

Review of Master's Thesis

Student: Kulich Martin, Ing.

Title: Dynamic Template Adjustment in Continuous Keystroke Dynamics (id 17918)

Reviewer: Orság Filip, Ing., Ph.D., UITS FIT VUT

1. **Assignment complexity** **more demanding assignment**
The assignment of the project demands very good knowledge of very specific field of biometrics and artificial intelligence, well above the average knowledge presented in the MSc. degree study programme.
2. **Completeness of assignment requirements** **assignment fulfilled**
3. **Length of technical report** **in usual extent**
4. **Presentation level of technical report** **85 p. (B)**
Generally, the technical report is well structured even though I disagree with chapters 5, 6 and 7 to be separate chapters or structured as they are (more common is the design-implementation-experiments layout). Extent of the individual chapters is appropriate.
5. **Formal aspects of technical report** **95 p. (A)**
Formal layout of the report does not contain any major flaws. The report is written in English with surprisingly low amount of mistakes, which I highly appreciate.
6. **Literature usage** **100 p. (A)**
The list of references is full of relevant resources. All of them are up to date and valid for the given topic. All the adopted parts are cited properly with regard to the common conventions.
7. **Implementation results** **75 p. (C)**
The application is written in Python and uses some libraries to fulfil its task. The source code is not as perfect as the report itself. In the source code there is no information about the author, hence it is not clear who owns the copyright. Also, there is no information how to use the software (user guide and list of requirements to run the software).
8. **Utilizability of results**
This work brings a new way to improve dynamic keystroke based impostor detection and proves it is usable way of protection of personal computer or other device with keyboard.
9. **Questions for defence**
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10. **Total assessment** **88 p. very good (B)**
The assignment itself is more demanding, the report is very well written and the improved algorithm of the keystroke detection provides good results, according to the experimental results. These positive aspects of the thesis are slightly degraded by the relatively weak implementation. Given all the information I reward this thesis 88 points/B.

In Brno 10. June 2015

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signature