Identification and Destroying the Growth of Gourmet Tree to Increase Ground Water Level

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Abstract:- **The aim of the paper is to identify and to reduce the growth of gourmet tree. The gourmet tree decreases the ground water level, oxygen level reduces, increase in global warming and absorb the adjacent plants nutrients. The target of this paper is to identify the tree using image processing. The images are obtained using the camera and compare with the reference images. The detected tree is identified and a special combination of acids is sprayed to destroy the tree by not affecting the fertile of the soil.**

Keywords: gourmet tree identification, acid test, image processing.

I. INTRODUCTION

The paper aims to develop an automatic special combination of acid sprayer which targets the unwanted trees by using a raspberry pi. This is based on automated real time nozzle selection, to optimize the balance between drift and efficiency [1]. Accompanying this development is the design, implementation, and testing of a prototype nozzle selection controller founded upon the derived scientific principles.

The system consists of a high resolution digital camera to identify the unwanted trees. The data or images obtained by the camera are sent to a computer programmed system for further analysis. The obtained images are then compared with a set of reference images of each of the trees. A sprayer pump is used to spray the special acids exactly to the unwanted tree.

The purpose of this paper is to create an automatic special blend of acid sprayers targeting unwanted trees using the Raspberry Pi based on automatic real time node selection, to improve the balance between drift and performance [2]. With this developments, the design, implementation and testing of a prototype node selection controller based on the scientific principles as carried out. The system features a high-resolution digital camera to identify unwanted trees. Data or images received by the camera are sent to the computer program system for further analysis. The obtained images are then compared to a set of reference images of each tree. A sprayer pump is used to spray special acids to unwanted wood. Unmanned aerial vehicles, commonly referred to as quad copters, are aerial vehicles operated by a remote control system. They are called rotor grafts because they work with a set of rotating twisted chord aero foils. Quad Captor is overused for many reasons such as easy to build and assemble, the complexity is limited. In most cases, drones are used for transportation, military, intelligence, educational use, and rescue. With the help of this drone, you can eliminate or destroy unwanted trees. Groundwater problems can be avoided through this paper. The main objective of this paper is to describe the use of drone to destroy unwanted trees that taste good food and store groundwater [3].

II. LITERATURE SURVEY

Anup Vibhute, S K Bodhe 2012 focus on the survey of application of image processing in agriculture field such as imaging techniques, weed detection and fruit grading. The analysis of the parameters has proved to be accurate and less time consuming as compared to traditional methods. Application of image processing can improve decision making for vegetation measurement, irrigation, fruit sorting, etc.

G. Jones, C. Gee, F. Truchetet 2008, A new method for weed detection based on modeling agronomic images taken from a virtual camera placed in a virtual field is proposed. The aim was to measure and compare the effectiveness of the developed algorithms. Two sets of images with and without perspective effects were simulated

Hossein Nejati, Zohreh Azimifar, Mohsen Zamani 2008, proposed which utilizes fast Fourier transform and leaf edge density to classify between crop and weed leaves in corn fields in real-time. This method is based on specific shapes of these leaves and leaf vein structures. Testing the method on a sample set of corn field images showed more than 92% accuracy in detecting weed plants. The resulting application is finally compiled to a dynamic linked library (dll) and used in a graphical user interface (GUI) to be used further by a cultivator robot in a real field.

Xavier P. Burgos-Artizzu, Angela Ribeiro, Maria Guijarro, Gonzalo Pajares 2010, presents a modeling of crop field in presence of different Weed Infestation Rates and a set of simulated agronomic images is used to test and validate the effectiveness of a crop/weed discrimination algorithm. For instance, an algorithm has been implemented to firstly detect the crop rows in the field by the use of a Hough Transform and secondly to detect plant areas by a region based-segmentation on binary images.

III. GOURMET TREE

Widespread, also known as the seemaikaruvelam, Velikaathan, it is a deadly plant that can devastate agricultural lands and other livelihoods. This is called "bayahonda Blanca" in Spanish. Homeland is Mexico, the Caribbean and South America. Tree can grow to 12 m tallits 300 feet deep and 50 feet wide. Ground water is

Special Issue - 2020

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ECLECTIC - 2020 Conference Proceedings

highly absorbed by these roots. It is found in small leaves, like tamarind leaves, and resembles the karvela tree. These have long yellow flowers and green leaves that turn yellow in maturity [4]. Its root is deep in the ground and can absorb groundwater. Its root (53 meters) is reported to grow to 175 feet. Fluid irregularities are seen in its trunk. Trees have the ability to grow in any drought. Even in the absence of rain, it absorbs ground water and takes care of its leaves. It grows with deep roots and firm sidewalls, which prevent rainwater from flowing to the ground. Velikaathan has the ability to thrive by destroying other plants wherever possible, without any disease or pests. The toxins produced in the landfill prevent the growth of other plants on the ground.

> #### Side Effects
Groundwater absorbs ground water during the drought period and does not provide enough water for other plants. These prevent the growth of other plants on the ground. It is not used as a shade tree, or as a tree, as a door sill, or as green foliage, or at least for the birds to sit and nest. The impact of these is immeasurable.

Velikaathan, who grew up in the Vedanthangal Lake, a sanctuary of tens of thousands of birds, has been caught by the forest department with the efforts of the forest department. There are also a lot of farmers who have died from its prick.

The grass damages livestock without growing it. Loss of some rare herbs, due to the ground water was degradation. Due to their vigor, livestock consumed in conjunction with livestock can cause death and stomach problems. Ground water absorbs large amounts of water [5]. Water levels dry up quickly. It will absorb the moisture of the air. The heat will be high. Drought gets very quickly reducing the chance of rain. The growing part will becomes a desert.
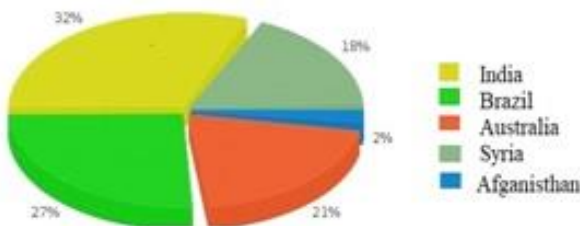
> #### Gourmet Tree in Neighboring Countries

Fig.1 Gourmet Tree in Neighboring Countries

IV. EXISTING METHOD
These methods were used in agriculture to spray pesticides in the land, fire extinguisher. At present no automatic devices used for spraying pesticides. It is done manually by a farmer. This existing method is applicable only to agricultural lands. In this way they detect the same plants and spray herbicides or pesticides and water on the plant.

> #### Disadvantage
Increase man power, also it harmful for the farmer health. Land pollution is high. Because when the tree is cut down, even a small part of it will grow exponentially on farmland.

Fig.2 Fire extinguisher drone

Fig.3 Spray herbicides or pesticides

> #### Advantage Of Proposed System
- Will be raising the Ground water high amount.
- Water shortage can be prevented.
- Land dry can be prevented.
- Increase the chance of rain fall.
- Decrease the global warming.
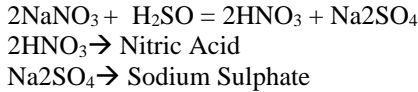- Agricultural land can be protected.

V. PROPOSED METHOD
In the proposed method, in order to raise the level of underground water, the using the special combination of the acids were identified and with the help of a camera the trees are identified and acids are sprayed on the unwanted tree can prevent the growth of the tree or destroy them [6]. The proposed system consists of a high resolution digital camera to monitor the trees. The data or images obtained by the camera are sent to a computer programmed system for further analysis.

The obtained images are then compared with a set of reference images of each of the trees as wells as the soil [7]. A sprayer pump is used to spray the special combination of acids exactly to the plant. By using the strong acids, such as Hydrogen chloride (HCl), Sulphuric acids (H_2SO_4) and Nitrate acids ($2NaNO_3$)

> #### Identification of Acid Combination
Identification of the acids were tested using different combination of acids which will be suitable for the destroying the roots of the Gourmet tree [8]. Initially the leaf was tested using HCl, Nitric acid and Sulphuric acid as shown in Fig.4a, 4b and 4c. Secondly the combination of the acids were taken and tested on the tree roots and branches of the gourmet tree as shown in Fig.5. After testing the combination of Nitric acid and Sodium sulphate is taken as the acid combination for the proposed method.
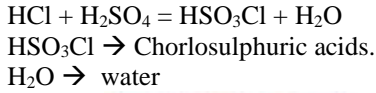
i. **Nitrate and sulphuric acids**

$2NaNO_3 + H_2SO = 2HNO_3 + Na2SO_4$

$2HNO_3 \rightarrow$ Nitric Acid

$Na2SO_4 \rightarrow$ Sodium Sulphate

ii. **HCl and sulphuric acids**

$HCl + H_2SO_4 = HSO_3Cl + H_2O$

$HSO_3Cl \rightarrow$ Chorlosulphuric acids.

$H_2O \rightarrow$ water

Fig.4 (a) HCl

Fig.4 (b) Nitric acid

Fig.4 (c) Sulphuric acid

The Fig.5 shows the testing of acid combination on a Gourmet tree root before and after condition of the tree. The stem and roots of the tree has become weak and changed to dry brown colour. So chemical will destroy the growth of the tree.

The proposed method is divided into two stages in the stage I is selection of chemical and stage II is identification of gourmet tree and spray chemical to destroy the growth of the tree from root as shown in Fig.6 and Fig.7.

BEFORE ACID TEST

AFTER ACID TEST

Fig.5 ACID (Nitric acid) + (sodium sulphate) Combination Tested on Tree

Table: 1 Comparison Analysis

Name of the Acids	Required Acids (ml)	Leaf test destroyed time
Hydrogen Chloride(HCL)	80ml	1hr
Sulphuric Acid(H$_2$SO$_4$)	40ml	15 mins
Nitrate Acid (2NaNO$_3$)	80ml	1min
(Nitric acid) + (sodium sulfate)	50ml+50ml	10sec
(HCl) + (sulphuric acids)	50ml+50ml	10 mins
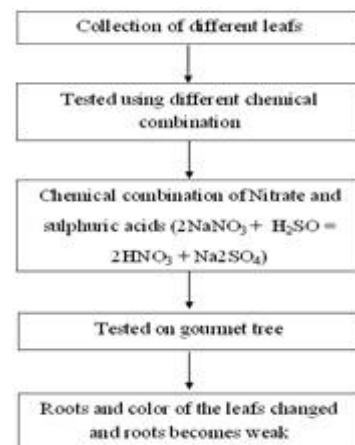
Fig.6 Stage I: Selection of Acid
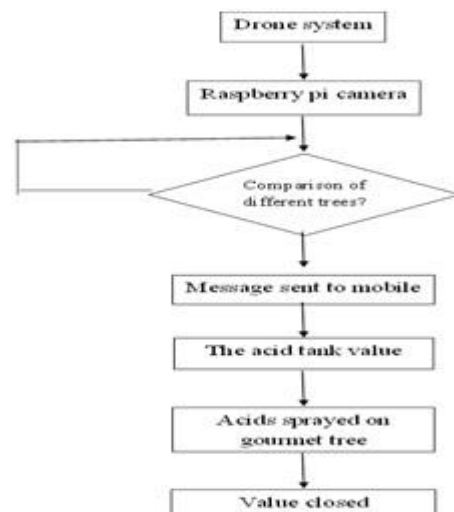
Fig.7 Stage II: Identification of gourmet tree

Special Issue - 2020

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ECLECTIC - 2020 Conference Proceedings

VI. CONCLUSION

The gourmet tree decreases the ground water level, oxygen level reduces, increase in global warming and absorb the adjacent plants nutrients. The Gourmet trees were identified using to the image processing technique. The images are obtained using the camera and compare with the reference images. The detected tree is identified and special combinations of acids were sprayed to destroy the tree by not affecting the fertile of the soil.

VII. REFERENCES

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