

**INTERNET OF THINGS (IOT) PROTOTYPE FOR BIOFLOC FISH CULTURE**

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**Division:**

**Technical details:**

In a world dominated by digital technology, the Internet of Things (IoT) plays a prominent role in our lives. The IoT has made the world more efficient, convenient, and enjoyable, with the dramatic surge of internet connected devices transforming daily interactions between individuals, households and businesses. The IoT is about connecting everyday things embedded with electronics, software and sensors to the internet enabling them to collect and exchange data. Internet of Things applications are available in every industry for Smart homes, Wearables, Connected Cars, Industrial Internet, Smart Cities, Agriculture, Smart Retail, Smart grids, Healthcare, Poultry and Farming. Precision agriculture is now gaining lot of importance and smart agriculture is being given focus by our Government.

**Biofloc Fish Culture**

- Biofloc Technology is an environment friendly aquaculture technique and is considered as new “blue revolution” since nutrients can be continuously recycled and reused in the culture medium, benefited by the minimum or zero-water exchange.
- Biofloc is the suspended growth in ponds/tanks which is the aggregates of living and dead particulate organic matter, phytoplankton, bacteria and grazers of the bacteria.

**Need of IoT technology for biofloc fish culture**

- The success of biofloc culture depends on the water quality.
- Temperature, dissolved oxygen (DO), pH, salinity, total dissolved solids, total suspended solids, alkalinity, are some of the parameters that should be continuously monitored in this technology.
- The constant monitoring of different factors and maintaining them at proper levels using manual methods is very difficult and at most of the times observation errors may cost the system very badly.

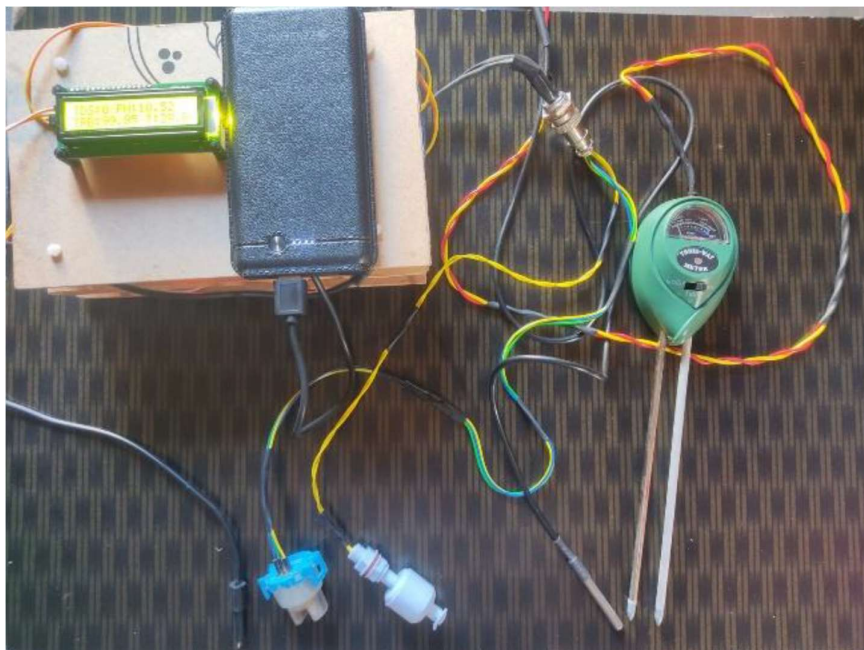


Fig 1: IoT prototype for Biofloc Fish Culture



Potential buyers: Fish Farmers, Biofloc fish famers, RAS farmers, Researchers, Fisheries students and others

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