GEOProcessing 2019

The Eleventh International Conference on Advanced Geographic Information Systems, Applications, and Services

February 24 – 28, 2019

Athens, Greece

GEOProcessing 2019 Editors

Claus-Peter Rückemann, Leibniz Universität Hannover / Westfälische Wilhelms-Universität Münster /North-German Supercomputing Alliance (HLRN), Germany

Yerach Doytsher, Technion - Israel Institute of Technology, Haifa, Israel
# Table of Contents

Challenges in Evaluating Methods for Detecting Spatio-Temporal Data Quality Issues in Weather Sensor Data  
*Douglas Galarus and Rafal Angryk*

Using Unsupervised Learning to Determine Geospatial Clusters in Municipalities to Improve Energy Measurements  
*Italo F. S Silva, Polyana B. Costa, Pedro H. C. Vieira, Joao D. S. Almeida, Claudio Baptista, and Eliana Monteiro*

Air Pollution Monitoring and Spatial-Temporal Hotspot Pattern Analysis of Sensors Based on Sensor Grid for the Industrial Parks in Taiwan  
*Bing-Si Ni, YuChieh Huang, and Chun-Ming Huang*

Investigating the Impact of Urban Layout Geometry on Urban Flooding  
*Ahmed Mustafa, Xiao Wei Zhang, Daniel G. Aliaga, Martin Brawier, Benjamin Dewals, and Jacques Teller*

Flexible Access to a Harmonised Multi-resolution Raster Geodata Storage in the Cloud  
*Lassi Lehto, Jaakko Kakhonen, Juha Oksanen, and Tapani Sarjakoski*

WhizPS: An Architecture for Well-conditioned, Scalable Geoprocessing Services Based on the WPS Standard  
*Marius Laska, Stefan Herle, Jorg Blankenbach, Eric Fichter, and Jerome Frisch*

Automated Construction of Road Networks from GPS Tracks  
*Weiping Yang*

A Universal Large-Scale Trajectory Indexing for Cloud-Based Moving Object Applications  
*Omar Alqahtani and Tom Altman*

Superordinate Knowledge Based Comprehensive Subset of Conceptual Knowledge for Practical Geo-spatial Application Scenarios  
*Claus-Peter Ruckemann*

A Proposal for Discovering Hotspots Using 3D Coordinates from Geo-tagged Photographs  
*Masaharu Hirota, Masaki Endo, and Hiroshi Ishikawa*

Analysis of the Difference of Movement Trajectory by Residents and Tourists using Geotagged Tweet  
*Shintaro Fujii, Masaharu Hirota, Daiju Kato, Tetsuya Araki, Masaki Endo, and Hiroshi Ishikawa*

Geospatial Web Portal for Regional Evacuation Planning  
*Chee-Hung Henry Chu and Ramesh Kolluru*

Geoprocessing of the Trends of the ENSO Phenomenon, from Peru to the Atlantic Ocean in Brazil  

Newton Silva de Lima, Aldemir Malveira, Eriberto Facanha, Ricardo Figueiredo, Robson Matos Calazaes,
William Dennis Quispe, and Roseilson Souza do Vale

EPOS: European Plate Observing System
Keith G Jeffery, Daniele Bailo, Kuvvet Atakan, and Matt Harrison