

## I. IDENTIFICATION DATA

<b>Thesis name:</b>	<b>Stability Analysis of St. Barbara's Church in Otovice</b>
<b>Author's name:</b>	<b>Ivana Božulič</b>
<b>Type of thesis:</b>	master
<b>Faculty/Institute:</b>	Faculty of Civil Engineering (FCE)
<b>Department:</b>	of Mechanics
<b>Thesis supervisor:</b>	Pavel Kuklik
<b>Supervisor's department:</b>	Department of Mechanics

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>challenging</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The study was started off by summary of findings from preliminary historical, geotechnical background studies. The main part is focused on the numerical analysis using ATENA 2D finite element (FEM) software, ATENA-Gid FEM software and Geo5 geotechnical FEM software. The software has been used to assess the safety of the church walls with regards to damages it currently faces.	

<b>Satisfaction of assignment</b>	<b>fulfilled</b>
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
Mrs. Ivana Božulič in her thesis work successfully coped with all tasks assigned to her.	

<b>Activity and independence when creating final thesis</b>	<b>A - excellent.</b>
<i>Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.</i>	
I have been in contact with Mrs. Ivana Božulič since April 2019, it was the date when she started her thesis work on "Stability Analysis of St. Barbara's Church in Otovice". Mrs. Ivana Božulič has proven very good ability to collect, analyze and classify a large amount of diverse information. She carried out the master thesis without significant intervention from me. For me it was the fruitful cooperation on partial solving of the Czech culture heritage preservation and saving.	

<b>Technical level</b>	<b>A - excellent.</b>
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
I appreciate the technical level because of the need to use advanced numerical codes that solve the nonlinear and quasi-brittle constitutive modeling. Also, the soil structure interaction in 3D numerical modeling is very difficult, mainly in terms of the selection of large number of input parameters.	

<b>Formal and language level, scope of thesis</b>	<b>B - very good.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
I rate the graphics and language level very good. There is not much to improve.	

<b>Selection of sources, citation correctness</b>	<b>B - very good.</b>
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
In my opinion, the citation is done in good faith and corresponds to the knowledge and possibilities of the student.	

<b>Additional commentary and evaluation</b>
---

*Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.*

The master thesis brings a lot of knowledge and results that can be directly used in civil engineering practice. The importance is enhanced by the fact that it solves a non-easy task how to sustain national cultural heritage.

### III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

*Summarize thesis aspects that swayed your final evaluation.*

In general, I can state that Mrs. Ivana Božulič in her thesis work successfully coped with all tasks assigned to her. I regard Mrs. Ivana Božulič as a diligent and hardworking young professional who is capable to solve advanced tasks related to analysis of monuments and historical constructions. Therefore, I recommend her admission to the state exam and to process of the defending act of her thesis.

I evaluate handed thesis with classification grade **A - excellent**.

Date: **18.7.2019**

Signature: