

# Journal of Geographic Information System



# **Journal Editorial Board**

ISSN: 2151-1950 (Print) ISSN: 2151-1969 (Online)

http://www.scirp.org/journal/jgis

Associate Editor-in-Chief

Prof. Francisco J. TapiadorUniversity of Castilla-La Mancha (UCLM), Spain

## **Editorial Board**

Dr. Alia I. Abdelmoty Cardiff University, UK **Dr.** Tofael Ahamed University of Tsukuba, Japan Prof. Dafer Algarni King Saud University, Saudi Arabia Prof. Carlos Marcelo Di Bella Instituto de Clima y Agua CIRN-INTA Castelar, Argentina **Prof. Christophe Claramunt** Naval Academy Research Institute, France Prof. Weihong Cui International Europe and Asia Academy of Sciences, China Prof. Fuchu Dai Chinese Academy of Sciences, China Tsinghua University, China **Prof. Anrong Dang** Dr. Hossein Ghadiri Griffith University, Australia Prof. Shuanggen Jin Shanghai Astronomical Observatory, China Korea Institute of Geoscience and Mineral Resources, South Korea **Dr. Saro Lee Dr. Xiang Li** East China Normal University, China Prof. Jordi Martí-Henneberg University of Lleida, Spain Prof. Hervé Martin Joseph Fourier University, France Institut National des Sciences Appliquées, France **Prof. Mainguenaud Michel** The University of Melbourne, Australia **Prof. Christopher James Pettit Dr. Saied Pirasteh** University of Waterloo, Canada **Prof. Biswajeet Pradhan** Dresden University of Technology, Germany Dr. Michael D. Proctor University of Central Florida, USA Dr. Xiaosheng Qin Nanyang Technological University, Singapore **Prof. Shih-Lung Shaw** University of Tennessee, USA Dr. P. S. Sriraj University of Illinois at Chicago, USA Dr. Eddy Lynn Usery Center of Excellence for Geospatial Information Science, USA **Dr. Herna Viktor** University of Ottawa, Canada Prof. Jianhua Xu East China Normal University, China Prof. Xiaohuan Yang Chinese Academy of Sciences, China **Prof. Axing Zhu** University of Wisconsin, USA Dr. Liangfeng Zhu East China Normal University, China



### **TABLE OF CONTENTS**

Volume 5 Number 4	August 2013
LAN Tool: A GIS Tool for the Improvement of Digital Elevation Mode Attributes	els Using Drainage Network
A. Gemitzi, O. Christou	
Spatial Analysis of Affected Areas by Extreme Hydrological Events in for the 2016 Olympic Games)—Brazil	Rio de Janeiro (The Host City
L. A. B. de Deus, C. S. M. Santos, P. G. da Silveira, M. A. V. Freitas, P. M. L. Mene	zzes
Professionalism in GIS: International Aspects of the Certification Deb	ate
G. C. Mulaku	
Geospatial Evaluation for Ecological Watershed Management: A Case Bay Sub-Watersheds in Maryland USA	e Study of Some Chesapeake
I. T. Aighewi, O. K. Nosakhare	
Mangrove Forests Mapping in the Southern Part of Japan Using Land	lsat ETM+ with DEM
B. Alsaaideh, A. Al-Hanbali, R. Tateishi, T. Kobayashi, N. T. Hoan	
GIS-Based Public Services Analysis Based on Municipal Election Area for the City of Makkah, Saudi Arabia	as: A Methodological Approach
G. M. Dawod, M. N. Mirza, R. A. Elzahrany, K. A. Al-Ghamdi	
A Proposal for a Geospatial Database to Support Emergency Manager	nent
I. Frigerio, S. Roverato, M. De Amicis	
Urban Vegetation Mapping from Fused Hyperspectral Image and LiD Monitor Urban Tree Heights	AR Data with Application to
F. Ramdani	
Modeled Surface Observations for Spatial Analysis of Landscape Dyn	amics
M. do C. Fernandes, T. L. C. dos Santos, P. H. F. Coura, P. M. L. de Menezes, A. J.	S. Graça409

# Journal of Geographic Information System (JGIS)

#### **Journal Information**

#### SUBSCRIPTIONS

The *Journal of Geographic Information System* (Online at Scientific Research Publishing, www.SciRP.org) is published bimonthly 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: jgis@scirp.org



# Call for Papers

#### Journal of Geographic Information System



# Journal of Geographic Information System (JGIS)

ISSN 2151-1950 (Print) ISSN 2151-1969 (Online) http://www.scirp.org/journal/jgis/

**JGIS** is an international refereed journal dedicated to the latest advancement of Geographic Information System. The goal of this journal is to keep a record of the state-of-the-art research and promote the research work in these fast moving areas. The journal publishes the highest quality, original papers included but not limited to the fields:

### Subject Coverage

Cartography and Geodesy	Spatial and Spatio-Temporal Information Acquisition
<ul> <li>Computational Geometry</li> </ul>	<ul> <li>Spatial Data Mining and Knowledge Discovery</li> </ul>
<ul> <li>Computer Vision Applications in GIS</li> </ul>	<ul> <li>Spatial Data Quality and Uncertainty</li> </ul>
• Distributed, Parallel, and GPU Algorithms for GIS	<ul> <li>Spatial Data Structures and Algorithms</li> </ul>
<ul> <li>Earth Observation</li> </ul>	• Spatial Data Warehousing, OLAP, and Decision Support
• Environmental Geomatics—GIS, RS and Other	<ul> <li>Spatial Information and Society</li> </ul>
Spatial Information Technologies	<ul> <li>Spatial Modeling and Reasoning</li> </ul>
<ul> <li>Geographic Information Retrieval</li> </ul>	<ul> <li>Spatial Query Processing and Optimization</li> </ul>
Geographical Analysis for Urban and Regional	Spatial Semantic Web
Development	<ul> <li>Spatio-Temporal Data Handling</li> </ul>
GIS and Cloud Computing	<ul> <li>Spatio-Temporal Sensor Networks</li> </ul>
<ul> <li>GIS and High Performance Computing</li> </ul>	<ul> <li>Spatio-Temporal Stream Processing</li> </ul>
Human Computer Interaction and Visualization	Spatio-Textual Searching
<ul> <li>Image and Video Understanding</li> </ul>	<ul> <li>Standardization and Interoperability for GIS</li> </ul>
Location Privacy, Data Sharing and Security	Storage and Indexing
Location-Based Services	<ul> <li>Systems, Architectures and Middleware for GIS</li> </ul>
Performance Evaluation	Traffic Telematics
Photogrammetry	Transportation
Similarity Searching	<ul> <li>Visual Languages and Querying</li> </ul>
Social Networks and Volunteer Geographic	Wireless, Web, and Real-Time Applications
<ul> <li>Spatial Analysis and Integration</li> </ul>	
opatial Analysis and integration	

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 **JGIS**.

### 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.