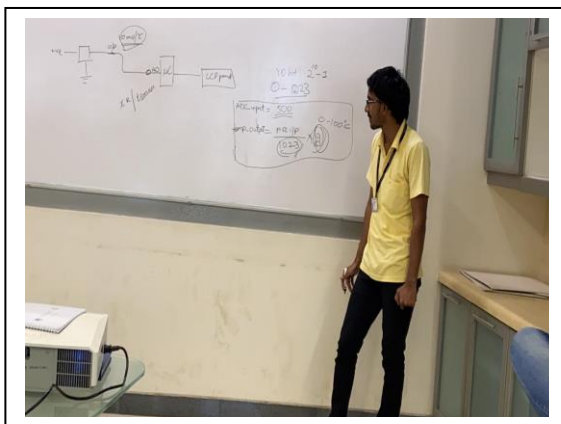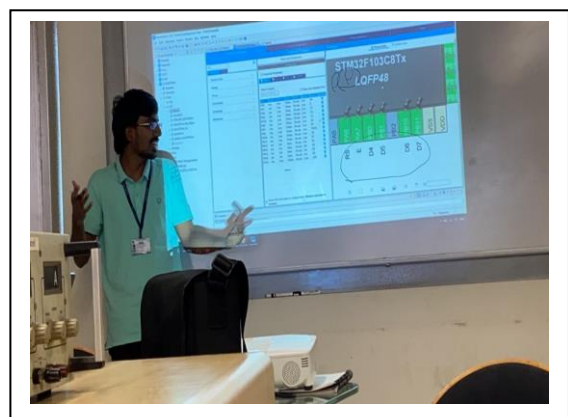# DJSCE PACEMAKER

Pacemaker- The student chapter of biomedical department aims to pique interests of students in various innovations happening in the medical field. We enhance the perception of Biomedical Engineering amongst the students by conducting various seminars and visits. Developing the skill set of students and enlightening them regarding the latest technology of healthcare industry is also carried out by us.
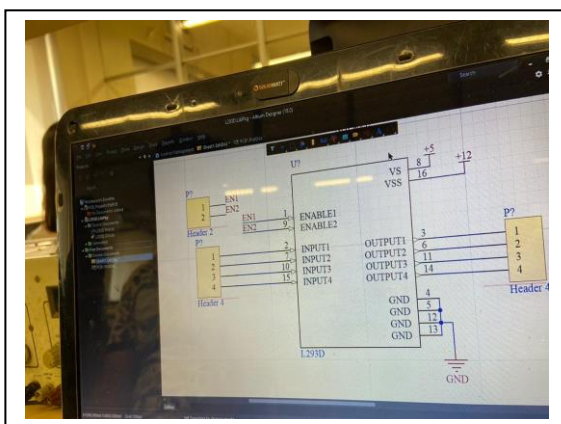
PROTEUS AND ALTIUM WORKSHOP

Basic introduction

Proteus project

Altium

A token of appreciation

Proteus and Altium workshop was held for T.E. students of biomedical department under Pacemaker committee for 3 hour on 16th and 17th of January. Ratan Soni, Aayush Sanghvi, Nidhi Uchil and Jonathan Nadar were the four students of B.E. Electronics who conducted this workshop. Students were asked to download and install the program beforehand. The seminar began with introduction to proteus, basics of electronic components and uses. We were also given information on different ways to use proteus in our upcoming projects. Later we were asked to carry out a simulation of motor on proteus and that concluded the 1st day of this workshop.

The 2nd day of workshop began with few easy simulations on proteus. After proteus, the students were taught basics and information on Altium, followed by performing easy tasks on Altium . The four B.E. students were shown a token of appreciation by Prof. Rashmi and Prof. Vivek Deodeshmukh which led to the end of a two-day workshop.

Seminar By Siemens Healthineers

A seminar was conducted by Siemens Healthineers for the students of Bio Medical Department under the Pacemaker committee on 29th February, 2020. Siemens Healthineers India, enables healthcare providers to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing healthcare.

Mr. Tushar Pistolwala, the General Manager at the firm interacted with the students regarding their interests and future plans. The objective behind this seminar was to introduce to the students, the various informative sessions which Siemens conducts in order to educate students and medical professionals. Computer Tomography, Lab Diagnostics and Point of Care Devices, X-rays, Electronic Circuitry, MRI and Ultrasound were the various modules introduced in the seminar. By attending these, the students will not only acquire basic knowledge but also a hands-on experience of medical devices. Students showed great interest in attending these sessions and getting future ready.

Higher studies in Germany for Biomedical Engineers

Ms Shreya addressing students

Ms. Shreya Bhandarkar from 2018 batch conducted session on "Higher studies in Germany for Biomedical Engineers" for current students of Biomedical Engineering department on 2nd August 2019 from 10:30 am to 11:30 am. She has secured admission in T U Dresden for M.S. in Molecular Bioengineering. She covered following points during the session.

