

Cloud Based Agriculture Safety Inspection with Multiple Standard Sources

Ming-Shen Jian, Hao-Yi Xu, Jenn-Feng Sheen, Yi-Ling Ye

Department of Computer Science and Information Engineering, National Formosa University,

No.64, Wunhua Rd., Huwei Township, Yunlin County 632, Taiwan

jianms@nfu.edu.tw, eco30246@gmail.com

Abstract— *In this paper, the Cloud Based Agriculture Safety Inspection with Multiple Standard Sources is proposed which including the web crawler, pesticide residues inspection standard and algorithm. Each pesticide residues inspection result of individual agriculture based on the standard, and the mass spectrometer inspection results will be judged as qualified and unqualified. The pesticide residues inspection algorithm consists of quality management algorithms and the inspection filter. Each sample which is checked and inspected will be followed a set of quality management data. Based on the results of web crawler, the quality management data of the sample will be decided whether the sample conforms to government regulations or not. Due to the computing load, all the procedure of the proposed Pesticide Residues Inspection System will be established on virtual machine for individual sample. The cost and manual operation of system maintenance can be reduced.*

Keywords— *Pesticide Residues, Cloud Computing, Agriculture Safety, Virtualization, Web Crawler.*



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.



Hao-Yi Xu 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 Big Data and cloud computing. He received B.S. degree at Computer Science and Information Engineering at National Formosa University, 2016.



Jenn-Feng Sheen
BIOGRAPHY:

Dr. Jenn-Feng Sheen obtained PhD degree in analytical chemistry from National Taiwan University (2005). In 2007, he joined department of biotechnology of National Formosa University (Yulin County, Taiwan) as an Assistant Professor. Before academic, he has been worked in a contracted laboratory company, Mithra Bioindustry Co. (Taipei County, Taiwan) for 10 years. He was served as laboratory director for both analytical and drug abuse laboratories (2002-2007), and R&D manager (2005-2007). He currently serves as the director of the analytical service center of agriculture and biotechnology products in National Formosa University (2012- at present).

RESEARCH INTERESTS:

Dr. Sheen research is mainly focused on the analytical method development for drug substance, metabolites and agricultural compounds by using the chromatography tandem mass spectrometers. The applications were mainly aimed in the pharmaceutical and food safety analyses, such as the preclinical studies, antibiotics or pesticides residues. The improvements in combined preparation methods, difficult compounds and LC-MS interfaces are especially interested.

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**Yi-Ling Ye**

National Formosa University, Taiwan

Yi-Ling Ye was born in Tainan, Taiwan, in 1971. She received the master and the Ph.D. degree of Immunology from the National Taiwan University (NTU), Taipei, Taiwan, in 1995 and 2002 respectively. She worked with Dr. Bor -Luen Chiang studying the immune mechanism and therapeutic strategies for autoimmune and asthma. Since 1999, Yi-Ling Ye worked as assistant professor in the Department of Medical Technology, Chung Hwa University of Medical Technology in Tainan, Taiwan. Her teaching interests include medical microbiology, immunology and cell biology. In 2008, she worked as associated professor in Department of Biotechnology, National Formosa University. She also was the chief of Education and Extension Division, Analytical Service of Agriculture and Biotechnology Product, National Formosa University Recently. The major research topics include the microfluidic microfluidic disk for cell separation and manipulation of the immune-modulator effect by herbal medicine.