SIES Graduate School of Technology
Sri Chandrasekarendra Saraswati Vidyapuram
Sector 5, Nerul, Navimumbai-400706

Department of Electronics and Telecommunication

Event Report

INDUSTRIAL VISIT to TIFR

Event Information
Event Type:Industrial Visit
Event title:Industrial Visit: Tata Institute of Fundamental Research (TIFR)
Resource Person: Dr. Satyanarayana Bheesette
Event Date:21st September, 2019
Organized for: Students
Organized by: Prof. Biju Balakrishnan, Dr.Preeti Hemnani, Pranavi Mhatre
Target Audience (Branch & Nos.): B.E
Attachments: 1. Photographs (in JPEG/PNG) **2. Attendance Report&Feedback Report** **3. Impact Analysis**

Event Description

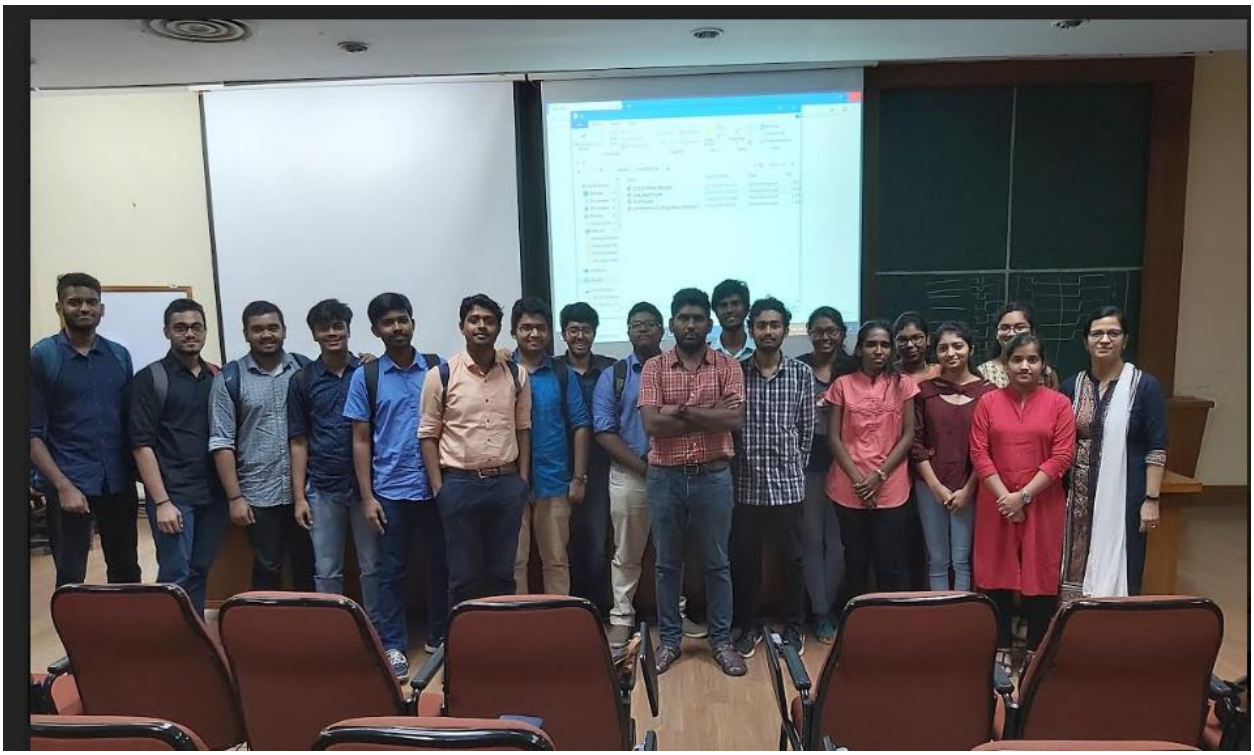
The industrial visit was held on 21st September, 2019. Students were introduced to Dr. Satyanarayana Bheesette. He is the scientific officer for the Department of High Energy Physics in TIFR. Students were also introduced to Mr. Yuvraj who is working along with Satyanarayana Sir. He is an expert in FPGA designs and electronics specialist.

At our industrial visit we studied about the following points:

