

Urban Travel Behavior in Large Cities of MENA Region (UTB-MENA)

Technische Universität Berlin
Center for Technology and Society (ZTG)

Guest Student Program

The project UTB-MENA is a research project funded by the German Research Foundation (DFG), led by Dr. Houshmand E. Masoumi from Technische Universität Berlin, Germany. The project's aim is to study the effects of transformation of urban form on urban travel behavior in the large cities of the Middle East and North Africa (MENA). For reading a short abstract of the project content, please refer to the bottom of this announcement. Master students enrolled in the universities of MENA countries active in the fields of transportation and/or urban planning have the opportunity of receiving scholarships and working space and facilities as a team member of the project in Center for Technology and Society in TU Berlin for two months. This announcement seeks interested students who can adapt themselves to the two models explained below. A preparation in the home city in form of working on a master thesis related to the topic of the project, or undertaking a data collection in the home country is a prerequisite of coming to Berlin for two months.

Model 1: Internship

Students of MENA universities in different levels (PhD, master's, bachelor's) can apply for working with the project team on a full-time basis in Center for Technology and Society of TU Berlin as interns in short periods of 2 months. Work place and working facilities will be provided by the project. The guest workers will get advice and continuous contact from the project team on how to fulfill the tasks. The tasks to be done by the selected individuals are as follows:

- Visualization and overlaying by ArcGIS and producing maps of neighborhoods in Tehran, Istanbul, and Cairo;
- Working with OpenStreetMaps, Auto Cad, and/or Illustrator;
- Quantification of urban form variables.

Wage: 600€ per month (a sum of 1200€).

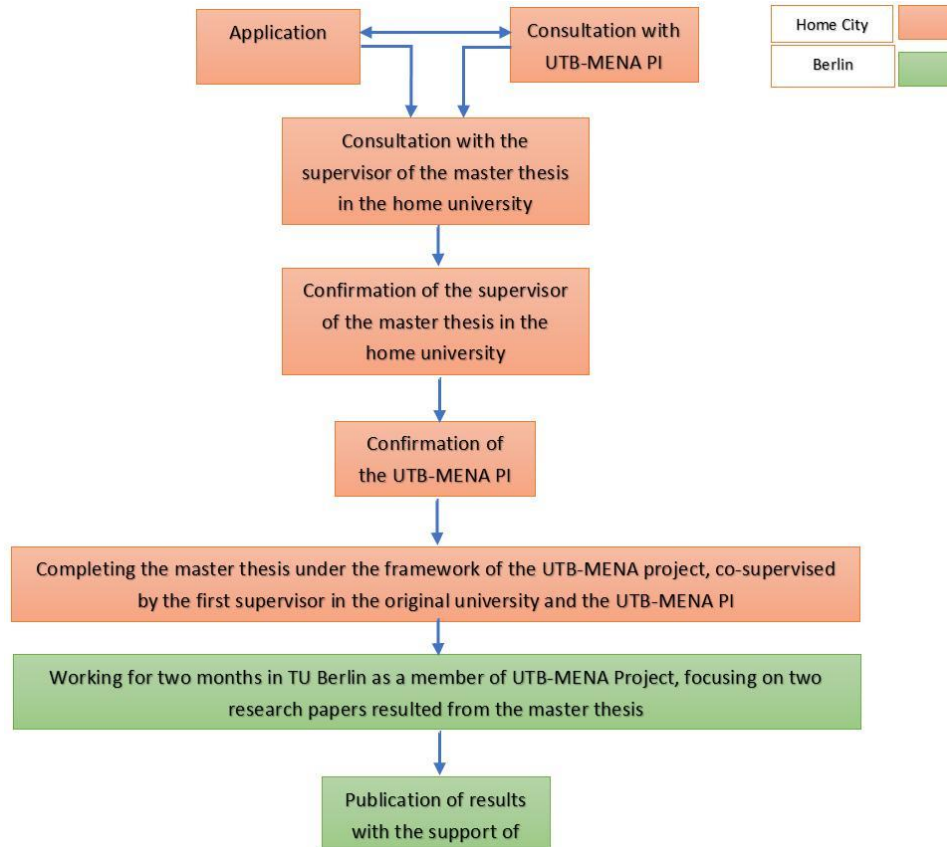
Expected time of involvement: March 2017 – Dec. 2017.

Model 2: Thesis Completion

This model is suitable for final-year master students of transportation planning and urban planning, who are ready to propose their master thesis topic in the universities of MENA. The interested students arrange their thesis topics together with their supervisors in home universities and the principal investigator of the UTB-MENA project. The topics are within the scope of the project. It is possible to use the frameworks and infrastructures provided by the project such as the questionnaires, or concepts applied by the project to lead student research in the countries of the region. After successful completion of the thesis, the student will be awarded a two-month scholarship by the project to have a stay in TU-Berlin to finalize two research papers together with the internal and external supervisors.

