



## PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

Number of scholarship offered	5
Department	DIPARTIMENTO DI MECCANICA

### Description of the PhD Programme

The Doctoral Programme in Mechanical Engineering of Politecnico di Milano offers top-level knowledge in one of the most profitable sectors in Italy and worldwide; it is a key instrument to access leading enterprises and to achieve prominent positions in large international companies devoted to research and development, innovation and design. The primary employment market is composed of leading companies and organizations dedicated to innovation, research and technical development, high-tech SMEs and governmental departments.

The research topics of our Programme fall in the category *Mechanical, Aeronautical & Manufacturing Engineering* of the *QS World University Rankings*, where Politecnico di Milano currently ranks 12th in the world (*QS Rankings by Subject 2025*).

The Programme covers a number of different disciplines, being devoted, in particular, to innovation and experimental activities. It relies on the development of an interdisciplinary and integrated high-level educational offer, by focusing on a comprehensive scientific proposal, from conception to realization; the core of our research lines falls within the societal trends identified at international and national levels: sustainable transport, health and wellbeing, clean energy, innovation and job creation. We also have ongoing collaborations with national and international most renowned research groups and laboratories.

Within our Programme all Doctoral Candidates follow a minimum path of three-years, which includes specific courses and lectures, held by Faculty members and foreign professors and experts: in particular, our candidates have access to a series of research seminars delivered monthly by international top-level faculty (*MeccPhD Lectures*) and to full courses provided by European and non-European academic experts. They also experience in-depth research, lab activities and active cooperation with international industries, institutions and research groups. With this background, our Doctorates are able to blend the soundness of scientific knowledge with the ability to deal with management and industrial issues. In this view, their scientific profiles are suitable for prestigious positions at national and international level within universities and research institutions, large industrial and consulting companies, SMEs.



Further information on our Doctoral Programme and on the Department of Mechanical Engineering of Politecnico di Milano may be found at the following link: <https://www.mecc.polimi.it/en/>.



# PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

**THEMATIC Research Field: DESIGN AND STRUCTURAL RELIABILITY OF MULTI-MATERIAL  
TPMS COMPONENTS MANUFACTURED BY ADDITIVE MANUFACTURING**

**Monthly net income of PhDscholarship (max 36 months)**

**€ 1500.0**

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

Additive Manufacturing (AM) techniques enable the production of complex geometries that are challenging or even impossible to achieve through conventional manufacturing methodologies. This unprecedented geometrical freedom allows for the creation of multifunctional components that combine unique properties, such as excellent thermal performance, a high stiffness-to-weight ratio, and enhanced energy absorption capabilities. Recent advancements now make it possible to fabricate complex structures using multiple materials simultaneously. This breakthrough opens new opportunities for tailoring material distribution at a mesoscopic level, optimizing mechanical and thermal responses based on specific application requirements. The aim of this research is to introduce multi-material capabilities into metamaterials for structural and thermal applications. By leveraging the synergy between different materials, the study explores innovative design strategies to enhance performance, durability, and functionality in advanced engineering applications.

### Methods and techniques that will be developed and used to carry out the research

The methods and techniques for this objective will be:

- Investigation on potential application fields where the use of multi-material Triply Periodic Minimal Surface (TPMS) structures and/or lattice structures can provide a significant impact. Examples include heat exchangers and structures with tunable thermal expansion



	<p>coefficients, which can be adapted based on specific requirements.</p> <ul style="list-style-type: none"> <li>•Development of numerical models based on Computational Fluid Dynamics (CFD) and Finite Element Method (FEM) to optimize the design of the identified components.</li> <li>•Development of predictive models for structural integrity assessment of multi-material components to ensure reliability and performance under operational conditions.</li> <li>•Manufacturing of test samples and experimental validation of mechanical and thermal properties.</li> </ul>
<b>Educational objectives</b>	<p>This project is at the intersection of different disciplines ranging from mechanical/aerospace/nuclear engineering, material science, and advanced manufacturing. The educational objective is to develop the area of interaction among these disciplines to provide the PhD student new skills to be applied to the solution of a complex problem.</p>
<b>Job opportunities</b>	<p>Job opportunities are very wide for this topic, and they could be: 1) R&amp;D project engineer in aerospace, mechanical, and nuclear industry companies.</p>
<b>Composition of the research group</b>	<p>2 Full Professors 2 Associated Professors 1 Assistant Professors 5 PhD Students</p>
<b>Name of the research directors</b>	<p>Prof. Stefano Foletti</p>

