

Contents

An Introduction to Open Source Geospatial Science for Urban Studies	1
Amin Mobasheri	
Bicycle Station and Lane Location Selection Using Open Source GIS Technology	9
Dogus Guler and Tahsin Yomralioglu	
Spatial Query Performance Analyses on a Big Taxi Trip Origin–Destination Dataset	37
Berk Anbaroğlu	
Investigating the Use of Historical Node Location Data as a Source to Improve OpenStreetMap Position Quality	55
Talia Dror, Yerach Doytsher, and Sagi Dalyot	
Open Geospatial Data Contribution Towards Sentiment Analysis Within the Human Dimension of Smart Cities	75
Tiago H. Moreira de Oliveira and Marco Painho	
Generating 3D City Models from Open LiDAR Point Clouds: Advancing Towards Smart City Applications	97
Sebastián Ortega, José Miguel Santana, Jochen Wendel, Agustín Trujillo, and Syed Monjur Murshed	
Open-Source Approaches for Location Coverage Modelling	117
Huanfa Chen and Alan T. Murray	
New Age of Crisis Management with Social Media	131
Ayse Giz Gulnerman, Himmet Karaman, and Anahid Basiri	