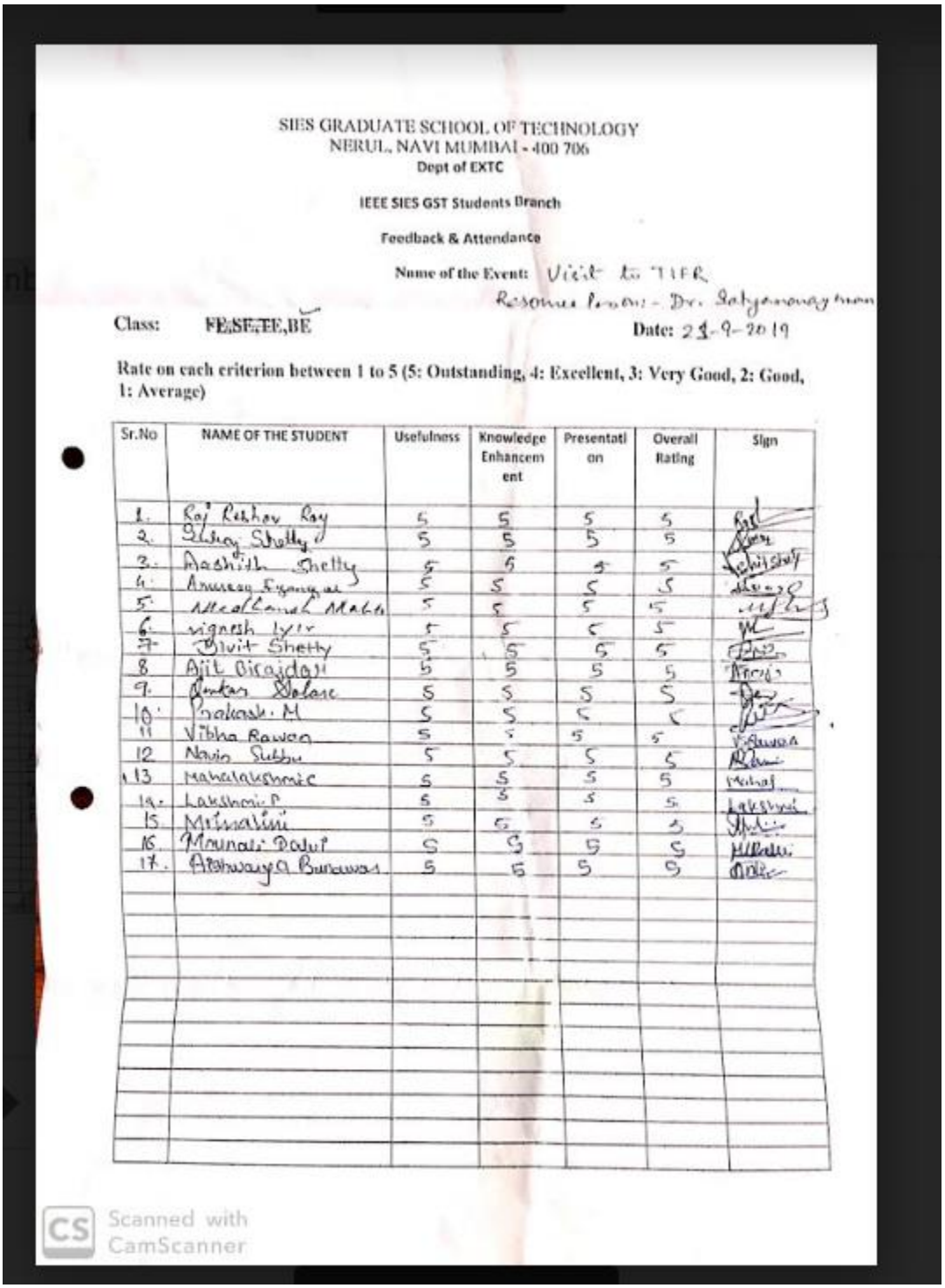
- Introduction to the particles that is further beyond the basic 3 elements of atom, The elementary particles such as muons, neutrinos, quarks.
- Dr. Satyanarayana Sir then explained about his field of study, The High Energy Physics and explained where are the studies are used.
- He then explained about the high energy physics detectors that were built in the 1990's used to detect the elementary particles.
- He also made us aware of the contributions of the Indian scientists to the CERN hadron collider experiments
- Iron Calorimeter (ICAL) detector, India's Neutrino Observatory project was introduced and explained. The location of the laboratory and final goals of the project were explained.
- After explaining the basics of physics, Sir then further enlightened about the need of Electronics Engineers in the FPGA field.
- The Data acquisition Systems designed for the fast recording of the outputs from the Detectors whose speed tends up to picoseconds.
- There was question and answer session to encourage students involvement on topics of VLSI like sequential circuits ,logic gates etc.
- Basics fundamentals were explained with practical example to the students.
- Yuvraj Sir further explained his contributions to the ICAL detector project.
- Sir introduced FPGA and its use in research field.
- How to start with FPGA design, and how beneficial it is to use it, why its superior compared to microprocessors
- He also showed students the boards that he designed for the muon detector of which one was a DAQ system i.e. Data acquisition system which detects the trajectory of muons passing in the free space.
- Both the teachers motivated the students by giving different facts and achievement that were perused by them in the field by them. They indeed shared their learning experiences and how they got into this field

At around 2 pm, the visit was over.

1. **Photographs (in JPEG/PNG):**



2. **Attendance Report& Feedback Report (Scanned copy):**



SIES GRADUATE SCHOOL OF TECHNOLOGY
NERUL, NAVI MUMBAI - 400 706
Dept of EXTC

IEEE SIES GST Students Branch

Feedback & Attendance

Name of the Event: Visit to TIFR
Resource Person - Dr. Satyanarayanan

Class: ~~FE,SE,TE~~,BE

Date: 21-9-2019

Rate on each criterion between 1 to 5 (5: Outstanding, 4: Excellent, 3: Very Good, 2: Good, 1: Average)

Sr.No	NAME OF THE STUDENT	Usefulness	Knowledge Enhancement	Presentation	Overall Rating	Sign
1.	Raj Rathor Ray	5	5	5	5	
2.	Uday Shetty	5	5	5	5	
3.	Akshith Shetty	5	5	5	5	
4.	Anurag Iyengar	5	5	5	5	
5.	Akolkanch Maka	5	5	5	5	
6.	vignesh Iyer	5	5	5	5	
7.	Divit Shetty	5	5	5	5	
8	Ajit Birajdar	5	5	5	5	
9.	Ankar Solase	5	5	5	5	
10.	Prakash. M	5	5	5	5	
11	Vibha Rawan	5	5	5	5	
12	Navin Subbu	5	5	5	5	
13	Mahalakshmi C	5	5	5	5	
14.	Lakshmi P	5	5	5	5	
15	Mithalini	5	5	5	5	
16	Mrunali Dalvi	5	5	5	5	
17.	Abhinaya Burawas	5	5	5	5	

3. **Impact Analysis: The Industrial Visit offered a great source to gain practical knowledge. Students observed how theoretical concepts are put into action, thereby aiding their practical learning. Students are exposed to shown how things are done in an organization.**