Various Green Energy Sources in Smart Grid Power Network Based on Cloud

Ming-Shen Jian, Yen-Lung Chen, Rui-Wei Tong, Yu-Huei Lin, Chih Cheng

Department of Computer Science and Information Engineering, National Formosa University, No.64, Wunhua Rd., Huwei Township, Yunlin County 632, Taiwan

jianms@nfu.edu.tw, chenmono822@gmail.com, s1594679@gmail.com, v26012tom@yahoo.com.tw, macmax2011@gmail.com

Abstract— **In this paper, we propose a various green energy sources method that can improve performance. This method collects data from green power storage system and smart meters by internet. In order to deploy power in smart grids, the control system collects data and analyze it by cloud computing. The green power storage system can predict the power status and control the system to work. Smart meters will collect user's data and send it to cloud computing servers, then it will predict the power status of green storage system and provide extra energy to smart grid. If the green power storage system cannot supply the users enough energy, it can extend the number or variety of green energy sources to increase the provided energy.**

Keyword— **smart grid, green energy, cloud computing, power system, power management**

Ming-Shen Jian **is an assistant professor of Dept. Computer Science and Information Engineering at National Formosa University. Ming-Shen Jian's current research interests are in the area related to IOT application, Big Data, optimal solution, Intelligent System, and cloud computing. He received B.S. degree at Electrical and Control Engineering in National Chiao Tung University and Ph.D. at the Department of Computer Science and Engineering of the National Sun Yet-Sen University in Taiwan, 2007, investigating resource management in 3G mobile communication systems.**

Yen-Lung Chen is a master degree student of Dept. Computer Science and Information Engineering at National Formosa University. His current research interests are in the area related to Internet Of Things (IOT) and intelligent system. He received B.S. degree at Computer Science and Information Engineering at National Formosa University, 2014.

Rui-Wei Tong is an undergraduate student of Dept. Computer Science and Information Engineering at National Formosa University. His current research interests are in the area related to IOT and Intelligent System..

Yu-Huei Lin is an undergraduate student of Dept. Computer Science and Information Engineering at National Formosa University. His current research interests are in the area related to IOT and Intelligent System.

Chih Cheng is an undergraduate student of Dept. Computer Science and Information Engineering at National Formosa University. His current research interests are in the area related to IOT and Cloud Computing.