

The Intersection of Brain-Computer Interfaces and Artificial Intelligence

The brain is known to be the ultimate frontier due to its complexity and undiscovered characteristics. In the early 2000s, non-clinical fields like Computer Science, HCI, and Human Factors, raised an interest to study human's behavior from the brain while users interact with various interfaces or machines to provide feedback to the user. Also, to explore how to decode the interaction of brain's neurons synapses to control robots (i.e., wheelchair, neuroprosthetics, avatars, drones, etc.) with the human brain. In this talk, we will focus on the initiative to merge humans with machines and augment humans through Brain-Computer Interfaces. Furthermore, we will discuss the role of AI in brain-robot interaction and Affective Brain-Computer Interfaces. Lastly, we will provide examples of how USF is involved in some of these initiatives.