

# Table of Contents

## International Journal of Advanced Pervasive and Ubiquitous Computing

Volume 8 • Issue 1 • January-March-2016 • ISSN: 1937-965X • eISSN: 1937-9668

*An official publication of the Information Resources Management Association*

### Research Articles

- 1      **Image Edge Detection Based on Ant Colony Optimization Algorithm**  
Yin Huan, North China Electric Power University, Baoding, China
  
- 13     **The Design and Implementation of the University Alumni Management System**  
Chong Yuan, Uduetech Inc., Shijiazhuang, China  
Xi Zhao, Uduetech Inc., Shijiazhuang, China  
Ye Liu, Uduetech Inc., Shijiazhuang, China
  
- 30     **Safety Analysis and Strategy of Alipay**  
Chong Yuan, Uduetech Inc., Shijiazhuang, China  
Yue Zhang, Uduetech Inc., Shijiazhuang, China  
Ye Liu, Uduetech Inc., Shijiazhuang, China
  
- 41     **Web Based Automatic Soil Chemical Contents Monitoring System**  
Samuel Dayo Okegbile, Obafemi Awolowo University, Ile-Ife, Nigeria  
Adeniran Ishola Oluwaranti, Obafemi Awolowo University, Ile-Ife, Nigeria  
Adekunle Aderibigbe, Obafemi Awolowo University, Ile-Ife, Nigeria

### COPYRIGHT

The **International Journal of Advanced Pervasive and Ubiquitous Computing (IJAPUC)** (ISSN 1937-965X; eISSN 1937-9668), Copyright © 2016 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

*The International Journal of Advanced Pervasive and Ubiquitous Computing* is indexed or listed in the following: ACM Digital Library; Bacon's Media Directory; Cabell's Directories; DBLP; GetCited; Google Scholar; INSPEC; JournalTOCs; Library & Information Science Abstracts (LISA); MediaFinder; Norwegian Social Science Data Services (NSD); The Index of Information Systems Journals; The Standard Periodical Directory; Ulrich's Periodicals Directory