

Don Bosco Institute of Technology
Department of Electronics and Telecommunication

'Industrial Visit to SAMEER'

Date: September 8, 2017

Time: 1:30 p.m. to 4:30 p.m.

Venue: SAMEER, Kharghar

Participants: BE EXTC

Faculty Incharge: Ms. Freda Carvalho, Assistant Professor, DBIT

SAMEER was set up as an autonomous R & D laboratory at Mumbai under the then Department of Electronics, Government of India with a broad mandate to undertake R & D work in the areas of Microwave Engineering and Electromagnetic Engineering Technology. It is an offshoot of the special microwave products unit (SMPU) set up in 1977 at the Tata Institute of Fundamental Research (TIFR), Mumbai. SAMEER, Mumbai was set-up in 1984.

In order to learn more about the applications of Microwave and Radar Engineering, the BE EXTC students visited SAMEER, Navi Mumbai. We were shown various laboratories where designing, manufacturing and testing of the components for a linear accelerator, SAMEER's current project, takes place. The following is the list of laboratories we visited:

1. Fitting Room
2. Milling Section
3. Turning Section
4. CNC Section
5. Vacuum Furnace Hall

We were also shown the Linac being developed by them for cancer treatment. The control right next to the Linac had a 1.5 m thick wall to prevent any radiation leakage when the Linac was turned on. There are innumerable safety procedures and precautions taken while operating the Linac.

This was followed by a short presentation on Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC). We were briefed about the basic elements of EMI, types of EMI, EMI control techniques, purpose and methodology of EMC system, objective of the EMC standards, different EMC standards, important emission standards, etc.

We were then shown the semi-anechoic chamber where radiation susceptibility measurement is done and the laboratories where the line testing of the equipment sent by private manufactures is done in order to make sure that they satisfy all the Government approved standards.

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