Progress Report: Project Proposal and OpenViBE Setup

Introduction: This report provides an overview of the initial steps taken in our project, including the project proposal, successful installation of OpenViBE, and a brief introduction to its usage.

Project Proposal: Our project aims to develop a Brain-Computer Interface (BCI) system for controlling external devices using brain signals. The project proposal outlines the scope, objectives, and potential impact of this technology in various domains.

Accomplishments:

Project Proposal: The project proposal was meticulously crafted, detailing the project's purpose, objectives, methodology, and expected outcomes. It was submitted on [24-03-2023] and received positive feedback from our mentors.

OpenViBE Installation: OpenViBE, a versatile BCI platform, was successfully installed on our designated systems. The installation process followed OpenViBE's official documentation, ensuring a smooth setup.

OpenViBE Usage:

Introduction to OpenViBE: OpenViBE provides a user-friendly interface for creating BCI scenarios. It offers modular processing components (boxes) for data acquisition, preprocessing, feature extraction, and more.

Scenario Creation: We explored OpenViBE's interface to create a simple scenario by connecting boxes to simulate data flow and processing steps. This provided a preliminary understanding of how processing pipelines are constructed.

Next Steps:

Data Collection: The next phase involves acquiring EEG data from our selected dataset. This data will be essential for testing and refining our BCI system's performance.

Signal Preprocessing: We will apply preprocessing techniques to clean and enhance EEG signals, ensuring accurate feature extraction and classification.

Feature Extraction: Implementing feature extraction methods within OpenViBE will be a crucial step towards identifying meaningful patterns in brain signals.

Conclusion: Our project has made significant strides with the successful installation of OpenViBE and initial exploration of its functionalities. The project proposal lays the foundation for our upcoming work, and we are well-prepared to move forward with data collection, signal preprocessing, and feature extraction. This progress sets a strong trajectory for the successful development of our Brain-Computer Interface system.