# Detailed Design Document

# Team Name:- White Collar Crew

# Team Logo:-



# Members:-

* Madhav Chadha
* Mahadev Sharma
* Rishabh Verma

# Project Title:- ESP8266 Development System

Description:- This project will involve testing the feasibility of using a small low-cost wireless module to do simple computation in a completely wireless, but networked context. The primary deliverable of this project will be a working physical prototype that can be easily flashed with new firmware, and most importantly documentation describing challenges faced in getting it to work, or any unforseen caveats of the hardware or software associated with this module.

# Problem Statement:- The ESP8266 wireless module always require an external microcontroller (like Arduino Uno) to work. It makes the overall structure of a simple wireless networking project somewhat complex and messy.

Project Requirements:- The project uses the ESP8266-ESP-01 WiFi module as a stand-alone computing device without any external microcontroller. The platform for interacting with the ESP8266- ESP-01 will be Linux. The advance features would be the use of low power mode, and operation in the context of extremely limited power sources: Solar, battery etc.

# Team Members Roles/ Responsibilities:-

# Team Leader :- Mahadev Sharma

* Recorder:- Rishabh Verma
* Project Tasks:
* Research:- Mahadev Sharma, Rishabh Verma
* Hardware Assembly:- Madhav Chadha, Mahadev Sharma
* Software Designing:- Madhav Chadha, Mahadev Sharma
* Troubleshooting:- Madhav Chadha, Mahadev Sharma, Rishabh Verma
* Documentation:- Rishabh Verma

# Project Timeline:-

# Week 2 :-

* Research on the project needs and the work that needs to be done
* Detailed Study on the current issues with the project.

# Week 3:-

* Assembling the acquired resources and the hardware material provided by the client.
* Working on the hardware material and testing all the components.

# Week 4,5,6:-

* Working on the Linux Platform and creating a firmware for the wireless module
* Flashing the new firmware into the module and making it to transmit information

# Week 7,8,9:-

* Working further on the requirements of the client like connecting the module to a secured network
* Working on the advanced features of the module as desired by the client

# Week 10,11:-

* Documentation
* Poster & Presentation