Achieved results

The bachelor thesis deals with the statical strength analysis of mobile petrol station in different loading cases using computer modeling method in SW ANSYS Workbench. The bachelor thesis was created on the request of an industrial company so its benefit and possibility of practical use is undisputable. The new version of mobile petrol station will be designed based on results of this bachelor work.

Problematics of thesis

The bachelor work is divided into seven sections. At the beginning of the work, the creation of the shell geometry and finite element mesh of the structure is introduced. Further, the different boundary conditions for chosen loading cases are introduced and discussed. The separate section of the bachelor work is the analysis and application of the norms according to ČSN EN 1991-1-3 and ČSN EN 1991-1-4 – Eurocode 1: Actions on structures caused by snow and wind. The student studied rather complicated content of norms and has created the software utility allowing the user to calculate loading caused by snow and wind not only for the construction of mobile petrol station. In the final part of the work, results of all loading cases taken into account are introduced and discussed, possibilities of the optimization of the structure are evaluated.

The complex strength analysis of this rather complicated structure is undoubtedly challenging topic both in terms of time and expertise.

Student’s proceed to work at thesis

I highly appreciate the student’s attitude to the bachelor thesis, he regularly consulted temporary results on regular meetings. It is also necessary to highlight the development and improvement of student’s practical skills during the processing of bachelor thesis.

Formal essentials of thesis

The bachelor work contains only minimal amount of typing errors and grammar mistakes, also the graphical design is clear and comprehensible. The literature sources are properly chosen and cited.

Questions to student

Since all uncertainties were solved and answered during regular meeting I have no further questions.

General revaluation of thesis

With respect to facts mentioned above in this review form I recommend this bachelor thesis for the defence and I evaluate it with the grade EXCELLENT.

Overall classification: excellent