A U S H A N G

FREIE UNIVERSITÄT BERLIN

Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

D I S P U T A T I O N

Donnerstag, 27. August 2020, 10:00 Uhr

Ort: WebEx

Disputation über die Doktorarbeit von

Frau Zahra Boroujeni

Thema der Dissertation:

Local Trajectory Planning for Autonomous Driving

Thema der Disputation:

A Decoupled Trajectory Planning Framework Based on the Integration of Lattice Searching and Convex Optimization.

Die Arbeit wurde unter der Betreuung von **Prof. Dr. R. Rojas** durchgeführt.

Abstract: For a trajectory planning problem, due to the presence of nonlinear constraints, the feasible domain is non-convex. To address this non-convex problem and to balance between constraints (curvature, traffic rules, and collision avoidance) and requirements (optimality, smoothness, realtime and flexibility) different methods have been proposed over the last few years. In 2019, Meng et al. proposed a decoupled trajectory planning based on the integration of lattice searching and convex optimization.The process of generating the trajectory consists of four parts, path generating using a search algorithm (Dijkstra), path optimization (NLP), speed profile generating using a search algorithm (Dijkstra), and speed profile optimization (QP). The disputation talk will cover this decoupled trajectory planning framework.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

WebEx

Der Vorsitzende der Promotionskommission
Prof. Dr. R. Rojas