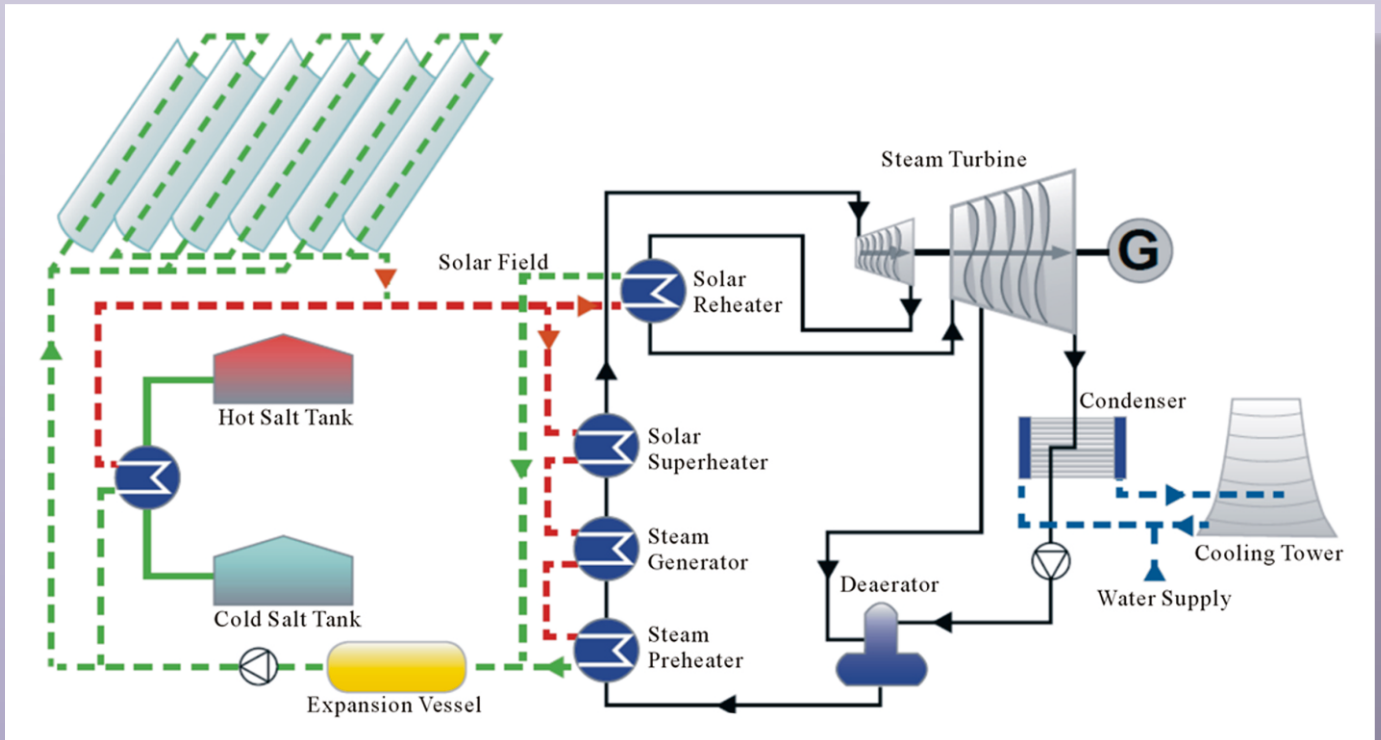


Energy and Power Engineering



Journal Editorial Board

ISSN: 1949-243X (Print) ISSN: 1947-3818 (Online)

