2016 6th International Conference on Information and Communication Technology for The Muslim World (ICT4M 2016)

Jakarta, Indonesia
22-24 November 2016

IEEE Catalog Number: CFP1654K-POD
ISBN: 978-1-5090-4522-8

Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc
All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1654K-POD
ISBN (Print-On-Demand):	978-1-5090-4522-8
ISBN (Online):	978-1-5090-4521-1

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

2016 6th International Conference on Information and Communication Technology for The Muslim World

ICT4M 2016

Table of Contents

Message from the Deputy Rector (Research & Innovation) xii

Message from the Dean 1 xiii

Message from the Dean 2 xiv

Message from the General Co-Chair xv

Message from the Local Co-Chair 1 xvi

Message from the Local Co-Chair 2 xvii

Committee Members xviii

Reviewers xxii

Track 1: Ummah Cohesion, Education and Training

Influence of ITG on Organisation Performance: The Mediating Effect of Absorptive Capacity 1

Binyamin Adeniyi Ajayi and Husnayati Hussin

Re-Emphasizing the Dimensions and Impacts of Complementary IT Resources through Governance 7

Ajayi Binyamin Adeniyi, Ahlan Abdul Rahman, and Olanrewaju Rashidah Funke

Factors Affecting Instructors' Adoption of Learning Management Systems: A Theoretical Framework 13

Nahel A O Abdallah, Abdul Rahman Ahlan, and Odeh Abed Abdullah

Impacts of Organizational Culture, Support and IT Infrastructure on Knowledge Management Success: An Imperial Study in Islamic Country, Saudi Arabia 19

Abdulrahman A. Gharamah and Mohamad Fauzan Noordin

Adaptive Tutoring System User Preferences: Does Gender Matter? 24
Faizal Hazri Mat Ripin, Rahmah Mokhtar, and Wahidah Mohd Zain

A Comprehensive Knowledge Management Process Framework for Healthcare Information Systems in Healthcare Industry of Pakistan 30
Arfan Arshad, Mohamad Fauzan Bin Noordin, and Roslina Bint Othman

Acceptance and Use of Information and Communication Technology by Academicians: Towards a Conceptual Framework 36
Shahmurad Chandio, Muhammad Sadry Abu Semen, Suhaila Samsuri, and Asadullah Shah

Certificate-Based Strategy to Auction Model for E-Procurement in Indonesia: A Review on Local Ethics and the Future Challenges 41
Herlino Nanang and Ahmad F. Misman

A Review for Future Research and Practice in Using Computer Assisted Instruction on Vocabulary Learning among Children with Autism Spectrum Disorder 47
Mariam Adawiah Dzulkifli, Elok Vradizza Feni Abdul, and Abdul Wahab Abdul Rahman

Undergraduate Students' Acceptance of Library Online Database System to Support Studies and Research 53
Nur Athirah Azlan, Zahidah Zulkifli, Husnayati Hussin, Suhaila Samsuri, and Asma Md Ali

SAO Extraction on Patent Discovery System Development for Islamic Finance and Banking 59
Roslina Othman, Mohamad Fauzan Noordin, Ria Hari Gusmita, Tengku Mohd Tengku Sembok, and Zahidah Zulkifli

Investigating Factors Affecting Knowledge Management and Sharing on Innovation in Universities: Pilot Study 64
Mohammad Mozammel Haque, Abd. Rahman Ahlan, Mohamed Jalaldeen Mohamed Razi, and A'ang Subiyakto

An Adoption of Halal Food Recognition System Using Mobile Radio Frequency Identification (RFID) and Near Field Communication (NFC) 70
Mohsen Khosravi, Mostafa Karbasi, Asadullah Shah, Imtiaz Ali Brohi, and Najma Imtiaz Ali

Track 2: Innovative Islamic Application

A Practical and Interactive Web-Based Software for Online Qur'Anic Arabic Learning 76
Matin Saad Abdullah, M.M. Hafizur Rahman, Al-Sakib Khan Pathan, and Imad Fakhri Al Shaikhli

My Emergency Assistant Device: A Conceptual Solution in Enhancing the Quality of Life for the Disabled and Elderly 82
Umar Bin Qushem, Abdul Rahman Bin Ahmad Dahlan, and Ahmad Shahril Bin Mohd Ghani

Testing Sphinx's Language Model Fault-Tolerance for the Holy Quran 88
Mohamed Yassine El Amrani, M.M. Hafizur Rahman, Mohamed Ridza Wahiddin, and Asadullah Shah

