

INTERACTION RICH VIRTUAL CLASSROOMS WITH ELECTROENCEPHALOGRAPHY-BASED BRAIN COMPUTER INTERFACES

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Collaborative virtual environment–based learning systems facilitate participating lectures in a virtual classroom still being in different geographical locations. These kinds of environments provide more interactivity over conventional distance learning methods such as message boards and chat capabilities, where the input of the participants is partially ignored. Unlike in real classroom, the virtual classroom allows the participant to hide the real affective state and real participation. The proposed study will implement a prototype to express affective inputs of the participants as facial expressions and gestures of participants as avatars within a virtual classroom. An Electroencephalography (EEG) based Brain Computer Interfaces (BCI) will be used to capture the brain signals, and the affective state of participants will be extracted from these brain signals, fed to the virtual classroom. A popular 3D virtual environment Second Life will be used for modeling virtual classroom.

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