

6th International Conference on Industrial, Mechanical, Electrical and Chemical Engineering (ICIMECE 2020)

IOP Conference Series: Materials Science and Engineering
Volume 1096

Surakarta, Indonesia
20 October 2020

Part 1 of 2

Editors:

**Dominicus Danardono Dwi Prija Tjahjana
Indri Yaningsih
Ubaidillah Ubaikdillah
Muh. Hisjam
Miftahul Anwar
Sperisa Distantina**

ISBN: 978-1-7138-4595-9
ISSN: 1757-8981

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.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2022)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

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

PART 1

The 6th International Conference on Industrial, Mechanical, Electrical and Chemical Engineering – ICIMECE 2020

Peer review declaration

Potential of Latent Heat Load Removal by Activated Carbons for Energy Savings of Air Conditioning Systems.....	1
<i>T Miyazaki, Chairunnisa, F. Miksik, K Thu, J Miyawaki, K Nakabayashi, A T Wijayanta, F Rahmawati, B Kristiawan, I Yaningsih</i>	
Personalized Gait Treatment Using Passive Controllable Ankle Foot Orthosis.....	11
<i>Mohd Azizi Abdul Rahman, Dimas Adiputra</i>	
Effects of cell morphology and electrical properties on electric field and dielectrophoretic force generated in cell exposed to tumor-treating field	21
<i>K Kurata, T Iwata, K Shimada, H Takamatsu</i>	
A Framework of Integrated Sustainable Make or Buy Decision Model.....	32
<i>C N Rosyidi</i>	
Correlation of Pressure Drop in the Sintered Fibrous Porous Tube with Permeability and Friction Coefficient.....	38
<i>K Enoki, T Kobayashi, R Watanabe, Y Otomo, A Akisawa, I Yaningsih, B Kristiawan, A T Wijayanta</i>	
Implementation of Lean Manufacturing Process to Reduce Waste: A Case Study	52
<i>D Rahmanasari, W Sutopo, J M Rohani</i>	
Energy Efficiency Analysis in a Textile Company Using DMAIC Approach	61
<i>S Sakti, B M Sopha, E S T Saputra</i>	
Feasibility Study of Web-Based POS System Implementation for SMEs in Bangladesh	73
<i>A I Sourav, A W R Emanuel</i>	
Performance of EWMA and ANN-based Schemes in Detection of Denial of Service Attack.....	81
<i>Y Minn, A Hassan</i>	
Sustainable Energy Storage Management for a Power Plant-Transmission Station System with Hybrid Power Generation and Stochastic Electricity Demand.....	90
<i>W A Jauhari, I N Pujawan, M Suef</i>	
Equipment Replacement Analysis from Manual Line to Automatic Line in Palletizing Activities: A Case Study.....	98
<i>S D Susanti, W Sutopo, N H A Ngadiman</i>	
Six Sigma Implementation in Production Process in Electronic Company Malaysia	108
<i>M W D Utami, A Ma'aram, M Hisjam</i>	
Indicators of Smart City Using SNI ISO 37122:2019	120
<i>E Kristiningrum, H Kusumo</i>	

Network Characterization of Goods Movement in Indonesia	128
<i>B M Sopha, A Setiawan</i>	
Strategic Information Systems Planning for Higher Education in Uganda	138
<i>N D Lynn, A W R Emanuel</i>	
Improvement of Work Method with Eliminate, Combine, Re-arrange, and Simplify (ECRS) Concept in a Manufacturing Company: A Case Study	147
<i>A K Nisa, M Hisjam, S A Helmi</i>	
Realization of Noise Dosimeter Calibration Based on Percentage of Noise Dose Exposure using Absolute Method	157
<i>B Dwisetoyo, D Rusjadi, M R Palupi, C C Putri, F B Utomo, N R Prasasti, D Hermawanto</i>	
Production Machine Maintenance System Design Using Reliability Centered Maintenance	166
<i>P A Wicaksono, S Saptadi, D Nurkertamanda, R Rozaq</i>	
A Cut-off Grade Optimization Model in Multi Product Open Pit Mining Considering Reclamation and Valuable Waste Materials	175
<i>R Novitasari, C N Rosyidi, A Aisyati</i>	
Development of an Electronic Reverse Logistics Network Model: A Literature Review	185
<i>D P Sari, N A Masruroh, A M S Aasih</i>	
A Cut-Off Grade Optimization Model in Open Pit Mining Considering Reclamation Cost and Revenue	198
<i>N Baidowi, C N Rosyidi, A Aisyati</i>	
An Optimization Model of Nurse Scheduling Using Goal Programming Method: A Case Study	206
<i>Meidi Putri Ariyani, Cucuk Nur Rosyidi, Azizah Aisyati</i>	
Optimization Model for Determining Order Quantity for Growing Item Considering Incremental Discount and Imperfect Quality	216
<i>L Luluah, C N Rosyidi, A Aisyati</i>	
A Truck Allocation Optimization Model in Open Pit Mining to Minimize Investment and Transportation Costs	228
<i>M F Isnafitri, C N Rosyidi, A Aisyati</i>	
Development Models of Personality, Social Cognitive, and Safety Culture to Work Accidents in the Chemical Company	238
<i>R N Sari, D S Dewi</i>	
Redesign of Facilities Layout Using Systematic Layout Planning (SLP) on Manufacturing Company: A Case Study	249
<i>A T Haryanto, M Hisjam, W K Yew</i>	
Mini Review on Eddy Current Brakes Parameter	261
<i>M R A Putra, M Nizam, D D D P Tjahjana, A R Prabowo</i>	
Design a Mechatronic System (Robot) to Transfer Table Tennis Balls	271
<i>Md M Rahman, W J Yahya, K Mondal</i>	
Collaborative Robot Safety for Human-Robot Interaction in Domestic Simulated Environments	281
<i>T E Kaonain, M A A Rahman, M H M Ariff, W J Yahya, K Mondal</i>	

Design of Fishing Vessel 5 GT for Traditional Fishing Community Activities	290
<i>S F Khristyson, Jamari, A P Bayuseno</i>	
The Influence of Zalacca Short-Fiber Addition with Random Orientation on the Characteristics of Low-density Polyethylene Matriced Composites	296
<i>W P Raharjo, D Ariawan, B Kusharjanta</i>	
Design of Kaplan-Series Propeller for Commercial Submarine by Varying Rake Angle and Number of the Blade to Obtain the Highest Thrust and Efficiency	309
<i>Y D Putra, A F Zakki, A Trimulyono</i>	
Numerical Simulation of Long Duration Sloshing Using Smoothed Particle Hydrodynamics	323
<i>A Trimulyono, A F Rahardjo, I P Mulyatno, P Manik</i>	
Design of Hug Machine Portable Seat for Autistic Children in Public Transport Application	332
<i>I Y Afif, M I Maula, M B Aliyafi, A L Aji, T I Winarni, J Jamari</i>	
Simulation of Thermal Dispersion in Location of Development of Diesel Power Plant Using Computational Fluid Dynamics Methods	340
<i>M.S.K.T. Suryo, E. Yohana, T. Restiana, R. Gunawan, K. Rozi</i>	
Characterization of Calcium Hydroxide-treated Zalacca Fibers for Improving Properties as Reinforcement for Composites	349
<i>W P Raharjo, W W Raharjo, B Kusharjanta</i>	
Development of Utilization Alkali-Treated Bamboo Fiber as a Strengthener in Thermoset and Thermoplastic Composites	363
<i>K Roni, W W Raharjo, D Ariawan, Ubaidillah, Z Arifin</i>	
Utilization of Bamboo Fiber in the Development of Environmentally Friendly Composite – A Review	372
<i>G Pramudi, W W Raharjo, D Ariawan, Ubaidillah, Z Arifin</i>	
Parameters of Savonius Type Hydrokinetic Turbine to Enhance Efficiency	385
<i>R Handoko, S Hadi, Danardono, Ubaidillah, Z Arifin</i>	
The Characteristics of LPG Detonation Wave Propagation Behind Porous Media Model	394
<i>J Sentanuhady, J A Tuasikal, W Prasadha, A I Majid</i>	
A Numerical Ventilation Problem on Fridsma Hull Form Using an Overset Grid System	407
<i>Samuel, D J Kim, A Fathuddiin, A F Zakki</i>	
The Effect of T6 Heat Treatment on 7075 Aluminum on its Hardness and Tensile Strength	420
<i>F B Darsono, S T Koin</i>	
Experimental Performance of A Rotary Desiccant Wheel Without Honeycomb Matrix Structure: A Preliminary Study	430
<i>U Hanifah, M A Karim, A Haryanto, R Alfiyah, A Taufan</i>	
Determining Water Content of Non-Surfactant Emulsion Fuel Using Bomb-Calorimeter	438
<i>D A Sugeng, M Abrori, A Syafrinaldy, H A Kadir, F R Saputro, B H Kusdi, I Bahiuddin, W J Yahya</i>	
Recent Progress of Fused Deposition Modeling (FDM) 3D Printing: Constructions, Parameters and Processings	446
<i>G Prayitno, F Imaduddin, Ubaidillah, Z Arifin</i>	

