#### **Table of Contents**

## Control System Design of Anti-rolling Tank Swing Bench Using BP Neural Network PID Based on LabVIEW 1

Lihua Liang, Mingxiao Sun, Songtao Zhang, Yu Wen, Peng Zhao, Jia Yuan

A Comparative Study on the Neighborhood Street Characteristics of Seongnam City 11

Young Lee

Simulation on the Supporting of Underground Storage Foundation Pit by Anchor and Soil Nail 21

Yong Feng

Bayesian Optimization RSSI and Indoor location Algorithm of Iterative Least Square 31

Liu ZhongPeng and Liu LiJuan

FPGA Based Energy Efficient Universal Asynchronous Receiver Transmitter Design Using Thermal Scaling 43

> Rashmi Sharma, Shivani Sharma, Paresh Khaneja, Navya Bhasin and Vanshaj Taxali

Optimization for Remote Monitoring Terrestrial Petroleum Pipeline Cathode Protection System Using Graded Network 51

Pingting Liu, Zhiyu Huang, Shihong Duan, Zikang Wang and Jie He

Energy Efficient Clean and Green IT: Concepts and Approaches 65

Kartik kalia, Deepa Singh Sisodiya, Dinesh Sharma and Vishok Singh

## The Evaluation System of New Digital Home Shopping Service 71

Mengke Yang, Jianqiu Zeng, Mengru Shen and Hao Dong

The Design and Realization of the Household Intelligent Alarm System 83

Guo Hong Tao

### FPGA-Based Real-Time System for Demodulating FBG Wavelength 91

Peng Wang, Minglei Shao, Xu Han and Shanshan Li

Dynamic Interaction System Design of Urban Landscape Information Based on PHP Technology 99

Wang Shun-Hui and Zou Jie

Construction Scheme Study of Smart Agricultural Demonstration Park 107

Yichuan Zhang, Anguo Qi and Xinzheng Li

A Study on HL7 Standard Message for Healthcare System Based on ISO/IEEE 11073 113

Am-Suk Oh

The Research on Smart Home's Wireless Control Mechanism 119

Yang Zhongguo and Cai Tianfang

Application of Travel Management System Based on Route Inquiry 133

Shiyu Wang and Liwei Chen

# Dynamic Data Binding Protocol between IoT Medical Device and IoT Medical Service for Mobile Healthcare 141

Byung Mun Lee

Model and Algorithm for Traffic Network Design by the User Equilibrium Allocation 151

Lu Yanxia

iGreenhouse: A Case Study for Connecting Physical Devices into Mobile Social Networks 162

Jiajin Zhang, Lichang Chen, Xiaobo Cai and Quan Gao

Design of Smart Home System Based on WiFi Smart Plug 173

Lei Wang, Dunlu Peng and Ting Zhang

Mobility Pattern Classification for a Bed Activity Monitoring System 183

Sunil Kumar Jain, Ravi Sankar, S. Kim, S. Cho and In-Ho Ra