1. Identification of the student

Student:	Oscar Minor García
Thesis:	The impact of the connection stiffness on the behavior of a historical steel railway bridge
1st Institution:	UPC Barcelona/UNIPD Padova
2nd Institution:	Czech Technical University in Prague
Academic year:	2016/2017

2. Identification of the reviewer

Name:	Ing. Filip Kutina
Institution:	SUDOP PRAHA a.s.
Position:	Bridge designer

3. Fulfillment of thesis goals

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

Comments:

Thesis fulfills the given task of analysis of the rotational stiffness of connections in a historical steel railway bridge and parametric analysis defining the impact of variable stiffness of examined connections on general static behaviour of the structure. Targets of the research are presented with appropriate comments, illustrations and explanations to obtained results.

4. Academic/scientific/technical quality

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

Comments:

The thesis was elaborated on a high theoretical and practical level. The student used national and international standards, prior published methodologies dealing with the topic of stiffness of a steel connections and historical railway bridges and specialized software for static assessment. The author has proved to be able to solve complicated technical issues and to evaluate them according to his own oppinion.

Conclusions of the research done in the frame of the thesis are useful for the concerned engineering branch and may serve for verification of results while analysing similar structures.

5. Formal arrangement of the thesis and level of language

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

Comments:

The text has a very good stylistic and also a linguistic level is very high. A few grammar or typing errors occur, though. The text is complemented with numerous suitable illustrations and drawings. Partial results and conclusions are commented on vividly illustrating diagrams. The resources of the reproduced data processed in the thesis are quoted according to requirements.

6. Further comments

In content and in a technical point of view no comments.

Questions to the student (topics for discussion):

1. Were connections modeled and analyzed with consideration of their damage in the current state, e.g. reduced cross-section due to rust damage? What are other kinds of damage usually observed on old riveted steel bridges?

2. Does CBFEM represent real behavior of a connection credibly? Explain.

3. If you needed to calculate the static analysis with software that could only use the pinned or rigid connections, how would you model the analyzed types of connections on the same bridge in order to obtain possibly accurate results?

7. Grade: _____A_____

Use the following scale

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

Prague

July 19, 2017

The Reviewer,

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(Ing. Filip Kutina)