Remuneration: 600€ per month (a sum of 1200€).

Expected time of involvement: summer 2017 till summer 2018.

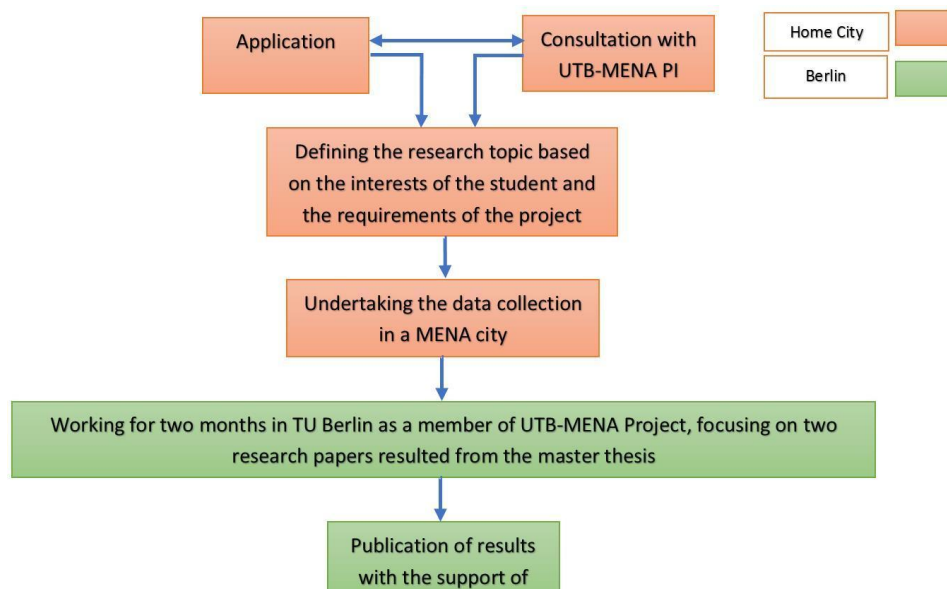


Model 3: Free Research

This model is suitable for first-year master students of transportation planning and urban planning. After getting confirmation from the principal investigator (PI) of UTB-MENA project, they collect data based on the requirements of the project and travel to Berlin for a research stay of two months. This model does not need negotiation or confirmation of the home university.

Remuneration: 600€ per month (a sum of 1200€).

Expected time of involvement: summer 2017 till summer 2018.



UTB-MENA Abstract

The effects of urban land use on travel behavior has been a subject to a large body of literature in western countries especially North America. This topic has gained relatively little attention in developing/emerging countries, especially those located in The Middle East and North Africa (MENA). With respect to rapid urbanization and fast change in urban form characteristics such as compactness, density, street network structures, neighborhood amenities, urban/local centers, etc. in several countries of MENA, it is assumed that some of the travel behavior specifications including travel length, travel time, transportation mode choice and the like are affected by these transformations. This project collects evidences about such associations in MENA region. Moreover, interrelations among these factors together with residential self-selection and car ownership are in particular investigated. It is also meant to find associations between socio-economic impacts that influence urban travels. The observations are conducted on three MENA large cities: Tehran, Istanbul, and Cairo. There are limited evidences that the socio-economic impacts are even stronger than the land use impacts in the region. Such interactions are sought in two ways; cross-sectional studies on different neighborhood types, and developing mathematical models for the three pilot cities. Such considerations are undertaken via historical/descriptive analysis as well as statistical modeling including linear regression and Multinomial Logit Regression Modeling (MNL) as a Discrete Choice Modeling method. The travel behavior characteristics that are examined in these observations are transport mode choice, car ownership, travel length, and travel generation. The findings about the pilot cities are generalized to other MENA large cities by means of approaches suggested by MENA researchers who are invited to take part in workshops. Factors related to city size, religion, geography, climate, accessibility to public transportation, etc. are taken as effective factors in applicability/transferability study. These studies define exactly which parts of MENA can apply the outcomes based on the three abovementioned cities. Recommendations for MENA planners and decision makers, scientific basis and database for the researchers of the region, and numerical models to be used in the future research and development projects are of the important project outcomes. The above will enable the project to fulfill its general goal, which is encouraging MENA researchers and planners to apply land use/transportation interaction considerations in their future research and plans of the region.

Interested students or their professors/supervisors can contact Dr. Houshmand E. Masoumi at masoumi@tu-berlin.de and mention which model they are applying for.