

ASTECHNOVA International Energy Conference 2016

Advanced Energy Innovation

E3S Web of Conferences Volume 42 (2018)

Yogyakarta, Indonesia
2-3 November 2016

Editors:

**Ir. Sunarno
Liem Peng Hong**

Agus Pulung Sasmito

ISBN: 978-1-5108-6592-1

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 license:
<http://creativecommons.org/licenses/by/2.0/>

You are free to:

Share – copy and redistribute the material in any medium or format.

Adapt – remix, transform, and build upon the material for any purpose, even commercial.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. The copyright is retained by the corresponding authors.

Printed by Curran Associates, Inc. (2018)

For additional information, please contact EDP Sciences – Web of Conferences
at the address below.

EDP Sciences – Web of Conferences
17, Avenue du Hoggar
Parc d'Activité de Courtabœuf
BP 112
F-91944 Les Ulis Cedex A
France

Phone: +33 (0) 1 69 18 75 75

Fax: +33 (0) 1 69 28 84 91

contact-edps@webofconferences.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

Multilevel Diffuser Augmented for Horizontal Axis Wind Turbine	1
<i>Qashidi Putra Fariz, Rifai Dani, Suryopratomo Kutut, Budiarto Rachmawan</i>	
Post-Installation: Insight of Coastal-Area Society in Hybrid Electric Power Systems (HEPS) of Pantai Baru, Yogyakarta	7
<i>Widhyharto Derajad S.</i>	
Energy Monitoring System for Existing Buildings in Indonesia	18
<i>Sesotya Utami Sentagi, Faridah, Azizi Na'im A., Kencanawati Erlin, Tanjung M. Akbar, Achmad Balza</i>	
Mass and Energy Balance Analysis of Methanol Production Using Atmospheric CO2 Capture with Energy Source from PCMSR	25
<i>Harto Andang W., Soelanda Mella</i>	
Numerical Study of a Thermosyphon Cooling System: Film Condensation	31
<i>Arbiyani Filian</i>	
The Effect of Temperature Variation on Water Scrubber System to Optimize Biogas Purification	39
<i>Abdurrahkman Arief, Kurniawan Dhirga, Machrus Adhim Moch</i>	
Fuel Loading Pattern Optimization with Constraint on Fuel Assembly Inventory Using Quantum-Inspired Evolutionary Algorithm	42
<i>Rizki Oktavian M., Agung Alexander, Widi Harto Andang</i>	
Design of Hydro Power by Using Turbines Kaplan on The Discharge Channel Paiton 1 and 2	50
<i>Sosilo Alvin K., Hadi Harsono, Soehartanto Totok</i>	
Potential Analysis of Ex-Coal Mining Land As Pumped Storage Hydro Powerplant In Kutai Kartanegara, East Kalimantan	55
<i>Z. Devi Yollanda, Harto Andang W., Budiarto Rachmawan, Trihastuti Novi</i>	
Anti Surge Control of Centrifugal Compressor at PT. Pertamina EP Asset 2 Field Pendopo	61
<i>Hakim Muhammad L., Achmad Balza, Sutikno Juwari P.</i>	
The Study of System Planning of Assets Security on Marine Current Renewable Energy	68
<i>Wardani Arinta Y., Prananda Juniarko, Arief Irfan S., Suherman Irwan H.</i>	
Purification of Biodiesel Using Activated Carbon Produced from Cocoa Pod Husk	71
<i>Rachmat Devita, Agustin Aprillia D., Risanti Doty D.</i>	
Numerical Study of the Effect of Geometry Variation on the Performance of Innovative Design Wind Speed Enhancer	75
<i>Wibowo Theodorus T., Daulay Faizal H., Suryopratomo Kutut, Budiarto Rachmawan</i>	
Nuclear Security Training: A New Approach for Educating Nuclear Technology in Indonesia	84
<i>Ferdiansjah, Hario Putro Susetyo, Sihana, Rosita Widya, Faridah</i>	
Development of Fuel Debris Inspection Methods using Air-Coupled Ultrasound	88
<i>Hamdani Ari, Kikura Hiroshige, Kimura Shun, Tsukada Keisuke, Sasa Daisuku, Oomori Shuichi</i>	
Development of Biobriquette from Nutmeg Seed Shells	95
<i>Idris Rukmana, Tawiequrrohman Yuliansyah Ahmad, Purwono Suryo</i>	
Approach to Topographic Map, Hydrogeological and Environmental Isotopes Analysis to Delineation of Watersheds in Drought-prone Areas	99
<i>Budhie Wijatna Agus, Aris Sunantyo Tarsisius</i>	
Author Index	