Thesis Project Offer

Joint Research and Education Programme "Palestinian-German Science Bridge PGSB"
Forschungszentrum Jülich GmbH & Palestine Academy for Science and Technology

Thesis type*

☐ BSc	☒ MSc	☐ PhD	Intended starting date (approx.): March 2018

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Project description*

Experimental Investigation of the Fundamental Diagram Across Culture (Msc)

In the past, several experimental works in pedestrian dynamics were performed.
One of the most fundamental experiments investigates the dynamics of pedestrian in narrow corridors with closed boundary conditions.
The advantages of this simplified setup is the ease to control the density, which enables studying the Fundamental Diagram (density-velocity relationship) in a consistent way.

The goal of this work is to perform experiments under laboratory conditions with Palestinian students and compare the results with published experiments from other countries and cultures.

This work should be performed stepwise as follows:
1. Design and perform the experiments
2. Post-processing of the collected data
3. Tracking of pedestrians and extraction from the videos the trajectories of pedestrians
4. Analysis of the data and comparison with the empirical database.
5. (optional) numerical analysis by means of models in order to extract the key factors that characterises the cultural aspects in the crowd dynamics.

Date*	Signature*
10.07.2017	

* required field

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