



GUC German Office

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Topic Proposal Form

International Bachelor Thesis 2021

Supervisor	Univ.-Prof.- Dr. -Ing. Giovanni Del Galdo, Dr.-Ing. Mostafa Elkhoully
Institute/Department	Fraunhofer IIS/ Electronic Measurements and Signal Processing department (EMS) TU Ilmenau/ Electronic Measurements and Signal Processing chair (EMS)
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Research field/Project	Over-the-Air Research and Testing
Description (URL for research information)	<p>The EMS group is active in the area of Over-the-Air Research and Testing with focus on the following research aspects:</p> <ul style="list-style-type: none"> - Performance analysis of communication- and navigation systems (e.g., LTE, 5G and GNSS) by means of emulation of virtual electromagnetic environments (e.g., using wavefield synthesis, wireless cable and conducted tests) - Development and improvement of emulation test environments regarding hardware and software - Testing of SatCom-on-the-Move (SOTM) Terminals (e.g., type approvals) <p>The student will be assigned to the exact Thesis topic based on the project work available at the starting date of the Bachelor Thesis. This way the Thesis has better chances to be project-related with better practical scope.</p>
Maximum number of GUC BSc students who could work on the project	1
Compulsory qualification of students	Good Analytical Skills Good programming skills: Matlab, Python
Date of stay	4-6 months, flexible starting date

(from – to)	
Remote supervision possible (Yes/No)	
Additional contact partner Name and email	
Further comments	Additionally, be aware that you can apply for a student job or internship on a related topic.