Select and Add Idea/Innovation/Start-up Details

***Title**	Title / Name (20 Words Max) * Gesture and Sign language translation **Total Number of words: 0 / 20**
***Developed as part of**	Academic Requirement/Study Project
***Choose the Financial Year, during the Idea-PoC/Innovation Developed**	2023-24
***Sector / Domain**	Theme * Software - Mobile App Development, Software - Web App Development
***Innovation Type**	Service
***Development Stage - Technology Maturity of the Solution/Innovation in terms of Technology Readiness Level TRL (if applicable (Refer TRL Stages)**	TRL 3 : Applied research. First laboratory tests completed; proof of concept
***Define the problem and its relevance to today's market / sociaty / industry need (Max: 100 Words)**	Define the problem and its relevance to today's market / sociaty / industry need * Effective communication with individuals with hearing impairments remains a challenge in many sectors, including education, healthcare, and public services. There is a pressing need for real-time translation tools to bridge the gap between ASL users and those unfamiliar with sign language, enhancing accessibility and inclusivity. **Total Number of words: 0 / 100**
***Describe the Solution / Proposed / Developed (Max: 100 Words)**	Describe the Solution / Proposed / Developed * The proposed solution is a real-time gesture and sign language translation system that converts ASL signs and gestures into text using computer vision and machine learning. Utilizing MediaPipe, OpenCV, and TensorFlow, it processes live webcam input, providing immediate, accurate translations and facilitating communication. **Total Number of words: 0 / 100**
***Explain the uniqueness and distinctive features of the (product / process / service) solution (Max: 100 Words)**	Explain the uniqueness and distinctive features of the (product / process / service) solution * The system's distinctiveness lies in its real-time processing, adaptive learning capabilities, and comprehensive ASL dataset. It offers high accuracy in gesture recognition, user-friendly interfaces, and the ability to continually integrate new signs, ensuring up-to-date translations and broad applicability. **Total Number of words: 0 / 100**

***How your proposed / developed (product / process / service) solution is different from similiar kind of product by the competitors if any (Max: 100 Words)**	How your proposed / developed (product / process / service) solution is different from similiar kind of prod... Unlike competitors, this solution uniquely combines advanced hand landmark detection with a deep learning model for real-time, adaptive translation. Its modular design allows easy integration of additional gestures and languages, making it highly customizable. Furthermore, its focus on real-time feedback and continuous learning sets it apart, providing a more responsive and **Total Number of words: 0 / 100**
***Is there any IP or Patentable Component associated with the Solution?**	No
***Has the Solution Received any Innovation Grant/Seefund Support?**	No
***Are there any Recognitions (National/International) Obtained by the Solution?**	No
***Is the Solution Commercialized either through Technology Transfer or Enterprise Development/Startup?**	No
***Had the Solution Received any Pre-Incubation/Incubation Support?**	No
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