

2016 International Conference on Data and Software Engineering (ICoDSE 2016)

**Denpasar, Indonesia
26-27 October 2016**



**IEEE Catalog Number: CFP16AWL-POD
ISBN: 978-1-5090-5672-9**

**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:	CFP16AWL-POD
ISBN (Print-On-Demand):	978-1-5090-5672-9
ISBN (Online):	978-1-5090-5671-2

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

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Content

Data and Information Engineering Track

A Distance-based Outlier Detection Method for Rumor Detection Exploiting User Behavioral Differences 1

Yan Zhang, Weiling Chen, Chai Kiat Yeo, Chiew Tong Lau and Bu Sung Lee (Nanyang Technological University, Singapore)

Automatic Rhetorical Sentence Categorization on Indonesian Meeting Minutes 7

Ghoziyah Haitan Rachman and Masayu Leylia Khodra

Chinese Chess Character Recognition using Direction Feature Extraction and Backpropagation 13

Seniman, Dedy Arisandi, Romi Fadillah Rahmat, William and Erna Budhiarti Nababan

Classification Based on Constrained Progressive Sequential Pattern Mining: A Proposed Model 19

Regina Yulia Yasmin, Putri Saptawati and Benhard Sitohang

Classification of Indonesian News Articles based on Latent Dirichlet Allocation 24

Retno Kusumaningrum, Satriyo Adhy, M. Ihsan Aji Wiedjayanto and Suryono

Clustering Technique for Information Requirement Prioritization in Specific CMSs 29

Novi Setiani and Teduh Dirgahayu

Deep Learning and Distributional Semantic Model for Indonesian Tweet Categorization 35

Yanfa Adi Putra and Masayu Leylia Khodra

Fisheye Zoom and Semantic Zoom on Citation Network Visualization 41

William S. Hartono and Dwi H. Widyantoro

Focused Crawler for the Acquisition of Health Articles 47

Amalia Amalia, Dani Gunawan, Atras Najwan and Fathia Meirina

Fraud Detection Based-on Data Mining on Indonesian e-Procurement System (SPSE) 53

Hasan Asy'ari Arief, Putri Saptawati and Yudistira Dwi Wardhana Asnar

Full-Text Search on Data with Access Control using Generalized Suffix Tree 59

Ahmad Zaky and Rinaldi Munir

Handling Out of Vocabulary in Supervised Event Extraction on Indonesian Tweets: using Word Representation, Word List, Word Context and Document Level Features 65

Fawwaz Muhammad and Ayu Purwarianti

Hybrid Transformation in Privacy-Preserving Data Mining 71

Awalia W. Putri and Hira Laksmiwati

Image Enhancement Using Morphological Contrast Enhancement for Video Based Image Analysis 77

I Made Oka Widyantara, N. M. A. E. D. Wirastuti, I Made Dwi Putra Asana and Ida Bagus Putu Adnyana

Image Hiding Optimization Using Ant Colony Optimization Algorithm 83

Abba Suganda Girsang and Fauzi Pujanandi Utama

Indonesian Essay Grading System Using Natural Language Processing 88

Try Ajitono and Yani Widayani

Indonesian Shift-Reduce Constituent Parser 93

Mario Filino and Ayu Purwarianti

Information Extraction of Extend Relation in Scientific Papers 99

Yuliant Sibaroni, Dwi H. Widyantoro and Masayu L. Khodra

Machine Learning to Predict Person's Interest towards Visual Object by Utilizing EEG Signal 105

Linda Sekawati, Nur Ulfa Maulidevi and Suprijanto

Opinion Extracting and Classification from Questionnaire Comments Using HMM-POS Tagger and Machine Learning Techniques 111

Amir Hamzah and Naniek Widyastuti

Scalable Sequential Pattern Mining Based on PrefixSpan for High Dimensional Data 117

Muhammad Nur Akbar and G. A. Putri Saptawati

Sentiment Analysis of Economic News in Bahasa Indonesia Using Majority Vote Classifier 123

Zamahsyari and Arif Nurwidyantoro

Text-Based Search Engine Application Framework 129

Asri Maspupah and Saiful Akbar

Software Engineering Track

A Proposal for Quality Assessment Model for Software Requirements Specification in Indonesian Language for e-Government 135

Hastie Audytra, Bayu Hendradjaya and Wikan Danar Sunindyono

Business Rule Handling in Relational Databases 141

Rafi Ramadhan Isakh and Tricya E. Widagdo

Deduction of Fighting Game Countermeasures using Neuroevolution of Augmenting Topologies 147

Teofebano Kristo and Nur Ulfa Maulidevi

Designing Game for Customer Service Training 153

Restya Winda Astari and Shieny Aprilia

Dynamic Cache Memory Locking by Utilizing Multiple Miss Tables 159

Andrew L. Mocniak and Soon M. Chung

Dynamic Generic Web Pattern for Multi Platform 165

Hendra Komara, Bayu Hendradjaya and G. A. Putri Saptawati

Empirical Study on the Impact of Social Commerce Website Design Principles on Customer Purchase Decision 170

Cadelina Cassandra, Togar Alam Napitupulu and Jurike V. Moniaga

Evaluation of Software Design Pattern on Mobile Application Based Service Development Related to the Value of Maintainability and Modularity 176

