

# WI FI BASED AGRICULTURE ENVIRONMENT MONITORING SYSTEM BY USING SOIL MOISTURE SENSOR

A Project report submitted in partial fulfilment of the requirements for the award of  
degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRICAL AND ELECTRONICS ENGINEERING**

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**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**(Accredited by NBA, Approved by A.I.C.T.E, Affiliated to J.N.T.U. KAKINADA)**

**TAMARAM (P.O), MAKAVARAPALEM (M.O), NARSIPATNAM (R.D)**

**VISAKHAPATNAM DISTRICT-531113**

**BATCH 2014-2018**

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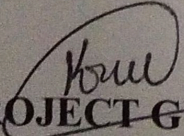
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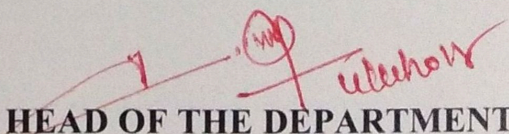
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**CERTIFICATE**

This is to certify that the project entitled “**WIFI BASED AGRICULTURE ENVIRONMENT MONITORING SYSTEM BY USING SOIL MOISTURE SENSOR**” in partial fulfilment for the of degree of Bachelor of Technology in **ELECTRICAL AND ELECTRONICS ENGINEERING**, at **AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNAM** is an bonafied work carried out by **G.PRABHU KUMAR (15815A0206), M.V.S.RAMA VAMSI (14811A0215), B.J.N.SAI KUMAR (15815A0201), R.SRINU (15815A0213), P.KAMESH (14811A0223)** under the guidance and supervision during 2014-2018.

  
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## ABSTRACT

Agriculture plays vital role in the development of agricultural country. In India about 70% of population depends upon farming and one third of the nation's capital comes from farming. Issues concerning agriculture have been always hindering the development of the country. The only solution to this problem is smart agriculture by modernizing the current traditional methods of agriculture. Hence the project aims at making agriculture smart using automation and IoT technologies. Automation is the most frequently spelled term in the field of electronics. The hunger for automation brought many revolutions in the existing technologies. These had greater importance than any other technologies due to its user-friendly nature. The system is designed for monitoring of the climate condition in an agricultural environment such as field or greenhouse, the sensor station is equipped with several sensor elements of soil moisture. In addition investigation was performed in order to integrate a novel planar electromagnetic sensor for nitrate detection. The communication between the sensor node and the server is achieved via 802.11g wireless modules.

10. Fig. 1.1 ULN2803 IC pinout

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11. Fig. 1.2.1 Connection Diagram

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12. Fig. 1.3.1.1 Block

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13. Connection Diagram

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