Personal Information

Application No. APL20240005	**Application Status** Pending
Full Name Dr.S.Muthu Vijaya Pandian	**Email** muthu.s.ihub@snsgroups.com
Phone Number 7904910681	**Date of Birth** 1978-06-19
Experience 21	**Previous Experience** "I have published 35 papers in SCI, SCOPUS, and UGC Care journals." Two Indian design patents and one UK design patent have been granted." This will support the completion of the project
Core Competencies AR/VR/MR	**Organization Name** APL20240005
Website URL of the organisation APL20240005	**Organization Email** APL20240005
Potential Interest Areas APL20240005	**Office Address** APL20240005
Organisation HQ address APL20240005	

Additional Information

Previous Experience in Related Projects
"I have published 35 papers in SCI, SCOPUS, and UGC Care journals." Two Indian design patents and one UK design patent have been granted." This will support the completion of the project

Achievements or Recognitions
Total Publications - 34 International Journal – 25, International Conference -5, National Conferences– 5. Books -10. Chapter-02. Manual-03 Patent Granted or Published: 05 My profile has been selected for the "International Design Research Awards" under the category of "Best Researcher Award

Details of Submission

Title Design and Development of Enhancing Root Vegetable Harvesting through Multi-Sensor Data Fusion Algorithm	**Category** Robotics, Sensor Technology, Agriculture
Strategic Vision Revolutionize root vegetable harvesting by leveraging multi-sensor data fusion, enhancing efficiency, and precision in agricultural operations. Pioneer a new era of sustainable farming practices through the seamless integration of cutting-edge technology, optimizing	**Objectives** Develop a robot capable of autonomous navigation in agricultural fields. Implement computer vision algorithms for crop detection and recognition. Design a harvesting mechanism that ensures minimal crop damage. Create a robust robotic control system for

yields while minimizing environmental impact. Establish a paradigm shift in agricultural automation, driving productivity and profitability for farmers worldwide through innovative sensor-based solutions.	coordinated movements and actions. Test and evaluate the robot's performance under various field conditions.
Alignment with Project Goals The project goals align with the imperative to modernize agricultural practices, optimizing root vegetable harvesting through innovative sensor technologies and data fusion algorithms. By enhancing efficiency and precision in harvesting, the project directly supports the overarching objective of increasing agricultural productivity and sustainability. Through strategic alignment with these goals, the project aims to revolutionize the root vegetable harvesting process, offering tangible benefits to farmers and advancing the agriculture industry as a whole.	**Contribution to Project Goals** he integration of multi-sensor data fusion algorithms directly contributes to achieving the project goals by enhancing the efficiency and effectiveness of root vegetable harvesting methods. By optimizing harvesting processes, the project aims to increase yield, reduce waste, and ultimately improve the economic viability and sustainability of agricultural operations.

Technological Resources

Human Resources Commitment

Other Information

Certification

I declare that all the information given by me in this application and documents attached hereto are true to the best of my knowledge and that I have not willfully suppressed any material fact. I accept that if any of the information given by me in this application is in any way false or incorrect, my application may be rejected, any offer of the grant may be withdrawn or my candidature may be rejected at any time.