PROJECT PLAN DOCUMENT

Project number	***36***
Project Title	***Making H-105 a smart classroom***
Document	***DASS Project Plan Document***
Creation date	***1-Feburary-2020***
Created By	***Akash Verma , Archit Goyal , Vishal Verma, Priyanshu Madaan***
Client	***Dr. Vishal Garg***

Brief problem statement :

Automate the lightening system on the basis of the schedule entered by admin. Automate AC on the basis of internal and external environment and type of people inside the room (*students, VIP* or *VVIP*). Provide checklist of instruments and send notifications to staff before any event in classroom. Controlling lights for projectors.

Team Members:

Team Member	Role
Dr. Vishal Garg	*Client/Guide*
Simran Singhal	*Mentor(client Side)*
Sireesha Vakada	*Mentor*
Archit Goyal	*Developer*
Priyanshu Madaan	*Developer*
Akash Verma	*Developer*
Vishal Verma	Developer

Team Communication:

- Weekly meetings at Clients office.
- Social Media (*Whatsapp*, *Messenger*), E-mail for minor clarifications.

Development Environment:

- For communicating to sensor hardware : ***Aurdino IDE***, ***ESP32 board***, ***IR sensors***
- For app : Android Studio,VS Code,

Milestone Schedule:

Milestone	**Due Date**	**Release**	**Deliverable?**
Create draft requirements	**-**	-	No
Finalize requirements	-	R1	No
Deploying Sensors	**10-02-2020**	*R1*	Yes
Basic app to control Sensors	28-02-2020	*R1*	Yes
Building Unified Backend for all IOT devices and App	14-03-2020	*R2*	Yes
Building Android App Integrating App,Backend,IOT devices	24-03-2020	*R2*	Yes
Building Web App for Administrator	29-03-2020	*R2*	Yes
Testing And Deployement	11-04-2020	*R2*	Yes

Milestone Schedule (Detailed):

Sprint 1:

- *Survey:Study Sensors Used in ESP32*
- *Survey:Study About Classroom Automation System*
- *Survey:Study About ESP32*

Sprint 2:

- *Survey:Evaporator layout*
- *Survey:AC layout*
- *Survey:Occupancy layout*
- *Survey:Electrical layout*

Sprint 3:

- *Temp&Humid Sensor:Coding ESP32 for recieving data from sensors*
- *Temp&Humid Sensor:Building circuit*
- *AC:Configuring ESP32 for IR emitter*
- *Lights:Coding ESP32 for checking server connection*
- *Lights:Testing ESP32 board and LED's*

Sprint 4:

- *Temp&Humid Sensor:Updating backend and posting data to server*
- *Lights:Server and Backend coding for use case*
- *Temp&Humid Sensor:Testing circuit and sensors*
- *AC:Testing emitter on AC*
- *AC:Training emitter from AC remote*
- *Lights:Use case coding on ESP32*

Sprint 5:

- *Building Database Schema for the backend*
- *Normalising Database schema*
- *Setting AWS Server*
- *Deploying Express Backend on AWS server*

Sprint 6:

- *Android APP:Implementing use cases*
- *Andriod APP:Building UI*
- *Temp&Humid Sensor:Integration with APP*

- *AC:Integration with APP*
- *Lights:Integration with app*

Sprint 7:

- *Developing a web app for feeding Timetables*
- *Integrating Web App with the Backend*
- *Testing Web App*
- *Connecting Web App to Amazon Echo Dot(Optional)*

Sprint 8:

- *Deploying the hardware in H-105*
- *Calibrating IR sensor*
- *Calibrating CO2 and Humidity Sensor*
- *Deploying Lights and Relays*
- *Deploying the Control Panel(Android Tablet)*