# THESIS SUPERVISOR FORM



### 1. Identification of the student:

Student: Yasser Sidaoui

Thesis: Proposal of Measures for Preserving the Historical Fresco of the Assumption of the

Virgin Mary by V.V. Reiner

1st Institution: UPC Barcelona/UNIPD Padova

2<sup>nd</sup> Institution: Czech Technical University in Prague, Czech Republic

Academic year: 2016/2017

### 2. Identification of the supervisor:

Name: Karel Kabele

Institution: CTU in Prague, Faculty of Civil Engineering

Position: Professor, head of the Department

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#### 3. General comments

The presented work was created during the student's stay at the Department of Technical Equipment of the Faculty of Civil Engineering of the Czech Technical University in Prague from April to June 2017. The assignment of the diploma thesis was based on a real problem with the quality of the indoor environment and the gradual degradation of the historical fresco on the pavilion in the premises of the state castle Duchcov. The student was very quick to orientate himself in the problem presented and he self-studied the DesignBuilder sw, which he subsequently used for numerical macromodeling of the thermal and humidity behavior of the object. In this software, he created a functional model of the complex geometric structure of the whole object with a non-standard dome, and performed simulations of various operating states to analyze the indoor environment of the object from the point of view of the influence of the historical fresco. During the course of the diploma thesis, a joint visit to the site was carried out and the maximum effort was made to obtain the measured data from the ongoing monitoring of the NPÚ object. Unfortunately, the duration of the administrative data acquisition process did not allow the data to be used in the work so the simulation results could not be verified by comparison with the measurement. The professional level of work reflects the previous education and focus of the student, who had to acquaint himself with the theory of indoor environment, the macromodeling of thermal and humidity performance of buildings and the basics of technical systems of buildings. Formally and linguistically, the work is comprehensible, graphically processed at the level corresponding to this level of qualification work. Unfortunately, in the final version, minor formal errors appeared, such as missing automated links, and some charts lacking a more detailed description. The work cited 15 sources of literature.

The student worked systematically, independently, and arrived on time and carefully prepared for regular consultations. Presented work completely fulfilled the assignment, and I appreciate the active and conscientious approach of the student and evaluate it by degree A

4. Grade:A (excellent)					
Use the following scale					
A (excellent)	B (very good)	C (good)	D (satisfactory)	E (sufficient)	F (fail)

Czech Technical University in Prague July 14, 2017 The Supervisor,

Karel Kabele