DESIGN AND IMPLEMENTATION OF ADAPTIVE NUTS PLANT MAINTENANCE SYSTEM ON GREENHOUSE ENVIRONMENT USING ARDUINO MICROCONTROLLER

Nama : Grezio Arifiyan Primajaya  
NRP : 51110100196  
Jurusan : Teknik Informatika – FTIf ITS  
Dosen Pembimbing I : Tohari Ahmad, S.Kom., MIT., Ph.D.  
Dosen Pembimbing II : Henning Titi Ciptaningtyas, S.Kom., M.Kom

Abstract

Nuts have a main role as fulfilling the needs for food, demand has increased each year in line with population growth and development of the food industry. As are a source of vegetable protein, nuts are needed to improve the quality of human resources. For those reasons, the development of the nuts should be pursued and improved.

An appropriate technology is needed to increase the quality of the bean crop. A method of planting regardless of the season is called a green house. In this plantation room weather can be manipulated according to the needs of plants. The use of green house so far is minimal, especially for temperature manipulation in the room. Development of green house can be beneficial, especially for farmers who are confronted by a less erratic climatic constraints lately. Accurate data is required to have high quality green bean. In order to control the green house room condition, we employ a microcontroller to measure and adjust the variables in the plantation requirements.
This study develops a maintenance system using an Arduino Uno microcontroller. This system is able to maintain the condition of the green bean plants to be ideal.

**Keyword**—Green beans; greenhouse; growing requirements; microcontroller.