Ankit Shukla | EE12B075 | 22/EE/17/075
Indian Institute of Technology, Madras

EDUCATION

Program	Institution	%/CGPA	Year of completion
Dual Degree, Electrical Engineering (Minor: Physics)	Indian Institute of Technology Madras, Chennai	8.13/10	2017
XII (CBSE)	Sir Padampat Singhania Education Centre, Kanpur	92.4	2011
X (ICSE)	St. Basil's School, Basti (U.P.)	95.57	2009

SKILLS

Relevant Courses	• Solid State Devices, Device Modeling, VLSI Technology, Advanced CMOS Devices and Technology, Quantum Mechanics, MOS Device Modeling and Characterization • Electrical and Magnetic Circuits, Networks and Systems, Analog Circuits (Lab and Theory), Digital IC Design, Biomedical Electronic Systems
Programming Languages	C, C++, Matlab, Python

PROJECTS

Dual Degree Project (Guide: Prof. Anjan Chakravorty)

Development of a simulation tool for Nanowire MOSFETs June '16 – Present

- Modification of an existing simulator, which implements DG MOSFETs, to one which implements gate all around
- Involves solving Poisson's Equation in real space, Schrodinger's Wave equation in Mode-Space and the transport mechanisms like ballistic, dissipative through Buttiker's Probe and Drift – Diffusion using Finite Difference Method.
- Studying self-heating effects on the device characteristics using Fourier's Law
- Implementation of electron-phonon scattering through NEGF

Internship at General Electric, Bangalore

Virtualization of simulator May '15 - Jul '15

- Worked on the virtualization of a Hardware Simulator in a team of experienced professionals
- Contributed towards establishing serial port communication between different modules of the software replica of the hardware simulator using C and C++
- It was aimed towards optimizing the company's resources

Course Projects

Analog circuits project -Spectrum Analyzer Jan '15 - May '15

- Measures the frequency content of a signal
- Assembled various modules which were all built over a span of four months
- The various modules included Lowpass and Bandpass filters, Mixer, Oscillator, and Envelop detector

Digital IC Project Aug '15 - Nov '15

- Transistor level design of sequential elements like a D-type flip-flop, and combinational elements like NAND gates
- Involved designing the layout in Magic, extracting the SPICE netlist and characterizing its timing and power

Developing a method to improve PPV sensor developed by HTIC, IITM Jan '16 – May '16

- Involved collecting data from different subjects then processing it to enhance SNR in the desired frequency range
- Finding out a method to remove the motion artifacts from the data then finally calculating the heartbeat

SOCIAL SERVICE

Avanti Fellow, IIT Madras Chapter, Pondicherry Aug '14 - Jul '16

- Mentored two students from JNV, Pondicherry in their preparation for IITJEE-16
- Both of them performed well in 12th boards and are in respectable colleges now

Project Representative, NSS chapter, IIT Madras Aug '13 - May '14

- Managed a group of about 12-15 students of IIT Madras and organized frequent trips to Kodambakkam
- Our team tried to help a group of visually challenged students in their studies

MISCELLANEOUS

Secured an All India Rank of 749 in IITJEE 2012

Deputy Coordinator, Saarang Hospitality Team Aug '13 – Jan '14

- Responsible for the accommodation of participants

Member of the Hostel hockey Team for three years

- Won a silver medal in Schroeter