Magnetorheological Fluid Yield Stress Prediction Using Particle Swarm Optimization at Low and High Shear Rate Region	458
<i>I Bahiudin, F Imaduddin, S A Mazlan, M I Saphiai, A A Ismail</i>	
Effect of Ceiba pentandra Biodiesel/Dexlite Diesel Blends on the Four-Stroke Diesel Engine Performances	467
<i>D Widjanarko, R D Kusumaningtyas, I P Jamari</i>	
The Effect of Copper-Aluminium Perforated Heat Sink to Improve Solar Cell Performance	473
<i>A C Kusuma, C Harsito, R A Rachmanto, Z Arifin</i>	
Application of Elliptical Blade Shape to Enhance Power Generation of the Savonius Water Turbine	483
<i>A Sutaji, M Yusvika, D D D P Tjahjana, S Hadi</i>	
Prediction of the Hydrodynamic Performance of an Elliptical Blade Savonius Turbine using Computational Fluid Dynamics	492
<i>M Yusvika, A Sutaji, A R Prabowo, F Imaduddin, S Hadi</i>	
Photovoltaic Performance with Heat Sink from Copper and Aluminum Material	502
<i>A Maulana, R A Rachmanto, S Hadi, Z Arifin</i>	
Solar Cell Cooling with Phase Change Material (PCM) for Enhanced Efficiency: A Review	509
<i>D B Seto, B Kristiawan, Ubaidillah, Z Arifin</i>	
Analysis of TiO ₂ /Water-based Photovoltaic Thermal (PV/T) Collector to Improve Solar Cell Performance.....	521
<i>A F Fadli, B Kristiawan, Suyitno, Z Arifin</i>	
Characteristic of Unhulled Rice Drying on Swirling Fluidized Bed Dryer	530
<i>Novrinaldi, S A Putra, A Sitorus</i>	
Fabrication and Characterization of PLA/Nanocrystalline Cellulose Nanocomposite Filaments for 3D Printing Application	538
<i>Kusmono, O E R Wiratma</i>	
Numerical Analysis of Heat Transfer Improvement in Flat Tube Car Radiator by Using TiO ₂ /Water Nanofluids	547
<i>B Kristiawan, A T Wijayanta, I Yaningsih, E P Budiana, S Hadi, D A Himawanto</i>	
Noise Quality and Muffler Design of A Formula SAE Racecar.....	555
<i>A Masa'id, Ubaidillah, B W Lenggana, D R Pratama, E T Maharani, F R Sinaga</i>	
Strategy and Master Plan for Water Supply and Domestic Wastewater in Klungkung Regency, Bali	563
<i>I Y Septiariva, I W K Suryawan, S Suhardono, E S Sofiyah, N L Zahra</i>	
Investigation of Ecohouse through CFD Simulation	574
<i>D P Sari, I Gunawan, Y S Chiou</i>	
Design Low Cost and Contactless Temperature Measurement Gate Based on the Internet of Things (IoT)	583
<i>A Ramelan, G S Ajie, M H Ibrahim, S Pramono, M A Rizqulloh</i>	
Performance Evaluation of Different Objective Function in PID Tuned by PSO in DC-Motor Speed Control.....	590
<i>H Maghfiroh, J S Saputro, C Hermanu, M H Ibrahim, A Sujono</i>	

