

Don Bosco Institute of Technology

Dept. Of Electronics & Telecommunications Engg.

Report on the Industrial Visit to Forensics Science Laboratories, Mumbai

Date of Visit: February 06, 2019

Time: 10.30 a.m. Onwards

Address: Kalina, Vidyanagari, Santacruz (East), Mumbai-400098.

Attendees:

Faculty Members: Dr. Satish Chavan,
Mrs. Pratibha Dumane
Mr. Yogesh Gholap

Students: T.E. (EXTC): 81
B.E. (EXTC): 13 Students

Report:

Forensic Science Laboratories play a vital role in resolving all civil and criminal cases. The main function of forensic science laboratories is to provide unbiased scientific opinion on the different types of evidential material referred to them by the investigating agencies and in turn help judiciary. These evidences act as mute witnesses against the perpetrator and are impartial.

The Directorate of Forensic Science Laboratories, Maharashtra is a multi-disciplinary organisation having its head quarters at Santacruz, Kalina, Mumbai. It also has seven Regional Forensic Science Laboratories (RFSLs) at Nagpur, Pune, Aurangabad, Nashik, Amaravati, Nanded and Kolhapur and some more lab are being set up in other cities.

The different divisions of the lab are General Analytical and Instrumentation Division, Toxicology, Biology and Serology, DNA, Prohibition and Excise, Ballistics, Physics, Tape Authentication and Speaker Identification, and Cyber Forensic & Psychology.

All the labs are equipped with extremely specialized equipments like Atomic Absorption Spectrophotometer, Simultaneous Thermal Analyzer, Energy Dispersive X-Ray Spectrophotometer (EDXRF), Video Spectral Comparator, Integrated Ballistic Identification System, Brain Electrical Oscillation Signature Profiling System, Polygraph testing, etc.

The RFSLs were celebrating the Forensics Awareness Week which was a good opportunity for the students and faculty to interact with the lab faculty members and understand the important role that they are playing in carrying out the challenging scientific work related to investigation of crime.

The faculty members working in the lab shared the issues related to the kind of cases they need to tackle in Image Processing and Speech Processing areas. The vehicle number plate identification especially when the CCTV footage received by the lab is of a poor quality has been a concern. Also

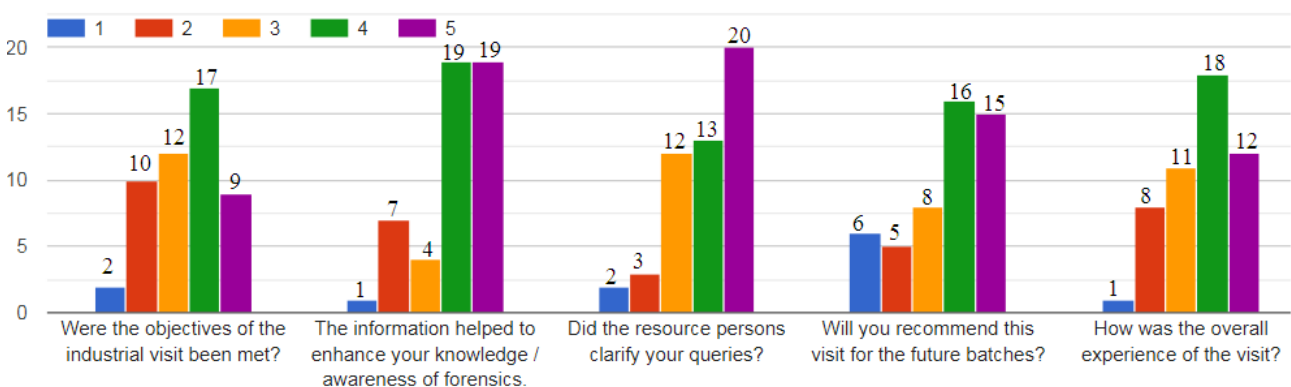
work on examination of ink on forged documents like duplicate currency notes, fake stamps, stamp papers, lottery tickets, certificates and bank cheques happens is done in the lab.

In the speech processing division, auditory analysis, acoustic analysis and/or computerized techniques to recognize, identify or discriminate among human voices is carried out. Since human voice is as unique to an individual as a fingerprint it is possible to identify a speaker and to record the characteristics of his or her voice for use as the base for future verification, identification of a person from the sound of their voice. Aural as well as spectrographic analysis of speech is done for the samples received in the lab. More often the level of noise involved also affects the analysis of the samples.

The visit was wonderful learning experience for the faculty and the students. The students were able to relate to the practical application of the theoretical concepts being studied in the class room.

Feedback:

Scale (1 to 5) 1 =Least, 5 = Highest



Photographs:



