

M.Tech. programme in Signal Processing and VLSI

The curriculum of M.Tech. programme in Signal Processing and VLSI comprises subjects related to signal processing under the broad categories of

- Mathematics for signal processing
- Fundamental and advanced topics in signal processing
- Applications of signal processing in communication, image and video processing
- Computer vision
- Biomedical signal processing
- Speech and audio processing areas

Signal processing algorithms make all the medical related equipment so accurate in measuring and analysing the results and make the diagnosis easy. Digital image and video processing is becoming increasingly important with the rapid growth of multimedia technology. Advances in integrated circuit technology have had a major impact on the technical areas to which digital signal processing techniques and hardware are being applied. Scaling in transistor geometries going beyond nanometres have not only led to the growth of VLSI technology, but also have created unprecedented demand for new and innovative electronic products that can enhance the living conditions of human beings.

Some of the industrial sectors that directly employ electronic applications include automotive, aircraft, telecommunication, and wireless devices. With increase in demand for electronics and requirements in new application areas, the semiconductor market is expected to sustain high growth momentum. According to industry experts, the Indian VLSI and Embedded industry requires anywhere between 20,000 and 40,000 highly trained engineers at present.

Students are doing the internship programme at BEL, ISRO, Orange Semiconductors, BHEL, Global Research, Innovations, and Electrono Solutions.