



DEEPSUPPORT

APPENDIX 1: PHOTONICS AND DEEP TECHNOLOGIES LIST

Computer Vision uses AI to extract insights from images/videos, akin to human vision but with cameras and algorithms. It aids industries like energy, manufacturing, and automotive.

Laser Processing: In manufacturing, lasers cut, weld, and mark with precision and speed, reducing waste.

Additive Manufacturing: Also called 3D printing, it layers material based on CAD data, saving time and enabling complex designs.

Material Processing: Chemical, thermal, and physical processes shape materials for specific applications, often using photonics for innovation.

Sensors and Detectors: Crucial in agriculture, medicine, and manufacturing, photonics sensors offer precise measurements.

Visible Light Communication (VLC): VLC uses light for data transmission securely, ideal for IoT and secure environments.

LIDAR: Laser-based measurement aids mapping and modeling in applications like autonomous vehicles.

XR Technologies: Virtual-, Extended and Augmented Reality applications

Metrology: Optics, microscopy and other photonics measuring technologies

Microfabrication: Photolithography, Two-Photon Polymerization, Direct Laser Writing etc. to produce MEMs and PICs

Energy Efficiency and Lighting: Energy-efficient LED lighting for better illumination, and Human centric lighting. PV-Modules

Deep Tech Technologies: AI, IoT, 5G, blockchain, and quantum technology drive innovation and economic growth in areas like autonomous systems and advanced manufacturing.