



AUTOMATION & CONTROL INSTITUTE
INSTITUT FÜR AUTOMATISIERUNGS-
& REGELUNGSTECHNIK



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Datum	30.06.21
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Concerning: work experience certificate for the internship

Mr. Rishabh Ramteke carried out an intership at TU Wien, Automation and Control Institute, from January to June 2021.

The internship project revolved around the topic of recognising semi-transparent objects. The task is part of work on methods to model these objects, study methods that detect and recognise them, and finally will contribute to methods that estimate 6DOF pose of objects for subsequent robotic grasping. The project involves using self-attention for instance segmentation of semi-transparent objects.

Rishabh specifically worked towards learning and detecting transparent objects as needed for the project with plastic canisters and glass bottles. In particular he worked on the simulation of transparent objects and the rendering of realistic scenes with these objects such that we can create data for learning neural networks. He worked on automating the rendering with a python script in blender and automated the parameter study for depth computation.

Best regards

Ao. Prof. Dr. techn. Markus Vincze