AI and IoT Driven Smart Livestock and Goods Tracking for Farmers and Market

Breif Background

Indian livestock and dairy farmers face challenges in tracking animals and preserving product quality during transport due to manual, error-prone monitoring. An automated, intelligent tracking system can reduce supervision needs, prevent spoilage, and improve animal welfare—strengthening rural infrastructure, food quality, and supply chain reliability across India.

Application Sectors

- Livestock and Dairy Farming
- Supply Chain Monitoring and Goods Transport
- Farm Security and Animal Welfare

TRL 7

Tech/Prod. Summary

A practical solution for real-time tracking of livestock and transported goods using sensors, cameras, and mobile connectivity. The system helps farmers and transporters monitor animal behavior, vehicle movement, and product condition, ensuring early detection of issues and smooth communication between farmers, transport workers, and customers.

Tech/ Product Description

The proposed system combines wearable IoT devices and AI-enabled video monitoring to help farmers track livestock and goods in real time. The device records data like location, temperature, and movement, sending alerts for anomalies via a mobile app. Simultaneously, AI-based video analytics monitor animal behavior, detecting signs of illness or discomfort. Using affordable, locally sourced hardware and user-friendly software, the solution enhances animal welfare, reduces transport losses, and ensures higher product quality for consumers

Impact - SDG:

- SDG 2 – Zero Hunger: Helps avoid spoilage of food and ensures healthier livestock.
- SDG 12 – Responsible Consumption and Production:

Market Potential

1. Indian Dairy & Livestock Sector: USD 5.7 billion in 2023 → USD 11.5 billion by 2030.
2. Contribute to reduce the 30% loss of milk and perishable goods

Value Proposition

1. Early detection of earlyanimal distress, reduce spoilage and manual labor
2. low-cost, locally available hardware and a simple mobile interface.