

Amrita Vishwa Vidyapeetham partners with EU's Human Brain Project

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The purpose of the Human Brain Project is to better understand brain function and develop solutions to cure brain diseases

Amrita Vishwa Vidyapeetham has become the first Indian University to partner with European Union's Human Brain Project (HBP) that has 143 university institutes in Europe working together to better understand brain function and develop solutions to cure brain diseases.

A MoU was signed between Amrita and Swiss Federal Institute of Technology Lausanne (EPFL) in Switzerland for working together on the project, in collaboration with the University of Pavia in Italy and Aix-Marseille University in France.

The development comes close on the heels of Amrita Vishwa Vidyapeetham launching the Amrita Mind Brain Center (AMBC) at its Amritapuri campus in Kerala to strengthen fundamental research related to brain, cognition, computations and neuro-engineering. Led by Dr Shyam Diwakar, Associate Professor as its Director, the center will develop new technologies to investigate brain function, dysfunction, and therapy.

Talking about the MoU, Dr Diwakar said, "In a project called BOLDsim, which is a part of Human Brain Project's voucher grant, we will develop a new computational tool for modelling functional signals in the brain using cellular data-driven models."

The BOLDsim project will model special signals generated by brain activity, called the blood oxygen level dependent (BOLD) signals, using cellular-level data available with the HBP's Brain Simulation Platform as well as with the team of Prof Egidio D'Angelo of University of Pavia in Italy. This model will be made freely available to neuroscience researchers and to the whole-brain simulator called 'The Virtual Brain' that is being developed at Aix-Marseille University, France. The HBP project will run until 2023, although its first-level stage is expected to be completed by October 2021.

Dr Venkat Rangan, Vice-Chancellor, Amrita Vishwa Vidyapeetham, said, "This MoU will add a new dimension to our university's cutting-edge neuroscience research."