

# Prarthana Das

Department of Electrical Engineering  
Indian Institute of Technology Kanpur

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## Academic Qualifications

Year	Degree	Institute	CPI/%
2018-Present	B.Tech, Electrical Engineering	Indian Institute of Technology, Kanpur	9.3/10
2018	ISC(XII)	Sacred Heart Convent School, Jamshedpur	98.6%
2016	ICSE(X)	Sacred Heart Convent School, Jamshedpur	98.33%

## Projects and Internships

- **Speaker Recognition** (June'20-Ongoing)  
Mentor: **Prof. Nalinaksh S. Vyas**, Dept. of Mechanical Engineering, IIT Kanpur  
– Speaker Recognition involves finding feasible solutions to the problem of identifying a speaker from their audio recording. The proposed solution uses vector quantization which involves extracting the **Linear Predictor Coefficients** for training.
- **Satyanweshi, the truth-seeking chatbot** [www.satyanweshi.net] (April'20- Ongoing)  
Mentor: **Prof. Swaprava Nath, Prof. Hamim Zafar**, Dept. of Computer Science and Engineering, IIT Kanpur  
– The chatbot checks fake information spread over the web using **NLP**. Apart from fact-checking, it also provides general information regarding **COVID-19** from prominent knowledge sources like WHO, CDC and National Health websites. The knowledge-base is continuously updated by scraping multiple relevant websites. Transformer models like **BERT, T5** have been used to understand the query of the user and provide an appropriate and detailed answer.  
– Our solution secured the second place in **MHRD AICTE SAMADHAN** competition in response to COVID-19 among more than 2500 participants. Working in collaboration with **InfoPost** - a startup based out of San Diego, California.
- **Real Time Location Prediction Using Bluetooth Low Energy Devices** (May'19-Oct'19) [Report]  
Mentor: **Prof. A.R. Harish**, Dept. of Electrical Engineering, IIT Kanpur  
– Track the position of a moving tag by combining highly unreliable and noisy BLE observations streaming from multiple locations using several gateways with the help of **Advanced LANDMARC with adaptive k-nearest algorithm for RFID location system** and neural network. Studied the radiation pattern of BLE devices and contour of **BLE gateways**.
- **Web Scraping for News Articles** (March'19-April'19) [Github]  
Mentor: **Prof. Swaprava Nath**, Dept. of Computer Science and Engineering, IIT Kanpur  
– This project was done as a part of **project track** (offered to students with strong programming background) in the course **ESC101 (Fundamentals of Computing)**. Headlines scraped from prominent news websites like BBC World, NDTV, India Today have been analysed and the user comes to know what is trending at that moment.

## Scholastic Achievements

- Scored a perfect SPI of 10 in Semester 3 (Academic session 2019 - 2020)
- Attained a perfect score of 100 in 4 out of 5 subjects in I.S.C. examinations in 2018.
- Awarded certificate of recognition by the district administration of East Singhbhum (Jamshedpur) for attaining the highest aggregate score across the district in I.C.S.E. examinations (2016)
- JEE Advanced 2018- Rank 1975 (out of approximately 0.23 million applicants)
- JEE Main 2018- Rank 3363 (out of approximately 1 million applicants)
- National Entrance Screening Test 2018- Rank 22 (out of approximately 44,000 applicants)
- Awarded certificate of merit for general proficiency (securing 1st position in class) for 10 consecutive years in school.

## Technical Skills

- **Programming Languages:** C++, C, Python, Java, Visual Basic, Verilog
- **Technical Tools:** MATLAB, Autodesk Inventor, L<sup>A</sup>T<sub>E</sub>X

## Relevant Coursework

Probability and Statistics	Microelectronics	Control Systems Analysis	Signals, Systems and Networks
Fundamentals of Computing	Linear Algebra and ODE	Complex Variables	Partial Differential Equations

## Other Activities

- Counselling Service IIT Kanpur: Student Guide (2019-2020)  
– Assisted newly joined first year students to acclimatize to campus life and culture.
- Core group member of Vox Populi IIT Kanpur: The student journalism body in the campus.
- Secretary, Finance Discussion Group, IIT Kanpur (2019-2020)
- Secretary, UG Academics, Academics and Career Council, Student's Gymkhana, IIT Kanpur (2019-2020)
- The Frank Anthony Memorial All India Inter School Debate Competition 2016: Runners up in the regionals and represented the school in the zonals which was held in Kolkata.
- Participated in and won several inter and intra-school elocutions, extempores, declamations (2nd Runners up in the A.S.I.S.C. Zonal Declamation 2015) and quizzes (including the JRD Tata Inter-School Quiz).
- Received an honorable mention in the All India Essay Writing Event (2015) conducted by the United Nations Information Centre for India and Bhutan (UNIC).