Title: Systematic Literature Review on Trends for the future and uses of Brain Computer Interface (BCI) Applications

Level: Bachelor/Master

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Many institutes in the world have selected the (brain-computer interface; BCI) as a promising and important technology. The BCI is a technology that makes a subject control robots or computers using brain signals without movements. Using the BCI technology, patients with paralysis can type characters to express their thought, drink a cup of water by controlling robot arm, and move around by controlling electrical wheelchair. Moreover, BCI is useful in general because it can be used for user interface for various electrical devices. In this study, focus will be on future trends and possible uses for BCI applications. The following points will be explored in the thesis:

- Future trends of BCI Applications
- Challenges and Opportunities for the BCI Applications
- BCI commercialization (current status, further possibilities)
- Collaboration between companies and academia to develop and manufacture BCI devices
- Different potential medical and non-medical uses of BCI
- Combination of different technologies (e.g. EEG, virtual reality, fMRI)
- Summarize principles of the BCIs and discuss pros and cons of the technologies. Moreover, recent BCI studies and the future direction of the BCI research will be discussed.

Some relevant literature:


