



# VIJAY KUMAR



## ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Electrical Engineering (Power and Automation)	Indian Institute of Technology, Delhi	6.745
2018	RBSE	Vidhur Navodya Sr Sec	87%
		School, Teachers colony, Kota	
2016	RBSE	Bal Sr Sec School, Police Line, Kota	86.33%

## PROJECTS

- **Dynamic Memory Allocator for Operating Systems** || Data Structure and Algorithm || Prof. Rahul Garg [Nov'20]
  - Developed Dynamic Memory allocation software that allocates Memory to programs in a cost-efficient and time-efficient manner
  - Implemented DLL, BST data structure with First Split Fit technique to keep track of free and allocated memory
  - Implemented AVL tree data structure with Best Split Fit technique to improve the time and cost-efficiency
- **Graph implementation** || Prof. Rijurekha Sen || Computer Science Engineering [Dec'20]
  - Implemented **bi-directed graph** using two CSV files having data regarding storylines of characters in Marvel comics
  - Implemented **DFS** on the graphs to find independent storylines that have no edge across them
  - Implemented functions to find the average number of characters each Marvel character is associated with, sorted list of all characters in descending order of co-occurrence with other characters using merge sort
- **Automatic drainage water cleaner** || Prof. P.V.M. Rao || Mechanical Engineering [Sep'19-Nov'19]
  - Automatic drainage water cleaning and control system using auto mechanism proposed to overcome the real-time problems
- **Sample and hold circuit** || Prof. Vivek Venkataraman || Electrical Engineering [Mar'20- May'20]
  - Developed a circuit taking samples from analogue input and holds them for particular period, and outputs sampled part of input

## TECHNICAL SKILLS

- **Programming languages:** C++, Python, MATLAB || **Softwares:** Autodesk Inventor, MS Excel,
- **Relevant courses:** Data Structures and Algorithms, Probability and Stochastic Processes, Digital Electronics, Circuit Theory, Signals and Systems, Control Engineering, Linear Algebra and Dif. Equa., Calculus

## QUALIFYING EXAMS

- **Joint Entrance Examination (JEE) Mains Rank:** 272(ST)

## EXTRA CURRICULAR ACTIVITIES

- **No Help Too Big** || Volunteer || Non-profit organisation [Jun'21-Present]
  - Encouraged people through social media handles for donations and helping people in need in these difficult times
  - Helped people suffering from Natural Disasters like Flood, Landslide, Drought, hunger, COVID-19 etc. around **152+ Villages**
  - Connecting people in need to the people who are willing to help by different means like ration kits, financial help
- **Rendezvous'19** || Security Team Head ( North India's Largest Cultural fest )
  - Managed entry and Movement of **more than 15000** ITD and non-IITD students in four days which includes **280+ Events**
  - Coordinated with Marketing , Events, Publicity and Hospitality teams to achieve a common goal of prosperous Rendezvous
  - Formulated extensive scheduling for 100 events spanning over 4 days to facilitate security across 20 venues
- **OCS Volunteer** || Office of Career Services [Aug'19 - Mar'20]
  - Coordinated with HR's of **50+ companies** during the placement session and helped in the smooth organisation of the event
  - Part of the core team that achieved and managed to have **100 percent** placements for the first time in IIT delhi history
- **Jwalamukhi Maintenance Committee Member** || Jwalamukhi Hostel || I.I.T. Delhi [Sep'20 - Jul'21]
  - Helped in Administration of renovation of the hostel and have been a part of this committee
- **Weightlifting Captain** || Jwalamukhi Hostel [Jul'21 - Apr'22]
- **Athletics Vice-Captain** || Jwalamukhi Hostel [Sep'20 - Mar'21]



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## IIT COURSE

### Degree

B.Tech in Electrical Engineering (Power and Automation)

### Institute

Indian Institute of Technology, Delhi

### CGPA

6.745

## QUALIFYING EXAM

- Joint Entrance Examination (JEE) Advanced Rank: 174 AIR

## COURSES DONE

Engineering Mechanics, Introduction To Chemistry, Chemistry Laboratory, Engg. Visualization & Comm., Product Realization By Manf., Linear Algebra & Diffe. Equa., Profe. Ethics & Social Resp., Language & Writing Skill-2, Intro. To Electrical Engg., Calculus, Electromagnetic Waves&qua.mec., Physics Laboratory, Intro. To Computer Science, Profe. Ethics &social Resp.-2, Circuit Theory, Electromechanics, Intro. Elec.engg. Power&auto., Data Structures And Algorithms, Signals And Systems, Intro. To Biology For Engineer, Probability & Stochastic Pro., Control Engineering I, Digital Hardware Design, Digital Electronics, Modern Indian Fiction In Translation, Principles Of Elect. Materials, Environmental Science

## EXTRA CURRICULAR ACTIVITIES

- Weightlifting Captain, Jwalamukhi Hostel (July, 2021 - April, 2022)
- Jwalamukhi Maintenance Committee Member, Jwalamukhi Hostel (September, 2020 - July, 2021)
- OCS Volunteer, Office of Career Services (August, 2019 - March, 2020)

## POSITIONS OF RESPONSIBILITY

- Athletics Vice-Captain, Jwalamukhi Hostel (September, 2020 - March, 2021)