

2018 International Conference on Advanced Computer Science and Information Systems (ICACISIS 2018)

**Yogyakarta, Indonesia
27-28 October 2018**



**IEEE Catalog Number: CFP1819R-POD
ISBN: 978-1-7281-0136-1**

**Copyright © 2018 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:	CFP1819R-POD
ISBN (Print-On-Demand):	978-1-7281-0136-1
ISBN (Online):	978-1-7281-0135-4
ISSN:	2330-4588

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

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

Welcome Message from General Chairs	i
Welcome Message from Dean of Faculty of Computer Science University of Indonesia	iii
Committee	v
Program Schedule	viii
Table of Content	xi

Computer Networks, Architecture, and High-Performance Computing	
Protagoras: A Service for Tagging E-Commerce Products at Scale	1
<i>Alfan Nur Fauzan, Rahmatri Mardiko, and Prayana Galih</i>	
Minutia Cylinder Code-based Fingerprint Indexing Optimization using GPU	7
<i>Jason Jeremy Iman and Achmad Imam Kistijantoro</i>	
Circular Shift Squarer for Efficiency Improvement of Normal Basis Galois Field Inverter	13
<i>Petrus Mursanto and Aulia Roza Albareta</i>	
Fingerprint Indexing based on Ridge Orientation and Frequency on GPU	17
<i>Michael Tjandra, and Achmad Imam Kistijantoro</i>	
Digital Library and Distance Learning	
Dynamic Thresholding Mechanisms for IR-Based Filtering in Efficient Source Code Plagiarism Detection	23
<i>Oscar Karnalim and Lisan Sulistiani</i>	
The Importance of Computer Science in Industry 4.0	29
<i>Harry T. Yani Achsan, Wahyu Catur Wibowo, Heryudi Ganesha M. Muhtar Baswara Achsan and Wahyuningdiah Trisari Harsanti Putri</i>	
Progressive Learning Design Strategy to Improve Impact Maturity of Charity Organizations	39

<i>Irma Latifatul Laily, Oman Komarudin, Suci Fadhillah, and Ade Azurat</i>	
E-Government and E-Business	
Supplier Performance Measurement for Online Travel Agent Using Balance Scorecard Case Study: Klikhotel.com	45
<i>Niko Ibrahim, Verliyantina, Diana Trivena Yulianti, and Andre Christian</i>	
Combining Entropy and Importance Performance Analysis (IPA) Method for Improving Information Quality on Government's Social Media: A case of Ministry of Finance (KEMENKEU)	51
<i>Hendry Tju, Ima Zanu Setyaningrum, Arifianita Febrina Putri, Faizal Nasution, Achmad Nizar Hidayanto, and Nur Fitriah Ayuning Budi</i>	
Obstacle Factor Analysis of E-Government Implementation at The Ministry of Tourism	57
<i>Jayanti Kartika Putru and Dana Indra Sensuse</i>	
Designing a Conceptual Model for Rice Information Systems using Gamification and Soft System Methodology	63
<i>Mochammad Arief Hermawan Sutoyo and Dana Indra Sensuse</i>	
The Determinant Factors of Individual Performance from Task Technology Fit and IS Success Model perspectives: a case of Public Procurement Plan Information System (SIRUP)	69
<i>Alifiannisa Lawami Diar, Puspa I. Sandhyaduhita, and Nur Fitriah A. Budi</i>	
The Role of Risk and Quality in Establishing Perceived Value Affecting the Intention to Book a Tour Package Through an Open Trip Marketplace Site	75
<i>Ayesha Maharani Putri, Muhammad Rifki Shihab, and Nur Fitriah Ayuning Budi</i>	
Enumeration and Handling Security Issues of Government Official Web Application	81
<i>Abdullah Fajar and Setiadi Yazid</i>	
Analysis of Factors Affecting User's Intention in Using Mobile Health Application: A Case Study of Halodoc	87
<i>Clarissa Nuralifa Mangkunegara, Putu Wuri Handayani, and Fatimah Azzahro</i>	
Designing A Conceptual Model for Smart Government in Indonesia using Delphi 2nd Round Validity	93

