



**PROJECT REPORT**  
**IOT-BASED RICE STOCK MONITORING**  
**SYSTEM WITH LOAD CELL TEMPERATURE**  
**SENSOR AND HUMIDITY SENSOR USING**  
**FUZZY ALGORITHM**

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## ABSTRACT

*This study tracks the rice stock example to analyze the increasing IoT (Internet of Things) technology adoption in several verticals. Given that IoT has the ability to greatly increase operational efficiency, this is very crucial, and the fuzzy algorithm aspect makes it much more intriguing. The purpose of this project is to develop a new load cell and temperature monitoring system for rice quality. Effective Inventory Management The most persistent problem in rice stock management is keeping track of the exact quantity and quality of rice that is dispersed throughout several warehouses. Traditional manual methods require a lot of labor, take a long time, and are prone to mistakes. When pests attack, this problem grows worse and might cause significant losses if we do not act quickly. Sensor technology may increase monitoring accuracy by up to 97.72%, according to a study by Yultrisna et al [1]. (2021), on the journal there no sign that it will be used to rice stock management . And then, Sani[2] (2018) on this journal show that load sensors can have a little errors by up to 0.39%. In order to solve this issue, the proposal suggests an Internet of Things (IoT) system that use sensors in real time using the fuzzy sugeno algorithm. This system will provide data regarding to conditions that may have an impact on the quality of the rice stock as well as responsive and adaptable solutions for rice stock management. At the end, this project aims to develop a monitoring system with accurate and exact control over rice stock management.*

*Keywords: IoT-Based, fuzzy sugeno algorithm, rice stock, temperature sensor, load cell sensor*

