## 2016 2nd International Symposium on Agent, Multi-Agent Systems and Robotics (ISAMSR 2016)

Bangi, Malaysia 23 – 24 August 2016



IEEE Catalog Number: ISBN:

CFP16C71-POD 978-1-5090-6075-7

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

 IEEE Catalog Number:
 CFP16C71-POD

 ISBN (Print-On-Demand):
 978-1-5090-6075-7

 ISBN (Online):
 978-1-5090-5150-2

## 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



## **TABLE OF CONTENTS**

ID	TITLE	PAGE
003	Towards Android Malware Detection using Intelligent Agents  Abdullah Alzahrani and Ali Ghorbani	1
007	Simulating Get-Understand-Share-Connect Model for Personal Knowledge Management in Learning Environment Shahrinaz Ismail	9
010	Workflows Analysis for Self-Adaptive Agent-based Simulation Model Yim Ling Loo, Alicia Y.C. Tang, Azhana Ahmad and Mustapha Aida	16
011	Detection of Data Confidentiality Violations Using Runtime Verification and Quality Assessment Najwa Abu Bakar and Ali Selamat	22
014	Cross-Fertilization of Ideas in Collective Intelligence Model (CIM) Saraswathy Shamini, Mohd. Sharifuddin Ahmad, Salama A. Mostafa and Y.C. Tang	27
015	Evaluating Students Engagement in Classrooms using Agent-based Social Simulation  Latha Subramainan, Moamin Mahmoud, Mohd Sharifuddin Ahmad and Mohd Zaliman Mohd Yusoff	34
016	A Prototype for Context Identification of Scientific Papers via Agent-based Text Mining Moamin Mahmoud and Mohd Sharifuddin Ahmad	40
017	A New Model of Agent Spawning and Mobility Osama Alshaki, Mohd Sharifuddin Ahmad and Moamin A Mahmoud	45
018	An Explanatory Review of Mandatory Task Sean Goh and Azhana Ahmad	51
019	Wireless Sensor Network: Smart Greenhouse Prototype with Smart Design Mohd Taha Ismail, Mohd Nazri Ismail, Sera Syarmila Sameon, Zalhan Mohd Zain and Norhatta Mohd	57
020	The Rationality of Sincere Software Agent in Task Completion Nur Huda Jaafar, Mohd Sharifuddin Ahmad and Azhana Ahmad	63
021	A Value-added Service Analyzer (VaSA) Sub-Model for Agents of Things (AoT) Concept  Anas M Mzahm, Mohd Sharifuddin Ahmad, Y.C. Tang and Azhana Ahmad	69
022	Group Decision by House-Hunting Agents in Multi-Robot Systems  Sifat Momen, Tamanna Lima and Raian Siddika	73
023	Norms Trust Evaluation for Norm Adoption in Open Normative Multi-agent Systems  Nurzeatul Hamimah Abdul Hamid, Mohd Sharifuddin Ahmad, Aida Mustapha and Azhana Ahmad	79
025	Agent-mediated Self-regulated Learning: A Conceptual Model based on Knowledge Management at Agent Level Siti Haryani Shaikh Ali, Shahrinaz Ismail and Mohamad Hasbullah Abu Bakar	86
026	Privacy and Security Gaps in mitigating Cybercrime: The Review  Amna Saad, Ahmad Roshidi Amran and Ijlal Ibrahim Afif	92
028	Hybrid Neural Networks for Dimension Reduction and Clustering of Multidimensional Data Zalhan Mohd Zin, Rubiyah Yusof and Ehsan Mesbahi	100
029	A Flexible Human-Agents Interaction Model for Supervised Autonomous Systems Salama Mostafa, Mohd Sharifuddin Ahmad, Azhana Ahmad, Muthukkaruppan Annamalai and Saraswathy Shamini Gunasekaran	106
030	Preliminary Usability and Heuristics Model for Mobile Games, In the Aspects of Control Features Farahwahida Mohd, Ezri Hielmi Che Daud and Shamsul Anuar Mokhtar	112
031	Alternate End Effector Contour Tracking for Hyper Redundant Robotic System Samsi Md Said, Amir Sharizam Ismail and Tengku Mohd Azahar Tuan Dir	117
032	A Computational Model of a Norm's Yield Al-Mutazbellah Itaiwi, Mohd Sharifuddin Ahmad, Y.C. Tang and Moamin Mahmoud	124
033	Rule-Based Agent for Social Media Sentiment Detection Siti Salwa Hasbullah	128
034	A Conceptual Multi-agent Semantic Web Model of a Self-Adaptive Website for Intelligent Strategic Marketing in Learning Institutions  Azlan Yusof, Moamin A. Mahmoud and Mohd Sharifuddin Ahmad	133

035	The Architecture of Agent-Based Intelligent Tutoring System for the Learning of Software Engineering Function Point Metrics  Aedah Abd Rahman, Munaisyah Abdullah and Siti Hajar Alias	139
042	Lego Bricks Color Sorting Machine Sazly Anuar, Allya Badzura Baharuddin and Amirah Mohammad	145
057	Initial Stage of Developing a Rolling Robot To Move On Various Terrains  Murniwati Anwar and Muhammad Qayyum Harun	149
058	The Collective Intelligence Concept: A Literature Review from the Behavioral and Cognitive Perspective Saraswathy Shamini, Mohd. Sharifuddin Ahmad and Salama A. Mostafa	154
059	The Hybrid Encryption Algorithm of Lightweight Data in Cloud Storage Chengliang Liang, Ning Ye, Reza Malekian and Ruchuan Wang	160