

TOP TEN

Sergio Piastra

University of Bologna

Category: **Crossmodality**

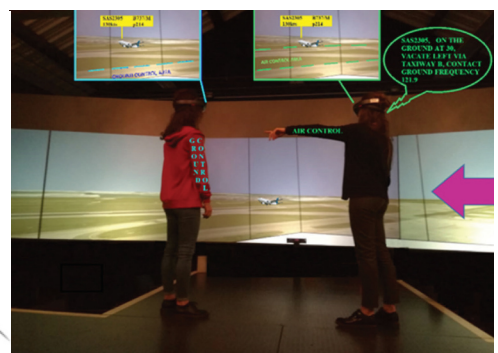
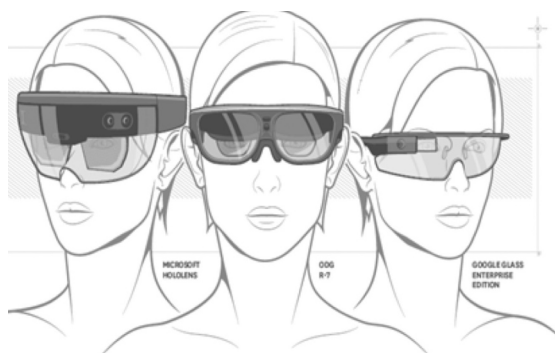
Country: **Italy**

Research Area 7: **Technology and Engineering**

Idea Number: **84**

Augmented reality for cross-modality

The transportation field is one of the most promising for Augmented Reality (AR) and it can be subdivided into two main macro-areas in which all the related AR applications can be grouped: control and management. The first macro-area deals with the issue of being able to see and know where you are going. It mainly concerns automotive, naval and aviation sectors. The latter is considered the parent of Augmented Reality, as the first AR head-up displays in the aircraft cockpits date back to 1937 and were used for pilot assistance in German aircraft. The automotive sector currently represents the leading field in terms of investments in Augmented Reality: digital overlays can be applied on the car windshield to inform the driver of the car's speed, the position where to turn, the location of lane markings and how close the car ahead is. For what concerns the control and management macro-area, it is usually characterized by the presence of an observer experiencing a panoramic view of the surrounding environment, which has to be managed and controlled. This is the case of the control centers managing airports, ports and container terminals. The use of Augmented Reality in these facilities can produce significant benefits in terms of operators' workload, performances and situation awareness, providing positive impacts on safety and efficiency of the whole system.



Key Characteristics

Augmented reality • Performance and situation awareness