Devesh Kumar | **16D070044**
Electrical Engineering | **UG Third Year (Dual Degree)**
Indian Institute of Technology Bombay | **Male**
Specialization: Microelectronics | **DOB: 11/02/1997**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2019	8.28
Intermediate/+2	CBSE	St Joseph Public School, Kota	2015	84.00
Matriculation	CBSE	Delhi Public School, Patna	2013	9.60

SCHOLASTIC ACHIEVEMENTS

- Pursuing minor degree in the department of Computer Science And Engineering
- Was in top 1% in JEE advanced 2016
- Secured 99.1 percentile in JEE mains 2016
- Received certificate of high distinction in Australian National Chemistry Quiz
- Recipient of IIT Bombay's MCM Scholarship (2017-18) based on my performance
- Qualified for National Talent Search Exam(NTSE)
- Qualified for first stage of National Mathematics Talent Contest, 2014

INTERNSHIP

➢ Speed Labs | Mumbai, India [DEC 17]

Architecture Improvement for Edutech platform| Worked with software development and content team

APPROACH	Analyzed the software architecture from user perspective and recommended new features to improve overall experience for student Established chapter wise timeline & lead plan; designed & Ideated new patterns and presentations
IMPACT	Many of the recommended features were added to the platform; Improved the utility of the existing content by adding more patterns; Significantly improved the overall presentation

PROJECT TAKEN

➢ Wireless Encrypted Messenger [May 18 – June 18]

Guide: Prof Madhav P. Desai, Electrical Engineering Department

- Developed a messaging system to wirelessly exchange encrypted messages between two complex programmable logic devices (CPLDs) and display them on a LCD in real time
- Optimized the code using parity bits to increase its efficiency and reliability by 120%
- Coded a powerless keypad to take 32 key input including A-Z, backspace, space, enter and delete

➢ Reaction Time Calculator [Mar 18]

Course project under Madhav P. Desai (EE214-Digital Circuit Lab)

- Programmed a CPLD to calculate the reaction time of a user between a LED glowing and pressing of a react button and displaying the total score after five rounds on a LCD in real time
- Made it foolproof by disqualifying the user if he/she presses the button before the LED glows

➢ Universal Signal Processing [Mar18]

Course project under Siddarth Tallur (EE230- Analog lab)

- Designed a flexible analog signal circuit capable of being reconfigured according to the need
- The circuit converts the analog any input analog signal to the input range of devices like ADC or CPLD

➢ Digital Stopwatch [Feb 17 – Mar 17]

Course project under M.B Patil (EE112-Introduction to Electronics)

- Comprised more than 10 IC & 50 connecting wires and then tested the circuit on oscilloscopes
- Build a stopwatch from scratch with a self-display unit

TECHNICAL SKILLS

Tools and Packages	Solidworks, Autodesk, Ngspice, Matlab, Latex, Xcircuit, GNUPlot, GNURadio
Languages	C, C++, Python, VHDL
Platforms	Windows, Mac, Ubuntu

POSITION OF RESPONSIBILITY

➢ **Manager |Aavriti,18** [Jan 18 - Mar 18]

- Events manager in the team of seven members responsible for conducting the electrical engineering department fest 2018
- Organized various events, like electroburst and circuitreck, with a footfall of over 500 students from different colleges all over Mumbai

➢ **Organizer | Entrepreneurship Cell, IIT Bombay** [Jan 17 - Mar 17]

A non profit organization that aims at manifesting the latent entrepreneurship spirit

- Actively contributed in the Cooperative Relation (CR) group
- Organized, planned and executed various events in E-summit 2017, like internship and job fair

COURSES UNDERTAKEN

➢ **Core Courses**: Introduction to Electrical Systems, Introduction to Electronics, Data Analysis and Interpretation, Network Theory, Electronic Devices and Circuits, Microelectronics, Electronic Devices Lab, Signals Systems, Analog Circuits, Digital Systems, Electrical Machines and Power Electronics, Analog Lab, Digital Circuits Lab, Machines Lab, Electromagnetic Waves*, Communication System*, Microprocessors*, Probability and random Processes*, Communication Lab*, Microprocessor Lab*

➢ **Maths Courses**: Calculus, Linear Algebra, Differential Equations, Complex Analysis

➢ **Computer Science Courses:** Computer Programming and Utilization, Data structure and Algorithms, Introduction to Machine learning* ,Fundamentals of Digital Image Processing*

➢ **Other Relevant Courses**: Quantum Physics and Applications, Basics of Electricity and Magnetism, Biology, Chemistry, Engineering Drawing, Moral and Political Philosophy, Economics, Workshop Practice, Physics lab, Chemistry lab, Environmental Studies, Psychology*

(*Courses to be completed by Nov 2018)

EXTRA CURRICULAR ACTIVITIES

- Green Campus NSS:
  - Actively contributed in National Social Service group for conservation of flora at IIT campus.
  - Made placard for proper identification of trees in the campus
  - Made motivational videos for people in their local language to encourage them to start gardening.
- Worked in the electrical division of team Shunya (from Aug 17 to Nov 17) to construct a house with net positive energy requirement
  - Made a database of the products used in the house and characterized them according to energy need
  - Participated in planning the lighting of the house