Design and Simulation Multilevel Boost Converter Using PI Controller Ziegler Nichol Method	598
<i>M B Kurniawan, M Z Efendi, F D Murdianto</i>	
Multi DC Load Single Port Output Adaptive Power Charge Using Fuzzy Logic Controller.....	607
<i>A N Maulidyna, I Sudiharto, F D Murdianto</i>	
Cyber-Physical Systems-Based PID Controller for Three Interacting Tank Process Level Control.....	615
<i>E Joelianto, V Nadhira, H Hammami, Hariyadi</i>	
Design and Simulation of Single-Input Multi-Output (SIMO) Flyback Converter Using PI Controller for Emergency Power Supply	629
<i>F C Saputri, M Z Efendi, F D Murdianto</i>	
Modeling and Simulation of MISO-Buck Converter Using ANFIS on DC Microgrid Distribution System	639
<i>R P Anggraini, M Z Efendi, F D Murdianto</i>	
Design and Implementation of Bipolar Sepic-Cuk Converter with Fuzzy Logic Control for Battery Charging Application	647
<i>D J Triandy, E Wahjono, F D Murdianto</i>	
Prediction Point of Fault Location on Its Campus Power Grid by using Neural Artificial Method	659
<i>A Syamsudin, I Hafidz, D Rahmatullah, D A Asfani, I M Y Negara</i>	
IoT Based Building Energy Monitoring and Controlling System Using LoRa Modulation and MQTT Protocol	669
<i>A Ramelan, F Adriyanto, B.A.C Hermanu, M H Ibrahim, J S Saputro, O Setiawan</i>	
Binerization of Panoramic Dental Image for Dental Anatomy Identification	674
<i>B Fatkhurrozi, I Setyowati, C R Nurhayata</i>	
Performance Evaluation of Fuzzy-PID in Speed Control of Three Phase Induction Motor.....	683
<i>H Maghfiroh, J S Saputro, F Adriyanto, A Sujono, R L Lambang</i>	
Design and Implementation of Hybrid Filter for Harmonic Reduction and Damped Resonances in Non-Linear Loads.....	691
<i>Y C Arif, L P S Raharja, S Auladah</i>	

PART 2

Design of Microcontroller-Based Potentiostat for Determination of Ethanol Integrated with Smartphone through Internet of Things.....	703
<i>I M Farhan, M N Aldy, J Nabillah, F Adriyanto</i>	
Utilization of Information System in Dies Control for Improvement of Quality and Production Efficiency in Manufacturing Industry	714
<i>S Pramono, H Yulia, B D Jati, A Ramelan, J S Saputro</i>	
Web-Based Telegram Chatbot Management System: Create Chatbot Without Programming Language Requirements	725
<i>M W Hasyim, S Pramono, Sutrisno</i>	
Prototyping Adaptive Cruise Control on Electric Motorcycle	737
<i>D A Purba, M Nizam, H Maghfiroh, M R A Putra, Inayati</i>	

