Preeti MENGHWANI

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🎓 EDUCATION

2018 - Present	**Indian Institute of Technology Kanpur**, B.Tech. in Electrical Engineering, CPI : 7.8/10
2016 - 17	The New Green Field Public Academy ,Indore, Class XII, Percentage : 84.2%
2014 - 15	Delhi Public School,Indore Class X, CGPA : 10/10

☰ SKILL-SETS

Programming Language	C/C++, Python, Verilog
Tools and Softwares	MATLAB, LABView, Autodesk Inventor, GNU-Octave, Git, LaTeX
Hardware	Arduino, Raspberry Pi, Xilinx FPGAs, IMU, WiFi Module (ESP-8266)

🖥 EXPERIENCE

May 2019 – Jul. 2019

Wi-TRACK, ELECTRONICS CLUB, IIT KANPUR
Summer Project, :
> - **Implemented a Frequency Modulated Carrier Wave RADAR** capable of tracking human beings over a distance of 3m in presence of a solid obstacle between the walking human and the antenna pair.
> - Developed hardware subsystem consisting of a sweep generator, signal generator, frequency mixer and oscilloscope, and integrated it with the software stack using serial protocol for data logging (Py-VISA).
> - **Won the best Research & Development Project award** in the Science & Technology Council.

`Signal Processing` `Software-Defined Radio (NI-USRP)` `LABView`

May 2019 – Jun. 2019

Electromania, IIT KANPUR
Takneek 2018, *Inter-Hostel Competition* : SCIENCE & TECHNOLOGY COUNCIL
> - Designed a bare-metal gimbal system by **estimating the real-time orientation by Inertial Measurement Unit**(IMU - MPU6050) & remotely measured the error in real-time using lasers diode and WiFi module.
> - **Extracted noise-free waveform of heartbeat pulses** of a human using Near-Infrared Spectroscopy through infrared sensor and error rectifying components like low-pass filters, DC-bias remover.

`Digital Circuit Designing` `IoT` `Arduino` `ESP-8266 Wifi Module` `MPU6050 (IMU)` `Non-programmable ICs`

📘 RELEVANT COURSE WORK

Signals, Systems and Networks	Hardware description languages for FPGA design[**]	Fundamentals Of Computing
Control Systems[*]	Introduction to Electronics	Partial Differential Equation
Microelectronics[*]	Introduction to Electrical Engineering	Linear Algebra and Differential Equation

[*]Ongoing [**]Audited

👥 POSITION OF RESPONSIBILITY

May 2019 – Present

Secretary,
Electronics Club, *IIT Kanpur* :
> - **Promoted Elecronics as a hobby in IIT kanpur** campus community through a variety of workshops, hackathons, and lectures.
> - Improved participation and mentored juniors in SnT competitions like Techkriti and Takneek.

❋ EXTRACURRICULAR ACTIVITY

> - Participated in State-level Volleyball Championship representing Indore District.
> - **Won 1st prize in Street Photography Competition** in Inter-IIT Cultural Meet 4.0.

🏆 AWARDS AND ACHIEVEMENTS

> - Secured All Indian Rank(AIR) 1671 among 0.5 million students in JEE Advance 2018.
> - Secured **All Indian Rank(AIR) 876** among 1.5 million students in JEE Main 2018.