

2021 International Conference on Data and Software Engineering (ICoDSE 2021)

**Bandung, Indonesia
3 – 4 November 2021**



**IEEE Catalog Number: CFP21AWL-POD
ISBN: 978-1-6654-9454-0**

**Copyright © 2021 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:	CFP21AWL-POD
ISBN (Print-On-Demand):	978-1-6654-9454-0
ISBN (Online):	978-1-6654-9453-3
ISSN:	2640-0235

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

A Systematic Literature Review on Virtual Laboratory for Learning.....1

Chessa Nur Triejunita, Atina Putri and Yusep Rosmansyah

A Systematic Review for Organizing Hackathons and Code Camps in Covid-19 Like Times: Literature in Demand to Understand Online Hackathons and Event Result Continuation.....7

Ari Happonen, Matvei Tikka and Usman Usmani

Abstract Syntax Tree (AST) and Control Flow Graph (CFG) Construction of Notasi Algoritmik.....13

Irfan Sofyana Putra, Satrio Adi Rukmono and Riza Satria Perdana

Activity-Centered Design of Web User Experience: A One-Stop Application for Design Sprints.....19

Tasya Lailinissa Diandraputri and Ginar Santika Niwanputri

Algorithm of Trending Videos on YouTube Analysis using Classification, Association and Clustering.....25

Johanes Andry, Stefan Reynaldo, Kevin Christianto, Francka Lee, Julia Loisa and Aman Manduro

BetterEyes: The Desirable and Convenient Way of Eye Care.....31

Muhammad Fariz Luthfan Wakan and Ginar Santika Niwanputri

Canopy Cover Estimation Based on LiDAR and Landsat 8 Data using Support Vector Regression.....37

Felliks Feiters Tampinongkol, Sahid Hudjimartsu, Yudi Setiawan, Lilik Budi Prasetyo and Wim Iqbal Nursalam

Community Detection on Social Network Using Community Diffusion with Social Influence Similarity.....41

Ardiansyah Setiajati and Gusti Ayu Putri Saptawati

Comprehension of Thread Scheduling for the C++ Programming Language.....47

Attila Gyén and Norbert Pataki

Correlation Analysis on Big Data for Legislative Election.....53

Latifa Dwiyantri, Yanti Rusmawati, Adyaksa Wisanggeni and Fata Nugraha

Decision Support System to Measure Child Development Based on Denver II using Naïve Bayes Classifier.....58

Yulia Ery Kurniawati and Yulius Denny Prabowo

Denoising MEMS data using Adaptive Wavelet Threshold in ETL Process for Predictive Railway Maintenance.....64

Nadia Prastiwi and I Gusti Nugraha

Designing Project Management Application to Support Developer Productivity using Goal Directed Design Approach.....70

Ayu Rifanny Margareth and Adi Mulyanto

Development of Blockchain-Based Traceability System for Fishery Products.....76

Edward Alexander Jaya and Muhammad Zuhri Catur Candra

EssenceProject: Software Project Planning Tools based on OMG's Essence.....82

Ferdy Santoso and Yani Widyani

Evaluating Control-Flow Graph Similarity for Grading Programming Exercises.....87

Kevin Sendjaja, Satrio Adi Rukmono and Riza Satria Perdana

Experiences and lessons learned from onsite and remote teamwork based courses in software engineering.....93

Jari Porras, Ari Happonen and Jayden Khakurel

Finding Dense Subgraph for Community Detection on Social Network Based on Information Diffusion.....102

Liptia Venica and Gusti Ayu Putri Saptawati

GitMonitor: a Software for Monitoring Project Schedules with Git Data.....108

Isa Mujahid Darussalam and Yani Widyani

Granular Modeling of User Experience in Load Testing with Automated UI Tests.....113

Erik Whiting

Groups Allocation Based on Sentiment-Epistemic Analysis in Online Learning Environment.....118

Hapnes Toba, Mewati Ayub, Maresha Caroline Wijanto, Roy Parsaoran and Ariyanto Sani

Image Enhancement of Infant's Fingerprints.....124

Anto Satriyo Nugroho, Christiandi Christiandi, Nurdianti Rizki Hapsari, Rully Kusumajaya and Gembong Satrio Wibowanto

Improving the Performance of Automated Optical Inspection (AOI) Using Machine Learning Classifiers.....130

Vahideh Reshadat and Rick Kapteijns

Integration Model for Learning Management Systems, Source Control Management, and Autograders using Service-Oriented Architecture Principle.....135

Bram Musuko Panjaitan, Satrio Adi Rukmono and Riza Satria Perdana

Interaction Design for Zero-Waste Application using Cooperative Gamification.....141

Saskia Imani, Yani Widayani and Yanti Rusmawati

Managing COVID-19 Test Certificates Using Blockchain Platform.....147

Rakhmad Budiono and Muhammad Catur Zuhri Candra

Mining Software Repository for Security Smell Code Review.....152

Ranindya Paramitha and Yudistira Dwi Wardhana Asnar

Rule-based Validation Module on EssenceBoard Method Editor.....158

Kevin Angelo and Yani Widayani

Scrum Modification for Small-scale Web Application Development.....164

Arvin Yustin, Yani Widayani and Yanti Rusmawati

Semantic Approach for Increasing Test Case Coverage in Automated Grading of Programming Exercise.....170

M. Rifky I. Bariansyah, Satrio Adi Rukmono and Riza Satria Perdana

Software Defect Prediction Using SMOTE and Artificial Neural Network.....176

Wisnu Arya Dipa and Wikan Danar Sunindyo

Spatial-Temporal Visualization of Dengue Haemorrhagic Fever Vulnerability in Kediri District, Indonesia, Using K-means Algorithm.....180

Arna Fariza, Mu'Arifin Mu'Arifin and Defa Widya Astuti

Spoonful: Mobile Application for Reducing Household Food Waste using Fogg Behavior Model (FBM).....186

Muhammad Akmal and Ginar Santika Niwanputri

Static Code Analysis Tool for Laravel Framework Based Web Application.....192

Ranindya Paramitha and Yudistira Dwi Wardhana Asnar