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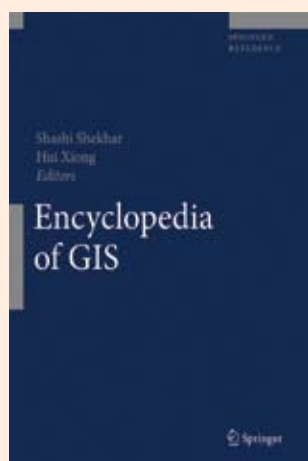
# Encyclopedia of GIS

Edited by S. Shekhar and H. Xiong



- ▶ Internationally renowned Editorial Board, Shashi Shekhar world leader in the field
- ▶ Includes GIS standards by ISO
- ▶ Available online fully searchable and hyperlinked





## Encyclopedia of GIS

The **Encyclopedia of GIS** features a comprehensive and authoritative treatment of Geographic Information Science, with a simple A-Z format providing easy access to the field. Extensive cross-references support efficient, user-friendly searches.

Authored and peer-reviewed by world experts, the entries explain the key software, data sets, and processes used by geographers and computational scientists.

Over 200 topics include major overviews such as Geoinformatics, Spatial Cognition, and Location-Based Services. Short entries, cross-referenced to related larger entries, define specific terms and concepts such as the Global Posi-

tioning System, Digital Elevation/Terrain Model, and Remote Sensing. Larger entries include key citations and recommended reading to the literature, and (online) internal hyperlinks to definitional entries and current standards.

In addition to alphabetical entries, the **Encyclopedia of GIS** includes a listing of current standards (e.g. OGIS) in the back-matter. Online appendices will hyperlink to relevant entries. Published as a print volume with abundant black and white art, the **Encyclopedia of GIS** will be available simultaneously as an XML online reference with hyperlinked citations, cross-references, four-color art, links to web-based maps, and other interactive features.

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- ▶ A-Z format allows easy, intuitive access for newcomers to field
- ▶ Many headers for easy skimming and navigation of topic
- ▶ Includes coverage of GIS standards in development by ISO
- ▶ Cross-referenced entries
- ▶ Internationally renowned Editorial Board, both scientifically and geographically diverse
- ▶ Hundreds of contributors ensures balanced coverage
- ▶ Interactive features add to convenience, ease of use and understanding

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- ▶ Broken out definition of terms and keywords
- ▶ Full overview of the technology and applications
- ▶ Key citations to locate further resources in the field
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## Meet the Editors

### Editor-In-Chief

Professor Shashi Shekhar, University of Minnesota, Minneapolis, USA

**Shashi Shekhar** is a McKnight Distinguished University Professor at the University of Minnesota, Minneapolis, MN, USA. He was elected an IEEE fellow for contributions to spatial database storage methods, data mining, and geographic information systems (GIS). He serves as a member of two committees of the National Research Council/National Academy of Sciences, namely, the committee on mapping sciences and the committee to review the basic and applied research at National Geospatial

Intelligence Agency. He is also serving as a co-Editor-in-Chief of *Geoinformatica: An International Journal on Advances in Computer Science for GIS* (ISSN 1384-6175) and a member of the steering committee of the ACM International Conference on Geographic Information Systems. Shekhar has co-authored a textbook on Spatial Databases which has been translated into two foreign languages. He has published over 160 research papers in peer-reviewed journals, books, at conferences, and workshops. Received a Ph.D. degree in Computer Science from the University of California (Berkeley, CA). More details are available at <http://www.cs.umn.edu/~shekhar>.



### Editor-In-Chief

Professor Hui Xiong, Rutgers University, New Jersey, USA

**Hui Xiong** is an Assistant Professor in the Management Science and Information Systems department at Rutgers University. His research interests include data mining, spatial databases, statistical computing, and Geographic Information Systems (GIS). He has published over 20 technical papers in peer-reviewed journals and conference proceedings and is the co-editor of

the book entitled *Clustering and Information Retrieval*. He has also served on the program committees for a number of conferences and workshops. Dr. Xiong received the B.E. degree in Automation from the University of Science and Technology of China, China; the M.S. degree in Computer Science from the National University of Singapore, Singapore; and the Ph.D. degree in Computer Science from the University of Minnesota, USA. More details are available at <http://cimic.rutgers.edu/~hui>.




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## Endorsements

*"The Encyclopedia of GIS offers more technical computer science/mathematics information on the topic than most of the books, which are oriented more towards geography foundations. Shashi Shekhar is well recognized in this field."* ► **Helena Mitasova**

North Carolina State University; Co-author of *Open Source GIS: A GRASS GIS Approach*

*"I look forward to the Encyclopedia of GIS, given the incredible advances in this area in recent years. Both authors are well-known in their field; Dr. Shashi Shekhar is a world leader in the area."* ► **Kentaro Toyama**  
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