BMS
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(Autonomous under Visvesvaraya Technological Univeristy)

IEEE Signal Processing Society

Department of Electronics and Communication Engineering

presents

5 DAYS OPEN COURSE

Exploring Brain Computer Interfaces and Neural Signal Processing

All semesters and braches are invited

INSPIRING FUTURE STUDIES IN COMPUTATIONAL NEUROSCIENCE

Are you ready ro embark on a fascinating jounrey into the depths of the human brain?
Join us for a five-day intensive workshop on "BCIs and Neural signal Processing where we will unlock the secrets of the brain and delve into the world of computational neuroscience.

Through this course, you will possess valuable insights on potential of BCIs in revolutionizing healthcare, communication, and human cognition

WHAT TO EXPECT?

- AN INTRODUCTION TO BRAIN-COMPUTER INTERFACES
- HANDS-ON EXPERIENCE WITH THE OPEN BCI EEG HEADSET
- MACHINE LEARNING AND SIGNAL PROCESSING BASICS
- PYTHON AND MATLAB WORKSHOPS
- WORK ON REAL-WORLD DATA SETS AND ALGORITHMS
- NO PRIOR EXPERIENCE IN NEUROSCIENCE OR PROGRAMMING IS REQUIRED!

to know more > contact the course coordinator
Saneesh Cleatus T - 9731382840

REGISTRATION AND FEE PAYMENT

Login into: https://bmsitm.gnums.in
Go to Menu > Fee > Other Fee
Select the fee head as open course fee (Rs. 400/-)

Department of Electronics and Communication Engineering

Course Schedule: "Exploring Brain Computer Interfaces and Neural Signal Processing."

12th June 2023 to 16th June 2023

Sl No.	Date	Topics covered	10:30-10:50 am	Topics covered	12:50 - 1:50 pm	Topics covered	Assessment/ feedback
		8:30 - 10:30 am		10:50am - 2:50 pm		2:00 - 4:00 pm	4:00 - 4:30 pm
1	12.06.2023	Introduction to Computational Neuroscience	TEA BREAK	Understanding the tools	LUNCH BREAK	Various forms of brain signals	Overall Feedback & Assessment
2	13.06.2023	Brain-Inspired Computing: Neural Networks and its Basics		Deep Networks		Hands on session using Tensorflow	
3	14.06.2023	Introduction to BCIs and Experiment Design		Introduction to BCIs and Experiment Design (Contd.)		Preprocessing, Understanding Basic Physiology behind Data EEG Lab	
4	15.06.2023	Detecting Emotion using BCIs		The Cursor Control BCI		BCILAB Hands-on	
5	16.06.2023	Neuroscience and Machine Learning		ML in Biomedical Signal Processing		Opportunities in biomedical domain/ Valedictory	

Instructions to the Participants:

- No prior knowledge in any specific area is required to attend the course. Coding experience in either MATLAB or Python is desirable, but not mandated.
- For Hands-on sessions the student needs to carry your own laptop.
- Students should have a MathWorks account using college email address. This can be set up in five minutes if you do not have one.