



FINAL YEAR PROJECT REPORT

CROPTECNIX

**In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)**

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DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged.. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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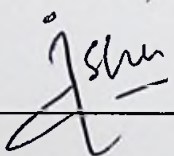
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APPROVAL FOR SUBMISSION

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CROPTECNIX

ABSTRACT

Agriculture sector is the largest contributor of Pakistan's economy, with a significant amount of the population being dependent on this crucial sector either directly or indirectly. It plays a pivotal role, contributing approximately 24 percent of the (GDP) Gross Domestic Product and employing half of the nation's labour vigour. Furthermore, it stands as the largest source of foreign exchange earnings, ensuring economic stability. This sector serves as the backbone of Pakistan, providing sustenance for both rural and urban populations. However, it is important to acknowledge that the field of agriculture is still facing challenges. Issues like soil variation, irrigation problems, and the persistent threat of pest and fungal infections pose hurdles in maximum crop yield that requires innovative solutions. Precision agriculture, also known as precision farming, involves using technology and data to optimize agricultural practices with pinpoint accuracy, maximizing crop yields while minimizing resource wastage. Embracing technology and modern farming practices is becoming increasingly imperative to address these challenges and ensure the continued growth and sustainability of Pakistan's agricultural sector. Using Unmanned Aerial Vehicles (UAVs) and applying deep learning algorithms, Crop tecnix aims to empower farmers and local people to make informed decisions, improve resource usage, and eventually enhance productivity. Farmer can control the system through a user-friendly web application. Our mission is clear: to empower farmers with the tools and knowledge required to overcome these challenges, increase productivity, and elevate their quality of life. Crop tecnix signifies a commitment to transforming Pakistan's agriculture, reducing poverty rates, and unlocking the full potential of this crucial sector.

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