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Animal Health Monitoring System using IoT Technology

[1]Mr. Sarthak Tambe, [2]Miss. Shubhangi Sawant, [3]Miss. Sanskruti Sonawane, [4]Miss. Shital Ghodake
Prof. S.B. Kawade[5]
UG Students, Department of Electronics and Telecommunication Engineering[1,2,3,4]
Professor, Department of Electronics and Telecommunication Engineering[5]
Amrutvahini College of Engineering, Sangamner

Abstract: *Animal health monitoring is crucial for ensuring livestock productivity and welfare, particularly in large-scale farming systems. Traditional methods for health assessment are often labor-intensive and prone to human error. Recent advancements in artificial intelligence (AI) and machine learning (ML) have paved the way for automated and accurate health monitoring solutions. This report presents an Animal health monitoring system that leverages image processing and sensor data analysis to detect early signs of diseases and anomalies in animal behavior.*

The system utilizes convolutional neural networks (CNNs) and deep learning algorithms to process data collected from wireless sensor networks (WSNs) feed in real time. A comprehensive evaluation was conducted to assess system accuracy, robustness, and scalability, demonstrating promising results in detecting common diseases and abnormal behaviors. However, challenges remain in generalizing the model across different species and optimizing its cost-effectiveness for small-scale farmers. Addressing these challenges will pave the way for efficient, real-time health monitoring solutions in modern livestock management..

Keywords: Animal Health Monitoring, Artificial Intelligence (AI), Machine Learning (ML), Convolutional Neural Networks (CNNs), Deep Learning, Wireless Sensor Networks (WSNs), Real-Time Monitoring, Livestock Management, Disease Detection, Image Processing