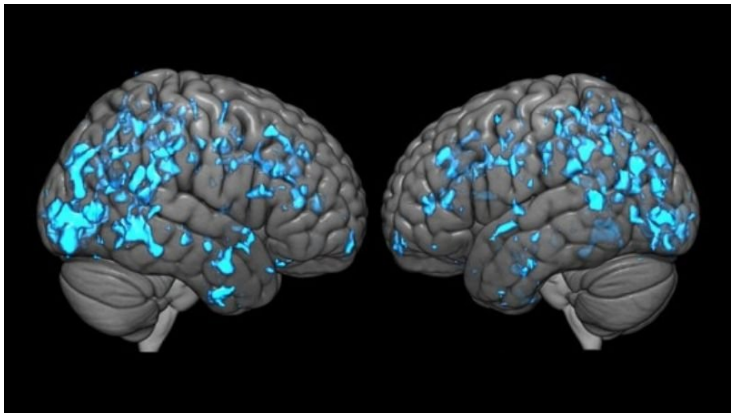
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IIT-G designs algorithm to encode brains of healthy humans and Parkinsonâ??s patients

21 March 2024 | News

To use the algorithm as a potential biomarker to distinguish healthy and Parkinsonâ??s at group level



Researchers at Indian Institute of Technology, Guwahati (IIT-G) seem to have developed a novel algorithm, Unique Brain Network Identification Number (UBNIN), designed to encode the intricate brain networks of healthy humans and patients with Parkinson's disease (PD).

This study involved analysis of structural brain MRI scans of 180 PD patients and 70 healthy individuals from National Institute of Mental Health and Neurosciences (NIMHANS), India.

The researchers adopted a network perspective, representing different brain regions as nodes and establishing connection values of the network based on regional grey matter volume.

Further, connection values for every node was weighted to capture the significance of each link by following a series of algorithmic steps. The hence obtained numerical representation (UBNIN) was observed to be distinct for each individual brain network, also applicable to other neuroimaging brain modalities.

This innovative research holds immense potential in the realm of brain printing and emerges as a promising biomarker with numerical value for tracking mental illness progression over time.