A Preliminary Study of Halal Virtual Inspection: A Case of Halal Certification in Malaysia 93
Mohd Zabiedy Mohd Sulaiman, Nurulhuda Noordin, Nor Laila Md Noor, Ahmad Iqbal Hakim Suhaimi, and Wan Abdul Rahim Wan Mohd Isa

Towards Innovation Excellence: Why and How to Measure Innovation Performance? 99
Lamyaa El Bassiti and Rachida Ajhoun

A Conceptual Model on Cloud Computing and SME Performance: Resource-Based View 105
Noor Afzan Salleh and Husnayati Hussin

ScanMed: A Mobile Medicine Adherence Application with Intake Validation Using QR Code 112
Rizal Mohd Nor, Noor Azizah Mohamadali, Khairul Azmi, Ahmad Marzuki, Leilanie Mohd Nor, and Mohar Yusof

TCP Skudai: A High Performance TCP Variant for Collaborative Virtual Environment Systems 118
Abdulsalam Ya'u Gital, Abdul Samad Ismail, Haruna Chiroma, and Adamu Abubakar

Revolving Traditional EEG Device into Mobile Architecture 122
Hafizuddin Muhd Adnan, Hamwira Yaacob, Wahab Abdul, and Marini Othman

Retrieval Profiling Framework for Thematic Interpretation of Al-Quran 128
Ashraf Ali Salahuddin and Roslina Othman

User Perceptions on the Attractiveness of Islamic Websites (I-Webs) 134
Madihah Sheikh Abdul Aziz and Marini Othman

Eliminating Unanswered Questions from Question Answering System for Khulafaa Al-Rashidin History 140
Muhammad Zidny Naf'An, Dewi Erla Mahmudah, Syopiansyah Jaya Putra, and Asep Fajar Firmansyah

System Architecture Conceptual for Applying Malik Bennabi's Ruler on Intellectual Property of Islamic Finance and Banking 144
Roslina Othman, Mohamad Fauzan Noordin, Ria Hari Gusmita, Zahidah Zulkifli, and Tengku Mohd Tengku Sembok

A Model for Measuring Well-Being of Medical Practitioners in EHR Implementation 148
Maznah Ahmad and Mira Kartiwi

Frameworks for a Computational Isnad Authentication and Mechanism Development 154
Nuzulha Khilwani Ibrahim, Suhaila Samsuri, Muhamad Sadry Abu Seman, Ahmed Elmogtaba Banga Ali, and Mira Kartiwi

Development Decision Support System of Choosing Medicine Using TOPSIS Method (Case Study: RSIA Tiara) 160
Amanda Ayu Larasati, Anif Hanifa Setyaningrum, and Luh Kesuma Wardhani

Track 3: Research, Innovations, Commercialization and Entrepreneurship

Exploring the Influential Factors on Online Investment Platform 166
Haneffa Muchlis Gazali, Adewale Abideen Adeyemi, and Syed Musa Syed Jaafar Alhabshi

Competitive Ability of Information and Communication Technology Patents: A Case Study of Patents Owned by Indonesian Institute of Sciences (LIPI) 171
Prio Adi Ramadhani and Karno

Software Testing Techniques: A Literature Review 177
Muhammad Abid Jamil, Muhammad Arif, Normi Sham Awang Abubakar, and Akhlaq Ahmad

Islamization of Undergraduate Medical Practice: Does Mobile Technology Play a Role? 183
Ardilla Hanim Abdul Razak, Goh Kian Liang, and Mohd Shahidan Noor Rahin

Software Requirements Patterns and Meta Model: A Strategy for Enhancing Requirements Reuse (RR) 188
Badamasi Imam Ya'u, Azlin Nordin, and Norsaremah Salleh

Online Shopping Satisfaction in Malaysia: A Framework for Security, Trust and Cybercrime 194
Najma Imtiaz Ali, Suhaila Samsuri, Muhamad Sadry, Imtiaz Ali Brohi, and Asdullah Shah

Green Computing Knowledge among Students in a Ugandan University 199
Isa Semakula and Suhaila Samsuri

Using Grounded Theory Approach to Identify Value-Based Factors in Software Development 205
Noor Azura Zakaria, Suhaimi Ibrahim, and Mohd Naz'ri Mahrin

Information Security Behavior among Employees from the Islamic Perspective 211
Omar Barzak, Nurul Nuha Abdul Molok, Shuhaili Talib, and Murni Mahmud

Track 4: Computer Networking and Internet of Things

Technological Entrepreneurship for IT/IS Innovations and Inventions 216
Tamrin Amboala

Watermarking in Protecting and Validating the Integrity of Digital Information: A Case Study of the Holy Scripture 222
Rashida Funke Olanrewaju, Fawwaz Eniola Fajingbesi, and Nur Azimah Binti Ishak

