

4th Annual Technology, Applied Science and Engineering Conference (ATASEC 2022)

Science, Technology, Innovative Academic and
Vocational Research Towards Product Development
Through Industrial and Educational Cooperation

Advances in Engineering Research Volume 219

Malang, Indonesia
15 – 16 September 2022

Editors:

**Rosa Andrie Asmara
Arie Rachmad Syulistyo
Muhammad Shulhan Khairy**

**Vivi Nur Wijayaningrum
Indrazno Siradjuddin
Septian Enggar Sukmana**

ISBN: 978-1-7138-6602-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Print copyright© (2023) by Atlantis Press (part of Springer Nature)
All rights reserved.
Copyright for individual electronic papers remains with the authors.

For permission requests, please contact the publisher:

Atlantis Press
Van Godewijkstraat 30
3311GX Dordrecht
The Netherlands

contact@atlantis-press.com

Printed with permission by Curran Associates, Inc. (2023)

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Real Time Energy Management System for LiFePO ₄ Portable Generator Using Smart BMS	1
<i>Widjanarko, Nila Alia, Sonki Prasetya, Pondi Udianto, Fengky Adie Perdana</i>	
Experimental Research and Energy Consumption Analysis of a 350 Watt Brushless Electric Motor with LiFePO ₄ Battery.....	13
<i>Pondi Udianto, Fengky Adie Perdana, Vinan Viyus, Nila Alia</i>	
QRCode Recognition on Flutter Framework Mobile Application Implemented on Entrance Security System	23
<i>Rosa Andrie Asmara, Rizky Putra Pradhana Budiman, Mungki Astiningrum, Brian Sayudha, Anik Nur Handayani, Cahya Rahmad</i>	
Peer-Review Statements	35
<i>Rosa Andrie Asmara, Arie Rachmad Syulistyo, Vivi Nur Wijayaningrum, Muhammad Shulhan Khairy, Indrazno Siradjuddin, Septian Enggar Sukmana</i>	
The Effect of Aluminum Profile Thickness and Type of Lubricant on Punch Force.....	37
<i>Samsul Hadi, Agus Hardjito, Hangga Wicaksono, Fauzan Baananto, Rafik Djoenaidi, Pita Dewi Basoeki</i>	
The Role of the Temperature and Width of the Heating Plate of the Heating Plate in the Friction Stir Welding Jig on the Strength of Aluminium Alloy 1100 Welded Joint	50
<i>Agus Setiawan, Kris Witono, Sugeng Hadi Susilo</i>	
Utilization of Gondorukem Industrial Solid Waste into Activated Carbon as Adsorbent to Improve the Quality of Gondorukem Color.....	58
<i>Anang Takwanto, Yanty Maryanty, Anugrah Windy Mustikarini, Lusia Darminawati, Siti Nurhaliza</i>	
Effect of Bioinhibitor Additives on Biosolar Quality	72
<i>Maryanty Yanty, Wulan D. Ratna, Widjajanti Kristina, Maulinda Rahmiana, Rahmatika Nanda Aulia, Hadianoro Sigit</i>	
Preliminary Study on SQLearn : Sql Query Learning Tool Using Close Ended Drag and Drop Approach	84
<i>Putra Prima Arhandi, Annisa Taufika Firdausi, Banni Satria Andoko, Muhammad Shulhan Khairy, Muhammad Ilham Adhim, Ahmad Afif Supianto</i>	
Development of a Synchronization Meter for a Grid-Connected Small Scale Solar PV Applications.....	96
<i>Ferdian Ronilaya, Wildan Ahsani Taqvim, Moch Noor Hidayat, Supto Wibowo, Irwan Heryanto Eryk, Achmad Faris Rachmatilah</i>	
Osmotic Dehydration to Accelerate Bio-Drying Process of Food Scrap Waste	110
<i>Eko Naryono, Zakijah Irfin, Moch Agung Indraswara, Susanto Susanto, Anne Rahma Salsabila, Qodrun Nada Munfida, Kukuh Whisnu Prianggoro, Muhammad Ravly Maulana</i>	
Design Innovation of Grease Trap for Wastewater Treatment Arduino-Based.....	121
<i>Jane Muhardi, Nurhadi Nurhadi, Maulana Widianto, Abe Pantogomo, Difa Faryzahri, Fitra Rizal</i>	
Characterization of Differences in Cavity Positions Orientation in the Multi Cavity Plastic Molding Process on the Product Defects	131
<i>Moh Hartono, Gumono, Hangga Wicaksono, Ramadhan Araya Ismoyo</i>	

Design of Mini Grass Chopper Machine as a Solution to the Problem of Goat Food Resistance in Micro-Scale Farm.....	146
<i>Imam Mashudi, Muhammad Fakhruddin, Agus Hardjito, Hangga Wicaksono, Bayu Pranoto, Hilmi Iman Firmansyah</i>	
Design Innovation of Automatic Ammonia Control Sys-Tem for Environmentally Biofloc Fish Pools.....	154
<i>Nurhadi Nurhadi, Chandra Wiharya, Bayu Pranoto</i>	
Design and Analysis of Pneumatic Drilling Fixture Using a Microcontroller-Based Control System.....	164
<i>A. Faizin, H. Wicaksono, N. P. Sari</i>	
Analysis of the Number of Layers and Types of Carbon Fiber Against Tensile Strength, Compressing Strength and Shock Load of Bicycle Frame.....	179
<i>Sugeng Hadi Susilo, Hangga Wicaksono, Asror, Agus Setiawan</i>	
Software Requirement Specification for Learning Man-Agement System Design.....	187
<i>Eka Larasati Amalia, Vivin Ayu Lestari, Vivi Nur Wijayaningrum, Moch Zawaruddin Abdullah, Nabilah Argyanti Ardyaningrum, Widiareta Safitri</i>	
Genetic Algorithms for Holt Winter Exponential Smoothing Parameter Optimization in Indonesian Car Sales Forecasting.....	201
<i>Mamluatul Hani'Ah, Ika Kusumaning Putri, Ariadi Retno Tri Hayati Ririd</i>	
Performance Analysis of Mobile Learning Systems on Cloud Computing Using Load Testing Methods.....	214
<i>Yuri Ariyanto, Budi Harijanto, Atiqah Nurul Asri, A. Yahya Hudan Permana, Muhammad Nuruddin Ismail, Sofyan Noor Arief</i>	
Face Recognition Using ArcFace and FaceNet in Google Cloud Platform for Attendance System Mobile Application.....	223
<i>Rosa Andrie Asmara, Brian Sayudha, Mustika Mentari, Rizky Putra Pradana Budiman, Anik Nur Handayani, Muhammad Ridwan, Putra Prima Arhandi</i>	

Author Index