

## ABSTRACT

Developing appropriate technology for estimating crop yield involves leveraging advanced technologies to analyze agricultural data, optimize farming practices and ensure accurate predictions. One such innovation is the INNOFARM: AN AI INFUSED FARMING APP FOR AGRI PRACTICES AND CROP SUGGESTION, an app which integrates artificial intelligence (AI) and data analytics to examine agricultural inputs, providing optimal farming suggestions alongside corresponding crop yield estimates. This ambitious project aims to harness the power of AI to offer personalized crop recommendations and agricultural practices tailored to individual farmers' needs. At its core, the proposed app utilizes cutting-edge AI algorithms to analyze various factors crucial to crop production, including soil quality, climate conditions and agronomic practices. By processing vast amounts of data, the AI system can generate precise and actionable recommendations for farmers, empowering them to make informed decisions that maximize productivity and sustainability. One of the key strengths of the app lies in its ability to offer personalized recommendations based on individual farm characteristics and environmental conditions. By analyzing data specific to each farm, including soil composition, topography and microclimate, the app can tailor its suggestions to maximize the potential of every acre. This level of customization ensures that farmers receive guidance that is not only accurate but also relevant to their unique circumstances, ultimately improving the efficiency and effectiveness of their