Billy Susanto Panca, Sukrisno Mardiyanto and Bayu Hendradjaya

Feature Identification of Program Source Code using Regular Expression 181

Aston Parlindungan Tampubolon, Bayu Hendradjaya and Wikan Danar Sunindyo

Identifying Aspects of Web e-Learning in LMS-based for Requirement Engineering Process Modeling 187

Narti Prihartini, Hira Laksmiwati Soemitro and Bayu Hendradjaya

Regex Based Mutation Testing Operator Implementation 193

Mohamad Syafri Tuloli, Benhard Sitohang and Bayu Hendradjaya

Reliable Coordination Patterns in Cyber-Physical-Social Systems 199

Muhammad Z. C. Candra and Hong-Linh Truong

Reverse Engineering of Source Code to Sequence Diagram Using Abstract Syntax Tree 205

Esa Fauzi, Bayu Hendradjaya and Wikan Danar Sunindyo

Software Quality Model for Internet of Things Governance 211

Johan Tambotoh, Sani M. Isa, Ford Lumban Gaol, Benfano Soewito and Harco Leslie Hendric Spits Warnars

Software Versioning Quality Parameters: Automated Assessment Tools Based On the Parameters 217

Rickard Elsen, Inggriani Liem and Saiful Akbar

Test Case Generation Method for Go Language 223

Edbert Wijaya Irawan, Bayu Hendradjaya and Wikan Dinar Sunindyo

The Customer Adoption of Mobile Banking from an Interaction Perspective 228

Hotna Marina Sitorus, Rajesri Govindaraju, Iwan I. Wiratmadja and Iman Sudirman

User Interaction Analysis to Recommend Suitable Jobs in Career-Oriented Social Networking Sites 234

Shibbir Ahmed, Mahamudul Hasan, Md. Nazmul Hoq and Muhammad Abdullah Adnan

Utilization of AHP Method in Elicitation Process for Goal Oriented Implementation using KAOS Modelling 240

Wendi Wirasta, Hira Laksmiwati Soemitro and Bayu Hendradjaya

Virtualization Methods for Securing Online Exam 246

Alvin Natawiguna and M. M. Inggriani Liem

Data and Software Engineering in Practices Track

A Continuous Fusion Authentication for Android based on Keystroke Dynamics and Touch Gesture 253

Alifa Nurani Putri, Yudistira Dwi Wardhana Asnar and Saiful Akbar

A Novel Countermeasure to Prevent XMLRPC WordPress Attack 259

Kalpin Erlangga Silaen and Charles Lim

AHMDS: Advanced Hybrid Malware Detector System 265

Andre Susanto and Munawar Ahmad Z. A.

Business Intelligence System for Operational Decision Making Support: A Case Study on Lube Distribution 271

Mashudi, Nur Rachmawati, Tri Suranto and Irva Dwinovita

Comparisons of Diagnosis in Mapping Repair Systems 277

Inne Gartina Husein, Benhard Sitohang, Saiful Akbar and Fazat Nur Azizah

Design of Knowledge for Conversational Recommender System Based on Product Functional Requirements 283

Z. K. Abdurahman Baizal, Dwi H Widyantoro and Nur Ulfa Maulidevi

Development of Search on Encrypted Data Tools for Privacy Preserving in Digital Forensic 289

Khoirunnisa Afifah and Riza Satria Perdana

Discovering Frequent Origin-Destination Flow from Taxi GPS Data 295

Riezhan Syauqi Fanhas and G. A. Putri Saptawati

Enterprise Resource Planning System Continuance Usage Intention at Individual Level: An Approach from Value Perspective 301

Afrin F. Rizana and Rajesri Govindaraju

Framework Based Ontology for Heterogenous Big Data Correlation in Cloud Infrastructure 307

Tengku Adil Tengku Izhar and Bernady O. Apduhan

Landslides Susceptibility Mapping Using Fuzzy Logic: A Case Study in Ponorogo, East Java, Indonesia 313

Arif Basofi, Arna Fariza and Muhammad Rizki Dzulkarnain

Mapping Spatio-Temporal Disaster Data into MongoDB 320

Yani Widyani, Hira Laksmiwati and Elia Dolaciho Bangun

Predictive Modeling of the First Year Evaluation Based on Demographics Data: Case Study Students of Telkom University, Indonesia 325

Tora Fahrudin, Joko Lianto Buliali and Chastine Fatichah

Review of Ontology Matching with Background Knowledge 331

Inne Gartina Husein, Saiful Akbar, Benhard Sitohang and Fazat Nur Azizah

SCAC-MAT: Stream Cipher Algorithm with Ikeda Map Trajectories 337

Andre Susanto

Scenario Development to Improve Crude Palm Oil Production and Farmers' Revenue: a System Dynamics Framework 343

Erma Suryani, Rully A. Hendrawan, Isnaini Muhandhis and Lily Puspa Dewi

SHACL4P: SHACL Constraints Validation within Protégé Ontology Editor 349

Fajar J. Ekaputra and Xiashuo Lin

Simple yet Assured Tree Encryption (SATE) 355

Andre Susanto

The Implementation of Open Data in Indonesia 361

Dani Gunawan and Amalia Amalia

The Relationship of Physiological, Environmental and Cow Milk Productivity using AI 367

Sugiono, Rudy Soenoko and Debrina Puspita Andriani

Visualization Model of Moving Simple Region 373

Elia Dolaciho Bangun, Hira Laksmiwati and Yani Widyani