GOVERNMENT COLLEGE OF ENGINEERING

BARGUR

(AUTONOMOUS)

PROJECT TITLE:

Environmental monitoring temperature and humidity

TEAM MEMBERS:

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Problem statement:

The need of measuring physical parameters plays an important role in science andtechnology. In modern days, sensors are used not only for this purpose but also in every day of our lives.

A sensor is an electronic component that translates the physical parameters into electrical signals [1].

In early days, these sensors were usually coupled with complex electronic systems or with large computers in order to monitor and control various parameters. Those systems were complex, expensive, and large in size.

Advancement in technology grew rapidly with the introduction of microcontrollers.

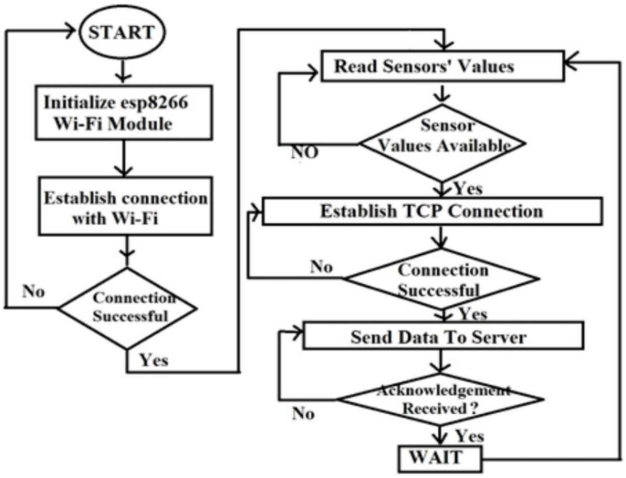
The advancement of these chips has made it possible to replace the above-mentioned complex electronic systems and resulted in designing simple and cost effective platforms to interface these sensors in an efficient manner.

A microcontroller is a device that has a Central Processing Unit (CPU), Random Access Memory (RAM), Read Only Memory(ROM), timers, counters, Analog to Digital (A/D) converters, Input/Output (I/O) ports, and/or other peripherals on a single chip [2].

Applications of microcontrollers arenumerous and they range from simple applications such as toys to complex applicationssuch as fly-by-wire, medical applications, robotics, etc.

The improvement in fabricationtechnology has led to manufacturing microcontroller internal components at the scale of nanometers, which not only provides small footprint but also provides efficiency in power consumptions, higher speeds, and lower costs [3].

Block diagram:



Model of the Project :