

I. IDENTIFICATION DATA

Thesis name:	Reliability Analysis of St. Barbara's Church in Otovice
Author's name:	Chandrashekhar Mahato
Type of thesis:	master
Faculty/Institute:	Faculty of Civil Engineering (FCE)
Department:	of Mechanics
Thesis supervisor:	Pavel Kuklik
Supervisor's department:	Department of Mechanics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	extraordinarily challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
<p>The study was started off by summary of findings from preliminary historical, geotechnical background studies. Non negligible part of investigation was surfaces hardness testing and damage assessment in site. The main part is focused on the numerical analysis using ATENA 2D finite element (FEM) software, ATENA-Gid FEM software for 3D modelling and Geo5 geotechnical FEM software. The study consists of deterministic analysis, but the main part of study is focused on reliability analysis using the SARA and FReT stochastic software.</p>	

Satisfaction of assignment	fulfilled
<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>	
<p>In general, I can state that Mr. Chandrashekhar Mahato in his thesis work successfully and in excellent level coped with all tasks assigned to him.</p>	

Activity and independence when creating final thesis	A - excellent.
<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>	
<p>I have been in contact with Mr. Chandrashekhar Mahato since April 2019, it was the date when he started his thesis work on "Reliability Analysis of St. Barbara's Church in Otovice". Mr. Chandrashekhar Mahato has proven very good ability to collect, analyze and classify a large amount of diverse information. I must mention, that theoretical background of the thesis was over the standard master university lectures. He 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.</p>	

Technical level	A - excellent.
<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>	
<p>I appreciate the technical level because of it need to use advanced numerical codes solving nonlinear problems on the stochastic level and to fulfill the task it was necessary to carried out huge amount of numerical calculations as well.</p>	

Formal and language level, scope of thesis	A - excellent.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
<p>I rate the graphics and language level excellent. I have no objections.</p>	

Selection of sources, citation correctness	A - excellent.
<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>	
<p>In my opinion, the citation is done in good faith and corresponds to the knowledge and possibilities of the student.</p>	

Additional commentary and evaluation

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 solves tasks which are not only very interesting for civil engineering structures now, but in future the answers on them will be mandatory for all structures.

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

I can state that Mr. Chandrashekhar Mahato in his thesis work successfully coped with all tasks assigned to him. I regard Mr. Chandrashekhar Mahato 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 his admission to the state exam and to process the defending act of his thesis.

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

Date: **18.7.2019**

Signature: