

I. IDENTIFICATION DATA

Thesis name:	Software complex for automated scheduling
Author's name:	Guzel Mingazova
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis reviewer:	Associate Professor, Makletsov Sergey Vladislavovich, Ph.D
Reviewer's department:	Kazan Federal University, Institute of Mathematics and Mechanics named after N.I. Lobachevsky, Department of Theory of Functions and Approximations

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
Difficulty of assignment in the number of conditions to consider and number of issues to solve to find optimal solution.	

Satisfaction of assignment	fulfilled with minor objections
<i>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.</i>	
In my opinion, all point of the assignment have been fulfilled. Description of the software package for schedule can be improved and represented more detailed.	

Method of conception	correct
<i>Assess that student has chosen correct approach or solution methods.</i>	
Existing approaches to the solving the problem were analyzed. Method of solving the scheduling problem was chosen correctly. Mathematical model is circumstantially described, but does not present complex constrains and objective function for the process of scheduling.	

Technical level	C - good.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
Presented scheduling model well described and plenty detail. In addition, the review of the current available scheduling solutions, main approaches employed in this area and process of manual scheduling in the institute are well documented. However, I'd suggest extending the part of work, which describes, how the program works for users, how happens the communication between the system components, architectures of the components and what the system requirements for the complex.	

Formal and language level, scope of thesis	C - good.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Typographical level of the thesis can be improved. In the text, several first pages are printed by font 14, other printed by number 12 font. In my view, there are few examples of calculating timetables and they don't enough described.	

Selection of sources, citation correctness	B - very good.
<i>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.</i>	
Despite the widespread problem of scheduling, there is not much sources associated with examples of integration of	

automated scheduling systems were used. Student cites fourteen resources, mainly textbooks and research papers. There are not any errors of citation ethics during reading of the thesis.

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 work has high practical value. Today the timetable at the institute is made manually, so the need for the automation of scheduling is high. Creation of a complex focused specifically on a particular institution is a crucial task.

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 master thesis, in its content, corresponds to the chosen topic and tasks.

The relevance and practical value of the work is determined by the need to automate the scheduling at the institute. The mathematical model is made up correctly, but does not have complex constrains and objective functions. The work provides a detailed analysis of existing solutions and algorithms, made up a thorough survey of the current process of scheduling at the Institute. Nevertheless, the question of the realized software package: the detailed description of the components, their interaction can be improved.

I evaluate handed thesis with classification grade **C - good**.

Date: **5.6.2018**

Signature:

