

2016 International Conference on Computational Intelligence and Cybernetics (CYBERNETICSCOM 2016)

**Makassar, Indonesia
22-24 November 2016**



**IEEE Catalog Number: CFP1630S-POD
ISBN: 978-1-5090-5549-4**

**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:	CFP1630S-POD
ISBN (Print-On-Demand):	978-1-5090-5549-4
ISBN (Online):	978-1-5090-5548-7

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

Preface	iii
Table of Contents	iv-v
Abstract of Keynote Speaker :	
1. Toward Sustainable Next ICT Generation Infrastructure Platform <i>Author: Akira Fukuda</i>	N/A
2. Measuring None Geometric Shape of Soft Organ in Human Body: Issues and Challenges <i>Author: Rhiza Sulaiman</i>	N/A
3. Context-Awareness in Social Computing <i>Author: Lukito EdyNugroho</i>	N/A
Multiclass Classification using Least Squares Support Vector Machine <i>Author: Nurkamila Jafar, Armin Lawi and Sri Astuti Thamrin</i>	7-10
A Predictive Positioning System using Supervised Learning for Home Care of Older People <i>Author: Kurnianingsih Kurnianingsih, Lukito Edi Nugroho, Widy Widyawan, Lutfan Lazuardi and Anton Satria Prabuwo</i>	11-16
Prediction Modeling in Career Management <i>Author: Hadary Mallafi and Dwi H Widiyantoro</i>	17-22
Surface Water Flow Simulation using Cellular Automata Based Flow Direction D-Infinity Algorithm <i>Author: Ishak Muhajir and Armin Lawi</i>	23-28
Speech to Text for Indonesian Homophone Phrase with Mel Frequency Cepstral Coefficient <i>Author: Anugrayani Bustamin, Indrabayu A, Intan Sari Areni and Novy Mokobombang</i>	29-32
An Improving of Migration Operator in Biogeography-based Optimization for Solving TSP <i>Author: Thanh Dinh Pham, Huynh Thi Thanh Binh and Cuong Dang</i>	33-40
Performance Evaluation of Hybrid Wireless Mesh Protocol (HWMP) on CANET Using VanetMobiSim <i>Author: Prima E. Ramadhani, M. Dicki Setiawan, M. Ariansyah Yutama, Misbahuddin Misbahuddin, Doan Perdana and Riri Fitri Sari</i>	41-46
Mobile Application to Differentiate Flesh Meat between Beef and Pork..... <i>Author: Wasfi Muhammadiyah and Fahmi Fahmi</i>	47-50
K-Means Clustering Implementation in Network Traffic Activities <i>Author: Purnawansyah Purnawansyah and Havaluddin Havaluddin</i>	51-54

Connectivity Optimization Problem in Vehicular Mobile Wireless Sensor Networks <i>Author: Nguyen Hanh, Nguyen Hai, Huynh Thi Thanh Binh, Le Tung and Ernets Kurniawan</i>	55-62
Statistical and Machine Learning Approach in Forex Prediction Based on Empirical Data <i>Author: Sitti Wetenriajeng Sidehabi, Indrabayu A and Sofyan Tandungan</i>	63-68
A Real time Alphabets Sign Language Recognition System using Hands Tracking <i>Author: Sulfayanti Sulfayanti, Armin Lawi and Dewiani Dewiani</i>	69-72
Process Model Extension using Heuristic Miner (Case study: incident Management of Volvo IT Belgium)..... <i>Author: Bagus Hidayat, Angelina Prima Kurniati and Shaufiah Shaufiah</i>	73-78
Network-on-Chip with Guaranteed-Bandwidth Data Communication Service <i>Author: Faizal Samman</i>	79-84
Modified Bread-First Order-based Link Categorization for Finding Financial Statement Documents..... <i>Author: Aris Budi Jatmiko and Dwi H Widyantoro</i>	85-90
WayBotDu: a low cost articulated arm platform for education <i>Author: Sisarmo Adinandra and Akmalazakia Marsiano</i>	91-96
Referral Communication Model between Primary Health Centers and Hospitals Using Web Services..... <i>Author: Gandung Triyono, Sri Hartati, Reza Pulungan and Lutfan Lazuardi</i>	97-102
Implementation and Performance Analysis of MPI Cluster System in Distributed Rendering <i>Author: Erick Alwi</i>	103-108
A Formal Model of Quorum Based k-Mutex Algorithm using Input/Output Automata <i>Author: Ismail Nur and Armin Lawi</i>	109-114
Vehicle Detection and Tracking using Gaussian Mixture Model and Kalmen Filter <i>Author: Indrabayu A, Rizki Bakti, Intan Sari Areni and Ais Prayogi</i>	115-120
Implementation of Relational Algebra Operations for Web..... <i>Author: Armin Lawi, Rijal Fajriatul Ikhsan and Muhammad Hasbi</i>	121-126
Using Subscriber Usage Profile Risk Score To Improve Accuracy of Telecommunication Fraud Detection..... <i>Author: Rosmawati Ab. Raub, Azmirul Hamzah Nor Hamzah, Mohd Daud Jaafar and Khairul Nizam Baharim</i>	127-131