PROJECT SUMMARY

Ref No.: MRIC/SISM-02/IT-17	**Title:** Agribot
Local Company: Leantech Consultancy	
Collaborating Companies: Aquagreens Tech, RA Hydroponics Ltd	
Project Leader	
Mr Vichitr Kumar Ramchurn	Leantech Consultancy
Research Collaborators	
Name	**Organisation**
Mrs Yashta Dhunnoo	Aquagreens Tech
Mr Dootal Ashween Kumar	RA Hydroponics Ltd
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TECHNICAL ABSTRACT

Agribot is an innovative, autonomous system designed for precision farming. With cutting-edge technologies like AI, computer vision, sensor fusion, and machine learning, a 4-wheeled robot and drone aims to revolutionize agriculture by addressing labor shortages and improving crop management. Agribot operates in fruit and vegetable cultivation, offering real-time solutions for farmers. These versatile robots are equipped with an array of sensors, including those for crop health monitoring, weed and pest detection, and environmental conditions. They can autonomously perform tasks such as precision spraying of herbicides and fertilizers, weed removal, and crop health assessment. Agribot's AI-driven decision-making ensures efficient resource utilization, increased yields, and reduced environmental impact. Through data collection, analysis, and machine learning, Agribot provides valuable insights to farmers and adapts its actions to optimize crop care. Its ability to work around the clock, scalability, and potential for customization make it a valuable asset in modern agriculture, particularly in regions facing labor challenges. Agribot is poised to transform the future of farming by enhancing productivity and sustainability.

Key Words: Precision farming, Robots, modern agriculture