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16634 PRAGUE 6

Prague, 1. 12. 2020

Concerns: Review of dissertation thesis Ing. Markéta Vavrušková

Dear Madam, Sir,

please find in enclosed letter my review of the dissertation thesis by Ing. Markéta Vavrušková, entitled "Teaching Structures to Architects."

The topic of the PhD research work is a comparative study of structural engineering education at various schools in Europe and further abroad, in order to derive recommendations for said education at the Faculty of architecture of CTU in Prague.

The core of the work is a detailed analysis of structural engineering education at a selection of European and overseas schools. The analysis is done very detailed and careful. It is clear from the work that Ing. Markéta Vavrušková has gained a lot of insight in the various forms of structural engineering teaching. She has also provided argued SWOT analysis for each approach.

Additionally, I would like to recommend Ing. Markéta Vavrušková for writing the PhD thesis in English. Writing a PhD thesis in one of the world languages in my view is essential as the "closing chapter" of a PhD training path.

Concerning the methodology, I have a number of questions. First, concerning the hypotheses formulated on pages 25-26. In my view, hypothesis H1 is rather an observation, and hypothesis H2 is more a problem statement. Combined, they form the motivation for the research: a perceived problem or perceived inadequacy of structural engineering education at the Faculty of architecture of CTU in Prague. I miss in the introduction a clear list of identified problems of structural engineering education at the Faculty of architecture of CTU in Prague. Such a list can then later be used to assess the virtues of the various found other teaching approaches from the European and overseas analysis. This is unfortunately missing.

On page 19 a list of tactical targets is defined, starting from source research of publications, leading up to data evaluation and synthetic phase of the research. This is actually a very good structuring of the thesis report. I expected that this structure would be repeated in the remainder of the text, but

somehow the following structure is different. For example: Chapter B starts immediately with conclusion; Chapter C combines analysis with synthesis; Chapter D groups the results from the various schools; confusingly there is a section D1: Critical evaluation of approaches to arch. SE teaching / schools grouping (page 92) and a similarly numbered section D2: Factual critical evaluation of approaches and initiatives in architectural SE teaching (page 109); Section D3 has recommendations for FA / CTU Prague (p. 131), whereas Chapter E is called Summary and Conclusion. This organisation makes the thesis hard to comprehend.

To conclude, the PhD thesis submitted by Ing. Markéta Vavrušková fulfils the formal criteria of a scientific report. The work certainly is passed for defence. On the basis of the PhD thesis I can recommend Ing. Markéta Vavrušková to be passed.

Thank you for your consideration.

Yours faithfully,



Prof. dr. ir. Henri Achten
Prague, 1. 12. 2020