Electromyography (EMG) and Hand Gripping Force During Standing and Sitting.....	743
<i>M Mahadi, N Nazmi, N A Bani, S A S A Rahman, N M Noor, S Z A J Zainuddin</i>	
Performance of 5G-NR under Semarang Channel Model	753
<i>E D Wardihani, H W Astuti, A Suharjono, S Pramono</i>	
Implementation of Real-Time Edge Detection Using Canny and Sobel Algorithms	763
<i>N D Lynn, A I Sourav, A J Santoso</i>	
Current Voltage Analysis of High Voltage Plasma Discharge.....	771
<i>R. Fadhillah, M. Anwar, Y. M. P. Perdana, L. Anjarwati, C.H.B. Apribowo</i>	
Recent Trends of Big Data in Precision Agriculture: a Review	778
<i>A I Sourav, A W R Emanuel</i>	
Design and Analysis Performance Solar Power Plant 15 kW By Maximizing Final Yield and Performance Ratio In Small-Medium Office.....	787
<i>C H B Apribowo, M Nizam, S Pramono, H Maghfiroh, K Hakim</i>	
Using Data Mining Techniques to Predict Students' Performance. a Review	799
<i>N D Lynn, A W R Emanuel</i>	
An Optimum Design and Economic Analysis of Renewable PV-Standalone Power Plant for Electric Vehicle Charging Station in Indonesia.....	808
<i>C H B Apribowo, M Nizam, M Anwar, Z Arifin, D D D P Tjahjana, I Iftadi, Inayati, A Ramelan, M N Falich</i>	
Application of Lean Project Management Method in Environmental Drainage Development Case Study: x Area Bekasi City	818
<i>S Maulana, F D Ariyanti</i>	
Optimization Stacker Reclaimer Slewing Bearing Assessment in Mechanical Inspection Combining with Advance Technology of Vibration Analysis	831
<i>A B Sasongko, B Priyohutomo, D Sulisty</i>	
Redesign Integrated Control System GTG and HRSG to Reduce Loss of Electrical Production at Combined Cycle Power Plant Muara Karang.....	846
<i>S Nurkholiq, R K Putra, A Khumaidi, F Fatimah, E Kusuma</i>	
Inlet Guide Vane Tracking Effectiveness at Various Compressor Efficiency of Gas Turbine.....	855
<i>O Purba, F Zhultriza</i>	
Gas Turbine Hidden Capacity Recovery by Inlet Air Filter Variation Method to Produce Clean and Efficient Energy	864
<i>O. Purba, F. Zhultriza</i>	
Emission Dispersion Modelling using AERMOD on GT 1.3 PLTGU Muara Karang in Evaluate Combustor Upgrade Effect.....	875
<i>F Leilan, T Revina, D S Hutajulu</i>	
Scrap Metal Reduction as the Effect of Combustor Upgrade in GTG 1.3 PLTGU Muara Karang.....	883
<i>F Leilan, T Revina, I Dimassetya, A Rahmanissa</i>	
Natural Frequency Evaluation of Last Stage Steam Turbine Blade Power Plant Using Finite Element Method	891
<i>A M Kokong, T Widjayanto, H Setiawan, A R Laksana, I Djunaedi</i>	

Flutter Analysis of Last Stage Steam Turbine Power Plant Blade Through Transient Blade Row Simulation	903
<i>A R Laksana, A M Kokong, P Agus Sigit, T Widjajanto, H Setiawan, I Djunaedi</i>	
Numerical Investigation of Heat and Fluid Flow Characteristics through Steam Coil Air Preheater Installed in 100 MWe Utility Boiler.....	916
<i>E Ariyanto, W A Widodo</i>	
Emission dispersion modelling of Gresik power plant using Gaussian analysis to evaluate environmental impacts in receptor point	926
<i>D Y Damara, M D Dermawan</i>	
Indramayu 3 x 330 MW CFPP Coal Yard Management Optimization with K-Means Clustering.....	935
<i>S Andria</i>	
Failure Analysis in Lacing Wire Of Last Stage Low Pressure Steam Turbine Blade	944
<i>A M Kongkong, H Setiawan, J Miftahul, A R Laksana, I Djunaedi, Suwarno</i>	
Decarbonizing Electricity in Indonesia: Opportunity in the Implementation of Rooftop Solar PV	956
<i>P Sukarso, Adimas</i>	
Study of Non-condensable Gas, Fouling, and Plugging Effects on Condenser Performance Using NTU-Effectiveness Analytic Method and 2D Numeric Simulation	966
<i>H A Tamimi, Prabowo</i>	
Root Cause Analysis of Fires in Coal Power Plants Using RFMEA Methods.....	977
<i>M J Nugroho, E Bahartyan, R Raymond, B Hidayat, M I Irawan</i>	
PT PJB UPHT Calibration Laboratory Business Strategy with Business Model Canvas Method	986
<i>I Ardiansyah, A W Ariyanto</i>	
Optimization of Sedimentation System through AHP and AHP-TOPSIS Methods in Water Treatment Steam Power Plant	1001
<i>Y E Feriyanto, S P Zulfikar, Dedy</i>	
Development of Reliability-Based Decision Making for Optimum Operation and Maintenance Strategy in Coal-Fired Power Plant.....	1013
<i>M F Akhsani, M N Yuniarto</i>	
Numerical Study to Improve Fluid Flow Patterns in HRSG by using a Turning Vane and a Combination of using a Turning Vane with Transition Zone Geometry Modification	1023
<i>E A Yuwono, W A Widodo</i>	
Increasing the Number of Inductive Stove Users in Indonesia Using Cognitive Intervention Model to Support Industry 4.0 Implementation at PT PLN (Persero)	1033
<i>A S Ramadhan, E A Ulfa</i>	
Re-design and Upgrade Bearing Materials Traveling Drum Screen in Muara Karang Combined Cycle Power Plant Block 1.....	1042
<i>A Kurniawan, E Kusuma</i>	
Study of Debris Filter Valve Opening Angle Adjustment for NPHR Improvement in Kaltim Teluk CFPP.....	1050
<i>A Santoso, A Priyono, K Huda</i>	

