

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:

## Evaluation of Highly Efficient Wireless Transmitter Architectures

The power efficiency of today's wireless transmitters is largely limited by the low efficiency of linear power amplifiers. To overcome this limitation it is most likely necessary to use completely new transmitter architectures. The design of these architectures requires a closer interaction between digital signal processing and analog circuit design.

In the course of this master thesis work you are supposed to create models of new transmitter architectures in Matlab/Simulink. The models should be used for evaluating the implementation complexity and achievable performance in terms of power efficiency and signal quality.

Needed skills:

- A self-driven and autonomous (research oriented) working style.
- A solid background in signal processing.
- Experience with Matlab/Simulink.
- Interest for mixed signal hardware and concept engineering.

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  
FTW Forschungszentrum Telekommunikation Wien GmbH  
Donau-City-Straße 1  
A-1220 Wien, Austria  
attn.: Dr. Christian Vogel ([vogel@ftw.at](mailto:vogel@ftw.at))