# Table of Contents

Table of Contents

Preface

Automatic Large Scale Topographical Map Updating using Open Street Map (OSM) Data Within NoSQL Database Platform 1

A Comparative Study on the Modeling Of Rainfall Pattern Using Kriging and Artificial Neural Network 8

An Effective Tool for Urban Land Acquisition: GIS 18

Web-oriented Database and Geoprocessing Services for the Documentation of Synthetic Aperture Radar scenes 23

Road Crack Detection in Images Recorded by a Mobile Mapping System 32

Big Data Analytics in Disaster Management 38

Integrated Approach on Identifying Groundwater Potential Zone in Kallar River Basin, Trivandrum, Kerala 39

Prioritization of Watershed through Surface Runoff in Pambar River Basin Using SCS - CN Method in The Pambar River Basin, India 40

Evaluation and Prototyping of Spatial Data Infrastructure (SDI) Download Services 41

Application of Geospatial Technologies for Agricultural and Climatic Studies: A case Study of Taita Hills, Kenya 52

Design and Implementation of an Institutional geodatabase and Web GIS for European Carribean Association 62

Agent Based Simulation for Suitability of Biogas Power Plants, Case study Schwarzwald-Baar-Kreis, Baden-Württtemberg, Germany 75

Recommendations for a Regional Spatial Data Infrastructure to Mobilize Knowledge for Mountain Area Development in Hindu Kush Himalaya Region 90

Micro-UAVs- An alternate Route to Earth Observation for Geospatial Community 91

Creation of an online GIS for the "Blautopföhle", one of Germany's largest caves 109

Use of RS and GIS for Flood Risk Assessment: A Case Study of Wangchu River, Bhutan 120

A Habitat Model for Wildcats 121

Implementation of a MODIS Aerosol Algorithm for Air Pollution Detection 136