

IoT– Based Smart Cattle System

Mr Lakshmi Kantha T M¹, Mr. Deeraj C², Dr. T Subburaj³

Department of Master of Computer Applications^{1,2,3}

Raja Rajeswari College of Engineering, Bengaluru, Karnataka, India

lkanthlakshmisha218@gmail.com, deerajsimha@gmail.com, shubhurajo@gmail.com

Abstract: *The cutting-edge monitoring system offered by SMART CATTLE SYSTEM is designed to completely transform the management of cattle in isolated and rural areas. The three main features of the system—fire detection, water level monitoring, and GPS tracking—are all integrated and are all geared toward putting the welfare and security of cattle first. The fire detection module quickly detects possible fire hazards in the area by using sophisticated sensors and algorithms. It then sends out instant notifications to a central control unit so that quick action may be taken. In addition, the water level monitoring feature makes use of cutting-edge sensors to continuously check the water levels in many sources, guaranteeing the cattle a steady supply of water. If water levels drop below preset criteria, real-time data analysis triggers quick interventions. Furthermore, the cattle's exact location may be tracked thanks to the GPS tracking feature, which makes effective herd management and theft prevention possible. Ranchers can keep an eye on the movements of their animals from a distance and respond appropriately when they depart from the approved grazing zones. With the help of this all-inclusive monitoring system, ranchers may maximize operational effectiveness and successfully reduce risks by using real-time data and actionable insights. By means of using cutting edge technology, such as GPS tracking, water level monitoring, and fire detection, SMART CATTLE SYSTEM enables ranchers to protect the well-being and productivity of their cattle in changing agricultural environments*

Keywords: Smart Cattle System