

Project Details

- ▶ Design and develop an environment monitoring IoT device with a data logger server application
 - ▶ Device should be capable of monitoring any 4 of the following parameters
 - ▶ Temperature
 - ▶ Humidity
 - ▶ Barometric pressure (air pressure)
 - ▶ Ambient light level
 - ▶ Wind direction
 - ▶ Wind speed
 - ▶ Rainfall
 - ▶ Should be capable of operating on low power with unreliable connectivity

Project Details

- ▶ Should transmit data to a remote server using CAP (Common Alerting Protocol) over the Internet.
- ▶ Should update server every 15 minutes based on the average and standard deviation of last 15-minute data. Should be capable of operating with cached updates when connection is lost.
- ▶ Should be capable of self-recovery from power failures or other types of transient faults
- ▶ Server app should run remotely on PC based environment

Project Details: Deliverables

- ▶ Project report containing
 - ▶ Scope of the project
 - ▶ Special features (if any)
 - ▶ Diagram to explain high-level design
 - ▶ List of components and their cost
 - ▶ Schematic diagram giving all components
 - ▶ Description on how fault recovery options are implemented
 - ▶ Algorithm used for device and server (Pseudo code)
 - ▶ Full source code (an Annexure)
- ▶ Working prototype