



## DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

### PROJECT PROPOSAL

**Project Title:** Rain-Reveal: Rainfall Prediction for Meteorological Department

**Project Scope:**

- Observe, measure, and record the basic elements of weather with respect to rainfall.
- Observe, measure, and record data on the basic elements of rainfall over a period of time (i.e., precipitation, air temperature, wind speed and direction, and air pressure).
- Interpret recorded rainfall data for simple patterns.
- Observe and record effects of air temperature on precipitation (e.g., below freezing results in snow, above freezing results in rain).
- Graph recorded data to show daily and seasonal patterns in rain.
- Evaluate rainfall predictions based upon observational data.
- Predict rainfall and justify prediction with observable evidence.
- Evaluate the accuracy of professional weather forecasts using machine learning algorithms.

**Hardware Requirements:**

- Node MCU (ESP-8266)
- DHT11 Humidity Sensor
- V-Rain Drop Sensors
- LDR Sensors
- Breadboard

**Software Requirements:**

- Google Collab
- Rainfall Dataset for reference

**STUDENTS DETAILS:**

Name	UID	Signature
Bhanu Yadav (Team Leader)	20BCS6105	<i>Bhanu</i>
Siddharth Singh	20BCS6103	<i>Siddharth</i>
Ananya Singh	20BCS4585	<i>Ananya</i>

**APPROVAL AND AUTHORITY TO PROCEED:**

We approve the project as described above, and authorize the team to proceed.

Name	Title	Signature (with date)
Dr. Gaurav Soni	Project Supervisor	