Review of Bachelor's Thesis

Student: Blašková Barbora
Title: Driver State Monitoring (id 22719)
Reviewer: Prustoměrský Milan, Ing., DCGM FIT BUT

1. **Assignment complexity** — **more demanding assignment**
   The sophistication of the thesis is above average and requires a thorough understanding of the problematics.
2. **Completeness of assignment requirements** — **assignment fulfilled**
   All tasks were accomplished.
3. **Length of technical report** — **in usual extent**
   The extent of the thesis is within usual range.
4. **Presentation level of technical report** — **95 p. (A)**
   The presentational and logical structure of the thesis is clear, balanced and the continuity of chapters is easy to follow and understand. The positive impression of the finished report is amplified by a sufficient amount of quality figures, graphs and equations.
5. **Formal aspects of technical report** — **90 p. (A)**
   The report is written in very good English with very few typographic or language mistakes.
6. **Literature usage** — **92 p. (A)**
   List of bibliography is extensive for the bachelor thesis and relevant to the discussed topic with a balanced mix of cited books, journals and electronic resources.
7. **Implementation results** — **83 p. (B)**
   The student was able to identify important variables from the pool of driver and vehicle states. Based on these variables and dataset available, model was chosen, classifier created and trained. Due to the limited amount of real-world data, additional data was generated to improve and confirm relation between states of a driver and driven vehicle. However, generated data were missing temporal dependence and might introduce inaccuracy into the classifier.
8. **Utilizability of results**
   The presented results and gained knowledge could be used in further research on driver state monitoring and evaluation. The growing interest in automatic/autonomous driving across the automotive industry is tightly linked to the driver state estimation. This makes results of this thesis very valuable.
9. **Questions for defence**
   - The stress prediction for the 4th driver gave accuracy about 89%. Can this high accuracy indicate overfitted training data?
10. **Total assessment** — **90 p. excellent (A)**
    The thesis required a good amount of effort in terms of implementation and understanding the concepts related to the application area. With respect to previous findings I suggest the grade A.

In Brno 24 June 2020

Prustoměrský Milan, Ing.
reviewer