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Master thesis proposal		1 (1)
> Titelförslag/Thesis title	> Ämnesområde/Business area	
Tolerance design methods to meet Zero defect requirements on aerospace components	Product Development, Quality Management	
> Tidsperiod och högskolepoäng/Period of time and amount of credits	> Antal studenter/Number of students	
30 credits/20weeks	2	
> Geografisk placering/Location	> Kontaktperson/Contact person	
Trollhättan	Sören Knuts/Hans-Olof Svensson	
> Språk/Language	> Startdatum/Start date	
English	Jan/Feb 2022	
> Handledare/Supervisor	> Avdelning/Department	
Sören Knuts/Hans-Olof Svensson	Engineering	
> Skicka ansökan till/Send application to	> Sista ansökningsdag/Last application date	
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About us

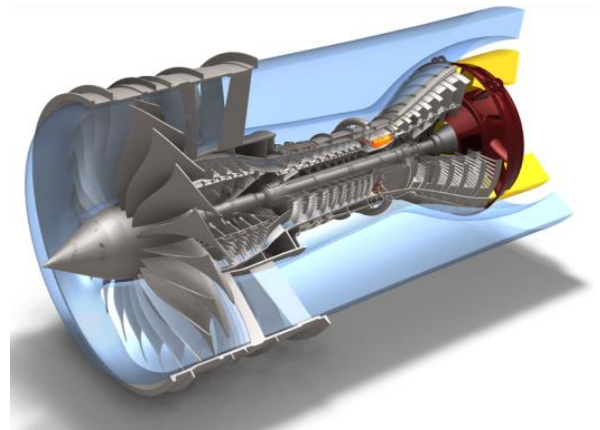
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Background of thesis project

In aerospace, an update of working methods aimed at Zero Defect is underway. In this thesis, we want to find out which gaps connected to the design work we need to fill and focus on in order to contribute to Zero Defect on our products. One area that we have identified as an important contribution is Tolerance Design.

This area aims to deal with variation and uncertainty around design parameters that affect manufacturability.

A source of information that design must relate to is the deviation management related to manufacturing that is done on our products before delivery. An area where we as a company strive for zero deviations. Other issues that should be included are thoughts about robust design, and how we drive improvement work through Design for Six Sigma.



Assignment description

Complete an interview study with appropriate questions linked to working methods to meet Zero Defect? (On-site research)

- How do we work with tolerance design on our products? (Present state)

How comprehensive is deviation management and how can we eliminate deviation management on our products? (On-site research)

- Does today's toolbox support the elimination of deviations?
- What analyzes do we lack on our products to create a tolerance specification that is manufacturable? (Identification of gap)

How can Design for Six Sigma and robust design strengthen the working methods available today? (A case study)

- Give example with the toolbox (QFD, DoE, P-diagram, Geometry Assurance...) from robust design methodology.

Qualifications

A background in Quality and Management Engineering, or Mechanical Engineering with interest in Product Development. Some experience in design work is favorable.

Apply by

Send your CV and cover letter to Sören Knuts, soren.knuts@gknaerospace.com, +46 520 291200. Last date for application: 2021-11-15. Interviews will be held continuously and the position could be filled prior to the last application date.