



## DEPARTMENT OF BIOMEDICAL ENGINEERING

### INTERNATIONAL WEBINAR SERIES REPORT

11.07.2020 [Saturday]

The Department of Biomedical Engineering conducted “INTERNATIONAL WEBINAR SERIES” on 11.07.2020 [Saturday] at [9.00am-11.00am] & [3.00pm-5.00pm] which includes two webinar talk on “EEG Monitoring & its Applications” and “Parkinson’s – Neural Disorder and it’s Treatment”. The webinar was conducted successfully and the response from the participants was wonderful. The schedules of the program are as follows

| S.No | Webinar Title                                    | Date                             | Speaker Name  | No. of Registration |
|------|--|----------------------------------|---|---------------------|
| 1    | EEG Monitoring & its Applications                | 11.07.2020<br>[9.00am – 11.00am] | <b>Mr.Mouli Ramasamy</b><br><br>PhD Scholar<br><br>Engineering Sciences and Mechanics<br><br>The Pennsylvania State University, USA     | 98                  |
| 2    | Parkinson’s – Neural Disorder and it’s Treatment | 11.07.2020<br>[3.00pm – 5.00pm]  | <b>Dr.Saravanamuthu Poologanathan</b><br><br>Family Physician (UK-General Practitioner with Extended Role (GPwER)<br><br>United Kingdom | 87                  |

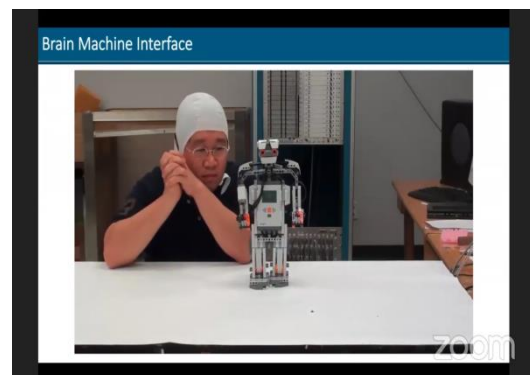
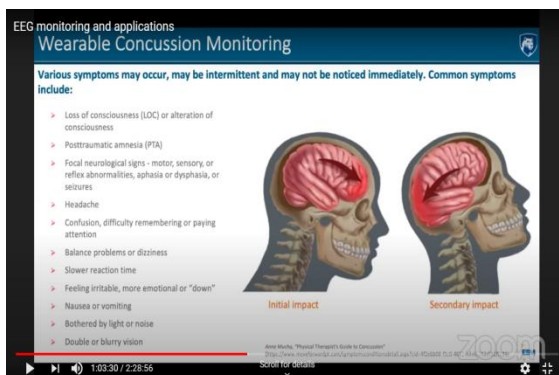
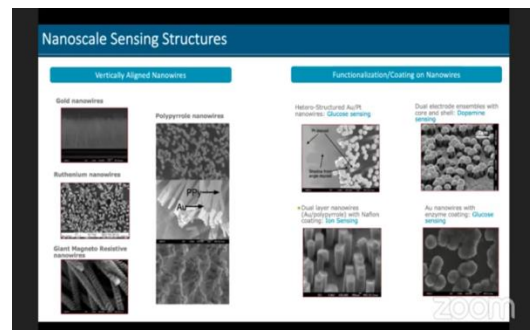
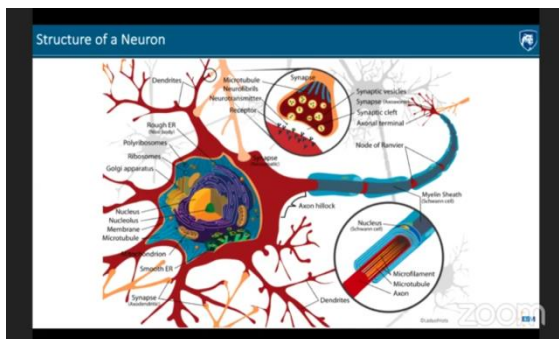
## 1. Webinar Title : EEG Monitoring & its Applications

**Date : 11.07.2020 (Saturday)**

**Time : 9.00am - 11.00am**

The webinar was hosted by **Mr.V.Prabhakaran [Assistant Professor (G-II)]** on the (11.07.2020 @ 9.00am-11.00am). Initially, the webinar was started with an introduction from **Ms.Santhoshini Arulvallal [Assistant Professor (G-I)]** and a warm welcome note by **Dr.M.Ravindiran [Professor & Head/BME]** followed by the speaker introduction by **Ms.Lakshmi Shree [Assistant Professor (G-I)]** and later the session was handed over to the speaker (**Mr.Mouli Ramasamy, PhD Scholar, Engineering Sciences and Mechanics, The Pennsylvania State University, USA**).

The session “**EEG Monitoring & its Applications**” addressed about various insights on EEG Signal analysis and acquisition techniques. The speech was wonderful that all the sections of EEG signal analysis which includes Basics of Biopotentials and EEG, Introduction to Wearable’s, Sensors and Data Acquisition, Application-I [Wearable Concussion Monitoring], Application-II [Wearable Brain Machine Interface], etc are covered. This session also focuses on the advancement in EEG research and various project on Brain Machine Interface, Wearable devices, Nanoscale Sensing Structures, organic thin film transistors, Wearable concussion monitoring, Wireless Health monitoring systems, etc. This webinar provides a thought provoking concept of understanding the complexity of the human brain and also its application towards biomedical engineering.





