Table of Contents

Web GIS

Web Services Framework for Geo-spatial Services ......................... 1
   Minsoo Kim, Mijeong Kim, Eunkyu Lee, and Inhak Joo

Temporal and Spatial Attribute Extraction from Web Documents
   and Time-Specific Regional Web Search System .................... 14
   Taro Tezuka and Katsumi Tanaka

Mobile GIS and LBS

Broadcasting and Prefetching Schemes
   for Location Dependent Information Services .................... 26
   KwangJin Park, MoonBae Song, and Chong-Sun Hwang

A Geocoding Method for Natural Route Descriptions
   Using Sidewalk Network Databases ............................... 38
   Kouzou Noaki and Masatoshi Arikawa

Location-Based Tour Guide System
   Using Mobile GIS and Web Crawling .............................. 51
   Jong-Woo Kim, Chang-Soo Kim, Arvind Gautam, and Yuyung Lee

A Progressive Reprocessing Transaction Model
   for Updating Spatial Data in Mobile Computing Environments .... 64
   Donghyun Kim and Bonghee Hong

Interoperability and Security in W²GIS

Mediation for Online Geoservices .................................. 81
   Omar Boucelma and François-Marie Colonna

A Generic Framework for GIS Applications .......................... 94
   Miguel R. Luaces, Nieves R. Brisaboa, José R. Paramá,
   and Jose R. Viqueira

Intrusion Detection System
   for Securing Geographical Information System Web Servers ..... 110
   Jong Sou Park, Hong Tae Jin, and Dong Seong Kim
Indexing and Query Processing in $W^2$GIS

In-route Skyline Querying for Location-Based Services .................. 120
   Xuegang Huang and Christian S. Jensen

P2P Spatial Query Processing by Delaunay Triangulation .................. 136
   Hye-Young Kang, Bog-Ja Lim, and Ki-Joune Li

Expansion-Based Algorithms for Finding Single Pair Shortest Path
   on Surface ........................................................ 151
   Ke Deng and Xiaofang Zhou

MR-Tree: A Cache-Conscious Main Memory Spatial Index Structure
   for Mobile GIS .................................................... 167
   Kyung-Chang Kim and Suk-Woo Yun

Map Services for LBS

Developing Non-proprietary Personalized Maps
   for Web and Mobile Environments .......................... 181
   Julie Doyle, Qiang Han, Joe Weakliam, Michela Bertolotto,
   and David Wilson

Labeling Dense Maps for Location-Based Services .................. 195
   Qing-Nian Zhang

Mobile SeoulSearch: A Web-Based Mobile Regional Information
   Retrieval System Utilizing Location Information .................. 206
   Yong-Jin Kwon and Do-Hyoung Kim

3-D GIS and Telematics

A Novel Indexing Method for Digital Video Contents
   Using a 3-Dimensional City Map ................................. 221
   Yukiko Sato and Yoshifumi Masunaga

VRML-Based 3D Collaborative GIS: A Design Perspective .................. 232
   Z. Chang and Songnian Li

Arrival Time Dependent Shortest Path by On-road Routing
   in Mobile Ad-Hoc Network ........................................ 242
   Kyoungh-Sook Kim, So-Young Hwang, and Ki-Joune Li

Author Index .................................................. 255
Web and Wireless Geographical Information Systems
Claramunt, C.; Kwon, Y.-J.; Bouju, A. (Eds.)
2005, XII, 255 p., Softcover
ISBN: 978-3-540-26004-2