



# KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

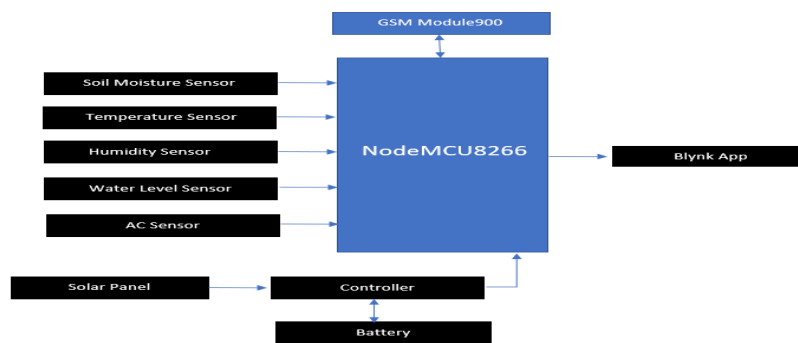
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Website: www.kscst.iisc.ernet.in/spp.html or www.kscst.org.in/spp.html

1.	<b>Name of the College: Angadi Institute of Technology and Management Belagavi</b>
2.	<b>Project Title: IoT based Smart Agriculture Using Solar Energy</b>
3.	<b>Branch: Computer Science and Engineering</b>
4.	<b>Theme (as per KSCST poster): The use of IoT and solar energy to improve agriculture, and the focus on sustainability and efficiency. (The project proposals shall mandatorily be from one of the broad themes / areas. Visit website <a href="http://www.kscst.org.in/spp.html">www.kscst.org.in/spp.html</a>)</b>
5.	<b>Name(s) of project guide(s):</b> 1. Name: Prof./Mrs.: DHANASHREE KULKARNI
6.	<b>Name of Team Members</b>  MOHAMMAD KAIF M. DEVALAPUR MUSTAKEEN I. NIMBARGI OMKAR S PATIL RUCHITA R MUDAKAVI
7.	<b>Scope / Objectives of the project:</b> 1. Implementation of combined technology of GSM module and IoT. 2. Developing Semi-Automated IoT based Smart agriculture system. 3. Developing a platform to connect a devices that can communicate with each other through internet.
1.	<b>Methodology:</b> In this purpose system, we are presenting an integral and cost effective Smart Agriculture System (SA). Our solution relies on sensors. 1. A Wireless Sensors Network (WSNs) monitor, in real-time the plant environmental conditions e.g Weather and Soil conditions. 2. A Wireless Actuators Network (WAN) acts upon electric appliances such as water pumps.

3. The Integral of GSM900 Module with NodeMCU8266.
4. Developing Semi-Automated IoT based Smart Agriculture System.
5. We can use Blynk App to see real time data of Crops Conditions.
6. Developing a platform to connect a devices that can communicate with each other through internet.

Architecture of Smart using Solar **Note:** In



**Fig 1.** IoT based Agriculture Energy case of

fabrication work in the project, an engineering drawing with dimensions / detailed design should be attached to the proposal.

**2. Expected Outcome of the project:**

1. Improve the efficiency and yield in crop production: By collecting and analyzing data on factors such as soil moisture, temperature, and humidity. The system can help farmers optimize irrigation, fertilization and other practices to improve crop growth and yield.
2. Improved crop yields and quality due to optimized growing conditions and early detection of pests and diseases.
3. Reduce labor costs and increased productivity due to automation of tasks such as irrigation and pest control.
4. Enhanced food safety and traceability through the use of sensor data.