<http://www.scirp.org/journal/epe>

Editor-in-Chief

Dr. Fermin Mallor

Public University of Navarre, Spain

Associate Editor-in-Chief

Prof. Giulio Lorenzini

University of Parma, Italy

Editorial Advisory Board

Prof. Ching-Chuen Chan

The University of Hong Kong, China

Prof. Ryuichi Yokoyama

Tokyo Metropolitan University, Japan

Prof. Xiaoxin Zhou

Chinese Society of Electrical Engineering, China

Editorial Board

Dr. Fabio Bisegna

Sapienza University of Rome, Italy

Prof. Ho Chang

National Taipei University of Technology, Chinese Taipei

Prof. Jiangping Chen

Shanghai Jiao Tong University, China

Prof. Young Nam Chun

Chosun University, South Korea

Dr. Philippe Colomban

University Pierre & Marie Curie, France

Prof. Guoliang Ding

Shanghai Jiao Tong University, China

Prof. Zhen Fang

Chinese Academy of Sciences, China

Prof. Khaled A. M. Gasem

Oklahoma State University, USA

Dr. Herbert H. C. Iu

The University of Western Australia, Australia

Dr. Ruomei Li

Chinese Society for Electrical Engineering, China

Prof. Zhengqi Li

Harbin Institute of Technology, China

Prof. Kaipei Liu

Wuhan University, China

Dr. Dylan Dah-Chuan Lu

University of Sydney, Australia

Dr. Lin Ma

University of Leeds, UK

Prof. Adnan Midilli

Recep Tayyip Erdogan University, Turkey

Dr. Jingchun Min

Tsinghua University, China

Dr. Meng Ni

The Hong Kong Polytechnic University, China

Prof. Ping-Feng Pai

National Chi Nan University, Chinese Taipei

Prof. Wei-Ping Pan

Western Kentucky University, USA

Prof. Pucheng Pei

Tsinghua University, China

Prof. Constantine D. Rakopoulos

National Technical University of Athens, Greece

Prof. Nanqi Ren

Harbin Institute of Technology, China

Prof. Marc A. Rosen

University of Ontario Institute of Technology, Canada

Dr. Federico Scarpa

University of Genoa, Italy

Dr. Pierluigi Siano

University of Salerno, Italy

Prof. Yuanzhang Sun

Tsinghua University, China

Dr. Siu-Chung Wong

The Hong Kong Polytechnic University, China

Prof. Changhui Ye

Chinese Academy of Sciences, China

Prof. Bo Yu

China University of Petroleum-Beijing, China

Prof. Yong Zhang

University of Science and Technology Beijing, China

Guest Reviewers

Paritala Chandrasekhar

Yang Han

Zhonghao Rao

Ahad Esmaeilian

Yogesh Kumar

Subith S. Vasu

TABLE OF CONTENTS

Volume 5 Number 3

May 2013

Modeling the Effect of Variable Timing of the Exhaust Valves on SI Engine Emissions for Greener Vehicles	
O. H. M. Ghazal, Y. S. H. Najjar, K. J. M. Al-Khishali.....	181
A Model for Regional Energy Utilization by Offline Heat Transport System and Distributed Energy Systems—Case Study in a Smart Community, Japan	
L. Y. Fan, W. J. Gao, Z. Wang.....	190
Design Method Based on Normalized Functions for a Toroidal Inductor Applied to Power-Quality Evaluation	
R. Baca.....	206
Theoretical Considerations about the Steady State Combustion of Wood Char in a Bubbling Fluidized Bed Reactor	
C. Pinho.....	212
Influence of dc Component during Inadvertent Operation of the High Voltage Generator Circuit Breaker during Mis-Synchronization	
K. Kadriu, A. Gashi, I. Gashi, A. Hamiti, G. Kabashi.....	225
Intelligent Decisions Modeling for Energy Saving in Lifts: An Application for Kleemann Hellas Elevators	
V. Zarikas, N. Papanikolaou, M. Loupis, N. Spyropoulos.....	236
Toward Implementing HH the Amir Declaration of 2% Electricity Generation by Solar Energy in 2020	
M. Darwish, A. Hassan, R. Mohtar.....	245
A Virtual Synchronous Machine to Support Dynamic Frequency Control in a Mini-Grid That Operates in Frequency Droop Mode	
M. Torres, L. A. C. Lopes.....	259
Study of Lightning Safety Distance Using Rolling Sphere Method	
N. Z. Yahaya, M. A. Daud.....	266
Inverter-Based Diesel Generator Emulator for the Study of Frequency Variations in a Laboratory-Scale Autonomous Power System	
M. Torres, L. A. C. Lopes.....	274
Contribution of the Energy Sector towards Global Warming in Malawi	
G. E. T. Gamula, L. Hui, W. Y. Peng.....	284

The figure on the front cover is from the article published in Energy and Power Engineering, 2013, Vol. 5, No. 3, pp. 245-258 by Mohamed Darwish, Ashraf Hassan and Rabi Mohtar.

