

2014 International Conference of Advanced Informatics: Concept, Theory and Application

(ICAICTA 2014)

**Bandung, Indonesia
20 – 21 August 2014**



**IEEE Catalog Number: CFP1450Y-POD
ISBN: 978-1-4799-5101-7**

TABLE OF CONTENTS

Development of Protection Profile and Security Target for Indonesia Electronic ID Card's (KTP-el) Card Reader Based on Common Criteria V3.1:2012 /SNI ISO/IEC 15408:2014.....	1
<i>M. Aminanto, S. Sutikno</i>	
Comparison of Bidirectional Associative Memory, Counterpropagation and Evolutionary Neural Network for Java Characters Recognition	7
<i>G. Budhi, R. Adipranata</i>	
Development of Customizable Analytical Derivation Tool for Algebraic Function.....	11
<i>H. Choiri, N. Maulidevi</i>	
Implementation of a Monophonic Note Tracking Algorithm on Android	17
<i>H. Dulimarta</i>	
Heart Disease Diagnosis using Extreme Learning Based Neural Networks	23
<i>M. Fathurachman, N. Safitri, U. Kalsum, C. Utomo</i>	
Automatic Multilabel Categorization using Learning to Rank Framework for Complaint Text on Bandung Government	28
<i>A. Fauzan, M. Khodra</i>	
English to Japanese Spoken Language Translation System for Classroom Lectures.....	34
<i>V. Ferdiansyah, S. Nakagawa</i>	
ANN, ARIMA and MA Timeseries Model for Forecasting in Cement Manufacturing Industry Case Study at Lafarge Cement Indonesia – Aceh	39
<i>E. Fradinata, S. Suthummanon, N. Sirivongpaisal, W. Suntiamorntut</i>	
Interaction Theory [New Paradigm] for Solving the Assignment Problem	45
<i>A. Gani</i>	
Statistically Optimum Virtual Trip Line for Real-Time Traffic Monitoring System	51
<i>F. Gunawan</i>	
Enterprise Architecture for Cloud-based ERP System Development	57
<i>A. Gunawan, K. Surendro</i>	
Band Selection by Distance of Spatial Patterns for Brain Machine Interfacing.....	63
<i>H. Higashi, T. Tanaka</i>	
Generation of Striped Color Images by Using Inverse Line Convergence Index Filter	69
<i>T. Hiraoka, H. Nonaka, K. Urahama</i>	
Sign Language Word Recognition using Via-point Information and Correlation of the Bimanual Movements	75
<i>S. Igari, N. Fukumura</i>	
Multi-user Spectrum Analyzer using Java-based Client-Server Application.....	81
<i>N. Iswari, A. Kistijantoro</i>	
Inet Framework Modifications in OMNeT++ Simulator for MPLS Traffic Engineering.....	87
<i>A. Jauhari, A. Kistijantoro</i>	
Vitality Based Feature Selection For Intrusion Detection.....	93
<i>Jupriyadi, A. Kistijantoro</i>	
Novel Two-Stage Model for Grapheme-to-Phoneme Conversion using New Grapheme Generation Rules	97
<i>S. Kheang, K. Katsurada, Y. Iribe, T. Nitta</i>	
Risk Management Framework With COBIT 5 And Risk Management Framework for Cloud Computing Integration.....	103
<i>A. Khrisna, Harlili</i>	
The Performance of e-Learning Website on Open Source Virtualization	109
<i>E. Krisianto</i>	
Expert Systems for Self-Diagnosing of Eye Diseases Using Naïve Bayes	113
<i>R. Kurniawan, N. Yaniti, M. Nazri, Zulyvandri</i>	
Integration of Metadata Generator to Model View Adapter (MVA) Architecture Pattern	117
<i>A. Kurniawan, B. Hendradjaya</i>	
Kinect 3D Camera Based Eye-Tracking to Detect the Amount of Indoor Advertisement Viewer	123
<i>G. Kwan, J. Purnama, K. Eng</i>	
Indonesian Twitter Text Authority Classification For Government in Bandung	129
<i>J. Laksana, A. Purwarianti</i>	
Stock Trend Prediction Using Simple Moving Average Supported by News Classification.....	135
<i>S. Lauren, S. Harlili</i>	

