Master Thesis - Evaluation of the Locati method for High Cycle Fatigue testing
30 credits/20 weeks – 1 student

Project Background

GKN Aerospace designs and produces parts for commercial aircraft engines as well as the European Space Programs.
We are responsible for requirement fulfillment of the parts we design. The analysis department perform structural and thermal analyses to evaluate the design using material fatigue data specific for the components we develop.

The capability to correctly predict structural failure is vital to in the design development and verification process.

Assignment Description

The student will be part of the project FLECTION, a European cooperation between 4 different industrial and university partners.
In this project test data is created on super alloys used in Aerospace Engines. The specific assignment for this thesis work is to evaluate the potential of using the Locati method, which is an alternative to the current GKN method to establish design fatigue data for high cycle fatigue.
The student will become familiar with both low cycle and high cycle fatigue data from testing, evaluation and prediction perspective, which is an excellent platform for any Solid Mechanics Engineer interested in Aerospace analysis and fatigue.

Qualifications

Student in the final year of their M.Sc. Mechanical Engineering with an interest in applied mechanics.

Completed course on Strength of Materials, Fatigue and Fracture.

Apply by

Send your resumé and cover letter to Gunnar Högström (gunnar.hogstrom@gknaerospace.com).

Interviews will be held continuously.