Supervisor assessment of Bachelor's Thesis

Student: Pérez Sergio H.

Title: Statistical Model Checking of Approximate Computing Systems (id 21362)

Supervisor: Strnadel Josef, Ing., Ph.D., UPSY FIT VUT

1. Assignment comments

I evaluate the thesis specification/assignment as **difficult**.To finish the thesis, the **student was required**:

- **to acquaint himself** with principles of unconventional areas (particularly, SMC and AC),
- **to gain experience** with modeling and verification of dynamic stochastic systems in a particular tool (UPPAAL SMC); for that purpose, the student was required to **study and understand** the non-trivial syntax and semantics of related modeling and query means,
- **to propose an approach** of modeling choosen AC systems and verifying their properties by SMC means and **to apply the proposed approach**; this was very difficult because there was no know-how for such a purpose,
- **to evaluate** the proposed approach.

In my opinion, **the student fulfilled the requirements** of the thesis specification. But, the **evaluation part concentrates just to basic attributes** of the proposed approach and does not pay enough attention to other viewpoints.

2. Literature usage

The student **demonstrated his ability** to **independently search** for information sources related to his thesis specification, **navigate** in such sources, **gather information** from the sources and **use** the gathered information appropriately for finishing his thesis.

3. Assignment activity, consultation, communication

The student **started** his work **with a slight delay**, but then he i) **regularly consulted** his solution, ii) **informed** about the solution progress as well as about problems identified during the solution and iii) **discussed** possibilities of overcoming the problems. The student **worked independently** and was **well prepared for each consultation**.

4. Assignment finalisation

The result of the student's work (i.e., the realization and the technical report) **was consulted regularly**. It was **presented** to me **in advance**, which **allowed me to repeatedly comment on it** before its official submission.

5. Publications, awards

I am not aware of any publishing activity or appreciation of this student's work. However, the result of the work **has a potential** to contribute to the formation of conference/journal publication(s) in the SMC and/or AC area(s).

6. Total assessment
very good (B)

Due to

- the student's **regular work** on his thesis,
- (over-average) **difficulty** of the thesis specification,
- **usability** as well as **publishability** of the thesis results,
- **careful consultations** to how to write a technical report,
- but **just** a **basic evaluation** of the proposed models,

I propose to evaluate the thesis by the **grade B**.

In Brno 28. May 2019

Strnadel Josef, Ing., Ph.D.
supervisor