

# MAHEK PODDAR

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## EDUCATION

### Vellore Institute of Technology

*Bachelor of Technology in Electronics And Communication - CGPA - 9.13*

Sep. 2020 – Present

Vellore, Tamil Nadu

### Army Public School

*Higher Secondary Education - Percentage - 93.2%*

June 2018 – June 2020

Shillong, Meghalaya

## EXPERIENCE

### Bharat Sanchar Nigam Limited

*Telecommunication Intern*

May 2022 – Jun. 2022

Shillong, Meghalaya

- Worked in 6 different departments NIB, OCB, FTTH, EB/IT, MSC, ETR
- Involved in MPLS networking and 4G and 5G analysis.
- Took hands on practical training on communication devices like DSLAM, OCLAN, IPTAX etc.
- Gained experience in marketing domain in the company.

### SURGE IIT KANPUR

*Summer Research Intern*

May 2023 – Present

Kanpur, Uttar Pradesh

- Summer research internship on Digital Signal Processing under Dr.Abhihekh Patel.
- Involved in the implementation of molecular communication on biopharmaceutics.

## PROJECTS

### Optimizing PID controller for Single Joint Robotic Arm | MATLAB, Simulink, Arduino

April 2022

- Developed a robotic arm with 2-Degrees of freedom.
- This implementation involved usage of Arduino uno as the micro-controller and servo-motors for robotic arm movement.
- Developed the MATLAB simulation of PID controller using the derived constants and applied various optimization methods on it.
- Designed and Developed simulink graphs using the optimized parameters of the PID controller.
- [Published a research paper in IJARSE journal.](#)

### Parkinson Detection Using Acoustic features from Speech | Signal Processing, Machine Language December 2022

- Part of a 3 member team in developing Parkinson's disease recognition using Voice Acoustic features Statistical pooling KNN, NN, LDA, Decision tree classifier, GB, UPDRS .
- GB algorithms produced effective results for both acoustic characteristics and UPDRS specified data. The compared results demonstrated that, among the chosen state-of-the-art procedures, the UPDRS established parameters attained the best success rate.
- [Published a research paper in IEEE XPLORE.](#)

### DETECTION OF DIABETES USING LMR BASED OPTICAL FIBRE SENSOR | MATLAB, Simulink, Ocean View,Or

- The objective of this research is to assess the possibility of detecting acetone using LMR based sensors.
- To find the sensor response and the sensitivity with respect to wavelength and intensity with different concentration of acetone.
- Using SnO2 as the supporting substance an analysis of LMR based fibre optic sensor for acetone detection was conducted. By depositing SnO2 thin films of various thicknesses, the sensing probe was tuned, and the corresponding two LMR peaks at various wavelengths and intensities were identified.

### IETE-ISF Recruitment Portal Figma, HTML, CSS, Bootstrap

Jan 2022

- Designed frontend of the website using figma and created using HTML, CSS.

## TECHNICAL SKILLS

**Languages:** Python, Java, C, HTML/CSS, MATLAB

**Developer Tools:** Figma, Adobe, Tinkercad, Oracle, Bootstrap, Netsim, LT Spice

**Technologies/Frameworks:** Arduino, 8051 microcontroller, 555-timer

## LEADERSHIP/EXTRACURRICULAR

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### **ANOKHA NGO | VIT University**

**Jan 2021 – February 2023**

*Outbound Lead*

*Vellore, Tamil Nadu*

- Led the NGO as Vice-Chairperson and organized different sessions for unprivileged children.
- Found out new,easy and innovative methods to teach and make children understand about importance of education.
- Overall incharge of different centres across the Vellore district.

### **GraVITas'22 Coordinator | VIT University**

**October. 2022 – Present**

*Conducted BARTER ELECTRONICS under IETE-ISF*

*VIT University*

- Electronics based hardware event with a hands-on session.
- Took a comprehensive session teaching them about different hardware components and guiding them with real-life project.

### **IETE ISF | VIT University**

**Jan. 2021 – Present**

*Chairperson*

*VIT University*

- Developed UI for the official website of IETE-ISF.
- Designed and coded frontend of the recruitment portal for the chapter.
- Conducted Technical Sessions both for CSE and ECE