

Method to Automate Composite Laminate overlay

About Us

GKN Aerospace Applied Composites AB is a high-tech company which specialises in composite-based solutions for demanding civil and military applications. The company developed alongside the aviation and defence industry in Linköping, Sweden, and our facility is located beside Malmen military airfield. Thanks to skilled employees and extensive product development, design, testing, qualification, production and maintenance resources, we are Scandinavia's leading expert in applied composite technology.

Thesis Work Description

We are looking for method(s) to automate the composite laminate overlay. The method includes calculation on how to effectively fill a cavity to obtain a correct shape/form by integrating CAD and FEA. The geometrical shape of the product is obtained by effectively placing several layers of the composite with appropriate angular orientation with optimization if necessary. Calculations/simulations need to be performed on various designs to demonstrate the feasibility of the method/process. At the end of the work, the thesis is submitted to GKN Aerospace Applied Composites AB in English or Swedish.

Background

Ideal student(s) possess good written and communication skills in English or Swedish and currently in their Master's education in Mechanical engineering, Production engineering or related fields. The students have good knowledge in some of the areas; CAD, Design automation, Composite design, Stress analysis and Optimisation. Knowledge of programming languages and composite materials are added advantage. The student(s) are motivated, self-driven, fast-learner and able to work in a team.

Thesis Level/Number of Students

This work is suitable for 1 or 2 students each 30 ECTS pursuing their final year of Master's education. Estimated start date: January/February 2018; Estimated end date: June 2018.

Contact and Application

Send your CV and personal letter and contact us for additional information.

Mats Eklund: mats.eklund@gknaerospace.com

Raghu Chaitanya Munjulury: raghu.munjulury@gknaerospace.com

GKN Aerospace Applied Composites AB

Postadress/
Postal address

Besöksadress/
Office address

Telefon/Telephone

Telefax

Box 130 70
SE-580 13 Linköping
Sweden

Nobymalmsvägen
Linköping

+46 (0)13 20 97 00

+46 (0)13 20 97 09