

The Forschungszentrum Telekommunikation Wien (FTW) is a dynamic company with an international atmosphere that carries out application-oriented research in telecommunications. Our mission is to fill the gap between science and industry, pursuing a challenging research program in collaboration with both academic and industrial partners. Currently we are offering a Master thesis for the following topic:

## FPGA-based Demonstrator for Digitally Enhanced Transceivers

Digital enhancement is a promising method for designing flexible and highly efficient wireless transceivers that must comply with future communication standards. For the evaluation of such enhancement methods it is necessary to have a versatile real-time test platform that provides a flexible interface to the analog hardware and is easily reconfigurable.

In the course of this master thesis, you are supposed to set up an FPGA based demonstrator platform that is able to interface with analog RF circuits, as well as with an existing Matlab/Simulink simulation framework. The functionality of the demonstrator platform should be demonstrated by implementing a digital predistortion for a transmitter exploiting automatic code generation from Simulink.

Needed skills:

- A self-driven and autonomous (research oriented) working style.
- A solid background in signal processing.
- Good programming skills (Matlab, C, ...).
- Experience in digital design (e.g. VHDL) and nonlinear signal processing is a plus.

The expected duration of the master thesis is 6 month. For master students we are able to provide a monthly financial compensation.

FTW offers researcher positions for talented scientists interested to pursuit a doctoral degree. An excellent master thesis is a strong plus for a further possible employment at FTW.

Applications should be sent to  
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