

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:

Optimization of Wireline Access Systems

In recent years various optimization approaches have found application for resource allocation in digital subscriber line (DSL) systems, foremost for problems related to spectrum and interference management for current and next generation DSL. These approaches range from continuous ones such as sequential convex approximation, to combinatorial ones, including optimal and meta-heuristic search schemes. Problem size, parameter uncertainty, and system distribution have motivated even more specialized approaches, including various decomposition schemes, robust, and distributed optimization.

Based on the above wide range of problems and optimization strategies we offer customized master thesis projects which are tailored to the student's interest, know-how, and own research plan. Students will improve their background in optimization theory, develop an independent research style, and become familiar with practical real world applications of optimization in the field of DSL.

Needed skills include:

- A self-driven and autonomous (research oriented) working style.
- Basic analytical and programming skills (e.g., Matlab and C)
- A background in optimization theory
- Knowledge of communication technology and 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
FTW Forschungszentrum Telekommunikation Wien GmbH
Donau-City-Straße 1
A-1220 Wien, Austria
attn.: Dr. Martin Wolkerstorfer (wolkerstorfer@ftw.at),