

AUTOMATIC WEED DETECTION AND SMART HERBICIDES SPRAYER ROBOTIC FOR CORNFIELDS

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Abstract

This Project deals with the revealing of the weed using image processing technique. Whenever the weed is detected an alert command is send to the microcontroller. With the intention of achieve this target the whole plantation is divided into two zones. For the project purpose we give the input from PC to match the two images from the system and find weed. The heat of the pasture is constantly monitored and checked if heat exceed the limit 30 C pump motor starts to pour water to plant. If the Internet based system is attached with the project then farmer can see the field any time and manage the Pump On/Off.

Keywords: Image processing, cultivation, weed detection.

I. INTRODUCTION

Cultivation uses 75 % of available freshwater resources world wide,and this profit will continue to be dominant in water consumption because of population growth and increased cooking demand. There is an critical need to generate strategies based on equipment for sustainable use of water, including technical, agronomic, managerial and institutional improvements [1].There are several systems to attain water savings in various yield, from basic ones to more precisely sophisticated ones. For example, in individual system deposit water status was monitor and irrigation programmed based on can occupy heat distribution of the plant, which was acquired with thermal imaging.[2].In adding together, other systems contain been urbanized to schedule irrigation of crops and optimize the use by means of a crop water strain index [3]. The pragmatic CWSI was first defined over 40 years ago[4]. The project deals with exposure of the weed controlled by digital image processing.

For that cultivated area is divided into two column. Camera is set to in single corner of the playing field[5].The image is captured and send to the PC from that it checks image with weed and image without weed it matches both the images and exposure of weed percentage is identified. After exposure of weed the fertilizer is automatically ON sprayed to the in concert field and weed is control by this process[6]. In another process temperature sensor senses the high temperature of the field beyond certain degree Celsius it automatically pass the information to mobile phone and the motor pumps to the field. In this way the water is throw to field and is controlled.[7]

II. Weed Detection

Physical process is available till now people have to manually check the weed [8]. Its faulty process and most of the time errors are possible.



Fig 1: weed in crop field