

SUPERVISOR'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name: Analysis and comparison of methods of Gröbner bases for solving nonlinear

polynomial systems in finite fields of characteristic 2

Author's name: Ildar Nizamov

Type of thesis: master

Faculty/Institute: Faculty of Electrical Engineering (FEE) **Department:** Department of Computer Science

Thesis supervisor: Bestoun S. Ahmed, Ph.D.

Supervisor's department: Department of Computer Science

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment ordinarily challenging

Evaluation of thesis difficulty of assignment.

The author in the thesis claimed that he assessed the Grobner bases methods which is a generalization of Gaussian elimination algorithm for solving nonlinear polynomial systems. First, the student illustrated and reviewed the Grobner bases and their properties, then he reviewed the construction of Grobner basis, compared and analyzed the algorithms, and finally he showed how to use the method for solving nonlinear equations. The thesis level of difficulty is fair for a diploma thesis.

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 tried to accomplish the tasks. He spend a good effort on the thesis. However, the thesis is too theoretical and there is a lack of practical aspects and evolution.

Technical level D - satisfactory.

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

The thesis contains some level of literature review. The author reviewed a few of the methods used and algorithms used in the past. Technically, the thesis contains some information about the technical aspects in implementing these algorithms. However, I don't think putting this long source code in the thesis contributes.

Formal and language level, scope of thesis

C - good.

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

The level of English language is good in this thesis. However, there are many typo and mistakes. The thesis is too theoretical. The theory surpass the practical aspects in the thesis. This also takes me to another point which is the relationship of this thesis with the field. The thesis is purely computer and basic science and there is nothing about software engineering, which is strange.

Selection of sources, citation correctness

C - good.

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 some citations and sources successfully in the literature part and also in some other parts of the thesis.



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III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

There are many mistakes in the thesis. For example, sometimes the author mentioned "paper" instead of "Thesis", which strange because this is not a paper!

The preparation of the thesis is not good. The student should have paid more attention to the structure, arrangement and structure of the thesis.

The student should be asked how he relate this thesis with the software engineering field? Which is the field that he supposed to graduate with.

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

Date: **13.6.2018** Signature: