Seminar 3 – Neurotechnology, ELA411

The seminars are designed for students to discuss topics within the course. Most questions are created without any right or wrong. Instead, you should focus on informed reflection and motivation of why you think a certain way. You might disagree with you student colleagues and that's fine, just be polite and respect the other students' opinions.

Preparations: Lecture 1-3, project description and Combrisson and Jerbi (2015).

During the seminar: During the first part, you will be discussing the questions below with the other student/s working on the same project component as you. During the last 30 minutes, each group should present a unified answer to each of the questions that will lay the foundation of the project work.

Seminar questions:

In this seminar, you will focus on the methods, validation and challenges of the neurorobotic component that you will be working with during the project.

1. Describe the methods/procedure/protocol that you plan to use in the development of your component.
2. What real-time requirements will you set for the BMI (both for components and for the full system). Motivate you answer.
    a. How will you ensure the real-time functionality?
3. Validation is important in all disciplines (engineering, research...) so that you can be sure i) of the reliability and reproducibility of the results and ii) to correctly interpret the results and draw well-founded conclusions that are supported by the results. Iterative validation when developing a system with subcomponents is absolutely necessary.
    a. How do you plan on validating your component in the project?
    b. How do you foresee the validation of the full neurorobotic system?
4. What are the challenges that you expect for your component in the project? And what measures will you take to overcome that/those challenge/s?