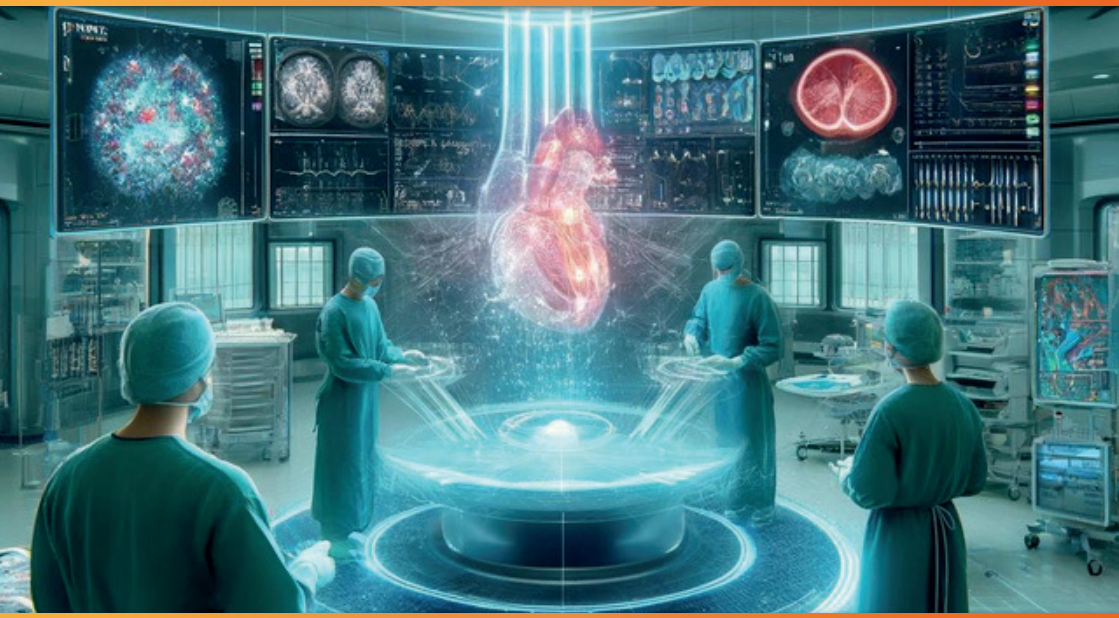
RETINA



NEXT-GENERATION PHOTONICS SENSOR SYSTEM

USE CASE IN HEALTHCARE

MULTIMODAL SURGERY SUPPORT SYSTEM FOR TISSUE LESIONS VISUALIZATION.

Detect and measure tissue lesions position, size, shape even in the presence of obscurants increasing penetration depth.

Sensors:

- Short-range LIDAR
- SWIR & VNIR Spectral images
- Commercial RGB camera

RETINA PROJECT aims to create innovative spectral imagers and chip-based LIDAR sensors and combine them in a versatile multimodal perception system.

The mission is to address the critical demand for performance, cost-efficiency, and customization in key sectors by creating a holistic framework for the agile development of machine learning-based perception algorithms and next-generation hardware solutions.

CORE TECHNOLOGIES

- Short- and long-range FMCW LiDARs on chip
- Vis-NIR-SWIR Spectral Quantum Dot Imagers
- Integrated Optical Microfilters
- Ultra-Low-Power Camera Modules
- Ground, Vehicle, and Drone platforms

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