Review of Master's Thesis

Student: Ruta Dominik, Bc.
Title: Pilot proficiency classification from gaze (id 24569)
Reviewer: Vlk Jan, Ing., Ph.D., DCGM FIT BUT

1. Assignment complexity   **more demanding assignment**
The task difficulty is, in my opinion, above average as the author has to prove the knowledge of piloting techniques and procedures as well as techniques for gaze tracking and design appropriate testing scenario.

2. Completeness of assignment requirements   **assignment fulfilled**
The task assignment was fulfilled on all points.

3. Length of technical report   **in usual extent**
The thesis is written on 70 pages (from Introduction to Conclusion) and in my opinion meets the requirements, since all chapters of the thesis are informatively rich and covers the research topic.

4. Presentation level of technical report   **90 p. (A)**
The thesis is well structured and understandable for the reader. The links between chapters are logical and contribute to good readability and understanding of the solved problems.

5. Formal aspects of technical report   **88 p. (B)**
The author proved excellent English writing skills and the thesis typography meets, in my opinion, a very high standard.

6. Literature usage   **85 p. (B)**
The author cites 53 literature resources, which are well balanced between books, scientific articles and online resources. All resources are relevant to researched topic.

7. Implementation results   **90 p. (A)**
The student implemented a framework for pilot proficiency classification based on tracking of pilot's gaze and data from flight simulator. The classification is performed using variety of machine learning techniques as Support Vector Machine or Hidden Markov Models. The student also designed an experiment for classifier evaluation at Simstar flight simulator. The tested subject were real pilots with different level of experience.

8. Utilizability of results
The results of this work can be employed in the process of objective evaluation of pilot's skills.

9. Questions for defence
  - Why did you removed the flight phases as LOC Capture, GS Capture, ILS Approach, etc. from classification process.

10. Total assessment   **84 p. very good (B)**
Concerning the above-mentioned findings, I suggest a grade **B**.

In Brno 2 June 2022

Vlk Jan, Ing., Ph.D.
reviewer