

Grain Storage Management at Distribution

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Abstract: India is an Agriculture country where 70% of the population depends on farming, the storage of grains plays a crucial role in national economy. During the grain storage, temperature, humidity and carbon dioxide and methane concentrations are important atmospheric factors that can affect the quality of the stored grain inside the godowns and warehouses. The traditional methods are limited to simply testing the temperature and humidity conditions which are relatively backward as the other factors have to be checked independently for contributing to their effective storage. The approach of grain storage system at real-time designed by using some sensors like, DHT11, CO₂ sensor, Methane sensor HC05 and Bluetooth module. These experimental results show that the grain storage management system proposed, helps to check the nutrition levels of the grains that are being stored. This improves the rate of distribution of the grains at governmental distribution centre. The Grain storage management system gives the effective solution over the problem while distributing the grains. Hence at the end of this project the issues regarding distribution are eliminated at certain extent. Ultimately, the food availability to the people in drastic conditions and in case of natural calamities is the motto of government and this project will surely help to fulfil that motto with less manual efforts and with more efficiency.

Keywords: Arduino Uno, Temperature, Humidity sensor, CO₂ sensor, Methane sensor and Bluetooth module

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