

**Sahil Bansal**

Department of Computer Science and Engineering

Indian Institute of Technology Kanpur, India

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I am a Junior Undergraduate student in the Department of Computer Science and Engineering at IIT Kanpur. I am a dedicated, organized and methodical individual. I have good interpersonal skills, am an excellent team worker and am keen and very willing to learn and develop new skills. I have an active and dynamic approach to work and getting things done. I am determined and decisive. I identify and develop opportunities.

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**Education**

AISSCE	2015	Aggarsain Public School, Kurukshetra	10.0
AISSE	2013	Aggarsain Public School, Kurukshetra	95%
B.Tech	2015 – 19	Indian Institute of Technology, Kanpur	9.1

**Course details**

Semester	Total credits	Highlights
Jan 2016 - May 2016	50	ESC101A
Aug 2016 - Dec 2016	59	ESC201A
Jan 2017 - May 2017	64	MSO201A
Aug 2017 - Dec 2017	55	ESO207A

**Skills**

Computer Science : Operating Systems, Machine Learning  
Programming Languages : C, C++, Java, Scripting Languages (bash, awk)

**Projects**

1. Adaptive Frequency Estimation Using Iterative DESA with RDFT Based Filter. Combined Discrete Energy Separation Algorithm (DESA-1) and Recursive Discrete Fourier Transform (RDFT)-Based Filter to design a new technique for Grid Voltage Frequency Estimation. Proposed technique is computationally efficient and also robust to negative effects caused by noise and harmonics. Learnt about DFT, FFT, DESA-1, DESA-1a, DESA-2, Teager Energy Operator (TEO) and many other techniques involved in Instantaneous Frequency Estimation.
2. Biodegradable Systematic Manure Machine. Built a Biodegradable Systematic Manure Machine using Manufacturing Processes such as Drilling, Turning, Milling etc. Aim of Machine is to reduce the biodegradable waste into smallest size possible. Worked in a team of 8 members and a guide.

3. Beverage Can Vending Machine. Built a Beverage Can Vending Machine using Manufacturing Processes such as Welding, Brazing, Casting, Sheet Metal Working etc. Aim of Machine is to dispense beverages to customers automatically, after the customer inserts currency or credit into the machine. Worked in a team of 4 members, 1st team to attempt this project since years.

### **Awards and Achievements**

- Academic Excellence Award, Awarded to top 5% students on the basis of academic performance
- All India Rank 571, Among 1.5 lakh candidates in JEE ADVANCED
- All India Rank 1764, Among 13 lakh candidates in JEE MAIN
- Appreciation Letter, Signed letter of appreciation by erstwhile HRD Minister for Class-12 CBSE Result
- Manmohan Singhal Memorial Award, Awarded for being Best All Rounder (Senior Category)
- International Rank 65 & State Rank 2, International Mathematics Olympiad
- International Rank 221 & State Rank 13, National Science Olympiad
- State Rank 4 & Zonal Rank 1, State Level Science Quiz Contest

### **Hobbies**

- Sports: Cricket, Badminton, Table-Tennis
- Music: Guitar, Piano
- Others: Watching T.V.