

Master Thesis - “PM machine with reduced cogging torque” (30 credits/20 weeks – 1-2 students)

About us

GKN Aerospace is the world’s leading multi-technology tier 1 aerospace supplier. With 55 manufacturing locations in 15 countries, we serve over 90% of the world’s aircraft and engine manufacturers. We design and manufacture innovative smart aerospace systems and components. Our technologies are used in aircraft ranging from the most used civil aircraft to the world’s advanced 5th generation fighter aircraft and the Ariane orbital rockets used by ESA.

Project Background

Aircraft are becoming more and more electrified, and we are of course expanding our knowledge into the field as well. GKN Aerospace Sweden is investing in building up testing and design capabilities for future proofing our engines and engine components using electric machines and devices.

We are now in the process of creating specialized electric machines for use in aircraft. Therefore we are looking for students to help us with creating a new electric machine with minimal cogging torque in order to reduce the risk of vibrations at high RPM.

Assignment Description

The task is to design and simulate an electric generator from certain specified parameters, that should have minimal cogging torque. Preferably this is done using the software MotorCAD.

- Create a design specification of the electric machine.
- Create a software model of the design.
- Explain the theory behind the results

Qualifications

- Student of a Master’s degree programme in Electrical engineering or similar
- Knowledge about electric machine design
- Experience using MotorCAD or similar electric machine design tool
- Able to work independently

Contact and Application information

To apply, please send your resume and cover letter to Daniel Buvarp, daniel.buvarp@gknaerospace.com.

Last date for application: 2022-12-15. Interviews will be held continuously and the position could be filled prior to the last application date.

