chasta, Rajesh Singh, Anita Gehlot, Raj Gaurav Mishra
and Sushabhan Choudhury*

Intelligent Optimization of Solar Air Heating System in Large Scale Construction of and its Application **99**

Hou Gang and Li Bing

Research on Combustion Performance Optimization of Bio-fuel Combustion Machine Control System **107**

Tian Zhongfu

The Research and Application of Multiple Spindle Dynamic Follow to Improve CNC Thread Milling Products Precision **119**

Peng Xiao, Zhiyi Zhang, Wengang Zheng

Smart Home Entertainment System with Personalized Recommendation and Speech Emotion Recognition Support **129**

Zheng Wan

The Effect of a Hybrid Method for Indoor Location **143**

Hyeoncheol Zin, HyunJin Park, ChongGun Kim

A Study of Digit Recognition Algorithm for Meter based on Rough Set and Neural Network **155**

Xiaochen Zhang, Yuanchang Zhong, Jiajia Shen, Kun Li and Congjun Feng

Passive Track and Location Method with TDOA for Moving Target **169**

Liu You-ming, Feng Qi, Li Ting-jun

Sustainable Smart Home and Home Automation: Big Data Analytics Approach **177**

Rita Yi Man Li, Herru Ching Yu Li, Cho Kei Mak and Tony Beiqi Tang

An Efficient Routing in Urban Vehicular Ad Hoc Networks **189**

Xu Liya, Deng Anyuan, Gao Guangyong, Yang Wenzhong and Cheng Yong

Identification of Transmission Line Lightning based on HHT **201**

Cheng Zixia, Pei Haowei and Teng Chenyuan

Cloud-based Home Energy Management (HEM) and Modeling of Consumer Decisions **213**

Poornima Padmanabhan and Gary R. Waissi

Design and Optimization of Micro Gas Sensor **233**

Yu Guangbin, Guan Yanqi, Zhang Hongquan and Song Ye

Review of the Research on the Optimization of the Energy Consumption of the Cloud Platform **241**

Chun-mao Jiang Yi-bing Li, Li Zhi-cong

A Review on Mobile Based Intelligent Systems for Homecare Monitoring of Diabetic Mellitus Foot Ulcer **251**

J. Jayashree and N. Ch. Sriman Narayana Iyengar

Simulation and Analysis of Orthodontic Archwire Bending Robot **263**

Yongde Zhang, Xiaohong Jia, Jingang Jiang, Yi Liu, Yong Wang

Carbon Emission Early Warning System Modeling and Simulation Study of Urban Regional Transportation **271**

Hao Wu, Xianglian Zhao

A New Quadratic Boost Converter with Voltage Multiplier Cell: an Analysis and Assessment **281**

Muhammad Zeeshan Malik, Amjad Ali, Qunwei Xu and Guozhu Chen

Research on the Application of BIM in the Construction Industry **395**

Jiajun Huang

Study on Drug electronic Supervision Based on Flows Monitoring **309**

Bo Jiang, Zikui Lin

Reducing Delay with Mobile Sink in Low-Duty-Cycle Sensor Networks **323**

Zuzhi Fan

Daily Activity Monitoring of an Elderly Person for Determining Their Wellness **339**

*Atika Arshad, Sheroz Khan, Nur Shahida Midi, AHM Zahirul Alam,
Ahmad Fadzil Ismail and Rumana Tasnim*

Application of Computer Multimedia Technology in Landscape Design and Art Analysis of Southwest Ethnic Towns **347**

Huang Qi

Design of Urban Landscape Environment based on Computer Multimedia Simulation **357**

Feng Hao

Analysis on the Smart Classroom and Innovation Mode of Physics Teaching based on MOOC E-Learning Platform **369**

Baojia Wu

Analysis on College English Reform and Teaching Mode based on Smart Classroom and Multimedia Assisted Instruction **381**

Chen Liping

