

## CORE COURSES

### EE224: digital design

- Studied Combinational circuits- logic gates, kmaps, boolean algebra, propagation delay, shannon expansion theorem, reed-muller, faults
- Studied Sequential circuits- flip flops, latches, counters, state diagram & table of FSM (mealy, moore), pattern detector
- Studied Basics of CMOS inverter logic

### EE229: Signals and Systems

- Studied working of basic filters like notch filters, low pass/high pass filters, LTI systems, Fourier and Laplace transform, eigenvectors, Sampling & Shannon's criterion
- Studied Basics of interpolation & decimation, DFT, DTFT, FFT algorithm (decimation in time) for 2-radix

### EE337: MICROPROCESSORS

- Studied various features like timers, interrupts etc in understanding serial communication, I2C bus, serial peripheral interfaces, 4\*4 keyboard scanning etc
- Learnt 8051, 8086, MIPS languages

### EE204: analog electronics • Learnt Basic network theory- thevenin & norton theorems, kirchoff's laws, diodes

- Learnt BJT, MOSFET- basics, as an amplifier
- Learnt Opamps
- Learnt Cascode amplifiers, differential amplifiers • Learnt Basics of feedback

### EE 238- power engineering II

- Studied induction machines, DC machines, basics of SPWM inverter

## ACADEMIC ACHIEVEMENTS

- Scored 99.46 percentile in JEE-Mains (out of 900,000+ students) 2019
- Achieved AIR 1332 in JEE advanced (out of 224,000+ students) 2019

## SCHOLARSHIPS & AWARDS

- Awarded KVPY Fellowship with Rank 438 from more than 40,000 students
- Received NTSE scholarship for being in top 1000 students among more than 500,000 (2017)
- Secured state level top 1% percentile in National Standard Examination in Astronomy- 2016
- Secured state level top 1% percentile in National Standard Examination in Physics- 2017
- Secured international level 1st rank in International talent hunt olympiad-2015
- Secured international level 3rd rank in International maths olympiad-2015
- Secured international level 3rd rank in International science olympiad-2015
- Secured 100 percentile in World genius examination twice-2015,2014
- Secured 100 percentile thrice in National genius search exam-2015,2014,2012
- Secured 1st rank in state level Sahodaya scholastic achievement test thrice-2015,2014,2013