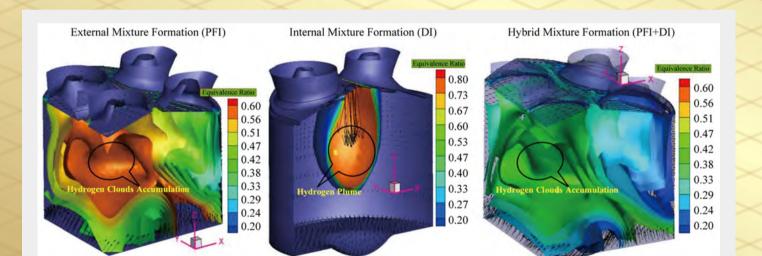


Energy and Power Engineering





www.scirp.org/journal/epe

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

The University of Hong Kong, China

Tokyo Metropolitan University, Japan

Chinese Society of Electrical Engineering, China

Associate Editor-in-Chief

.

Prof. Giulio Lorenzini

University of Parma, Italy

Editorial Advisory Board

Prof. Ching-Chuen Chan Prof. Ryuichi Yokoyama Prof. Xiaoxin Zhou

Editorial Board

Dr. Kerim Allakhverdiev Dr. Fabio Bisegna **Prof. Ho Chang Prof. Jiangping Chen Prof. Young Nam Chun** Dr. Philippe Colomban **Prof. Guoliang Ding Prof. Zhen Fang** Prof. Khaled A. M. Gasem Dr. Herbert H. C. Iu Dr. Ruomei Li Prof. Zhengqi Li Prof. Kaipei Liu Dr. Dylan Dah-Chuan Lu Dr. Lin Ma Prof. Adnan Midilli Dr. Jingchun Min Dr. Meng Ni **Prof. Ping-Feng Pai** Prof. Wei-Ping Pan **Prof. Pucheng Pei Prof. Constantine D. Rakopoulos** Prof. Nanqi Ren Prof. Marc A. Rosen **Dr. Federico Scarpa** Dr. Pierluigi Siano Prof. Yuanzhang Sun Dr. Siu-Chung Wong Prof. Changhui Ye Prof. Bo Yu **Prof. Yong Zhang**

National Aviation Academy of Azerbaijan, Azerbaijan Sapienza University of Rome, Italy National Taipei University of Technology, Chinese Taipei Shanghai Jiao Tong University, China Chosun University, South Korea University Pierre & Marie Curie, France Shanghai Jiao Tong University, China Chinese Academy of Sciences, China Oklahoma State University, USA The University of Western Australia, Australia Chinese Society for Electrical Engineering, China Harbin Institute of Technology, China Wuhan University, China University of Sydney, Australia University of Leeds, UK Recep Tayyip Erdogan University, Turkey Tsinghua University, China The Hong Kong Polytechnic University, China National Chi Nan University, Chinese Taipei Western Kentucky University, USA Tsinghua University, China National Technical University of Athens, Greece Harbin Institute of Technology, China University of Ontario Institute of Technology, Canada University of Genoa, Italy University of Salerno, Italy Tsinghua University, China The Hong Kong Polytechnic University, China Chinese Academy of Sciences, China China University of Petroleum-Beijing, China University of Science and Technology Beijing, China

Guest Reviewers

.

Paritala Chandrasekhar Ahad Esmaeilian Yang Han Yogesh Kumar Yinshi Li Yang Liu Zhonghao Rao Subith S. Vasu



TABLE OF CONTENTS

Volume 5	Number 8	October 2013
Effect of Shape of the Absorber Surface on the Performance of Stepped Type Solar Still		
J. S. Gawande	e, L. B. Bhuyar	
Catastrophe of Power Transmission System		
N. H. Afgan, l	D. B. Cvetinovic, P. A. Pilavachi	498
Dissemination and Problems of African Biogas Technology		
C. Mulinda, Q	9. C. Hu, K. Pan	
Numerical Study on the Hydrogen Fueled SI Engine Combustion Optimization through a Combined Operation of DI and PFI Strategies		
M. Elkelawy,	H. Alm-Eldin Bastawissi	513

The figure on the front cover is from the article published in Energy and Power Engineering, 2013, Vol. 5, No. 8, pp. 513-522 by Medhat Elkelawy and Hagar Alm-Eldin Bastawissi.

Energy and Power Engineering (EPE)

Journal Information

SUBSCRIPTIONS

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

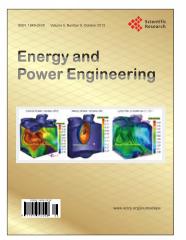
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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 assumes 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

Call for Papers



Energy and Power Engineering

ISSN 1949-243X (Print) ISSN 1947-3818 (Online) http://www.scirp.org/journal/epe

Energy and Power Engineering (EPE), a monthly 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

University of Parma, Italy

Associate Editor-in-Chief

Prof. Giulio Lorenzini

Editorial Advisory Board

Prof. Ching-Chuen Chan Prof. Ryuichi Yokoyama Prof. Xiaoxin Zhou

Subject Coverage

The University of Hong Kong, China Tokyo Metropolitan University, Japan Chinese Society of Electrical Engineering, China

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
- $\mathbf{O}_2^{\mathbf{C}}$ 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 referred through a peer review process. For more details about the submissions, please access the website.

Website and E-Mailhttp://www.scirp.org/journal/epeEmail: epe@scirp.org