#### Contacts

Email: stefano.foletti@polimi.it phd-dmec@polimi.it

#### Additional support - Financial aid per PhD student per year (gross amount)

<b>Housing - Foreign Students</b>	--
<b>Housing - Out-of-town residents</b>	--

#### Scholarship Increase for a period abroad



<b>Amount monthly</b>	750.0 €
<b>By number of months</b>	6

Stage and period abroad	
<b>Institution or company where the candidate will spend the period abroad (name and brief description)</b>	
<b>By number of months abroad</b>	0

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

Financial aid is available for all PhD candidates (purchase of study books and materials, funding for participation in courses, summer schools, workshops, and conferences) for a total amount of €6,114.50.

PhD candidates benefiting from this scholarship are required to spend a research period of at least 3 months abroad, joining high-level research groups in their specific research field, as agreed upon with their Supervisor. An increase in the scholarship will be applied for periods up to 6 months (approximately €750/month – net amount). Additionally, candidates who spend at least 3 months abroad are eligible for an extra reimbursement of €3.000 to cover travel expenses.

Teaching assistantship: availability of funding in recognition of supporting teaching activities by the PhD candidate. There are various forms of financial aid for activities related to teaching support. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.



# PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

**THEMATIC Research Field: DESIGN, DEVELOPMENT AND QUALIFICATION OF ADVANCED  
MEASUREMENT SYSTEMS**

**Monthly net income of PhDscholarship (max 36 months)**

**€ 1500.0**

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**

The monitoring of mechanical and thermal quantities is quickly evolving, thanks to the possibility to share the data in real time in the cloud and to the availability of efficient processing approaches for big data manipulation. Applications of this approach are diverse, and can involve many fields, like biomedical and physiological parameters sensing, structural health monitoring, industrial processes monitoring, cultural heritage monitoring. Industrial sensing benefits from the huge innovations in consumer electronics, that continuously push for a strong development of sensors. In these scenarios, the availability of reliable and accurate data plays a crucial role. This project is aimed at the development and metrological qualification of measuring solutions for networked sensors and big data manipulation, intended for scientific applications for human-centred applications. The main goals of the research include the optimization of the measuring approaches, based on the comparison and choice of the optimal sensors and measurement systems for the specific use, and data analysis to obtain a reliable representation of the monitored system or process. The joint analysis and optimization of the data acquisition and data processing for a network measurement will be a key point of the research.

**Methods and techniques that will be  
developed and used to carry out the  
research**

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	<p>in real time in the cloud and to the availability of efficient processing approaches for big data manipulation. Applications of this approach are diverse, and can involve many fields, like biomedical and physiological parameters sensing, structural health monitoring, industrial processes monitoring, cultural heritage monitoring. Industrial sensing benefits from the huge innovations in consumer electronics, that continuously push for a strong development of sensors. In these scenarios, the availability of reliable and accurate data plays a crucial role. This project is aimed at the development and metrological qualification of measuring solutions for networked sensors and big data manipulation, intended for scientific applications for human-centred applications. The main goals of the research include the optimization of the measuring approaches, based on the comparison and choice of the optimal sensors and measurement systems for the specific use, and data analysis to obtain a reliable representation of the monitored system or process. The joint analysis and optimization of the data acquisition and data processing for a network measurement will be a key point of the research.</p>
<b>Educational objectives</b>	<p>We provide doctoral candidates with high-level and competitive scientific training, fostering and refining research and problem-solving abilities by focusing on both theoretical and experimental skills. A person holding a PhD in Mechanical Engineering will be able to layout, draft and perform original research, by working in a team in companies or universities, or leading a research group.</p>
<b>Job opportunities</b>	<p>Our last survey on MeccPhD Doctorates highlighted a 100% employment rate within the first year and a 35% higher salary, compared Master of Science holders in the same field.</p>
<b>Composition of the research group</b>	<p>3 Full Professors 4 Associated Professors 4 Assistant Professors 10 PhD Students</p>
<b>Name of the research directors</b>	<p>Prof. Emanuele Zappa, Prof.ssa Paola Saccomandi</p>