Guided Summarization for Indonesian News Articles	140
<i>D. Massandy, M. Khodra</i>	
The Readiness Self-Assessment Model for Green IT Implementation in Organizations.....	146
<i>N. Muladi, K. Surendro</i>	
Quality-Based Framework for Requirement Analysis in Data Warehouse	152
<i>Munawar, N. Salim, R. Ibrahim</i>	
Optimization of Excitation-Emission bands for Estimating Viable Bacteria on Meat Surfaces with Fluorescence Spectroscopy.....	165
<i>H. Nagai, S. Nakauchi, G. Elmasry</i>	
Person Identification by Face Recognition on Portable Device for Teaching-aid System: Preliminary Report	171
<i>A. Nasution, B. Bayu, J. Miura</i>	
Pivot Translation Using Source-Side Dictionary And Target-Side Parallel Corpus Towards MT From Resource-Limited Languages	177
<i>T. Nomura, T. Akiba</i>	
Evaluating Industrial Cluster by using Spatial Auto Correlation of Patent Applications.....	181
<i>H. Nonaka, S. Kawano, T. Hiraoka, T. Ota, S. Masuyama</i>	
Improved Generalizations of The Karatsuba Algorithm in GF(2ⁿ)	185
<i>M. Nursalman, A. Sasongko, Y. Kuspriyanto</i>	
Estimation Of Inheritance Relationship Between Contents On Social Media - Case Study Of Niconico As A Video-Sharing Site -	191
<i>H. Ohta, A. Kobayashi</i>	
Restructuring Regular Business ERP System to be Transformed into Academic ERP System	197
<i>Olivia, K. Surendro</i>	
Anomaly-Based Intrusion Detection and Prevention System on Website Usage using Rule-Growth Sequential Pattern Analysis: Case Study: Statistics of Indonesia (BPS) Website	203
<i>Y. Pramono, Suhardi</i>	
Numerical Analysis for Wave Propagation in Circular Waveguide Using Cylindrical Coordinate System-based FDTD Method	209
<i>R. Rahmatillah, Chairunnisa, A. Munir</i>	
Ranking Prediction for Time-series Data using Learning to Rank (Case Study: Top Mobile Games Prediction).....	214
<i>A. Ramadhan, M. Khodra</i>	
Adaptive DE Based On Chaotic Sequences And Random Adjustment For Image Contrast Enhancement.....	220
<i>L. Rere, M. Fanany, A. Murni</i>	
Ontology based Classification for Multi-label Image Annotation	226
<i>I. Reshma, M. Ullah, M. Aono</i>	
Towards a Methodological Framework for Designing a Knowledge Market.....	232
<i>D. Rustam, T. Weide</i>	
Early Detection of Type II Diabetes Mellitus with Random Forest and Classification and Regression Tree (CART)	238
<i>M. Sabariah, A. Hanifa, S. Sa'Adah</i>	
Transformation of UML 2.0 Sequence Diagram into Coloured Petri Nets.....	243
<i>A. Saputra, T. Basuki, J. Tirtawangsa</i>	
Comparison of Syllable-based and Phoneme-based DNN-HMM in Japanese Speech Recognition.....	249
<i>H. Seki, K. Yamamoto, S. Nakagawa</i>	
A Joint Time Synchronization Concept for Wireless Communication System	255
<i>H. Setiawan, M. Kurosaki, H. Ochi</i>	
Ontology-based Knowledge Representation of Failure Mode and Effect Analysis on Electric/Electronic Architecture Modeling Conforming to the ISO 26262	260
<i>A. Silitonga, M. Hillenbrand</i>	
Prediction of Interest for Dynamic Profile of Twitter User.....	266
<i>E. Siswanto, M. Khodra, L. Dewi</i>	
Solving The Time Fractional Diffusion Equations By The Half-Sweep SOR Iterative Method	272
<i>A. Sunarto, A. Saudi, J. Sulaiman</i>	
E-Readiness Framework For Cloud Computing Adoption In Higher Education	278
<i>S. Surya, K. Surendro</i>	
Strain Hardening Prediction of Materials Using Genetic Algorithm and Artificial Neural Network	283
<i>M. Susmikanti, J. Sulistyo</i>	
T-E CLC: A Conceptual Model towards Creative Learning Community	287
<i>D. Suwawi, W. Maharani, H. Sastramihardja</i>	

A Comparison for Handling Imbalanced Datasets	293
<i>A. Syaripudin, M. Khodra</i>	
SAML Single Sign-On Protocol Development Using Combination of Speech and Speaker Recognition.....	299
<i>P. Telnoni, R. Munir, Y. Rosmansyah</i>	
Finding Effective Query Strings from Results of Primary Search	305
<i>R. Teshima, M. Okabe, K. Umemura</i>	
Query Subtopic Mining for Search Result Diversification.....	309
<i>M. Ullah, M. Aono</i>	
A Framework of Human Emotion Recognition Using Extreme Learning Machine	315
<i>P. Utama, Widodo, H. Ajie</i>	
Fuzzy Traffic Congestion Model based on Speed and Density of Vehicle.....	321
<i>D. Widyantoro, M. Munajat</i>	
Distinguishing Attack and Second Preimage Attack on Mini-AES CBC-MAC.....	326
<i>C. Wulamarisman, S. Windarta</i>	
Melody Generation System based on a Theory of Melody Sequence	336
<i>S. Yazawa, M. Hamanaka, T. Utsuro</i>	
A Comparison of Fingerprint Enhancement Algorithms for Poor Quality Fingerprint Images	342
<i>K. Yusharyahya, A. Nugroho, J. Purnama, M. Galinium</i>	
Author Index	