CZECH TECHNICAL UNIVERSITY IN PRAGUE
Faculty of electrical engineering
Department of electrical power engineering
Technická 2, 166 27 Prague 6, Czech Republic

Bachelor thesis opponent's review

Master thesis:	**Simulation of PV system with accumulation into hot water**
Author:	**Angara Sahithi**
Thesis supervisor:	**doc. Mgr. Jakub Holovský, Ph.D.**
Thesis opponent:	**doc. Dr. Ing. Jan Kyncl**

Rating (1 – 5)
(1 = best; 5 = worst):

1. Fulfillment of assignment requirements:	1
2. Systematic solutions of individual tasks:	1
3. Ability to apply knowledge and to use literature:	1
4. Thesis formal and language level:	3
5. Thesis readability and structuring:	1
6. Thesis professional level:	3
7. Conclusions and their formulation:	2
8. Final mark evaluation (A, B, C, D, E, F):	C

verbal: good

Brief summary evaluation of the thesis (compulsory):

The bachelor's thesis nicely describes the power industry in South Africa and then for a specific house equipped with photovoltaics, the problem of hot water heating is addressed. The used thermal models are very simplified, they consider perfectly mixed and therefore thermally homogeneous boilers. In fact, conventional home boilers are stratified hot water tanks and the models are therefore only very approximate. However, it must be stated that mathematical modeling of stratified boilers is a relatively complex task beyond the bachelor's thesis.
The format of the results in the form of 3216 [kWh] is not usual or suitable in a technical text.

Questions:
1. Page 19 shows the module efficiency of 19.48%. How accurate must current, voltage, and incident power measurements be to get such an accurate result? What are the usual accuracies for measuring these physical quantities?
2. What is the correct unit of quantity on the y-axis in Figure 14?

Date: Signature