Review of Master's Thesis

Student: Aubrecht Tomáš, Bc.
Title: Generation of Synthetic Retinal Images with High Resolution (id 21968)
Reviewer: Heidari Mona, DITS FIT BUT

1. **Assignment complexity** — **less demanding assignment**
   Although there are many research on GANs and many papers have been published still this thesis is among the slightly difficult tasks.
2. **Completeness of assignment requirements** — **assignment almost fulfilled**
   All the sources that have been used in this work are the relevant ones and the thesis meets the goal.
3. **Length of technical report** — **in usual extent**
   This work is very well written, using an appropriate language and thesis structure that makes the report easy to follow.
4. **Presentation level of technical report** — **80 p. (B)**
   The explanation in this work is quite clear and the sections and sub-sections are sufficiently descriptive.
5. **Formal aspects of technical report** — **80 p. (B)**
   The thesis is written with an appropriate language and that makes it easy to understand. All the basic and the requirements to comprehend the thesis are fulfilled.
6. **Literature usage** — **80 p. (B)**
   All relevant materials and sources are employed, also the student has tried to use the current knowledge in this field.
7. **Implementation results** — **80 p. (B)**
   The practical implementation is successful and it used relevant additional libraries. The practical part is discussed, the databases which have been used for this work are mentioned as well. The result has been evaluated on different datasets.
8. **Utilizability of results**
   The experimental results are useful and it can be used by further research.
9. **Questions for defence**
   - The work is based on a deep learning-based method, therefore, the dataset that has been used in this work should contain many images but the dataset in this work, was small. Deep learning algorithms can not work well on a small dataset, how did the student overcome it?
10. **Total assessment** — **80 p. very good (B)**
    The result of this work is a database of images that is very good and functional for follow up research. The theoretical and technical quality of the thesis is also good. The specification of the work is almost fulfilled. Overall I evaluate this work as **B (80).**

In Brno 1 July 2020

Heidari Mona
reviewer