

## Supervisor assessment of Bachelor's Thesis

**Student:** Malecová Tatiana  
**Title:** Equivalence-Based Slicing of Programs (id 24038)  
**Supervisor:** Malík Viktor, Ing., DITS FIT BUT

### 1. Assignment comments

The assignment was created and led in cooperation with Red Hat. I consider the assignment to be rather difficult since it (1) required to study and to understand concepts of static analysis of programs which are not a part of the bachelor study at FIT and (2) the proposed method for static slicing of programs based on their semantic equivalence is novel within the entire field of static analysis research. Overall, the assignment surpasses the standard complexity of bachelor study. I consider the assignment fully accomplished and the solution to be of a good quality.

### 2. Literature usage

The student investigated the proposed materials (some of which were advanced research papers) as well as she was able to find additional sources. I have no objections for the work with literature.

### 3. Assignment activity, consultation, communication

The student was very active throughout the entire year. The work was consulted on regular weekly meetings and every time she was able to present new progress.

### 4. Assignment finalisation

The work was finished in ample time and I had the possibility to review the final content several times.

### 5. Publications, awards

The proposed method has been implemented as a part of an open-source tool DiffKemp. Currently, it is in the state of an open pull request and I expect it to be merged soon. Also, this work could be a good basis for further academic or industry research and it could lead into a publication at an international venue.

### 6. Total assessment

**excellent (A)**

I suggest to rate this thesis by the **grade A (excellent)**. Overall, the work presents a high quality solution for a rather difficult problem that surpasses the standard complexity of the bachelor study at FIT BUT.

In Brno 25 May 2021

Malík Viktor, Ing.  
supervisor