Implementing Risk-Based Maintenance Strategies for Distributed Control System as Power Plant Asset Management	1061
<i>D T Yulianto, R M Isman, S N Ihsan, H G Susanto</i>	
Exergy and Energy Analysis of CFPP.....	1075
<i>R J Musyafa</i>	
Cavitation Draft Tube Analysis of Francis Turbine Loads Variations: A Case Study from Cirata Hydropower Plant.....	1083
<i>R T Sibuea, H Mirmanto</i>	
A Proposed Scheme and Future Development for Carbon Trading System in Indonesia based on Case Study in Muaratawar Add-On Power Plant	1094
<i>A Adhiyoso, I Pardiansyah, P Y Akshinta, I M Aryata</i>	
The Effect of Decreasing Gas Turbine Flue Gas Temperature on The Performance of Muara Tawar Combined Cycle Power Plant.....	1105
<i>Muchlisin, Nastopo Darmawan, Setya Budi</i>	
Simulation of Effects Off Service Closed Feedwater Heater on Steam Power Plant Performance Using Cycle Tempo 5.0.....	1114
<i>R Mahendra, C G Wiratama, A Setiyawan</i>	
Study on PV System Development at UP Brantas for Hydroelectric Power Plant Station Service Supply.....	1125
<i>Irwan</i>	
Gas Fuel Mixing to Reduce Elemental Sulfur Formations on Gas Regulating and Metering Stations in Muara Karang Steam Power Plant	1133
<i>F Ericson, R Moulina, P P Jayawardana</i>	
Hybrid Grey Wolf Algorithm for Energy-Efficient Scheduling with Sequence-Dependent Setup Times: A Case Study	1141
<i>D M Utama</i>	
Analysis of Muara Tawar CCPP Block 1 Steam Turbine Vibration	1151
<i>Asnawadi Hidayat, Iman Firmansyah, Unggul Wasiwitono</i>	
Collaboration Holistic Enterprise Architecture and Asset Management System for Power Generation	1159
<i>Rianti Setiyowati, M Zemmy, P J Agung</i>	
A Study of Reducing Waste Heat Rejected By Condenser Using Thermoelectric Heat Pumps to Decrease Net Plant Heat Rate of Coal Fired Power Plant	1169
<i>I G A Chandra Satriya Wibawa, M Yunus Qomarul Huda, M K Wisyaldin</i>	
Technical Study of Developing Floating Photovoltaic 145 MWac Power Plant Project In Cirata Reservoir	1178
<i>Toni Sukmawan, Hanif Nursyahbani, Hendras D Wahyudi, Trenindya Gunawan, Adi A Wijaya</i>	
Strategic Framework Supply Chain through Kraljic Purchasing Portfolio in O&M Power Plant Company	1188
<i>M Zemmy, Rianti Setiyowati</i>	
Surging Phenomenon in Gas Engine Crankcase.....	1196
<i>V M Arsana, R R Riski, P Wahyudi</i>	

