RESEARCH THEME

Title of the doctoral research	Integrated Design for multisensorial environments: guidelines and application for the present and the future uses of the simulation tools
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Abstract	The integration of Virtual Reality, Augmented Reality, and Mixed Reality, Internet of Things, Internet of Everything and sensors, Information Technologies and Information and Communications Technologies let to design spaces able to create and reproduce different typologies of immersive and Multisensorial Environments, where users can interact between themselves and the surroundings, experimenting real experiences. Further, the implementation of these technologies facilitates to design applied simulation networks, where every space is connected with the others, sharing information, and data. Given the vast possibilities of application of simulation systems, design-driven operations become necessary to be able to create effective and innovative integrations for the concerned sectors. The doctoral research should investigate and map the technologies that enable to design spaces for immersive simulations, with strong attention for innovations and future trends; therefore, to provide a picture of the sectors most attentive to these innovations; and, thus, to show its most interesting applications, focusing on the system architecture, the motivation behind design choices and how they respond to needs, their strengths and their weaknesses. Moreover, the research also should aim to design guidelines to create a horizontal integrated simulation system -as well as its network - which has to be replicable and exportable, and to apply them to a specific branch of interest.
Keywords	Immersive simulation, multisensorial environment, integrated design