



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, SRI CITY  
CHITTOOR, ANDHRA PRADESH**

## **Kakarla Venkata Seshasai Pavan Teja**

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### **EDUCATION**

B. Tech. (ECE)	2023	Indian Institute of Information Technology, Sri City	<b>8.39 / 10.0</b>
Class XII	2019	Sri Chaitanya College, Hyderabad, Telangana	<b>938 / 1000</b>
Class X	2017	Sri Chaitanya School, Hyderabad, Telangana	<b>9.3 / 10.0</b>

### **PROJECTS**

#### **Academic Thesis Project**

**(Jan 2022 – Present)**

- **Designing Of MIMO Antenna Setup For Radar Applications**
- MIMO antenna setup designing for radar applications
- MIMO antenna is built and simulated it in CST simulator for certain frequency.
- Built a single antenna and converted it to MIMO antenna in simulator and found the differences in their characteristics.
- Micro-strip patch with inset feeding method is used to build the antenna and using simulator verified values designing of will be done.

#### **Wine Classification Using Machine Learning Techniques**

**(Aug 2021 – Dec 2021)**

- We classified the wine on the basis of giving features using wine quality dataset.
- The dataset has the fundamental features which are responsible for affecting the quality of the wine.
- Normalization of features is done and trained these features using Logistic Regression, Gaussian SVM, and Neural Network Classifiers.
- Obtained confusion matrices, accuracy, ROC Curves from training the data and Tested the data using above trained models, result is the test accuracy.

#### **Water Quality Prediction**

**(Jan 2021 – May 2021)**

- Using Sensors, data is uploaded to cloud using MQTT protocol through NodeMcu device.
- By using suitable ML algorithms (KNN, DT), data is analyzed to predict quality of water and an app interface for the user to receive measures on how improve water quality.
- Input data is given to ML models through mobile app.
- 30days ahead prediction is done to predict the water quality using trained and tested data.

#### **Smart Irrigation System**

**(Aug 2020 – Dec 2020)**

- This project is mainly to reduce the wastage of water and electricity. Lack of water leads to less crop.
- More water, more crop. This justifies that water is very essential in irrigation.
- The manual irrigation needs monitoring frequently but automatic systems can be programmed to turn OFF and, ON the system, depending on various parameters.
- Knowing the amount of water pumped out for a crop can be helpful to the farmer.

## SOFTWARE SKILL SETS

Languages : C, C++, Java, Embedded C  
Operating System : Windows 10, Linux, Mac  
Others : Data Structures and Algorithms, OOPS, HTML, Matlab, Embedded Systems

## ACADEMIC ACHIEVEMENTS AND CO-CURRICULAR ACTIVITIES

- Achieved Hacker Rank C++ Gold Badge
- Certified for Java – Basic Hacker Rank
- Python for beginners from coursera.
- Participation certification for application development (mobile) using android studio by Vortex, NIT Trichy.

## EXTRA CURRICULAR ACTIVITIES & ROLES

Volunteered in National Service Scheme Activities:

- “Run for Unity” celebrated to commemorate the birth anniversary of Sardar Vallabhbhai Patel. **(October 2019)**
- “Blood Donation Camp and Candle Marathon” for Police Commemoration Day. **(October 2019)**
- “5K and 10K marathon” for Fitness Day **(May 2020)**