# EXAMENSARBETE – CFD Mesh Generation for Truck Aerodynamics

**Category: Product Development**

**Title:** Evaluation of CFD Mesh Generation Tools for Truck Aerodynamics

## Background
CFD plays an increasingly important role in the product development process at Scania. Today we use CFD to simulate both external air flow and the air flow through the engine bay of trucks and buses. In order to meet our goals the Fluid Mechanics group is constantly looking at new methods and technology which will increase the accuracy of our simulations and reduce the time taken to reach a result.

## Goal
Recent developments in the area of mesh generation promise to significantly reduce the time spent on generating meshes for complex geometries. The aim of this project is therefore to evaluate a newly developed mesh generation technique from one of the major CFD software developers.

## Description of Work
The creation of CFD models of a production truck and semi-trailer will form a central part of the work. Simulations using the Fluent software will also be performed for a number of driving cases and computational grids. Analysis of CFD results and comparison with aerodynamic data from wind tunnel tests and previous CFD simulations will also be carried out. This will require the student to become familiar with several software packages such as ANSA, Fluent, Fieldview.

## Suitable Background
Final year M.Sc. student with background and a keen interest in Fluid Mechanics and CFD

**Number of students:** 1
**Start:** August/September 2007
**Duration of work:** 20 weeks, autumn 2007

## Contact:
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**Application:**
Your application, including CV, cover letter and grades
should be sent to **per.jonsson@scania.com**

**Application deadline:** 2007‑05‑31