LOYOLA-ICAM
COLLEGE OF ENGINEERING AND TECHNOLOGY (LICET)
Loyola Campus, Nungambakkam, Chennai-600034
Department of Electrical and Electronics Engineering

Report on Visit to Siemens Gamesa

Date: 18.07.2019 (Batch 1: 34 Students accompanied by Ms. S. Sathya Bharathy)

19.07.2019 (Batch 2: 34 Students accompanied by Ms. S. Priyadarshni)

Audience: IV EEE /Batch : 2016 - 2020, Ms. S. Priyadarshni, AP/EEE, Ms. S. Sathya Bharathy, AP/EEE

As there prevails a restriction in permitting a large group into the control room, the class was divided into two batches and the visit was organised for two different days, with one day for each batch. In the control station, they showed us the control screen which had real-time data and live status at the different nodes in their network. The visit helped us understand the significance of power factor and the permitted value according to Indian Electricity Rule. The frequency is also maintained at the range of 49.9Hz - 50.1Hz. On violation of these standards, a heavy penalty is imposed on the violating operator.

The control screen clearly showed the number of power units present and helps to monitor any irregularities found in the generation or distribution. The staff at Siemens Gamesa were very friendly and was patient with the doubts raised. They also explained the strategies taken during a disaster by discussing the decisions taken during Varadha cyclone. The power engineers had worked 24x7 in regulating the power supply during the cyclone. They had to take care of the broken lines from doing harm to the civilians and had to cut off the power in those areas. In short, the work was done effectively and the power supply was managed optimally during this disaster.

They regulate and schedule power-cuts during summer (planned load shedding) to balance demand based on generation. They have the power generation status of all the energy plants prevalently working in South India. They use the SCADA system for monitoring and performing the above activities. We learned the importance of Load Dispatch centers in controlling and ensuring the continuity along with the quality of power supply to the consumers which include residential as well as commercial and industrial users. This IV helped us get a better idea of how the distribution of power is handled across different distribution centers that is theoretically dealt in the theory paper ‘Power System Operation and Control’.

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