Start your mission at DLR

Institute of Communications and Navigation in **Oberpfaffenhoffen** is looking for a

Bachelor/Master student (w/m/d) studying Engineering (e.g. Computer Science or Electrical engineering or similar) for

Environment Design and Data Acquisition using Unreal Engine and ProjectAirSim

Your Mission:

We are developing new reliable navigation systems within the framework of various projects for autonomous Urban Air Mobility (UAM). Highly accurate and precise navigation system is necessary for vehicles to operate in urban environments. However, the performance of satellite navigation can be degraded due to signal interruption. Therefore, we are developing camera-based localization to support safe takeoff/landing at vertiports. We have been developing the tool chain to test the algorithm using realistic data obtained by Unreal Engine and ProjectAirSim, so that frequently outdoor experiments can be avoided. Join us to solve this challenge!

Your tasks:

- Improve the current design of the simulation environments (e.g. vertiport and urban areas including the visual markers) using Unreal Engine and ProjectAirSim Plugin
- Test the different flying modes (automatic waypoint flying or manual) in various simulation environment and scenarios
- Acquire datasets during simulation scenarios (including images, ground truth trajectories & attitude, internal & external sensor calibration)
- Investigation of acquiring GNSS/INS measurements together with images

Your Qualification:

- Bachelor or Master students majored in Engineering (e.g. Computer Science or Electrical engineering or similar)
- Solid experiences with Unreal Engine and ProjectAirsim Plugin are necessary
- Solid experiences and skills with Python and Good knowledge with C++
- Basic knowledge of geometry (e.g. reference frames, coordinate system) is necessary
- Basic knowledge of visual navigation and projective geometry will be a plus
- Initial 3D modelling experiences (with e.g. Blender) will be appreciated
- Highly proficient in spoken and written English

Contacts:

Please send your CV/Cover letter/Transcripts of your BS&MS to the following to Dr. Young-Hee Lee (Young-Hee.Lee@dlr.de)

We offer a pleasant working atmosphere in an international research and development group. You can have flexible working hours according to your study plan. Individual arrangement for mobile working is also not an issue for us. If we have made you curious, please feel free to contact us!

DLR

Zertifikat seit 2002 audit berufundfamilie

TOTAL E-QUALITY DIVERSITY