

Smart Grid and Renewable Energy



ISSN: 2151-481X



Journal Editorial Board

ISSN Print: 2151-481X ISSN Online: 2151-4844

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

Editors-in-Chief

Prof. Victor Sreeram

University of Western Australia, Australia

Prof. Yuanzhang Sun

Wuhan University, China

Editorial Advisory Board

Prof. Ching Chuen Chan

University of Hong Kong, China

Prof. Yusheng Xue

State Grid Electric Power Research Institute, China

Prof. Ryuichi Yokoyama

Tokyo Metropolitan University, Japan

Dr. Xiaoxin Zhou

Chinese Society of Electrical Engineering, China

Editorial Board

Prof. Gholam Hossein Bordbar

Shiraz University, Iran

Prof. Emanuele Calabrò

Institute of Industrial Technology, Italy

Prof. Ho Chang

National Taipei University of Technology, Chinese Taipei

Dr. Seokheun Choi

Binghamton University, USA

Prof. Kalyanmoy Deb

Indian Institute of Technology, India

Prof. Volkmar Dierolf

Lehigh University, USA

Dr. Daniel Garraín

Spanish Ministry of Science and Innovation, Spain

Dr. Katerina Ioakeimidi

Stanford University, USA

Dr. Herbert Iu

University of Western Australia, Australia

Dr. Sanchit Khurana

Bloom Energy, USA

Prof. Chunxiang Li

Shanghai University, China

Dr. Dylan Dah-Chuan Lu

University of Sydney, Australia

Prof. D. Subbaram Naidu

University of Minnesota, USA

Dr. Federico Scarpa

University of Genoa, Italy

Dr. Yang Shi

University of Victoria, Australia

Dr. Pierluigi Siano

University of Salerno, Italy

Prof. Igor I. Strakovsky

The George Washington University, USA

Dr. Salahadin Vaissi

University of Kurdistan, Iran

Prof. Huiming Wee

Chung Yuan Christian University, Chinese Taipei

Prof. Daniele De Wraichen

State University of Milan, Italy

Dr. Fuqian Yang

University of Kentucky, USA

Prof. Changhui Ye

Chinese Academy of Sciences, China

Prof. Weiping Zhang

Shanghai Jiao Tong University, China

Table of Contents

Volume 8 Number 12

December 2017

Impact of Heat Transfer Media on Performance of Solar-Hydrogen Power Generation

A. Nishimura, S. Kitagawa, M. Hirota, E. Hu.....351

Power Quality Data Compression Based on Iterative PCA Algorithm in Smart Distribution Systems

M. Zhang, Y. M. Zhan, S. F. He.....366

Impact of Climatic Parameters on the Performance of Solar Photovoltaic (PV) Module in Niamey

A. L. Bonkaney, S. Madougou, R. Adamou.....379

Evaluation of Solar Potential at Niamey: Study Data of Insolation from 2015 and 2016

M. Dankassoua, S. Madougou, S. Yahaya.....394

Wind Tunnel Validation of Double Multiple Streamtube Model for Vertical Axis Wind Turbine

P. M. Kumar, S. R. Rashmitha, N. Srikanth, T.-C. Lim.....412

Performance Assessment of Darrieus Turbine with Modified Trailing Edge Airfoil for Low Wind Speeds

P. M. Kumar, R. Kulkarni, N. Srikanth, T.-C. Lim.....425

Methanolysis of Mixed Crop Oils (*Hevea brasiliensis* and *Jatropha curcas* L.) into Biodiesel: Kinetics Study

A. M. Syam, Zulfikar, Suryati, L. Maulinda, F. Haspita.....440

Smart Grid and Renewable Energy (SGRE)

Journal Information

SUBSCRIPTIONS

The *Smart Grid and Renewable Energy* (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per copy.

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 and reuse rights for the front matter of the journal:

Copyright © 2017 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2017 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

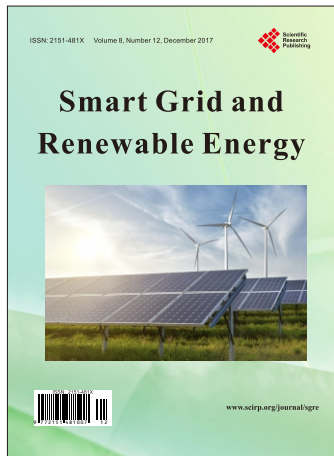
Disclaimer of liability

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: sgre@scirp.org



Smart Grid and Renewable Energy

ISSN Print: 2151-481X ISSN Online: 2151-4844

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

Smart Grid and Renewable Energy (SGRE) is an international journal dedicated to the latest advancement of smart grid and renewable energy. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of smart grid and renewable energy.

Editors-in-Chief

Prof. Victor Sreeram

University of Western Australia, Australia

Prof. Yuanzhang Sun

Wuhan University, China

Editorial Advisory Board

Prof. Ching Chuen Chan

University of Hong Kong, China

Prof. Yusheng Xue

State Grid Electric Power Research Institute, China

Prof. Ryuichi Yokoyama

Tokyo Metropolitan University, Japan

Dr. Xiaoxin Zhou

Chinese Society of Electrical Engineering, China

Subject Coverage

All manuscripts submitted to SGRE must be previously unpublished and may not be considered for publication elsewhere at any time during SGRE's review period. Additionally, accepted ones will immediately appear online followed by printed hard copy. The topics to be covered by Smart Grid and Renewable Energy include, but are not limited to:

- Bio-Energy Technologies, Process and Utilization
- Concept and Structure of Smart Grid
- Decision Making under Uncertainty in the Integration of Renewable Energy Systems
- Design of Sustainable Product-Service Business Models
- Development of Smart Grid
- Environmental-Friendly Technologies for Power Generation
- Geothermal and Tidal Wave Energy
- Hydropower Technologies and Applications
- Information and Smart Meter Reading
- Integrated Energy and Communications
- MEMS & NEMS and Their Applications for Power Generation
- New Technologies and Design for Energy Efficiency
- New Technologies for Minimizing CO₂ Generation
- Operations Research for Green Logistics
- Photovoltaic for Solar Power Applications
- Power System Analysis and Optimization
- Power System Planning and Operation
- Service Optimization for Renewable Energy Supply
- Solar Energy Utilization—Heat and Mass Transfer Technology
- Wind Power Generation and Utilization

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 SGRE.

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/sgre>

E-mail: sgre@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org