



Invitation to MTech Thesis Defense of Vaibhav Tripathi July 25, 2018 (Wednesday): 12.00-01.00 IST

In Partial Fulfillment of the Requirements for the Degree of
M.Tech CB

Vaibhav Tripathi (MT16129)

Will defend his thesis

Title: “An fMRI investigation of the effects of Yoga Nidra meditation on the brain using inter-subject correlations.”

IIIT-D Faculty and Students are invited

Date: July 25th 2018 (Wednesday)

Time: 12.00-01.00 IST

Place: Meeting Room, 3rd Floor(NAB)

Examiner:	Internal:	Anubha Gupta
	External/Internal:	Rohit Verma (AIIMS)
	Advisor:	Rahul Garg & Ganesh Bagler

Abstract

Indian culture has been a home to many holistic techniques of well being. Yoga and meditation have caught the attention of the world in the recent years. There has been a large body of work on the effects of yoga and meditation on people with different disorders. Differences in meditators from non-meditators undergoing a cognitive task has been researched as well but what happens in the brain during meditation is quite understudied. EEG studies have tried to look at the changes in various brain rhythms but fMRI provides us with the opportunity to glimpse into the deeper cortices of the brain while it meditates. Ours will be one of the very first studies to study the BOLD signals of subjects during meditation. Most of the fMRI studies in the last couple of decades utilized a block-based design pattern to study the cognitive phenomenon in the brain. There has been a recent interest in the study of the brain during naturalistic stimuli. But the methods for such kind of experimental design are in its nascent stage. In this study, we first validated the intersubject correlation measures and compared it against GLM analysis on task-based paradigms. Then, we utilized these measures to study the effects of a specific type of meditation called the Yoga Nidra on fMRI data acquired from 25 subjects while they underwent the process in an MRI scanner.