

I. IDENTIFICATION DATA

Thesis title:	Hybrid power plant for power supply of autonomous objects.
Author's name:	Ivan Zhdanov
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Economics, Management and Humanities.
Thesis reviewer:	Ing. Lubomír Musálek
Reviewer's department:	Department of Instrumentation and Control Engineering.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
Please insert your comments here.	

Fulfilment of assignment	fulfilled
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
The student fulfilled the assignment.	

Methodology	outstanding
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
The student chose the correct solution procedure	

Technical level	A - excellent.
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
Student combined the economic, technical and theoretical parts to achieve the goal correctly.	

Formal and language level, scope of thesis	B - very good.
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
In this part I criticized some unexplained acronyms.	

Selection of sources, citation correctness	A - excellent.
<i>Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?</i>	
The student used 53 citations. That is enough use.	

Additional commentary and evaluation (optional)
<i>Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.</i>
Please insert your comments here.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

The work deals with the possibilities of using renewable sources to power the overpressure station of the transit gas pipeline of the Russian Federation.

The author evaluated and assessed the possibilities of using individual types of renewable electricity sources and selected a technically suitable solution in the first part. This solution was wind turbines and complemented by battery storage and a backup diesel generator for power consumption. It is described the possibilities of connection and components of control systems for the chosen solution in the second part. The work is grammatically at a good level and is based on a sufficient amount of literature. There are abbreviations in the work that are not in the list of abbreviations ().

I recommend the work for defense.

The grade that I award for the thesis is **B - very good**.

Questions

1. How would change the technical design of Powerplant if we considered the required reactive power when trunk gas station starting up?
2. It is used at formula (20), the constant $k_{AB} = 0.8$. What does this constant express?
3. Explain the abbreviations: DGS, GOST, DPP, SCADA, BCC, BVC, ICUV.

Date: **14.6.2020**

Signature: