

ELECTRONIC MIND ACCESS



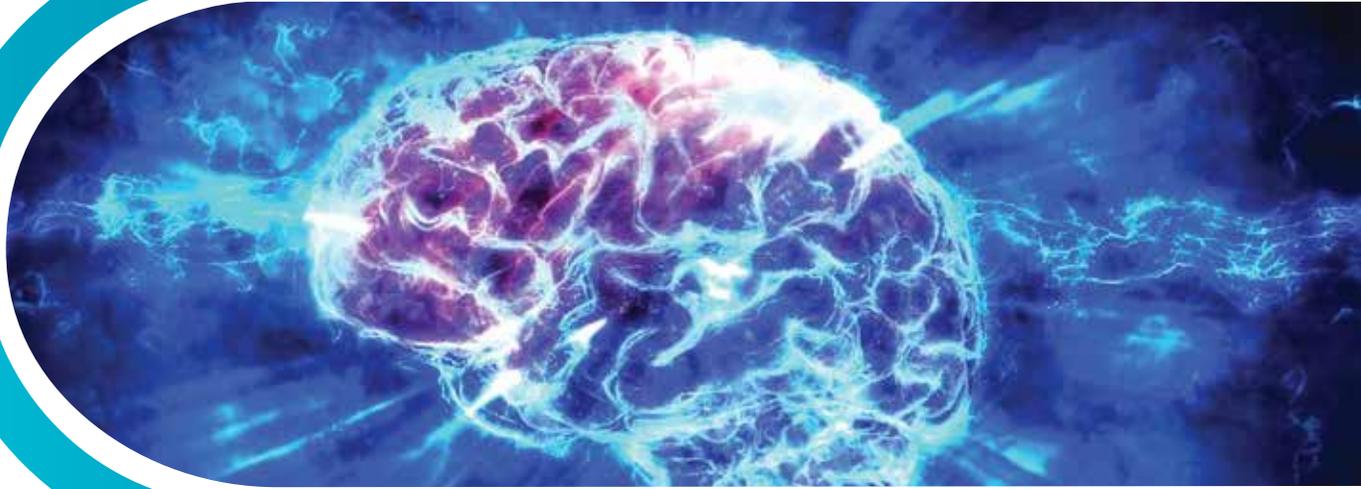
ABOUT THE PROJECT

EMA wanted to showcase its years of engineering legacy combined with its keen interest in brain computer Interfaces (BCI) to cater to the specific niches around virtual reality in the arena of automotive, IoT, industrial, video game and biomedical industries.



BUSINESS CONTEXT

Leveraging the power of BCI the project aims to help people affected by neuromuscular disabilities by providing them new methods to interact with external devices, for instance facilitating their transportation using EEG signals.



SOLUTIONS/APPROACH

EMA accomplished this feat by:

- Using reliable equipment to acquire real-time brain activity and elaborate the signals in order to establish a connection between the EEG trace and all the simulation types the subject goes through like visual, auditive and tactile.
- Focusing on the analysis of EEG trace data with the aim of understanding how a human mind may stimulate an actuator or a machine.
- Studying a list of algorithms in order to extract the useful information hidden in the EEG trace. The processing was achieved through filtrating software, feature-extraction and classification that helped obtain a control signal and drive a robotic arm.



VALUE AND BENEFITS

EMA strives to engage with the technology world for staging the innovations of tomorrow and aspires not only to define excellence but also propel:

- A deep understanding of the topic, thanks to the high-level engineering services expertise and the cross-domain knowledge offered by EMA.
- Result orientation and excellent prototyping ability delivering swift analysis and accurate solutions.
- Accelerated innovation in the field of encephalopathy by combining the industrial exposure of EMA with the cutting-edge technologies.



WHY EMA?

EMA is equipped with the:

- Ability to manage research projects in collaboration with leading universities around the Torino cluster, breeding cutting edge technologies.
- Proficiency in system analysis with both hardware and software development competences.

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