

Lab Internships Faculty of Electrical Engineering and Computer Science

Topic:	Small Satellite Communication Links
Areas/Study fields:	Aeronautical Engineering, Electrical Engineering
Duration:	3-6 months
Deadline for applying:	February 15 for fall internship October 1 for spring internship
Supervisor:	Professor Dr. Sören Peik
Abstract:	Upcoming small satellite systems call for cost efficient and light weight communication subsystems. Utilizing commercially available radio frequency integrated circuits (RFIC) as used in mobile phones can satisfy these requirements. The objective of this project is to select suitable RFICs and design a small communication system. The design shall follow guide lines for rapid prototyping.
Tasks:	<ul style="list-style-type: none"> - Selection of space qualifiable RFIC components - Design of a transmitter sub-system - Simulation and optimization using AWR Microwave Office suite - Manufacturing, assembly, and test of the system
Prerequisites:	<ul style="list-style-type: none"> - Basic knowledge of microwave systems - Basic knowledge of communication systems - Some lab experience, esp. usage of spectrum analyser, breadboard design, soldering
Language requirements documents:	<ul style="list-style-type: none"> - English (minimum B2) - Transcript of Records - CV
Starting point:	October for fall internship April for spring internship Earlier/later beginnings may be possible, depending on professor's availability.
Credits:	6 ECTS
Salary:	None paid internship, HSB scholarship for none Erasmus students subject to availability. This will be announced on short term notice.