

# Smart Grid and Renewable Energy





## **Journal Editorial Board**

https://www.scirp.org/journal/sgre

.....

### Editor-in-Chief

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. Herbert IuUniversity of Western Australia, AustraliaDr. Maatouk KhoukhiUnited Arab Emirates University, UAE

Prof. Chunxiang Li

Dr. Dylan Dah-Chuan Lu

Prof. D. Subbaram Naidu

Shanghai University, China
University of Sydney, Australia
University of Minnesota, USA

**Prof. Maged Naguib Fahmy Nashed** Power Electronic and Energy Conversion Department, Egypt

**Dr. Zafar Said** Department of Sustainable Renewable Energy Engineering, University

of Sharjah, UAE

**Dr. Surender Reddy Salkuti** Department of Railroad & Electrical Engineering, Woosong University,

South Korea

Dr. Federico ScarpaUniversity of Genoa, ItalyDr. Yahya SheikhnejadUniversity of Aveiro, PortugalDr. Yang ShiUniversity of Victoria, AustraliaDr. Pierluigi SianoUniversity 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 Wrachien State University of Milan, Italy

**Prof. Weiping Zhang** Shanghai Jiao Tong University, China



Volume 13 Number 1

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

January 2022

# **Table of Contents**

Load Frequency Control of Small Hydropower Plants Using One-Input Fuzzy PI Controller	
with Linear and Non-Linear Plant Model	
D. A. Asoh, E. N. Mbinkar, A. N. Moutlen	.1

### Smart Grid and Renewable Energy (SGRE) Journal Information

### SUBSCRIPTIONS

The *Smart Grid and Renewable Energy* (Online at Scientific Research Publishing, <a href="https://www.scirp.org/">https://www.scirp.org/</a>) 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 © 2022 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 © 2022 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

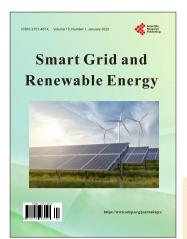
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any 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

# Call for Papers



# Smart Grid and Renewable Energy

https://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.

### **Editor-in-Chief**

**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 CO<sub>2</sub> 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

https://www.scirp.org/journal/sgre E-mail: sgre@scirp.org