REVIEWER'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name:	**Gaseous fuel supply for a gas engine with a scavenged pre-chamber**
Author's name:	**Nishanth Nithyanandham**
Type of thesis :	master
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Automotive, Combustion Engine and Railway Engineering
Thesis reviewer:	Michal Takats
Reviewer's department:	Department of Automotive, Combustion Engine and Railway Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment **easy**

Evaluation of thesis difficulty of assignment.

Rather simple engine subassembly is the design topic. Well prepared tools for simulation activities were available.

Satisfaction of assignment **fulfilled**

Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.

The design of the gas rail and the assessment of its behavior were performed according to demands.

Method of conception **correct**

Assess that student has chosen correct approach or solution methods.

The design work was performed using CREO SW and simulations were performed in GT-Power SW.

Technical level **E - sufficient.**

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

Introduction into the issue is rather shallow. The description of terms in formulas is insufficient. Occasional errors occur in formulas and graphs. The particular development steps are not sufficiently reasoned.

Formal and language level, scope of thesis **E - sufficient.**

Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.

There are numerous grammar errors. All description in the text sounds somewhat awkwardly. Reader has to spent extreme effort to understand author's ideas.

Selection of sources, citation correctness **D - satisfactory.**

Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.

Literature review and description of current state is well documented. However neither of the citation references the main topic – gas rail design and optimization.

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

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III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

Thesis contains numerous minor misstatements, inaccuracies and errors. Some parts are almost illegible and some sentences make no sense. Nevertheless the main goal is achieved.

I evaluate handed thesis with classification grade **D - satisfactory.**

Questions:

The physical quantity "scavenging" (expressed in % and repeatedly used as calculation input) is not defined. What does "scavenging" mean?

What are the state condition p_{GAS}, T_{GAS} In formula (2)? Where do the values originating from?

Date: **30.8.2018** Signature: