



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

THEMATIC Research Field: HUMAN LONGEVITY & EXPONENTIAL TECHNOLOGIES

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.

Context of the research activity

Motivation and objectives of the research in this field

Humans are living longer than ever before. Newborn children in high-income countries are expected to live to more than 100 years. An evident implication of this achievement is the progressive "population aging". This result has been obtained through the development and adoption of innovative technologies in medicine (e.g., IoMT internet of medical things (wearables), AI artificial intelligence, blockchain, AR/VR augmented/virtual reality etc.). Many of these technologies have been defined "exponential" as they have the capability to double in performance over a short period of time.

Exponential technologies applied to peculiar context of human longevity challenge traditional theories, models and techniques developed within disciplines as health economics and innovation management. Exponential technologies are very different from pharmaceuticals, medical devices, large equipment (e.g., robotic surgery) etc. Their development, adoption, and diffusion among the ageing population and the healthcare professionals are very fast and go far beyond traditional paradigms of evidence-based medicine (EBM). Also, the assessment of these technologies coherently to the principles of the Health Technology Assessment (HTA) is challenged by the velocity and the organizational implications of such technologies.

Against these gaps in our current understanding, this doctoral research aims at advancing both theory and practice of how different exponential technologies are developed, adopted, and diffused in healthcare, with



	emphasis to human longevity and population ageing. This doctoral research will take advantage of the many empirical opportunities offered by the engagement into the "ACTIVE" research project coordinated by POLIMI at the Lecco Campus.
Methods and techniques that will be developed and used to carry out the research	The research design will combine both quantitative and qualitative methods. In particular, the PhD Student will carry out, under the supervision of the research group, desk analyses, analysis of already available databases, surveys to collect primary data, in-depth multiple case studies through interviews and document analysis.
Educational objectives	Beyond developing a distinctive understanding of the Healthcare and Life Science/MedTech industries from the theoretical perspective of Healthcare Management, Entrepreneurship, Innovation Management, Accounting and Finance, the PhD Student will learn how to design a sound research project, how to develop a new theory and validate it through a robust research design. The PhD Student will learn how to interact with the scientific community (i.e., conferences and journals) and with leading companies and Institutions.
Job opportunities	At the end of his/her PhD, the selected Student will have the opportunity to explore - together with the research group and his/her supervisor - different job alternatives, such as remaining in academia with a post-Doc position within the research group or in other Business Schools; applying for a position in enterprises, consultancy firms or Institutions interested to the distinctive competences and network of contacts developed during the PhD.
Composition of the research group	4 Full Professors 3 Associated Professors 3 Assistant Professors 11 PhD Students
Name of the research directors	Proff. Emanuele Lettieri e Giovanni Toletti

Contacts	
Prof. Emanuele Lettieri, emanuele.lettieri@polimi.it Prof. Giovanni Toletti, giovanni.toletti@polimi.it	



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

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>The selected PhD Student will be offered the opportunity to develop teaching capabilities through the involvement as a teaching assistant in one of the courses chaired by the Professors affiliated to the research group, also according to her/his attitude and interests. Courses cover topics about Finance, Innovation, Entrepreneurship, Business Administration, with particular emphasis to Healthcare and Life Science. There will be the opportunity to be involved in the development of new educational programs both at the Master of Science level and the post-graduate level (jointly with the POLIMI Graduate School of Business).</p> <p>The selected PhD Student will have desk availability and the opportunity for smart working two days per week.</p>