

2018 International Workshop on Big Data and Information Security (IWBIS 2018)

**Jakarta, Indonesia
12-13 May 2018**



**IEEE Catalog Number: CFP18H63-POD
ISBN: 978-1-5386-5526-9**

**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:	CFP18H63-POD
ISBN (Print-On-Demand):	978-1-5386-5526-9
ISBN (Online):	978-1-5386-5525-2

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 Contents

Welcome Message from General Chairs	i
Welcome Message from Dean of Faculty of Computer Science University of Indonesia	iii
Committee	v
Program at Glance	vii
Table of Content	ix

Plenary Lectures

Who is Alice? Privacy Risk, the Case of Regression	1
<i>Ashish Dandekar and Stéphane Bressan</i>	

Big Data

Profit Prediction using Regression Model for Travel Agents	7
<i>Rahmatika Pratama Santi and Masayu Leylia Khodra</i>	
Cross-Project Defect Prediction For Web Application Using Naive Bayes (Case Study: Petstore Web Application)	13
<i>Puja Ahmad Habibi, Victor Amrizal, and Rizal Broer Bahaweres</i>	
Hierarchical Spatial Pyramid Pooling for Fine-Grained Vehicle Classification	19
<i>Reza Fuad Rachmadi, Keiichi Uchimura, Gou Koutaki, and Kohichi Ogata</i>	
Decision Tree Ensemble vs. N.N. Deep Learning: efficiency comparison for a small image dataset	25
<i>Jérôme Treboux and Rolf Ingold</i>	
Descriptive and Predictive Analysis of Mail Order Pharmacy	31
<i>Hafid Yoza Putra and Masayu Leylia Khodra</i>	
The Dynamic of Banking Network Topology	37
<i>Andry Alamsyah and Dian Puteri Ramadhani</i>	

Improving wind power prediction with retraining machine learning algorithms	43
<i>Mariam Barque, Simon Martin, Jérémie Etienne Norbert Vianin, Dominique Genoud, David Wannier</i>	
Comparing Index Structures for Completeness Reasoning	49
<i>Fariz Darari, Werner Nutt, Simon Razniewski</i>	
Ensemble Support Vector Machine and Neural Network Method for Speech Stress Recognition	57
<i>Barlian Henryranu Prasetyo, Hiroki Tamura, Koichi Tanno</i>	
Support Vector Slant Binary Tree Architecture for Facial Stress Recognition Based on Gabor and HOG Feature	63
<i>Barlian Henryranu Prasetyo, Hiroki Tamura, Koichi Tanno</i>	
Performance Comparison of Rank Aggregation Using Borda and Copeland in Recommender System	69
<i>Sri Lestari, Teguh Bharata Adji, Adhistya Erna Permanasari</i>	
Visualization of Indonesian Bibliography A Scientometrics Approach	75
<i>Harry T. Yani Achsan, Wahyu Catur Wibowo, Wahyuningdiah T. H. Putri, and M. Muhtar Baswara Achsan</i>	
Predicting Bank Financial Failures using Random Forest	81
<i>Zuherman Rustam and Glori Stephani Saragih</i>	
Browsing Behavior Analysis from Wi-Fi Logs Based on Community Detection: Case Study on Educational Institution	87
<i>Mei Silviana Saputri, Ari Wibisono, Adila Krisnadhi, Adhi Yuniarto Laurentius Yohanes, Teuku Amrullah Faisal, Alvin Wardhana Utama, Muhammad Azmi Malik Ariefa, Andre Ramadhani, Aminur Muda</i>	
Ensemble Learning on Large Scale Financial Imbalanced Data	93
<i>Hadaq Rolis Sanabila and Wisnu Jatmiko</i>	
Performance Comparison of Bitcoin Prediction in Big Data Environment (Spark Architecture and GPU Environment)	99
<i>Sumarsih C. Purbarani and Wisnu Jatmiko</i>	
New Polynomial Based Bit-Level Serial $GF(2^m)$ Multiplier for Reed Solomon Codec Optimization	107

Petrus Mursanto, R. Dimas Nugroho

Time Performance Analysis of Multi-CPU and Multi- GPU in Big Data Clustering Computation	113
--	-----

Widiarto Adiyoso, Adila Krisnadhi, Ari Wibisono, Sumarsih Condroayu Purbarani, Anindhita Dwi Saraswati, Annissa Fildzah Rafi Putri, Ibad Rahadian Saladdin, S. Reyneta Carissa Anwar

Level 2 Features with Feedback Mechanism for Toddler Fingerprint Recognition	117
--	-----

I Gede Wahyu Surya Dharma, M. Anwar Ma'sum, Wisnu Jatmiko, and M. H. Hilman

Improving Principal Component Analysis Performance for Reducing Spectral Dimension in Hyperspectral Image Classification	123
--	-----

Dewa Made Sri Arsa, Hadaiq R. Sanabila, M. Febrian Rachmadi, and Wisnu Jatmiko

Muticodebook Neural Network Using Intelligent K-Means Clustering based on Histogram Information for Multimodal Data Classification	129
--	-----

M. Anwar Ma'sum, Dewa Made Sri Arsa, Indra Hermawan, Wisnu Jatmiko, Adi Nurhadiyatna

Information Security

Securing Confidential Documents in Local Network Using an Email Filtering Technique	137
---	-----

Patrice Samuel Rompas and Riza Satria Perdana

Image Preparation for Steganography Capacity Estimation for Specific Image Genre	143
--	-----

Andika Candra Jaya and Setiadi Yazid

On Developing Information Security Management System (ISMS) Framework for ISO 27001-based Data Center	149
---	-----

Dedy Achmadi, Yohan Suryanto, and Kalamullah Ramli

Practical Implementation of Information Security Management in the Energy Sector Insights from an Oil and Gas Organization in Indonesia	159
---	-----

Hadi Prabowo, Muhammad Rifki Shihab, and Rizal Fathony Aji

Author's Index	165
----------------	-----