<i>Assaf Arief and Dana Indra Sensuse</i>	
Investigating the Influence of Attitude toward Traveler's Intention to Book Open Trip Service from Open Trip C2C Marketplace Website	99
<i>Adinda Nadinta Juliana, Muhammad Rifki Shihab</i>	
Factors Affecting Knowledge Management System Implementation in Development Planning Agency of Southern Sumatera Province	107
<i>Andy Syahrizal, Dana Indra Sensuse, Gilang Bintang Hakkun Ashshidhiqi, Kuncoro Wicaksono Adi Baroto, Muhammad Fuad Dwi Rizki, Roby Eko Primadi</i>	
EZ Parking: Smart Parking Space Reservation Using Internet of Things	113
<i>Mostafa Didar Mahdi, Zahid Hasan Anik, Rahbar Ahsan, Tamanna Motahar</i>	
An Empirical Study on Factors that Influence the Digital Startup Sustainability: The Mixed Methods Approach in Indonesia	119
<i>Endrik, Yudho Giri Sucahyo, Yova Ruldeviyani, and Arfive Gandhi</i>	
Understanding the Customers' Perception in Motorcycle Ride-Sharing on Personal Data Protection	125
<i>Rosalia Valentin Margareta, Yudho Giri Sucahyo, Yova Ruldeviyani, Arfive Gandhi</i>	
Revealing the Misuse of Motorcycle Ride-sharing Applications using Extended Deterrence Theory Approach	131
<i>Muhammad Teguh Brilliant, Yudho Giri Sucahyo, Yova Ruldeviyani, and Arfive Gandhi</i>	
Requirements for Platform-based Startup Survival: A Qualitative Exploratory Study	137
<i>Ade Maulana, Yudho Giri Sucahyo, Yova Ruldeviyani, Arfive Gandhi</i>	
Technology Criteria Analysis and E-Voting Adoption Factors in the 2019 Indonesian Presidential Election	143
<i>Hillary Goretta, Betty Purwandari, Larastri Kumaralalita, and Oldyson Tri Anggoro</i>	
Analysis of Factors that Influence Purchase Intention on Omni-channel Services	151
<i>Herio Susanto, Yudho Giri Sucahyo, Yova Ruldeviyani, and Arfive Gandhi</i>	
Factor Analysis of Intention to Use Garuda Indonesia Mobile Application	157

<i>Satria Ramadhan, Betty Purwandari, Puspa Indahati Sandhyaduhita, Larastri Kumaralalita, M Singgih Zulfikar Ansori</i>	
Success Factor Analysis of Jakarta Siaga 112 Emergency Service Management System	163
<i>Leney Nadeak, Betty Purwandari, Riri Satria, Larastri Kumaralalita</i>	
Analysis of Higher Education Student's Behavior Factors to Posting a Comment on E-Commerce with Stimulus Organism Response (SOR) Model	171
<i>Meyliana and Yakob Utama Chandra</i>	
Using Social Networking Sites for Learning Experiences by Indonesian University Students	177
<i>Achmad Fauzi Azmi, Rena Nuravianty, Tashia Indah Nastiti, Dana Indra Sensuse</i>	
General Papers	
Digital Investigation of Wireless Sensor Networks - IRIS Mote	183
<i>Argianto Rahartomo, Arne Bochem, Omar Alfandi</i>	
String Transformations Preserving Analogies	189
<i>Yves Lepage</i>	
Numerical Methods for Retrieval and Adaptation in Nagao's EBMT model	195
<i>Kun He, Tianjing Zhao, and Yves Lepage</i>	
Payment Type Classification on Urban Taxi Big Data using Deep Learning Neural Network	201
<i>Herley Shaori Al-Ash, Ari Wibisono, and Adila Alfa Krisnadhi</i>	
Representing Dynamic Difficulty in Turn-based Role Playing Games Using Monte Carlo Tree Search	207
<i>Hafiz Adhiyasa Pratama and Adila Alfa Krisnadhi</i>	
What is Informatics Education Students' Impression of Using Metacognitive Training System at The First Time?	213
<i>Wahyu Nur Hidayat, Setiadi Cahyono Putro, Mukhamad Angga Gumilang, and Indriana Hidayah</i>	
Task-Technology Fit Approach to Evaluate Tourists' Purchase Intention in Open-Trip	219

Marketplace Sites	
<i>Baskoro Pramudito Nugroho, Muhammad Rifki Shihab, and Indra Budi</i>	
Jakpros: Reproductive Health Education Application for Pregnant Women	225
<i>Budi Wiweko, Aida Riyanti, Shanty Olivia, Muhammad Priangga, Vita Silvana, Ilonna Putri Pertiwi, Anggi Lewis Reso Putro, Yohanes Satrya Wibawa, Andon Hestiantoro, Raden Muharram, Achmad Kemal Harzif, and Gita Pratama</i>	
GTRAS: Graphical Tracking Activity System for Problem-Posing Learning Process Insights	231
<i>Ahmad Afif Supianto and Muhammad Hafis</i>	
Osteoarthritis Disease Prediction Based on Random Forest	237
<i>Ulfah Aprilliani and Zuherman Rustam</i>	
Assessment of Mobile Applications' Credibility in Users' Content-Searching Behavior based on PIT Theory	241
<i>Ayu Rahma Haninda and Irwansyah</i>	
An Analysis and Design of Downstreaming Decision System on Palm Oil Agroindustry Based on Multilabel Classification	247
<i>Safriyana, Taufik Djatna, Marimin, Elisa Anggraeni, and Illah Sailah</i>	
UTAUT in Communication Technology of Learning Management System	253
<i>Sri Retno Ekayanti and Irwansyah</i>	
Design of A Task-Oriented Autonomous Wheeled- Robot for Search and Rescue	259
<i>Karlisa Priandana, Medria Hardhienata, M. Iqbal Choironi, Rakean G. D. Pawitra, Wulandari, Sri Wahjuni, and Agus Buono</i>	
Examiners Recommendation System at Proposal Seminar of Undergraduate Thesis by Using Content- based Filtering	265
<i>Ristu Saptono, Haryono Setiadi, Tiyas Sulistyoningrum , and Esti Suryani</i>	
Information Management	
Impact of User Awareness, Trust, and Privacy Concerns on Sharing Personal Information on Social Media: Facebook, Twitter, and Instagram	271
<i>Valentinus Paramarta, Muhammad Jihad, Ardhian Dharma, Ika Chandra</i>	

<i>Hapsari, Puspa Indahati Sandhyaduhita and Achmad Nizar Hidayanto</i>	
Teleconsultation as Knowledge Management System: Recognizing the Issues Contributing to Its Underutilization in Hospitals	277
<i>Ramli, R and Ali, N</i>	
Customer Loyalty in Go-Food: The Antecedents of Satisfaction	283
<i>Sumarliyanti, Putu W. Handayani, and Qorib Munajat</i>	
Measuring Information Security Awareness on Employee Using HAIS-Q: Case Study at XYZ Firm	289
<i>Alvin Cindana and Yova Ruldeviyani</i>	
Implementation of Lean Methods on Management of IT Infrastructure Monitoring System: A Case Study of PT Kalbe Farma	295
<i>Dio Pratama, Rizal Fathoni Aji, and Setiadi Yazid</i>	
The Story Development of Penal Law Online News Articles Visualization	301
<i>Aditio Pangestu and Dwi H. Widyanoro</i>	
Designing Data Governance Structure Based On Data Management Body of Knowledge (DMBOK) Framework: A Case Study on Indonesia Deposit Insurance Corporation (IDIC)	307
<i>Mutiara Aisyah and Yova Ruldeviyani</i>	
The Analysis of Critical Success Factor Ranking for Software Development and Implementation Project Using AHP	313
<i>Ryann Octavianus and Petrus Mursanto</i>	
Defining Software Quality Rank using Analytic Hierarchy Process and Object-Oriented Metrics	319
<i>Petrus Mursanto and Dameria Christina Pasaribu</i>	
Data Governance Maturity Model (DGM2) Assessment in Organization Transformation of Digital Telecommunication Company: Case Study of PT Telekomunikasi Indonesia	325
<i>Dimas Agung Saputra, Dika Handika, and Yova Ruldeviyani</i>	

