

IIT Madras launches Sudha Gopalakrishnan Brain Centre

19 March 2022 | News

To power a large-scale multi-disciplinary effort to map human brains at cellular level

The Indian Institute of Technology Madras (IIT-M) has launched the Sudha Gopalakrishnan Brain Centre to power an ambitious global project to map the human brain at the cellular and connectivity levels, with a focus on high-resolution brain imaging.

This state-of-the-art centre aims to become a world-renowned research centre, generating unprecedented human brain data, scientific output and technology tools.

It was inaugurated on 19th March 2022 in the presence of Prof. K. VijayRaghavan, Principal Scientific Adviser to the Government of India, Prof. V. Kamakoti, Director, IIT Madras, IIT Madras Distinguished Alumnus Kris Gopalakrishnan, Sudha Gopalakrishnan, and Prof. Mohanasankar Sivaprakasam of IIT Madras, who will be heading this Centre.

IIT-M plans to train hundreds of undergraduate and postgraduate students at this Centre in neuroscience and computing, machine learning techniques on cutting-edge brain data.

The first ongoing project of the Centre titled 'Computational and Experimental Platform for High-Resolution Terapixel Imaging of ex-vivo Human Brains' for high-throughput light microscopic imaging of whole human brains is supported by the Office of Principal Scientific Adviser to the Government of India.

Through this project, the Centre has developed a high-throughput histology pipeline that processes whole human brains into high-resolution digital images.

Using this technology platform, the Centre is imaging post-mortem human brains of different types and ages. The Centre has already acquired whole brain serial-section cell-resolution volumes of three developing brains to date. These unique first-in-class data sets that provide a high-resolution view of developing brains will be released in the near future.