

AR/VR challenges for the next era of Human-Computer interaction

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Webinar

L'Aquila, 14 May 2021 – 10.00 a.m.

Abstract:

At Facebook Reality Labs, our mission is to give people the tools to feel connected anytime, anywhere.

Imagine a world where a lightweight, stylish pair of glasses could replace your need for a computer or smartphone. You'd have the ability to feel physically present with friends and family — no matter where in the world they happened to be — and contextually-aware AI to help you navigate the world around you, as well as rich 3D virtual information within arm's reach.

To bring this technology in a pair of AR glasses and VR headsets, a new cross-functional world-class team of researchers, developers, and engineers are called to solve the main challenges of a total disruptive technology that will shape, again, the human's life of human beings of tomorrow.

This speech will show the hardware challenges behind Augmented and Virtual Reality, with a first overview of AR/VR devices, then a jump in the main working scheme, a focus on CMOS image sensor and MEMS integration, uLED, AR interface and finally a focus on Project Aria — a Facebook research project for the 1st gen of AR devices.

Agenda:

Facebook Reality Labs

Introduction and Locations

AR/VR overview

AR glasses: The Next Era of Human-Computer Interaction:

General overview

Augmented Reality: working scheme

Sensors integration

Glasses: system view

AR interface;

Ultralow friction input

Contextualized AI

Focus on AR glasses: Project Aria