- Importance of work experience before higher studies
- Problems with higher studies in states
- Opportunities for M.S. in Bioengineering in Germany
- Fee structure
- Employability in Germany
- Course structure
- PR in Germany
- Letter of Motivation and CV for M.S. application

She also addressed doubts of students and have shared her contact details with them for further guidance.

Webinar on Project Selection on Image Processing

- ❖ Expert: Dr. Mehul Sampat

❖ Association of the expert: Bioclinica, USA

❖ Date of the event: 20 July 2019

❖ Participants: BE Biomedical

Objectives of the activity:

- Selection of Project in Area of Biomedical Image Processing
- Introduce students about various competitions in Field of Biomedical image processing
- Introduce students about online resources available in field of Biomedical Image processing

Contents:

Dr. Mehul Sampat explained various competitions available of website

www.kaggle.com

Explain how one can learn various programming language like python on the website.

He also explained how to use website.

The data for each competition for the website can be found here:

https://www.kaggle.com/c/aptos2019-blindness-detection

https://www.kaggle.com/c/siim-acr-pneumothorax-segmentation

https://www.kaggle.com/c/recursion-cellular-image-classification

There are many other biomedical datasets as we discussed they can be found here:

https://www.kaggle.com/datasets

Yes you are right. these datasets can be used for projects. they are all very well defined.

Recorded the session can be found at

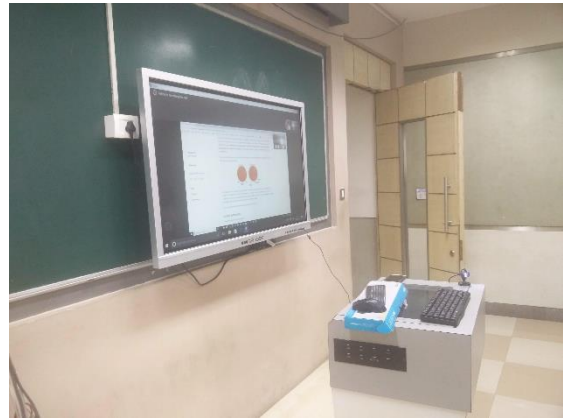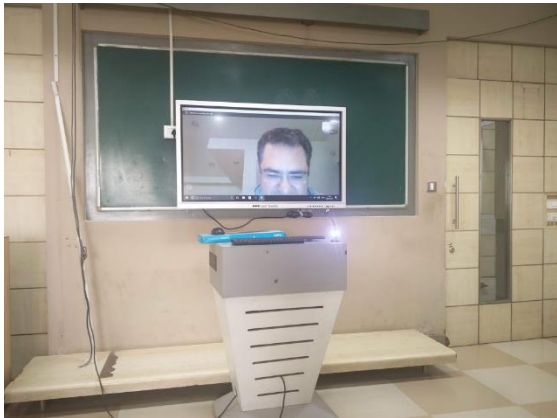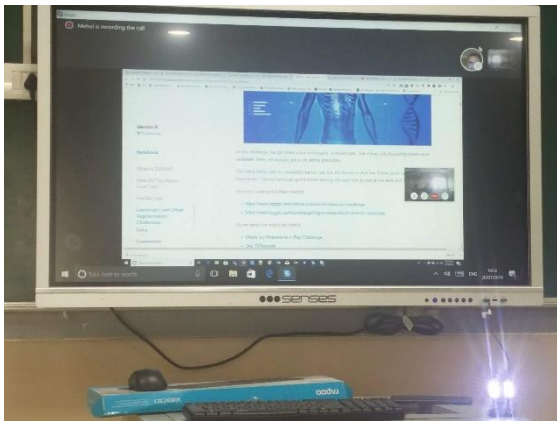https://youtu.be/7dCGRp2Xlgo

Outcomes:

- Select the project in the field of Biomedical Image Processing
- Participate in the online competition in the field of Biomedical Image Processing
- Learn the Python language and use it in Image Processing

Photographs

Explanation of Diabetic Retinopathy

Dr. Mehul Sampat

Students Attending Webinar

Introduction to IOT

(Mr. Maneesh Adavade an alumni of the
Department introduced our students to
The basics and scope of the trending topic,
Internet of things)

(Students of third and fourth year were
introduced to various companies and
useful websites for projects and basics
biomedical field)

(Mr. Maneesh introducing students to the   (Students had doubt clearing session at

Basics of designing any electronic system)   the end regarding IOT and project

Exposures in that field.)

Activity: (Introduction to IOT, 8/7/2019)

A visit to AIIPMR

S.E. Students with Prof. Mangal Dandekar outside AIIPMR Annex Building

DJSCE's Department of Biomedical Engineering organised a one-day visit to the Department of Prosthetics and Orthotics at the AIIPMR under the supervision of Prof. Mangal Dandekar, on October 4, 2019 for a detailed, indepth knowledge of applications of biomaterials and biomedical engineers in the fields of prostheses and orthoses. Students had to report at the AIIPMR annex gate at 8.55 a.m. from where they proceeded to the second floor for the HOD(P&O) address followed by the activities.