In this regard, various queries from the participants were also addressed. Finally the session was ended with “Vote of Thanks” delivered by **Ms.Sandhiya [Assistant Professor – (G-I)]**.

This webinar session have also been live streamed at “AVIT – YOUTUBE” Channel

<https://www.youtube.com/watch?v=QJ8lqMxPOPY>

**As a futuristic outcome, the following points are listed below:**

- Possibility of Research Collaboration leading to Joint Publication and collaborative research on “EEG/EOG Neural Disorder related problems” with “The Pennsylvania State University, USA”.
- Possibility of Initiating Student Exchange program for collaborative academic/research.
- Possibility of Faculty exchange for enhancing knowledge sharing across the globe
- Possibility of inducing the speaker as an Adjunct Faculty.

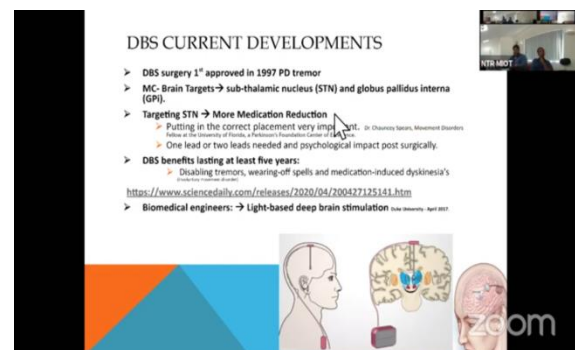
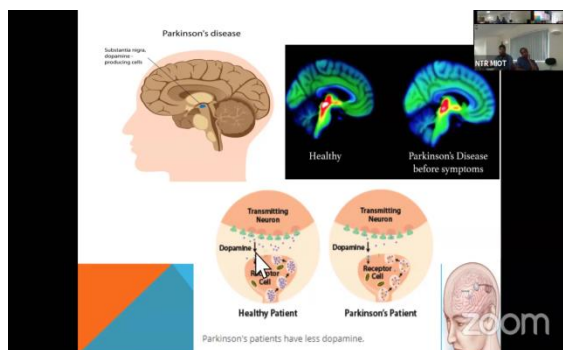
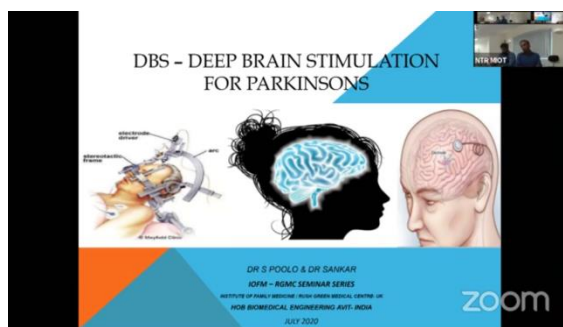
## 2. Webinar Title : Parkinson’s – Neural Disorder and it’s Treatment

**Date : 11.07.2020 (Saturday)**

**Time : 3.00pm – 5.00pm**

The webinar was hosted by **Mr.V.Prabhakaran [Assistant Professor (G-II)]** on the (11.07.2020 @ 3.00pm-5.00pm). Initially, the webinar was started with an introduction from **Ms.Lakshmi Shree [Assistant Professor (G-I)]** and a warm welcome note by **Dr.M.Ravindiran [Professor & Head/BME]** followed by the speaker introduction by **Ms.Santhoshini Arulvallal [Assistant Professor (G-I)]** and later the session was handed over to the speaker **(Dr.Saravanamuthu Poologanathan, Family Physician (UK-General Practitioner with Extended Role (GPwER), United Kingdom & Dr.Shankar).**

The session “**Parkinson’s – Neural Disorder and it’s Treatment**” addressed about various insights on Parkinson’s disease cause and its effect on to human body. This session highlighted on the concept of “**DBS –Deep Brain Stimulation for Parkinsons**” which addressed on resting tremor, bradykinesia, muscle rigidity, postural instability, etc. This webinar also emphasized on pathogenesis of parkinson’s, PD management, DBS Current developments, etc. This session also enlight on the target sites of Brain and the methodology of surgery for DBS, Limitations of DBS, risk involved in DBS and also its Outcome.





In this regard, various queries from the participants were also addressed. Finally the session was ended with “Vote of Thanks” delivered by **Ms.Sandhiya [Assistant Professor – (G-I)]**.

This webinar session have also been live streamed at “AVIT – YOUTUBE” Channel

<https://www.youtube.com/watch?v=o-R27fjY4iM>

**As a futuristic outcome, the following points are listed below:**

1. Possibility of enabling Industry Internship & Hospital Training at Srilanka and UK
2. Possibility of research collaboration between AVMC, BME-AVIT and Medical University at Srilanka
3. Possibility of Initiating Student Exchange program for collaborative academic/research at Srilanka & UK
4. Possibility of Faculty exchange for enhancing knowledge sharing across the globe
5. Possibility of inducing the speaker as an Adjunct Faculty.