

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:

## Implementation of Receiver Algorithms on an FPGA

Future intelligent transportation systems demand dependable wireless communication links. Such reliable communications with vehicles requires sophisticated signal processing algorithms to estimate and equalize the effect of the time- and frequency selective wireless vehicular communications channel.

An advanced MATLAB based link level simulation for IEEE 802.11p is available and constantly extended at FTW. In the course of this master thesis work the student is supposed to implement selected existing receiver algorithms in Simulink and evaluate their performance by automatic code generation for an FPGA-based demonstrator platform. The FPGA output will be validated by comparison with the results of the existing MATLAB based link level simulation.

Needed skills:

- A self-driven and autonomous (research oriented) working style.
- Experience with Matlab/Simulink.
- A solid background in signal processing.
- Experience in digital design (e.g. VHDL) is a plus.

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

FTW offers researcher positions for talented scientists interested to pursue 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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