



## ETEL S.A.

Zone Industrielle CH - 2112 Môtiers Switzerland T +41 (0)32 862 01 00 F +41 (0)32 862 01 01 etel@etel.ch • www.etel.ch

## Master Thesis: High Performance Magnetic Concept

ETEL is a technology company manufacturing electric motors, motion systems and motion controllers. Particularly, the torque motors are heavily present in Industry Applications, they are optimized and developed to maximize the available torque per given active volume through a complete motor range. The design of the product is deeply related to the available production means and processes, including economical compromises.

The opportunity given in this master thesis proposal is the freedom to complete revolutionize the actual design of an existing high torque density ETEL motor, which will be chosen as the starting point. The active volume is fixed and full freedom will be given in term of magnetic circuit design and winding layout. The target is to improve the overall machine performance and/or creating uniqueness.

This master thesis job will be carried out mainly at ETEL SA.

Background in mechanical, electrical or power electronics engineering is ideally required, including basis in electromagnetic circuits modelling.

The thesis work will be carried out in Môtiers (CH), and the company will contribute to accommodation expenses.

**Contact:** Prof. Gianmario Pellegrino <u>gianmario.pellegrino@polito.it</u> before submitting the application to the company.

Ethel: Dr. Alessandro Fasolo, Magnetic Design Manager AFasolo@etel.ch

