AVL is the world's largest independent company for development of powertrains (combustion engines, hybrid systems, electric drive) as well as simulation and test systems for passenger cars, trucks and marine engines.

We offer a master thesis:

**MULTI-PURPOSE OPTIMIZATION ASYNCHRONOUS OF ELECTRIC MOTOR LAYOUT**

There are different aspects of design of electric motors design, such as efficiency, stress, thermal, and NVH. In this study several design of an asynchronous machine. The parametric and DOE study is meant to optimize these aspects for an motors. A detailed FEM model together wills DOE tool will be used in the study to optimize the design.

**Task:**
- Literature study
- Several layout design for asynchronous Motor
- Parametrization of the Motor Geometries
- Running several studies using DOE and FEM simulation
- Optimization using a DOE Matrix, layout studies
- Documentation and Reporting

**Study:**
- Field(s) of study: Electrical or Mechanical Engineering, Technical Physics

**Requirements:**
- Experience in electric motors is appreciated
- Language: English or German

Remuneration: The successful completion of the thesis is remunerated with a one-time fee of EUR 2,500 before tax.

According to the Austrian Employment of Foreign Nationals Act it is unfortunately not possible to assign graduate work to third-country citizens (Non-EU citizens) and Croatian citizens who study at a university abroad.

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