Contacts	
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Phone: 02 2399 8470 (Saccomandi) - 02 2399 8445 (Zappa) Email: paola.saccomandi@polimi.it; emanuele.zappa@polimi.it; phd-dmec@polimi.it
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Additional support - Financial aid per PhD student per year (gross amount)	
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Housing - Foreign Students	--
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Housing - Out-of-town residents	--
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Scholarship Increase for a period abroad	
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Amount monthly	750.0 €
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By number of months	6
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Stage and period abroad	
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Institution or company where the candidate will spend the period abroad (name and brief description)	
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By number of months abroad	0
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Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
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Financial aid is available for all PhD candidates (purchase of study books and materials, funding for participation in courses, summer schools, workshops and conferences) for a total amount of € 6.114,50.
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Our candidates are strongly encouraged to spend a research period abroad, joining high-level research groups in the specific PhD research topic, selected in agreement with the Supervisor.
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An increase in the scholarship will be applied for periods up to 6 months (approx. 750 euro/month- net amount). Additionally, PhD candidates who spend at least 3 months abroad are eligible for an extra reimbursement of €3,000 to cover travel expenses.
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Teaching assistantship: availability of funding in recognition of supporting teaching activities by the PhD candidate. There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.
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# PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

**THEMATIC Research Field: DEVELOPMENT OF INSTRUMENTS FOR SPACE EXPLORATION**

**Monthly net income of PhDscholarship (max 36 months)**

**€ 1500.0**

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

The design of instruments for space exploration is experiencing epochal changes because of the challenges due to the introduction of additive manufacturing processes and the massive usage of new AI data processing techniques. Design phases traditionally driven by designer's experience such as optomechanical structures optimization and numerical models validation, can potentially become automatic processes leveraging on the emerging data processing technologies.

### Methods and techniques that will be developed and used to carry out the research

The research will focus on the design of optomechanical structures and thermal models' validation. Both processes are commonly based on experienced designers who translate the problems on parametric analysis that through a minimization process provide the optimal parameter set. Starting from this approach the feasibility and advantages of automatic systems will be investigated. The study will be applied to systems and test data available from instruments recently developed or currently under design in the laboratory.

### Educational objectives

The candidate will eventually fully master the modelling tools and methods required for the analysis of the measuring systems. Applications to space and industrial environments will be considered. The capability of designing test set-ups and test procedures, developing data processing techniques for measurement validation and uncertainty reduction will be among the developed



	skills
<b>Job opportunities</b>	List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research: INAF (National Institute of Astrophysics), CNR (Italian National Research Council), UNIPD (University of Padua), ASI (Italian Space Agency), ESA (European Space Agency)
<b>Composition of the research group</b>	1 Full Professors 1 Associated Professors 1 Assistant Professors 4 PhD Students
<b>Name of the research directors</b>	Prof. Diego Scaccabarozzi

<b>Contacts</b>
+39 0223998226 <a href="mailto:diego.scaccabarozzi@polimi.it">diego.scaccabarozzi@polimi.it</a> For questions about scholarship/support <a href="mailto:phd-dmec@polimi.it">phd-dmec@polimi.it</a>

<b>Additional support - Financial aid per PhD student per year (gross amount)</b>	
<b>Housing - Foreign Students</b>	--
<b>Housing - Out-of-town residents</b>	--

<b>Scholarship Increase for a period abroad</b>	
<b>Amount monthly</b>	750.0 €
<b>By number of months</b>	6

