

Review of Bachelor's Thesis

Student: Bohovic Samuel
Title: Futuristic Cockpit for Urban Mobility (id 22040)
Reviewer: Prustoměský Milan, Ing., UPGM FIT VUT

- 1. Assignment complexity** **more demanding assignment**
Creating a concept of futuristic cockpit for industry which is not standardised can be challenging task and making it usable in virtual reality even more.
- 2. Completeness of assignment requirements** **assignment fulfilled**
Assignments were met for all points and 4th assignment has been expanded with dynamic model of flying urban vehicle.
- 3. Length of technical report** **within minimum requirements**
Scope of the technical report is in customary range for bachelor thesis.
- 4. Presentation level of technical report** **70 p. (C)**
The presentational and logical structure of the report is good and continuity of the chapters is easy to understand. Although the process of designing the cockpit itself could be described in more detail - if there was some initial draft, more variants, how does it look in global scale etc. It is hard for reader to visualise complete cockpit with those few pictures.
- 5. Formal aspects of technical report** **85 p. (B)**
The report is written in good English with few typographic and language mistakes.
- 6. Literature usage** **85 p. (B)**
List of bibliography is extensive for the bachelor thesis with balanced mix of cited books, journals and electronic resources.
- 7. Implementation results** **95 p. (A)**
Technical solution is made for virtual reality headsets. It is visually appealing without any graphical bugs or flaws. Render range limitations due to HW performance mentioned in technical report does not affect flight experience and visualisation of futuristic cockpit. Dynamic model of the flying urban vehicle is nice add-on, although it takes some time to learn how to fly with it.
- 8. Utilizability of results**
The VR application brings nice concept of futuristic cockpit for flying urban vehicles and could be used for further development of cockpits in urban mobility. Better dynamic models would improve overall feel of the VR experience, but it is not necessary for the task of designing futuristic cockpit. In the future it can be used more as visualisation tool than flight simulator at this point.
- 9. Questions for defence**
 - You've said that two test subjects with previous flight training on real aircraft had the most trouble adjusting to the control scheme. Did they tell you why? How would you adjust the controls to be more friendly to real pilots?
 - In questionnaire, there is question about navigational tunnel. What is the result of this question?
- 10. Total assessment** **86 p. very good (B)**
Application made within this thesis is functional, well made from technical perspective and brings interesting look into the future of flying urban mobility. Technical report gives fine introduction into concept of avionic cockpit, however brief description of the actual designing of the futuristic cockpit should be described more.

In Brno 28. May 2019

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