SUSCOS

Reviewer's form for thesis evaluation

1. Identification of the student

Student:	Wenjing Zhang
Thesis:	Stainless steel angle section members in compression and combined loading
Institution:	Czech Technical University in Prague, Faculty of Civil Engineering Department of Steel and Timber Structures
Academic year:	2016/2017

2. Identification of the reviewer

Name:	Ing. Michal Strejček, Ph.D.
Institution:	Kovové profily, s.r.o. (Podnikatelská 545, Praha 9 – Běchovice, 190 11)
Position:	Structural engineer

3. Fulfillment of thesis goals

excellent ☐   above aver. ☒   average ☐   below aver. ☐   weak ☐

Comments:

The thesis is in accordance with the supervisor's assignments. The student demonstrates creative thinking and the ability of independent creative activities. The content of the thesis is well organised and divided between the state of the art and the student's own contribution. However, in the text, some parts of the state of the art overlaps with the student's work. The quality of the submitted work would be improved with more detailed descriptions of the test, numerical analyses and their results.

4. Academic/scientific/technical quality

excellent ☐   above aver. ☒   average ☐   below aver. ☐   weak ☐

Comments:

The thesis is very valuable to its intent. The principles and solutions proposed are acceptable but in some respects questionable. For instance the boundary conditions of the numerical model in terms of initial imperfections and its validation were oversimplified in chapter 3.2.4 which may influence results. For a subsequent parametric study a new numerical model has been created but without any verification on the validated model. These aspects can significantly contest results of the thesis.

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5. Formal arrangement of the thesis and level of language

excellent ☐   above aver. ☐   average ☒   below aver. ☐   weak ☐

Comments:

The formal arrangement of the thesis is very good. The content is clearly divided into chapters in logical progression. Images, tables and diagrams are obvious and easily readable.

Some grammatical mistakes and inexact expressions make it difficult to understand some details.

6. Further comments

Notes to discussion:

a) A numerical model in chapter 3.2.5 was calibrated based on the crosshead displacement. A simple way of calibration, with a factor that equals 2, brings a good agreement with the linear part of the load-displacement curve. The non-linear part is not in a good agreement. Are predictions for a parametric study in chapter 4 gained based on the same assumptions?

b) Coefficients D_1, D_2 and D_3 for the calculation of factor k are summarized in Table 24 on page 67. How were these values determined?

7. Grade: _B (very good)_

Use the following scale

A (excellent)	B (very good)	C (good)	D (satisfactory)	E (sufficient)	F (fail)

Prague

24 January 2017