<b>Stage and period abroad</b>	
<b>Institution or company where the candidate will spend the period abroad (name and brief description)</b>	
<b>By number of months abroad</b>	0

<b>Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information</b>
<p>Financial aid is available for all PhD candidates (purchase of study books and materials, funding for participation in courses, summer schools, workshops and conferences) for a total amount of € 6.114,50.</p> <p>Our candidates are strongly encouraged to spend a research period abroad, joining high-level research groups in the specific PhD research topic, selected in agreement with the Supervisor. An increase in the scholarship will be applied for periods up to 6 months (approx. 750 euro/month- net amount). Additionally, PhD candidates who spend at least 3 months abroad are</p>



eligible for an extra reimbursement of €3,000 to cover travel expenses.

Teaching assistantship: availability of funding in recognition of supporting teaching activities by the PhD candidate. There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.



# PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

**THEMATIC Research Field: FRACTURE-BASED ASSESSMENT FOR HIGH TEMPERATURE  
AM COMPONENTS**

**Monthly net income of PhDscholarship (max 36 months)**

**€ 1500.0**

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

The structural integrity assessment of 3D printed components is the open point for the application of new manufacturing techniques to critical components. Traditionally the assessment is able to provide requirements for the quality and NDI of the additively manufactured components. However, the most interesting development is the development of qualification criteria, in which the NDE uncertainties are taken into account.

### Methods and techniques that will be developed and used to carry out the research

The activity will be initially devoted to the analysis of specimens containing small surface features (channels, netshape surfaces) subjected to LCF and dwell conditions. After an identification of the cyclic plasticity model for the material, the analysis will be based on fracture-based fatigue assessment of the machined components and to assess the effect of the surface inhomogeneities considering the fracture properties of the material, comparing numerical estimates with experimental tests. The analysis will be supported by tomographic analysis of the surface features and their statistical description.

The activity after the first year will be devoted to: i) the development of crack propagation models for short cracks able to account for TMF cycles ; ii) application to 3D printed components in relation to the uncertainties of NDE inspection (sizing error, probability of detection) with an adequate probabilistic model.



<b>Educational objectives</b>	The main educational objective of the position is to setup new techniques for the structural integrity assessment of 3D printed parts subjected to low cycle fatigue and high temperature conditions. This goal can be pursued by properly combining specific reliability techniques with an experimental analysis of the mechanical response of the material and damage analyses.
<b>Job opportunities</b>	<p>List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research:</p> <p>Universities</p> <ol style="list-style-type: none"> <li>1. Auburn University, National Center for Additive Manufacturing Excellence (NCAME)</li> <li>2. ENSAM, Angers</li> </ol> <p>Agencies and Research Centres</p> <ol style="list-style-type: none"> <li>1. European Space Agency</li> </ol> <p>Companies</p> <ol style="list-style-type: none"> <li>1. Avio-Aero, Rivalta (To)</li> <li>2. BEAMIT (Pr)</li> <li>3. Thales Alenia Space</li> </ol> <p>Our last survey on MeccPhD Doctorates highlighted a 100% employment rate within the first year and a 35% higher salary, compared Master of Science holders in the same field.</p>
<b>Composition of the research group</b>	<p>1 Full Professors</p> <p>2 Associated Professors</p> <p>1 Assistant Professors</p> <p>3 PhD Students</p>
<b>Name of the research directors</b>	Prof. Stefano Beretta

<b>Contacts</b>	
<p>Phone +39-0223998246</p> <p>Email stefano.beretta@polimi.it</p> <p>Email luca.patriarca@polimi.it</p> <p>For questions about scholarship/support: phd-dmec@polimi.it</p>	

<b>Additional support - Financial aid per PhD student per year (gross amount)</b>	
<b>Housing - Foreign Students</b>	--



Housing - Out-of-town residents	--
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Scholarship Increase for a period abroad	
Amount monthly	750.0 €
By number of months	6

Stage and period abroad	
Institution or company where the candidate will spend the period abroad (name and brief description)	
By number of months abroad	0

