इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
सत्यमेव जयते

सी डैक CDAC
CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

RIGE-Sense

Government of India
Department of Food & Public Distribution
Ministry of consumer Affairs, Food & Public Distribution
सत्यमेव जयते

भारतीय खाद्य निगम

RIGE-Sense: Rice Age Sensing using Colorimetric Technique

Different types color developed with respect to Age

- Rice of different ages developed different color with certain chemical processes.
- Changes in color can be detected using machine vision technique.

Age of Rice Sample	Colour
0 Month	GREEN
1 Month	AVOCADO GREEN
2 Month	AVOCADO GREEN
3 Month	YELLOW
4 Month	YELLOW ORANGE
> 4 Month	ORANGE

Technical Features:

- Technology: Digital image processing
- Type of Rice: Raw Rice
- Illumination system: LEDs with electronic lumen control
- Processing board: Single board computer
- Camera: High-definition Digital RGB Camera
- Input Electrical Supply: 220 Volt AC with ± 10% variation, 50 Hz
- Pump: High precision pump
- Motor: DC motor
- Controlled dispensing
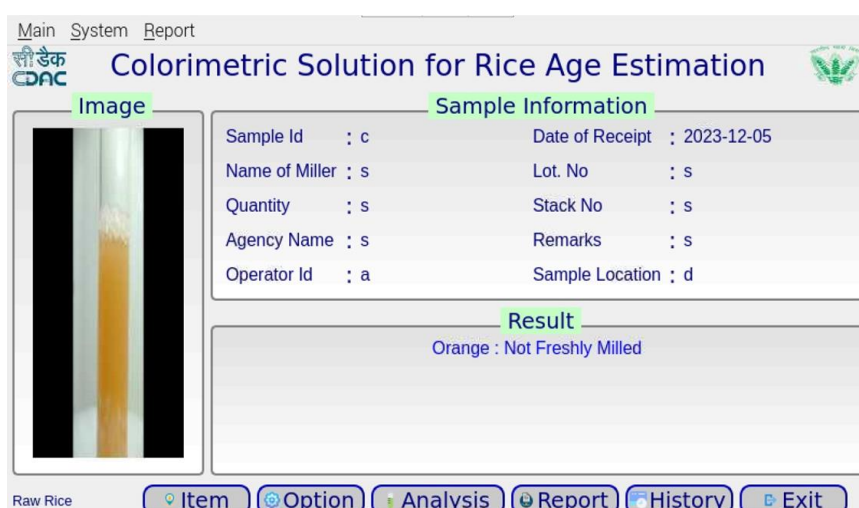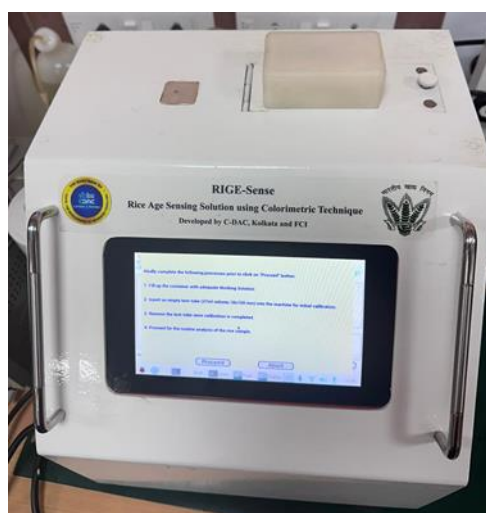- Controlled vibration in shaking module

Colorimetric Solution Module:

- Web Camera
- Illumination system with electronic control circuit
- Single Board Computer
- Power supply unit

Liquid Dispenser Module:

- Dispensing Pump
- Power supply unit

Shaker Module:

- DC Motor
- Power supply unit

Benefits:

- Fast & reliable
- Helps in the process chain of procuring Rice by FCI, reducing recycling of old rice.

Target Users:

- Food Corporation of India
- Research institutes

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