



Bachelor thesis opponent's review

Bachelor thesis: Distribution system reliability improvement using Smart Grid technologies

Author: Yunis Yunisli

Thesis supervisor: Ing. Martin Čerňan

Thesis opponent: Prof. Ing. Josef Tlustý, CSc.

Rating (1 – 5)
(1 = best; 5 = worst):

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

verbal:
very good

Brief summary evaluation of the thesis (compulsory):

The student fulfilled all the assignment requirements. The Bachelor thesis deals with the different ways of improvement of distribution reliability system using various technologies. The effectiveness of reliability improvement is studied on the basis of two reliability indicators SAIDI and SAIFI. The core of this thesis is a case study of the reliability simulation in model distribution network with various automation. The thesis has a good composition going from theoretical chapters to practical parts (case study) and conclusions.

Formal editing has good composition with intelligible writing with good structure of sub-chapters, figures are instructive and have high quality. The final calculations are erudite and bring complex results for the presented distribution electrical power system. The thesis includes many interesting information and could be used as technical demonstration material for future distribution system development. On the base of the above mentioned points I find the thesis successful.

Questions:

1. Explain why SAIDI and SAIFI indices are significantly lower for PREdistribution than these indices for ČEZ distribution and E.ON distribution in Tables 3.1 and 3.2

Date: 20.1.2021

Signature: J. Tlustý



Notes:

- 1) The total thesis evaluation needn't be determined by the partial evaluations average.
- 2) The total evaluation (item 8) should be from the following scale:

excellent	very good	good	satisfactory	sufficient	insufficient
A	B	C	D	E	F