

GrainCare

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GAP-030

Project Objectives

- Nationwide survey on current scenario of dryer uses and monitoring system followed during drying and storage in India. (in different states) and identify the test locations based on the survey
- In-situ performance evaluation of the low cost low power robust sensor developed by UK partner at lab level & comparative study with existing sensors
- In-situ performance evaluation of the low cost low power robust sensor developed by UK partner at industry level
- Development of API to interface developed sensor with user mobile/server (Driver/firmware to be provided by the sensor developed – UK partner)
- Frontline demonstration of the developed technologies and popularization by conducting workshops, seminars, stake holders meet etc.

Description

The temperature and relative humidity of the stored grains affect their quality which eventually affects their marketability. Approximately INR 58,000 million loss occurs at national level, due to the post-harvest losses in grains. In a country like India, grains such as rice and wheat, cannot afford such losses. The project aims to create sensors to be deployed at sites of storage of grains and measure the temperature and humidity. The measured parameters are then studied for their effect on the moisture content, so that the critical points at which the user needs to be alerted are identified. A user interface will be built for the purpose of this and then the user will be alerted when the storage conditions are affected adversely, resulting in the deterioration of grain quality. Control measures for the same also will be given to the operator or user so that the required treatment can be carried out to preserve the grain quality and minimise the post-harvest losses.