

# AgriNexus: A FullStack Platform for RealTime Agricultural Market Rates with MLPowered Crop Advisory and Disease Detection

S. Sasirekha<sup>1</sup>, Karanam Ajay Kamal<sup>2</sup>, Gopalakannan N<sup>3</sup>, Balaji K<sup>4</sup>

Assistant Professor (M.E.), Computer Science and Engineering<sup>1</sup>

Students, Computer Science and Engineering<sup>2,3,4</sup>

Dhanalakshmi College of Engineering, Chennai, Tamil Nadu

sasirekha.s@dce.edu.in, karanamajaykamal.cse2021@dce.edu.in

gopalakannann.cse2021@dce.edu.in, balajik.cse2021@dce.edu.in

**Abstract:** *AgriNexus is a comprehensive full-stack platform designed to support farmers by providing real-time agricultural market rates, machine learning-powered crop advisory, and crop disease detection. The system integrates a user-friendly frontend with a robust backend to deliver live updates on commodity prices based on the user's location. Using machine learning models, the platform recommends the most suitable crops for cultivation based on environmental factors and historical data. Additionally, it employs computer vision techniques to identify crop diseases from images uploaded by users, offering timely guidance for disease management. AgriNexus aims to empower farmers with data-driven decisions, ultimately enhancing productivity and profitability*

**Keywords:** Agricultural Technology, Machine Learning, Crop Advisory, Disease Detection, Real-Time Market Prices, Computer Vision, Real Time Chatting

