* ***Offline Courses (During Ph.D., Course Instructor: Dr. Hardik J. Pandya)***

1. Design for Analog Circuits

**Topics taught:** Basic Properties of OpAmp, Arithmetic Circuits with Op Amp, ADC, DAC, Clippers, and Clampers.

1. Process Technology and System Engineering for Advanced Microsensors and Devices

**Topics taught:** Basics of Lithography, Optics in Lithography, Resolution, Depth of Focus and Resolution Enhancement Techniques, Laboratory demonstration on basics of Biopotential Acquisition, and ERP Experimentation.

* ***NPTEL Online Courses (During Ph.D., Course Instructor: Prof. Hardik J. Pandya)***

1. Introductory Neuroscience & Neuro-Instrumentation (Co-instructor: Dr. Mahesh Jayachandra)

**Topics taught:** [Basics of BCI Experimentation](https://youtu.be/Qv-H6QSYKhA), [Microstructures of Neural Engineering](https://youtu.be/KbUZ2MhL_vU), [EEGLAB/ERPLAB](https://youtu.be/cTuWtn7ntyw), [Epilepsy: Introduction, and Seizure Classification](https://youtu.be/ECcajveLbCI).

1. Neural Science for Engineers Instrumentation (Co-instructor: Dr. Vikas V)

**Topics taught:** [Introduction and Applications of Event-Related Potentials](https://youtu.be/7JgWQUOYPoE), [ERP Extraction Demonstration](https://youtu.be/rJdm1w5VCL8).

1. Mathematical Aspects of Biomedical Electronic System Design Instrumentation (Co-instructor: Prof. Chandramani Singh)

**Topics taught:** [Basics of Signal Types](https://youtu.be/xzQxF-91Wo4), [Basics of Signal Acquisition, and Nyquist Rate](https://youtu.be/EtQz8GXyKRQ)

1. Advanced Neural Science for Engineers

**Topics taught:** [Lithography Basics](https://youtu.be/hbJWhhUXdfI), [Fourier Optics](https://youtu.be/nWwvLyVV2Ec), [Role of Microfabrication in Neural Engineering](https://youtu.be/jBT8fU8wM_0), [Basics of EEG/ERP Experiment Design](https://youtu.be/8OWqd_2Cfj0), [EEG/ERP Applications](https://youtu.be/KlKxjidGFO0)

* ***Offline Courses (During M.Tech.)***

1. Engineering Mathematics [Course Instructor: Dr. Sunitha V]

**Topics taught:** Assignment and doubt-solving sessions on Calculus, Linear Algebra.

1. Design for Analog Circuits [Course Instructor: Dr. Rutu Parekh]

**Topics taught:** Lab Experiments on Op Amp and rectifier experiments