Energy and Power Engineering (EPE)

Journal Information

SUBSCRIPTIONS

The *Energy and Power Engineering* (Online at Scientific Research Publishing, www.SciRP.org) is published bimonthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2013 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

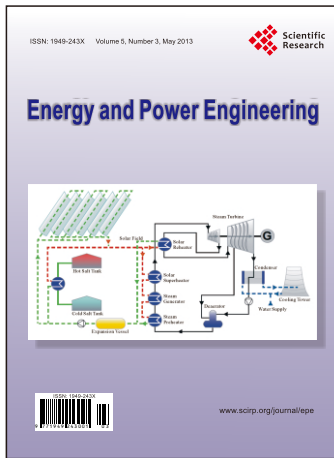
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: epe@scirp.org



Energy and Power Engineering

ISSN 1949-243X (Print) ISSN 1947-3818 (Online)

<http://www.scirp.org/journal/epe>

Energy and Power Engineering (EPE), a bimonthly journal, publishes research and review articles in all important aspects of electric power engineering and other professionals involved in the electric power industry. Both experimental and theoretical papers are acceptable provided they report important findings, novel insights, or useful techniques in these areas.

Editor-in-Chief

Dr. Fermin Mallor

Public University of Navarre, Spain

Associate Editor-in-Chief

Prof. Giulio Lorenzini

University of Parma, Italy

Editorial Advisory Board

Prof. Ching-Chuen Chan

The University of Hong Kong, China

Prof. Ryuichi Yokoyama

Tokyo Metropolitan University, Japan

Prof. Xiaoxin Zhou

Chinese Society of Electrical Engineering, China

Subject Coverage

EPE aims to strengthen relations between the energy sector, research laboratories, and universities. Additionally, accepted ones will immediately appear online followed by printed in hard copy. The topics to be covered by Energy and Power Engineering include, but are not limited to:

- ◆ Analysis of Hybrid Generation Systems
- ◆ Artificial Intelligence in Complex Power and Energy Systems
- ◆ Bio-Energy
- ◆ Building Energy Use and Energy Conservation
- ◆ CO₂ and Emission Issues
- ◆ CO₂ Capture and Storage
- ◆ Conventional Energy Power Generation
- ◆ Design and Dimensioning of Power Systems
- ◆ Distributed Generation
- ◆ Energy and Exergy Analyses
- ◆ Energy Policies and Strategies
- ◆ Energy Resources
- ◆ Energy Resources Assessment
- ◆ Energy Storage
- ◆ Energy Sustainability
- ◆ Gasification Processes and Technologies
- ◆ Heat Exchanger
- ◆ Hydrogen Energy and Fuel Cells
- ◆ Impact of Climate Changes on Energy Systems
- ◆ Integrating Renewable Energy to the Power Grid
- ◆ International Experiences with Energy Infrastructures
- ◆ Investment Planning for Energy Infrastructures
- ◆ Organic and Inorganic Photovoltaics
- ◆ Petroleum Engineering
- ◆ Planning and Operations of Power Systems
- ◆ Power Demand Forecasting and Management, Power Market
- ◆ Power Electronic Engineering
- ◆ Power Forecasting from Wind, Solar and Other Renewal Sources of Energy
- ◆ Power System Protection
- ◆ Power Transmission and Distribution
- ◆ Reliability Evaluation and Risk Analysis of Power Systems
- ◆ Renewable Energy Power Generation
- ◆ Smart Grid
- ◆ Socio-Economic and Power System Management
- ◆ Solar Energy Engineering
- ◆ Transmission and Capacity Planning
- ◆ Waste Energy Management
- ◆ Wind Energy Engineering

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the EPE.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/epe>

Email: epe@scirp.org