Persuasive Technology for Improving Information Security Awareness and Behavior: Literature Review 228
Mohammed Abdullah Bawazir, Murni Mahmud, Nurul Nuha Abdul Molok, and Jamaludin Ibrahim

A New Taxonomy of Cyber Violent Extremism (Cyber-VE) Attack 234
Nurhashikin Mohd Salleh, Siti Rahayu Selamat, Zurina Saaya, Rabiah Ahmad, and Zaki Masúd

Security Failures in EMV Smart Card Payment Systems 240
Zubair Ahmad, Akram M. Zeki, and Akeem Olowolayemo

Time Aware Recommendation 244
Alaoui Sara, Younes El Bouzekri El Idrissi, and Rachida Ajhoun

Facial Recognition System for Fatigue Detection Using Intel Realsense Technology 248
Nenny Anggraini, Nurul Faizah Rozy, and Reza Ayatuna Lazuardy

A Conceptual Model of Green It Practices on Organisational Sustainability 254
Sri Fatiany Abdul Kader Jailani, Lili Marziana Abdullah, Mira Kartiwi, and Husnayati Hussin

Analyzing Communication Overhead in Linearizing Peer to Peer System 260
Abdulfattah Muhyiddeen, Rizal Mohd Nor, and M.M. Hafizur Rahman

Time-Cost Effective Factor of a Midimew Connected Mesh Network 264
M.M. Hafizur Rahman, Mohammed N.M. Ali, Rizal Mohd Nor, Tengku Mohd Tengku Sembok, and M.A.H. Akhand

Automatic Emotion Recognition Based on EEG and ECG Signals While Listening to Quranic Recitation Compared with Listening to Music 269
Sabaa Ahmed Yahya Al-Galal, Imad Fakhri Taha Alshaikhli, and Abdul Wahab Bin Abdul Rahman

Comparative Analysis of A* and Basic Theta* Algorithm in Android-Based Pathfinding Games 275
Eka Risky Firmansyah, Siti Ummi Masruroh, and Feri Fahrianto

Track 5: Business Intelligence and Big Data

Application of the Naive Bayes Method to a Decision Support System to Provide Discounts (Case Study: PT. Bina Usaha Teknik) 281
Fauzan Burdi, Anif Hanifa Setianingrum, and Nashrul Hakiem

Predicting Obesity from Grocery Data: A Conceptual Process Framework 286
Nur'Aina Daud, Nor Laila Mohd Noor, Nurulhuda Noordin, Fauzi Mohd Saman, and Nur Islami Mohd Fahmi Teng

Deriving Specific Requirement Patterns for Collaborative Meeting and Appointment Scheduler Domain (CMASD) 292
Farah Nur Atikah Suhaizad, Raida Rashiqa Burhanudin, and Azlin Nordin

Measuring Customer Satisfaction through Speech Using Valence-Arousal Approach 298
Norhaslinda Kamaruddin, Abdul Wahab Abdul Rahman, and Aina Najwa Razman Shah

Big Data Initiatives by Governments -- Issues and Challenges: A Review 304
Noor Zalina Zainal, Husnayati Hussin, and Mior Nasir Mior Nazri

Handwritten Bangla Numeral Recognition Using Deep Long Short Term Memory 310
Mahtab Ahmed, M.A.H. Akhand, and M.M. Hafizur Rahman

Comparative Analysis of the Accuracy of Backpropagation and Learning Vector Quantisation for Pattern Recognition of Hijaiyah Letters 316
Nimas Ayu Mailani, Victor Amrizal, and Nashrul Hakiem

Biometric Identification for Twins Using Photoplethysmogram Signals 320
Nur Izzati Mohammed Nadzri, Khairul Azami Sidek, and Rizal Mohd Nor

EEG-Based Emotion Recognition in the Investment Activities 325
Nurul Izzati Mat Razi, Marini Othman, and Hamwira Yaacob

Validity of Expert System, Diagnosis of the Disease Treatment with Prayer by Verse of the Koran Using Method of Certainty Factor Web-Based Application 330
Fita Nur Fauziyah, Feri Fahrianto, and Victor Amrizal

The Effect of E-CRM Features on Customers Satisfaction for Airline E-Ticket Services in Malaysia 336
Nor Alina Binti Ismail and Husnayati Binti Hussin

Isnad Al-Hadith Computational Authentication: An Analysis Hierarchically 344
Nuzulha Khilwani Ibrahim, Mohamad Fauzan Noordin, Suhaila Samsuri, Muhamad Sadry Abu Seman, and Ahmed Elmogtaba Banga Ali

Author Index 349