

## Shashi Shekhar

Shashi Shekhar, a Distinguished University Professor, is a leading researcher in the area of geographic information systems (GIS), spatial databases, and spatial data mining. For outstanding contributions to these areas, he received the IEEE-CS Technical Achievement Award (2006) and was elected an IEEE Fellow (2003) as well as an AAAS Fellow (2008). He was also named a key difference-maker for the field of GIS by the most popular GIS textbook. He has a distinguished academic record that includes 250+ refereed papers, a popular textbook on Spatial Databases (Prentice Hall, 2003) and an authoritative Encyclopedia of GIS (Springer, 2008). In early 1990s, his research developed core technologies behind in-vehicle navigation devices as well as web-based routing services, which revolutionized outdoor navigation in urban environment. His recent research results played a critical role in evacuation route planning for homeland security and received multiple recognitions including the CTS Partnership Award for significant impact on transportation. He also pioneered the research area of spatial data mining via pattern families (e.g. collocation, mixed-drove co-occurrence, and cascade), keynote speeches, survey papers and workshop organization. Furthermore, he contributed significantly to design of the UMN map server software for publishing geographic data on the WWW and the Crime-Stat 3.0 software to identify spatial patterns in crime report datasets. His recent geo-social media white-paper was discussed extensively in blogs (e.g., readwriteweb), science forums (e.g., science360), tweets and “Facebook” postings. More details are available from <http://www.cs.umn.edu/~shekhar>.

Shashi is serving on the Future Workforce for Geospatial Intelligence Committee (2011) of the National Research Council (NRC) of the National Academies. Earlier he served on the NRC Mapping Sciences committee (2004-2009) and NRC committee on Priorities for GEOINT Research (2004-2005). He is also serving as a co-Editor-in-Chief of *Geo-Informatica: An International Journal on Advances in Computer Sciences for GIS* (Springer), a program co-chair for the Intl. Conference on Geographic Information Science (2012), and as a series editor for the Springer-Briefs on GIS. He served on the Board of Directors of University Consortium on GIS (2003-4), editorial boards of IEEE Transactions on Knowledge and Data Eng. as well as the IEEE-CS Computer Sc. & Eng. Practice Board. He also served as a general co-chair for the International Symposium on Spatial and Temporal Databases (2011), a program co-chair for ACM Intl. Workshop on Advances in GIS (1996), etc.

### Publications

1. Identifying patterns in spatial information: a survey of methods (with M. Evans, J. Kang and P. Mohan, Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 193-214, 1(3), May/June 2011.
2. Evacuation Planning: A Spatial Network Database Approach (with X. Zhou, B. George, S. Kim, J. Wolff, and Q. Lu), IEEE Data Eng. Bulletin, 33(2): 26-31, 2010.
3. Spatial Databases (with J. Kang), Wiley Encyclopedia of Computer Science and Engineering (Ed. Benjamin Wah), John Wiley and Sons Inc, 2009.
4. Encyclopedia of GIS (Co-Ed. with H. Xiong), Springer, 2008, isbn 978-0-387-30858-6.
5. A Tour of Spatial Databases (with S. Chawla), Prentice Hall, 2003, isbn 013-017480-7.