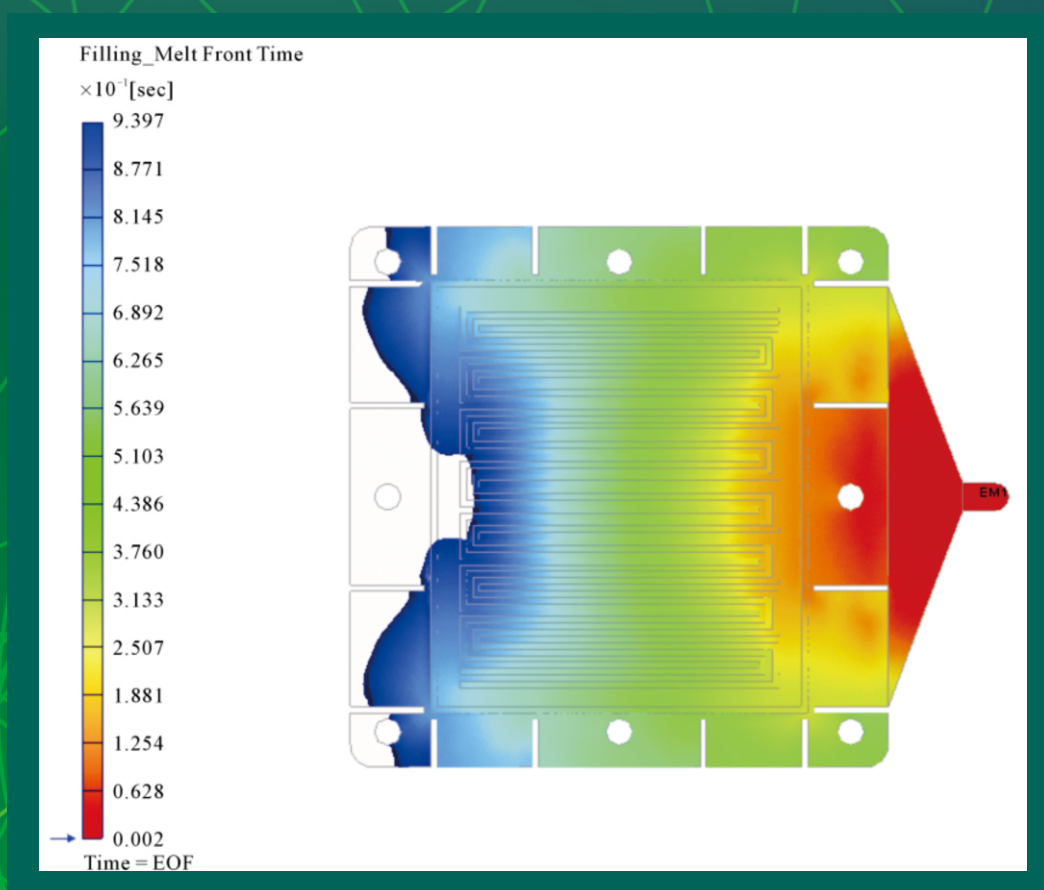




Smart Grid and Renewable Energy



ISSN: 2151-481X



9 772151 481007 04

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. Chingchuen Chen

University of Hong Kong, China

Dr. 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. Ho Chang

National Taipei University of Technology, Chinese Taipei

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

The University of Western Australia, Australia

Prof. Chunxiang Li

Shanghai University, China

Dr. Kaipei Liu

Wuhan University, China

Dr. Dylan Dah-Chuan Lu

University of Sydney, Australia

Dr. Yang Shi

University of Victoria, Australia

Dr. Pierluigi Siano

University of Salerno, Italy

Prof. Igor I. Strakovsky

The George Washington University, USA

Prof. Huiming Wee

Chung Yuan Christian University, Chinese Taipei

Prof. Daniele De Wrachien

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

Editorial Assistant

Tian Huang

Scientific Research Publishing, USA Email: sgre@scirp.org

Guest Reviewers

Joshua Donohue

Thai Nguyen

Mat Radun

TABLE OF CONTENTS

Volume 2 Number 4

November 2011

Smart Grid: An Overview

T. Vijayapriya, D. P. Kothari.....305

Advanced Metering Infrastructure for Electric Vehicle Charging

L. K. Lam, K. T. Ko, H. Y. Tung, H. C. Tung, W. C. Lee, K. F. Tsang, L. L. Lai.....312

Study and Implementation on Batteries Charging Method of Micro-Grid Photovoltaic Systems

T. Z. Wu, Q. Xiao, L. Z. Wu, J. Zhang, M. Y. Wang.....324

A Novel Island Detection Methodology for the Realization of Smart Grid

H. Khan, A. Tjandra, H. Iu, V. Sreeram.....330

A WiMAX-ZigBee Energy Management System for Green Education

H. Y. Tung, K. F. Tsang, K. L. Lam, H. C. Tung, R. J. Zheng, K. T. Ko, L. L. Lai.....338

An Optimal Management System of a Wind Energy Supplier

A. Raihani, A. Hamdoun, O. Bouattane, B. Cherradi, A. Mesbahi.....349

Online One-End Fault Location Algorithm for Parallel Transmission Lines

W. J. Xiu, Y. Liao.....359

Study of Solar Radiation in View of Photovoltaic Systems Optimization

R. Chenni, E. Matagne, M. Khennane.....367

Investigation of the Performance of CIS Photovoltaic Modules under Different Environmental Conditions

K. M. Kandil, M. S. Altouq, A. M. Al-asaad, L. M. Alshamari, I. M. Kadad, A. A. Ghoneim.....375

Design and Performance Analysis of a Modified Vacuum Single Basin Solar Still

M. K. Gnanadason, P. S. Kumar, G. Sivaraman, J. E. S. Daniel.....388

Performance Analysis of Solar Water Heater

S. I. Khan, A. Islam.....396

Integrated Movable System of Fuel Cell with Replaceable Fiber Bipolar Plate

C. S. Ming, K. J. Kun.....399

On the Thermo Economical Optimization of Feed Water Heaters in Thermal Power Plants

M. S. Söylemez.....410

Potential of Natural Ventilation in Mexico According to Its Hours of Hygrothermal Comfort

I. Oropeza-Perez, D. Morillon-Galvez.....417

2D Analytical Model for Direct Ethanol Fuel Cell Performance Prediction

S. Heysiattalab, M. Shakeri.....427

The figure on the front cover is from the article published in *Smart Grid and Renewable Energy*, 2011, Vol. 2, No. 4, pp. 399-409 by Chang Shiuh Ming and Kuo Jenn Kun.

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 quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$39 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©2011 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.

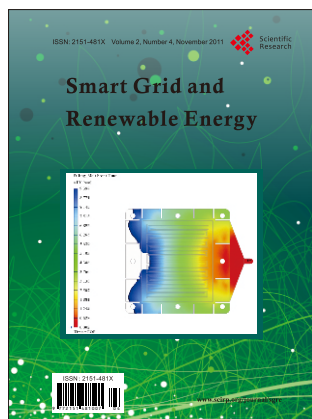
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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: 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. Chingchuen Chen

University of Hong Kong, China

Dr. 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 Frame 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

