

# Smart Grid and Renewable Energy





### **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

Dr. Dylan Dah-Chuan Lu

Prof. D. Subbaram Naidu

Dr. Federico Scarpa

Shanghai University, China
University of Sydney, Australia
University of Minnesota, USA
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 Vaisi**University of Kurdistan, Iran

**Prof. Huiming Wee** Chung Yuan Christian University, Chinese Taipei

Prof. Daniele De WrachienState University of Milan, ItalyDr. Fuqian YangUniversity of Kentucky, USA

Prof. Changhui YeChinese Academy of Sciences, ChinaProf. Weiping ZhangShanghai Jiao Tong University, China



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

## **Table of Contents**

Volume 8	Number 3	March 2017
Efficient Energ	y Performance within Smart Grid	
K. Ayaz, M. S. S	Sulemani, N. Ahmed	75
-	Flow Approach for Cognitive and Reliable neration as Smart Grid	Operation of
V S Bugade P	K Katti	87

# 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: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### **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

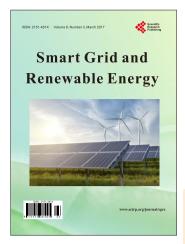
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any 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: <a href="mailto:sgre@scirp.org">sgre@scirp.org</a>

## Call for Papers



# Smart Grid and Renewable Energy

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 in 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 CO, 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