

# THESIS SUPERVISOR FORM



## 1. Identification of the student:

Student:	Saray Soranyelly Sepulveda Cruz
Thesis:	Experimental investigation of climate effects on historical building materials: the Gothic towers of Prague
1 <sup>st</sup> Institution:	Universidade do Minho
2 <sup>nd</sup> Institution:	Czech Technical University in Prague, Czech Republic
Academic year:	2022/2023

## 2. Identification of the supervisor:

Name:	Ing. Riccardo Cacciotti, Ph.D.
Institution:	ITAM
Position:	Researcher

## 3. General comments

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The work investigates a very relevant topic in the field of cultural heritage protection, providing interesting insights on new experimental methodologies for evaluating the impact of climate change on cultural heritage assets. The integration of simulations of real or idealized climate conditions, the monitoring of material and model responses and the final evaluation of risk by the creation of susceptibility curves would constitute original work, setting the basis for future research related to strategies for resilience building for cultural heritage in climate change scenarios.

Overall, the thesis meets satisfactorily its research goals and it is of sufficient quality, lacking however of discussing important aspects such as a well-rounded risk evaluation of the case studies and more detailed conclusions in terms of the significance of the research data and possible future applications.

The work presents a quite understandable structure, composed of sections at times not clearly distinguishable. The contents, although comprehensive, are not precisely organized and together with typos and language errors, affect the readability of the work.

State of the art provides a basic review of the literature. Methods and procedures are presented, however some details are missing preventing the reader to fully discern the execution of the experimental investigation.

The experimental investigation is sufficiently outlined and the results are provided in a clear and structured manner. Data processing has been carried out following standard procedures and experimental data are reported adequately with clear graphs. Some assumptions may have required further explanation (e.g. calculation of moisture content, meaning of susceptibility index). Great work is carried out on the visual inspection of the towers and on the graphical representation of the damage survey.

Conclusions are outlined in a satisfactory manner, even if a more comprehensive overview of the significance of the evaluation would have been of great value. In this perspective, it would have been beneficial to relate relevant findings to the research questions/goals set at the beginning of the thesis. References are relevant.

As a general comment, the student successfully adapted to the laboratory work, to which she was new. From a didactical perspective, she learnt how to design experiments, carry out measurements and process data. She was challenged by the topic and the goals of the research, which were ambitious indeed, and by the final task to organize and write the thesis in a coherent way. However, considering also the impact of personal issues which considerably shortened the duration of her research, the student performed good work.

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**4. Grade: C**

Use the following scale

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

July 20, 2023

The Supervisor,

Ing. Riccardo Cacciotti, Ph.D.