

## PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 39th cycle

## PNRR 118 PNRR Research Field: FOSTERING THE ADOP/ON OF AUGMENTED REALITY TECHNOLOGY: A CONSUMER-CENTRIC APPROACH

Monthly net income of PhDscholarship (max 36 months)

€ 1450.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Con	text of the research activity
Motivation and objectives of the research in this field	Digital innovation is a key pillar of PNRR (mission 1). Within digital, Metaverse and its related extended reality (XR) enabling technologies, such as Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR), have the potential to transform the way people interact with their environment, and in turn, revolutionize the relationship between consumers and companies in various industries. Specifically, AR technology is one of the most promising technologies in sectors such as retail, automotive, and tourism. Despite its potential, however, the adoption of AR soluti/ons remains limited. To address this, the present research aims to systemati/cally investigate the drivers of AR adop/on, as well as the mo/va/ons, contexts of use, and related customer needs in various industries. This research contributes to the digital innovation and competitiveness of production systems (PNRR Mission M1C2 e M1C3) offering essential insights to professionals in the sector, guiding them in strategic decision-making related to the design and implementation of experiential reference archetypes that facilitate the adop/on and development of new solutions across industries. Additionally, the study adopts a user-centric perspective to identify latent and manifest needs related to the use of new technology, with the ultimate goal of improving individual interaction with the surrounding environment and promoting individual well-being. By addressing a gap in the literature on the customer experience generated by



	immersiveenvironments and the adop/on drivers of AR technology, this study has the poten/al to make a significant contribu/on to both academic and practical communities
Methods and techniques that will be developed and used to carry out the research	The proposed research will be conducted in partnership with the PhEEL Lab, an interdepartmental research laboratory that inves/gates human behavior using a variety of tradi/onal research methods, such as surveys, focus groups, and experiments, as well as objec/ve measures of biofeedback and brain ac/vity. The PhEEL Lab is equipped with a comprehensive set of biofeedback instrumenta/on, including EEG, ECG, breath analysis, sensorized t-shirts, and eye-tracking technology, as well as a series of next-genera/on immersive devices (VR and AR Headsets) that allow the tes/ng of virtual prototypes in the controlled laboratory space.
Educational objectives	The PhD scholarship aims at developing skills at the intersection between marketing, design and biomedical engineering, in order to nurture and train a technologist able to interact with specialist in each of the field and to bring innova/ve insights.
Job opportunities	The hard skills developed during this Ph.D. path and the interdisciplinarity of the related activities potentially enable the strategic design and development of artifacts, products, and services related to digital technologies in a plethora of industries. In this perspective, this Ph.D. path offers the possibility to continue a career in research as a postdoctoral researcher or research scientist in academia, research institutes, or private companies that focus on developing new technologies in the marketing field. Within companies, some common jobs include but are not restricted to digital marketing manager, content strategist, and digital product manager. The topic and the industry suggest strong opportunities for R&D departments, telco/IT companies in developing new concepts and models. Finally, also entrepreneurial careers may be encouraged by the project.

## POLITECNICO DI MILANO



Composition of the research group	2 Full Professors 1 Associated Professors 2 Assistant Professors 3 PhD Students
Name of the research directors	Giuliano Noci and Lucio Lamberti

Contacts

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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	
Housing - Out-of-town residents (more than 80Km out of Milano)	

Scholarship Increase for a period abroad		
Amount monthly	725.0 €	
By number of months	6	

National Operational Program for Research and Innovation	
Company where the candidate will attend the stage (name and brief description)	to be defined
By number of months at the company	6
Institution or company where the candidate will spend the period abroad (name and brief description)	to be defined
By number of months abroad	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Teaching assistantship: There are various possibilities of teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations. Desk availability: shared use; Computer availability: individual use