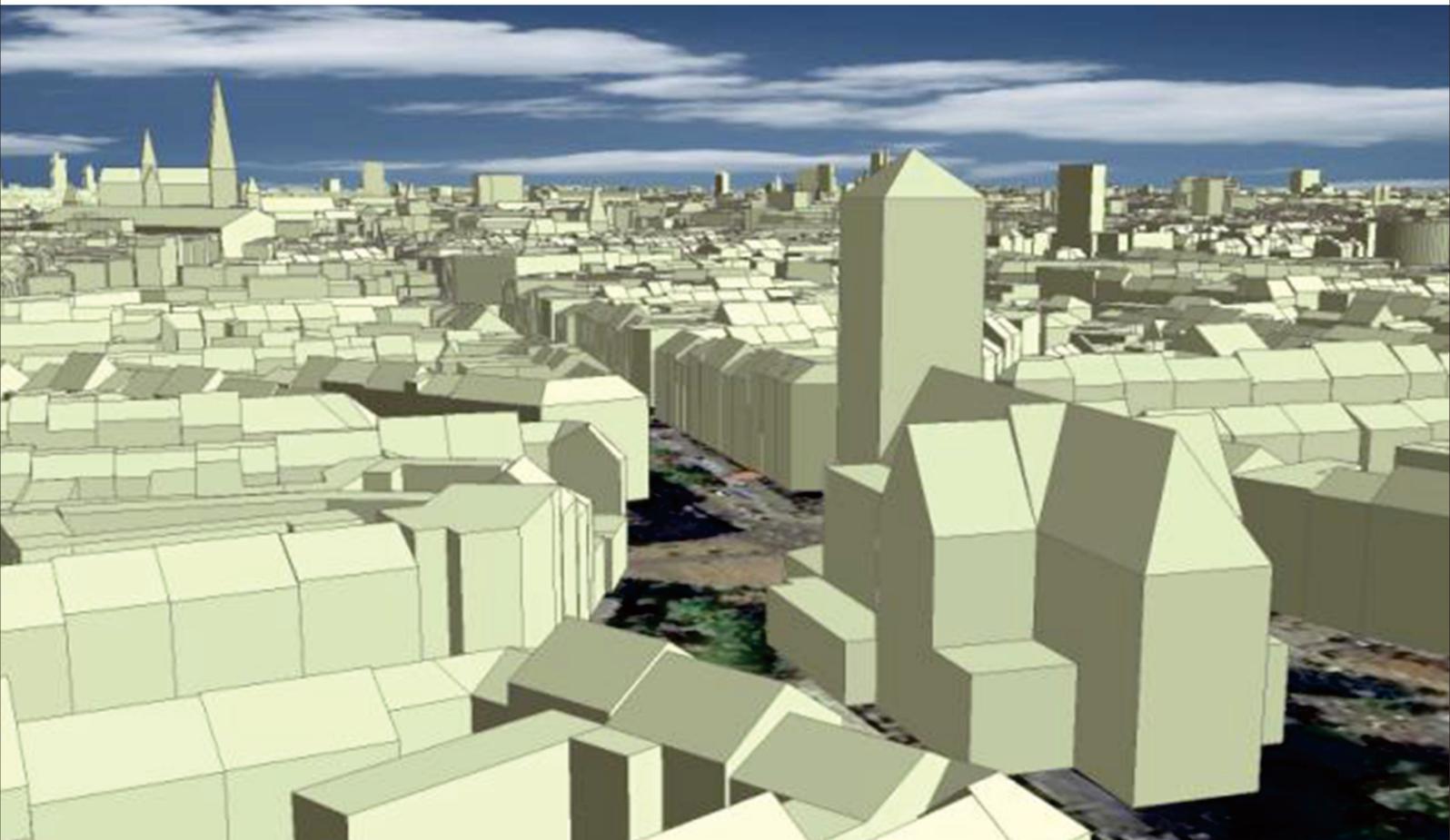


ISSN: 2151-1950 Vol. 5, No. 6, December 2013



Journal of Geographic Information System



ISSN: 2151-1950



www.scirp.org/journal/jgis

Journal Editorial Board

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

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

Associate Editor-in-Chief

Prof. Francisco J. Tapiador

University 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

Prof. Anrong Dang

Tsinghua University, China

Dr. Hossein Ghadiri

Griffith University, Australia

Prof. Shuanggen Jin

Shanghai Astronomical Observatory, China

Dr. Saro Lee

Korea Institute of Geoscience and Mineral Resources, South Korea

Dr. Xiang Li

East China Normal University, China

Prof. Jordi Martí-Henneberg

University of Lleida, Spain

Prof. Hervé Martin

Joseph Fourier University, France

Prof. Mainguenaud Michel

Institut National des Sciences Appliquées, France

Prof. Christopher James Pettit

The University of Melbourne, Australia

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 6

December 2013

The Necessity of Using Cloud Computing in Monitoring Metropolitan Performance

A. Madad, A. R. Gharagozlou, A. R. V. Nejad.....521

GIS-Based Local Spatial Statistical Model of Cholera Occurrence: Using Geographically Weighted Regression

F. N. Nkeki, A. B. Osirike.....531

Teaching Spatial Science Courses in Public Universities in Tanzania: Challenges and Opportunities

E. J. Mwita.....543

Using GIS Data to Build Informed Virtual Geographic Environments (IVGE)

M. Mekni.....548

High-Speed Rail Route and Regional Mobility with a Raster-Based Decision Support System: The Texas Urban Triangle Case

H. Y. Kim, D. F. Wunneburger, M. Neuman.....559

A Multidisciplinary Approach to Mapping Potential Urban Development Zones in Sinai Peninsula, Egypt Using Remote Sensing and GIS

H. A. Effat, M. N. Hegazy.....567

Geospatial Modeling for Sinkholes Hazard Map Based on GIS & RS Data

O. Al-Kouri, A. Al-Fugara, S. Al-Rawashdeh, B. Sadoun, B. Pradhan.....584

The Application to Evaluate Worship Location Based on Geospatial Analysis: Case of Indonesia

C. Crysdiان.....593

Accuracy of Stream Habitat Interpolations Across Spatial Scales

K. R. Sheehan, S. A. Welsh.....602

The figure on the front cover is from the article published in *Journal of Geographic Information System*, 2013, Vol. 5, No. 6, pp. 548-558 by Mehdi Mekni.

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.

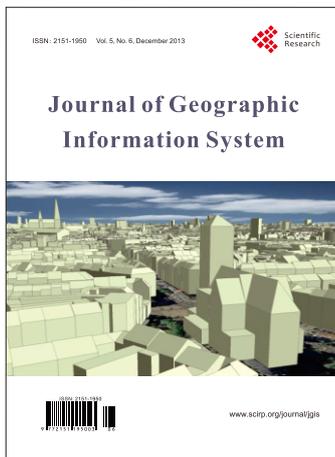
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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 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: jgis@scirp.org



Call for Papers

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

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.

Website and E-mail

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

E-mail: jgis@scirp.org