

THE VIRTUAL WORLD BEFORE YOUR EYES

THE REALHOLO PROJECT IS DEVELOPING TECHNOLOGIES TO MERGE THE VIRTUAL AND REAL WORLDS

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VILLACH, AUSTRIA—The merging of real worlds and virtual worlds, or mixed reality, sounds much like science fiction but there are research efforts happening today to develop this technology for tomorrow. And to what end? Think about a head-up display that can deliver a holographic image to a vehicle operator—a 3D windscreen projection of what is happening outside the vehicle in complete darkness without physiological side effects like eye fatigue, misjudgment, motion sickness and accommodation-vergence conflict. REALHOLO is an EU funded six million euro project which kicked off in January, 2021 with the intention of developing the technology to enable such a display. The consortium is comprised of eight partners from six different European countries. This well-balanced group consists of three industrial partners, four SMEs and one research organization. Technikon, in Austria, will coordinate the four-year project from start to finish. Partners will focus on developing micro mirror arrays (a collection of microscopic mirrors) to achieve the primary goal of advancing real holographic 3D mixed reality display applications, active illumination and sensing. This method of light modulation will be far superior to any current day liquid crystal-based alternative.

The REALHOLO project will take the next step towards developing commercially available real holographic projection displays usable in a wide range of applications from automotive head-up displays to active automotive headlamps and personal head-mounted displays. The REALHOLO consortium is constructed with the whole value chain represented for subsequent development of market-ready mixed reality displays for the automotive industry as well as other holographic and optical solutions.

About the coordinator:

Technikon is a private research service and engineering company in Austria which manages multinational teams in the organization, execution and assessment of research projects. Technikon is Europe's leading private company coordinating and disseminating technology-based cooperative European research projects.

For more information about the REALHOLO project, visit our web site or contact the coordinator directly:

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PHOTONICS²¹

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