2017 2nd International Conference on Sustainable and Renewable Energy Engineering (ICSREE 2017)

Hiroshima, Japan 10-12 May 2017



IEEE Catalog Number: ISBN:

CFP17L31-POD 978-1-5090-6340-6

Copyright © 2017 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:
 CFP17L31-POD

 ISBN (Print-On-Demand):
 978-1-5090-6340-6

 ISBN (Online):
 978-1-5090-6339-0

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



Table of Contents

2017 2nd International Conference on Sustainable and Renewable Energy

Engineering

ICSREE 2017

Prefacevii Conference Committeesviii
Analysis and Evaluation of Biomaterials
Effects of Acid and Alkali Promoters on Organosolv Fractionation of Sugarcane Bagasse Using Ternary Solvent System
Nopparat Suriyachai, Navadol Laosiripojana, and Verawat Champreda
Power Efficiency of Silica Slurry Flow in Spiral Pipe with Additive Biopolymer
Synthesis, Characterization and Microbial Protection of Palm Oil Based Polyurethane / Bentonite / Chitosan as Paint and Coating Material
Teuku Rihayat, Suryani Salim, Halim Zaini, Salmiyah, Cut Aja Rahmawati, Kurniati, Yeni Irawan, and
Zaimahwati
Simulation of the Combustion of Bio-Derived Fuels in a CFM56-3 Combustor
Mechanical and Manufacturing Engineering
Calculation Method of Excess Air Ratio for Blast Furnace Gas Fired Boiler
Discussion on Size of Small Proportion Wave Tank for Oil Spill Dispersant Application Effectiveness Test

Wu Xuan and Qiao Bing
A Review of Research on Electric Vehicle Charging Facilities Planning in China
Effect of Butanol Additive on the Performance and Emission of Australian Macadamia Biodiesel Fuel in a Diesel Engine
Environment and Architecture
Experimental Analysis of Double and Triple Glazed Façades with Different Shading Devices in Qatar 38 Albert Al Touma and Djamel Ouahrani
Assessing the Thermal Performance of Envelope Parts under Climate Change Scenarios (Residential Case Studies in Egypt)
Mohamed M. Mahdy, Mohammad Fahmy, Mohamed Barakat, and Marwa F. Abdelalim
Potential of Oil Palm Empty Fruit Bunches for Bioethanol Production and Application of Chemical Methods in Bioethanol Wastewater Treatment (OPEFB for Bioethanol and Its Wastewater Treatment)
Ajeng Arum Sari, Novita Ariani, Muryanto, Tony Bagaswara Utomo, and Sudarno
Economic and Environmental Load Dispach Using Genetic Algorithm53
Mertcan Sevil, Onur Ayan, and Belgin Turkay
The Optimaztion of Train Collection Strategies in Coal Ports with Eco-friendly Yards: (A Case Study in Nothern China)
Xu Xinglu, Wang Wenyuan, Peng Yun, and Song Xiangqun
New Energy Development and Energy Storage
Strategies for the Reduction of Energy Storage Capacity for High Penetration of Wind and Solar Power
James R. Doyle and Hannah Johlas
Green Energy Storage Monitor System (Electricity Storage)
Performance and Economic Analysis of Solar Water Pump System

Bancha Sreewirote, Akeratana Noppakant, and Chaichan Pothisarn
Hydrogen from Tobacco Waste
Estimation of Coal Consumption Rate Based on Operating Parameters
INPATH — TES (Innovative Pathways to PhD Research in Thermal Energy Storage)
Power Engineering and Systems
Investigation on Cost Reflective Network Pricing and Modified Cost Reflective Network Pricing Methods for Transmission Service Charges
N. H. Radzi, K. Iskandar, M. N. Abdullah, M. S. Kamaruddin, S. A. Jumaat, and R. Aziz
Neuro Wavelet Algortihm for Detecting High Impedance Faults in Extra High Voltage Transmission Systems
Isa Hafidz, Elyza Nofi P, Dimas Okky Anggriawan, Ardyono Priyadi, and Mauridhi Hery Purnomo
Design System Detecting and Monitoring Current Harmonics Using Online S Transformation Based on LabVIEW
Muy Thoeurn, Arfian Edy Tama, Ardyono Priyadi, and Mauridhi
Design of an Embedded Monitoring System Used for the Operation Conditioning of Wind Turbine (Wind Energy)
Jheng Lin, Cai, Ching-Biau, and Tzeng
Analysis of Grid-Connected Photovoltaic System Using PSIM
Comparison of Lighting Technologies in Residential Area for Energy Conservation
Remaining Useful Life Prediction of Aluminum Electrolytic Capacitors Used in Wind Turbines
An Evaluation Index of Voltage Stability of Distribution Network Considering DG

Tu Jing-jing and Yin Zhong-dong	
Evaluation of Power Quality Experience in UCSI University North Wing Campus	129
Mallek Moh A Aggiag and Rodney H.G. Tan	
Mitigation of the Magnetic Field Produced by Low Voltage Terminals of Electric Transformer in Transformation Chambers for Hospital Buildings	134
Ernesto Abril Chafla, Ernesto Abril Garcés, and Alvaro Mullo Quevedo	101

Author Index