Study of Counterweight Addition to Improve Structural Stability of Ship Unloader at Pulang Pisau CFPP.....	1203
<i>K Huda, A Safii, A Priyono</i>	
Repair of Cracked 150 MW High-Pressure Steam Turbine Rotor Coupling.....	1216
<i>A Hapsoro, H Hanipa, K Grebinnyk</i>	
Efforts to Reduce SO ₂ Emission in Paiton Coal-Fired Power Plant	1224
<i>Andri, B H Basuki, E S Seputro, E Kusuma</i>	
Failure Investigation of Repetitive Crack on MW-701D Gas Turbine Exhaust Manifold	1232
<i>W A Laksana, A Santosa, Suwarno, P A Swastika, N C Dhimas</i>	
Effect of Heat Input in Dissimilar Welding on SS304H and T22 to Hardness Distribution and Delta Ferrite Content with GTAW Process.....	1242
<i>A Santosa, Suwarno, W A Laksana, F A Mantika</i>	
Power Generation Fire Risk Evaluation Using House of Risk (HoR) Method With an Asset Management Approach	1253
<i>D H Hamka, D S Sutarto, H Pariaman, M Hisjam</i>	
Full Loop Numerical Simulation of Fluidization Characteristics at Cyclone and Furnace of 110 MW CFB	1265
<i>A Wirahadi, P Batubara</i>	
Application of Theory of Constraints (TOC) in Power Generation to Increase Overhaul Maintenance Performance and to Strengthen Overhaul Management Process	1274
<i>K B Rahadi, A Setyanto, D Rohmansyah</i>	
CFD Modeling to Analyze Palm Shell Co-firing Percentage on Ketapang CFB Power Plant	1282
<i>J Dian, H D Saksono, A Nugroho</i>	
Study of Economic Viability of Floating Photovoltaic Electric Power in Indonesia.....	1292
<i>A A Untoro, T Gunawan, B D Hidayanto, F A Perkasa, A A Wijaya</i>	
Determination of VAR Compensator Placement for System Stability Improvement on Java Bali Network.....	1300
<i>A E Apriyanto, A R Virgiawan, H Pariaman, M Hisjam, N Hariyanto</i>	
Computational Simulation of Gas-Solid Flow to Reduce Erosion in a Circulating Fluidized Bed (CFB) Boiler.....	1311
<i>M K Wisyaldin, P Y Akshinta, A Barkati, H Pariaman, M Hisjam</i>	
A Reductive Pre-Treatment to Improve NCA Cathode Material Hydrometallurgical Recycle Process.....	1320
<i>A Jumari, M Nizam, E R Dyartanti, Suranto, C S Yudha, S U Muzayanha, E Apriliyani, A Purwanto</i>	
Determination of Household Green Waste Fractions to Methane and its Economic Value	1328
<i>E Joeliyanto, H P Edison</i>	
Effect of Rotational Speed on Microstructure and Optical Properties of Bismuth Ferrite Oxide (BiFeO ₃).....	1337
<i>Y Iriani, R Suryana, E B Agustina</i>	

Microstructure, Morphology, and Dielectric Properties of Ba _{1-x} La _x TiO ₃ with Variation Mole Concentration of Lanthanum by Co-Precipitation Method	1344
<i>U Ulfa, Y Iriani, K Kusumandari</i>	
Influence of Reactive Ion Etching Time on Fabrication of Porous Silicon on Si (110) Substrates	1352
<i>R Suryana, M M Mas'ud, O Nakatsuka</i>	
Preliminary Investigation of NiO Anode for NCA/NiO Battery from Spent Catalyst Recovery	1357
<i>S S Nisa, A R Nurohmah, C S Yudha, M Rahmawati, T Paramitha, H Widiyandari, E R Dyartanti, A Purwanto</i>	
Synthesis LiFePO ₄ at Various Atmosphere Condition	1366
<i>I P Lestari, M Arinawati, A P Hutama, C S Yudha, M Rahmawati, H Widiyandari, A Nur, A Purwanto</i>	
Fabrication of PVDF/SiO ₂ Nanofiber Membrane as A Separator of Li-ion Battery by Double Jet Sprayers Electrospinning Method	1373
<i>H Widiyandari, O A Putra, A Purwanto, A Subagio</i>	
Synthesis of Modified Graphite with High Crystalline Na-LTO by Simple Doping Method.	1380
<i>M I Putra, S U Muzayanha, Y Rizal, Fadilah, H Widiyandari, A Purwanto</i>	
Recent Development of Polyvinylidene Fluoride/Cellulose Membranes Electrolyte Separator for Lithium Ion Batteries.....	1386
<i>E R Dyartanti, N Sunaryati, R R Alhakim, L N Putri, A Y M Putri, A R Nurohmah, S S Nisa</i>	

Author Index