REVIEWER'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name:	**Methodics of use of engage movements in milling**
Author's name:	Mohamad Ghaith Almasri
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Machining, Process and Metrology
Thesis reviewer:	Ing. Karel Preis
Reviewer's department:	CENTERSOFT s.r.o.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment **challenging**

Evaluation of thesis difficulty of assignment.

The author of the bachelor thesis had to demonstrate knowledge in CAM system, CNC machine tool control, cutting conditions and tool setting. He did must manage work with the Rotating 4-Component Dynamometer and the VHX 6000 Accuracy Optical Microscope.

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 author has set 3 aims that have been done. It was verified by practical measurement of cutting force in individual approach methods, he detected the influence of cutting forces on the surface quality of the machined part and at the end of bachelor thesis described own recommendation.

Method of conception **correct**

Assess that student has chosen correct approach or solution methods.

The approach was correct. The author firstly created partprogram in CAM software, next machined part and then did measurement.

Technical level **B - very good.**

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

The author is oriented in the problem. The final recommendation can also be used for commercial programming in CAM software.

Formal and language level, scope of thesis **B - very good.**

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

The formal and language level is appropriate for the bachelor thesis. The designation of Fig. 1 has been replaced by Fig. 2. In Chapter 2.1.3. is not the method of approaching the tool into the material, but the machining process - Straight Plunge. The same in Chapter 2.1.6. – Spiral Milling Movement.

Selection of sources, citation correctness **A - excellent.**

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.

The author used of maximum the sources listed. Examples of CAM software are clear. The verification of sources did not reveal any violation of citation ethics.

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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.
The results of both experiments were used by the author as a basis for his recommendation at the end of bachelor thesis.

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.

The author correctly used all available means to obtain results. I especially appreciate working on a CNC machine, Dynamometer and Optical Microscope.

Question for defense:

1. How is the process of the chip in the conventional and climb milling.
2. Where is the resulting cutting force in conventional and climb milling.

I evaluate handed thesis with classification grade **B - very good.**

Date: **16.8.2019** Signature: