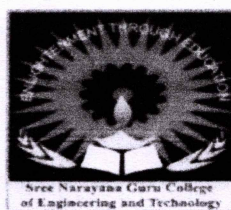


**SREE NARAYANA GURU COLLEGE OF ENGINEERING  
& TECHNOLOGY**

(Affiliated to APJ Abdul Kalam Technological University and approved by AICTE New Delhi)



**PROJECT PHASE II**

**REPORT ON**

**AUTOMATIC FISH AND PLANT CULTIVATION**

Submitted in partial fulfilment of the requirement for the award of

the degree of Bachelor of Technology

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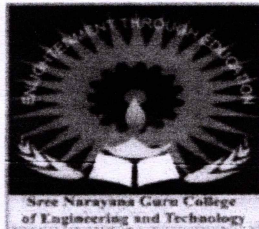
**2022-2023**

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**BONAFIDE CERTIFICATE**

This is to certify that the Project entitled "AUTOMATIC FISH AND PLANT CULTIVATION" is a Bonafide record of the work done by ARJUN ASHOK K, JITHIN SASIDHARAN N V, KEERTHANA CV, MARIYAMBI, SANISHMA SACHITHANAND of Eighth Semester Electronics and Communication Engineering towards the partial fulfilment for the award of the degree of Bachelor of Technology by KTU Technological University.

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a success

  
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## ABSTRACT


Fish and plant cultivation has been separately done till date. Our project conveys the idea of combining fish and plant cultivation under same roof. By using the technique, we could save both time and space. This technique also promotes sustainable organic waste management. Our project, automatic fish and plant cultivation focuses on growing fishes and plants under the same roof. On the ground part of the apparatus we fix aquarium and lettuce plant production on top of it. So that we could take the impure water from the aquarium and purify it by giving it into plant production part. Thus the impure water can be purified by the process of leeching. Leeching is the process of sweeping down of water through soil thus water getting purified. The water after leeching can be reused into aquarium once again so that there is no wastage of water. Aquaponics is a food production method that combines the traditional hydroponics with aquaculture in a symbiotic relationship that facilitates a sustainable system with necessary input as all the water and nutrients within are re-circulated in order to grow terrestrial plants and aquatic life. This technique of agriculture can possibly replace other traditional methods if brought in use effectually. And when traditional Aquaponics meets the technology, remarkable outcomes could become visible. The IoT based Aquaponics Monitoring system features to monitor pH value, temperature and humidity level, water level using the specific sensors has been done and then after perceiving those values from the sensors. A new technology, Internet of Things has been introduced that bridges the gap between the physical world and the digital world and that starts with things. To connect the sensors with the internet, the database server and application server can be managed so as to display the information regarding the sensors. In order to introduce technology to the traditional aquaponics system.

  
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