Information Retrieval	
Music Era Classification using Hierarchical-level Fusion	331
<i>M Octaviano Pratama and Mirna Adriani</i>	
Analysis and Implementation Measurement of Semantic Similarity Using Content Management Information on WordNet	337
<i>Tommy Wijaya Sagala, Achmad Nizar Hidayanto, Nur Fitriah Ayuning Budi, Theresia Wati, and Solikin</i>	
Information Extraction for Mobile Application User Review	343
<i>Erry Suprayogi, Indra Budi, and Rahmad Mahendra</i>	
Recording of Law Enforcement Based on Court Decision Document Using Rule-based Information Extraction	349
<i>Firdaus Solihin and Indra Budi</i>	
Harvesting Bibliography Multi-thread, Safe and Ethical Web Crawling	355
<i>Harry Tursulistyono Yani Achsan, Wahyu Catur Wibowo, Wahyuningdiah Trisari Harsanti Putri, M. Muhtar Baswara Achsan, and Quintin Kurnia Dikara Barcah</i>	
Analysis of Indonesian Sentiments Using Indonesian Sentiment Lexicon by Considering Denial	361
<i>Feby Tri Saputra and Yani Nurhadryani</i>	
Machine Learning and Computer Vision	
2-Dimensional Homogeneous Distributed Ensemble Feature Selection	367
<i>Machmud R Alhamidi, Dewa M S Arsa, Muhammad Febrian Rachmadi, and Wisnu Jatmiko</i>	
Two Layer Network Flow for Fast Data Association on Multi Object Tracking	373
<i>Bariqi Abdillah, Grafika Jati, Wisnu Jatmiko, and Adi Nurhadiyatna</i>	
Real-Time 3-D Motion Gesture Recognition using Kinect2 as Basis for Traditional Dance Scripting	379
<i>Andi W.R. Emanuel and Andreas Widjaja</i>	

Deep Structured Convolutional Neural Network for Tomato Diseases Detection	385
<i>Endang Suryawati, Rika Sustika, R. Sandra Yuwana, Agus Subekti, and Hilman F. Pardede</i>	
Geometric Facial Components Feature Extraction for Facial Expression Recognition	391
<i>Dewi Yanti Liliana, M. Rahmat Widyanto, and T. Basaruddin</i>	
Human Identification Using Human Body Features Extraction	397
<i>Martino C. Khuangga and Dwi H. Widyantoro</i>	
Sign Language System for Bahasa Indonesia (Known as SIBI) Recognizer using TensorFlow and Long Short-Term Memory	403
<i>Kustiawanto Halim and Erdefi Rakun</i>	
Decision Tree Learning Approach To Wildfire Modeling on Peat and Non-Peat Land in Riau Province	409
<i>Muchamad Taufiq Anwar, Hindriyanto Dwi Purnomo, Sri Yulianto Joko Prasetyo, and Kristoko Dwi Hartomo</i>	
Classification of Limestone Mining Site using Multi- Sensor Remote Sensing Data and OBIA Approach A case study: Biak Island, Papua	417
<i>Daniel Sande Bona, Aniasi Murni Arymurthy, and Petrus Mursanto</i>	
Wind Speed Forecasting Using Multivariate Time- Series Radial Basis Function Neural Network	423
<i>Nur Hamid and Wahyu Catur Wibowo</i>	
Tourist Attractions Classification using ResNet	429
<i>Nanda Maulina Firdaus, Dina Chahyati, and Mohamad Ivan Fanany</i>	
Experimental Analysis of Iterative-Scaling Fuzzy Additive Spectral Clustering (is-FADDIS) for Cancer Subtypes Identification	435
<i>Muhamad Fathurahman, Ionia Veritawati, and Ito Wasito</i>	
Betawi Traditional Food Image Detection using ResNet and DenseNet	441
<i>Noer Fitria Putra Setyono, Dina Chahyati, and Mohamad Ivan Fanany</i>	
Hate Speech Detection on Indonesian Instagram Comments using FastText Approach	447
<i>Nur Indah Pratiwi, Indra Budi, and Ika Alfina</i>	

Reliable Software Engineering	
Formal Verification of Divide and Conquer Key Distribution Protocol Using ProVerif and TLA ⁺	451
<i>Ridhwan Dewoprabowo and Muhammad Arzaki, Yanti Rusmawati</i>	
Reasoning about Traffic Signals Controller for Intersection with Contraflow Lanes for Bus Rapid Transit Using Linear-time Temporal Logic	459
<i>Muhammad Arzaki, Yanti Rusmawati, Anggita Karlinda Kusnadi, and Sarah Andianti Atmawardhana</i>	
Framework for Privacy-Aware Web Service Logging	467
<i>Chaithat Chanakitkarnchok and Twittie Senivongse</i>	
Analyzing of Implementation Enterprise Budgeting System Using SAP BPC: Case Study on a Financial Government Institution	475
<i>Ridho Ahdiat Wijaya, Prima Widyaningrum, Budi Prasetyo, Riri Satria</i>	
Proposed User Interface Generation for Software Product Lines Engineering	481
<i>Siti Ina Sakinah, Hafiyyan Sayyid Fadhlillah, Ade Azurat, and Maya R.A Setyautami</i>	
Author's Index	