CHITKARA UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY, PUNJAB

DEPARTMENT OF INTERDISCIPLINARY COURSES IN ENGINEERING
Embedded Systems and Internet of Things Laboratory

Class Group	17		Section	A		Project Group	6

Project Abstract

Project Title: IOT BASED DRINKING WATER QUALITY MONITORING SYSTEM

Abstract: This IoT project focuses on ensuring safe drinking water by continuously monitoring its quality. The system utilizes sensors to measure key parameters like pH, turbidity, conductivity, and temperature in real-time. Data is transmitted wirelessly to a central server for analysis and storage. Alerts are triggered when readings deviate from pre-defined quality standards, enabling prompt corrective action. This cost-effective and reliable solution empowers stakeholders with timely information for proactive decision-making, ultimately safeguarding consumer well-being

Application Area: 1. Home Use: Monitor the quality of tap water for drinking and household use.
2. Agriculture: Monitor water quality for irrigation, ensuring optimal conditions for crops and livestock.
3. Aquaculture: Monitor water quality in fish tanks and ponds, ensuring healthy conditions for aquatic life.

Impact on Society/Industry: This IoT-based system paves the way for a healthier and more sustainable future by empowering individuals and communities to protect their water resources. It provides real-time data for proactive decision-making, preventing illnesses, raising awareness, and optimizing water usage in industries. While challenges exist, the project's potential benefits make it a valuable tool for improving water quality and safeguarding public health.

Sustainable Development Goals: SDG 9- Industry, Innovation and Infrastructure, SDG 13- Climate Action

Technology Stack- ESP32 Board, TDS sensors, OLED display, Arduino IDE, relevant libraries, ThingSpeak server

Group Details:

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