

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 | **Wi-TRACK**, ELECTRONICS CLUB, IIT KANPUR
Jul. 2019 | 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 | **Electromania**, IIT KANPUR
Jun. 2019 | 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 | **Secretary**,
Present | Electronics Club, *IIT Kanpur* :
 > **Promoted Electronics 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.