Univ.-Prof. Dr.-Ing. W. Reinhardt

Bachelor Thesis

Theme: Catchment analysis, OpenStreetMap data
Supervisor: Md. Imran Hossain, Eszter Gálicz and Prof. Dr.-Ing. W. Reinhardt
Posting:

Catchment area analysis for a new retail store based on OSM data

Catchment analysis could be understood as a study to identify potential customers in any geographical area for existing or new retail outlets. With a well identified catchment area, a retailer can ensure strategies corresponding to the consumer needs and adjust marketing campaigns to target important groups effectively.

There are already quite a number of studies available intended to offer catchment analysis for different types of services. Besides a lot of market research consulting firms also offer catchment analysis as a service for their clients. However, all of them are significantly data intensive and required geo-demographic data like occupation, education standards, income profiles etc. The goal of this study therefore is to develop and implement a methodology for delineating catchment area for a new retail store (e.g supermarket) using only the free and open source OpenStreetMap (OSM) data. In addition the result of the study could also be compared with the result of one other well stablished approach to measure the effectiveness.

Bachelor Thesis (12 ECTS CP)

- Methodology development for catchment analysis
- Implementation of the methodology
- Comparison of the results with one other established approach (optional)

Prerequisites:

Basic knowledge about:
- OSM data
- Spatial DBMS (preferably PostgreSQL with postGIS)
- QGIS/ArcGIS
- Spatial analysis
- Routing

Contact:
M.Sc. Md. Imran Hossain   E-mail: Imran.hossain@unibw.de