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>Financial aid is available for all PhD candidates (purchase of study books and materials, funding for participation in courses, summer schools, workshops, and conferences) for a total amount of €6,114.50.</p> <p>PhD candidates benefiting from this scholarship are required to spend a research period of at least 3 months abroad, joining high-level research groups in their specific research field, as agreed upon with their Supervisor. An increase in the scholarship will be applied for periods up to 6 months (approximately €750/month – net amount). Additionally, candidates who spend at least 3 months abroad are eligible for an extra reimbursement of €3.000 to cover travel expenses.</p> <p>Teaching assistantship: availability of funding in recognition of supporting teaching activities by the PhD candidate. There are various forms of financial aid for activities related to teaching support. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.</p>



# PhD in INGEGNERIA MECCANICA / MECHANICAL ENGINEERING - 41st cycle

**THEMATIC Research Field: INNOVATIVE METHODOLOGICAL APPROACHES IN  
WEARABLE TECHNOLOGIES FOR HEALTH, WELLBEING AND SPORT**

**Monthly net income of PhDscholarship (max 36 months)**

**€ 1500.0**

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**

Wearable technologies have been rapidly evolving into multidisciplinary tools with applications addressing health monitoring, sports performance optimization, and personalized wellbeing interventions. In fact, recent methodological innovations in wearable technologies have been driving important transformations in several domains; cuttingedge approaches now combine advanced sensor systems integrated with AI models to provide realtime personalized health monitoring, rehabilitation program optimization, stress management, and injury prevention prevention within the occupational settings. New solutions—like smart textiles—enhance device comfort, accuracy, and seamless integration with the human body, making continuous data collection less intrusive. These innovations are able to empower rehabilitation processes by providing dynamic, realtime feedback that helps tailor therapeutic interventions and accelerate recovery. Moreover, advanced prosthetics are increasingly incorporating wearable sensor arrays and haptic feedback mechanisms—often embedded in etextiles—to deliver more natural control and better adaptation to individual users' needs. Furthermore, wearable systems are increasingly being integrated in sport with digital coaching platforms, enabling tailored training regimens and proactive performance management.

The integration of physics-informed AI models has been further paving the way for robust and explainable data



	<p>analytics, ultimately bridging the gap between raw sensor data and actionable health insights. Indeed, these methodological advances are fostering a shift towards proactive, datadriven, and personalized approaches in healthcare and wellbeing and sports. On the other hands, when focusing on health, wellbeing and sport, particular attention must be given to data privacy and security, integration and interoperability, user comfort and overall adoption, cost and accessibility. The proposed research aims to address the current technological limitations, interdisciplinary integration challenges, and real-world implementation gaps regarding the defined domains. In particular, the proposed research thence aims at targeting different challenges defined for each specific domain, including:</p> <ul style="list-style-type: none"> <li>- definition of specific scenarios and use cases, where wearable technologies can provide an enabling role;</li> <li>- up-to-date analysis of the wearable technologies present in the current scientific literature and on the market, for those specific scenarios;</li> <li>- design and development of new methodological approaches in implementing wearables, including digital solutions, e-textile, AI and digital human modelling;</li> <li>- iterative implementation and verification of the proposed approaches, through design-based research;</li> <li>- validation of the developed approaches within the defined scenarios.</li> </ul>
<p><b>Methods and techniques that will be developed and used to carry out the research</b></p>	<p>An inherently multidisciplinary approach will be implemented during the development of the research activities; this approach combines advanced digital technologies, e-textile, AI, digital human modelling and a deep knowledge of the application domains integrated with design methods to ensure effectiveness of the proposed solutions. Therefore, key techniques, include:</p> <ul style="list-style-type: none"> <li>•definition of proper scenarios of interest with different use cases and users;</li> <li>•implementation of a systematic review of the current solutions and of a formal analysis of the current approaches identifiable on the market for each identified scenario;</li> </ul>





	<ul style="list-style-type: none"> <li>•adoption of specific design frameworks like Design-Based Research (DBR) to bridge engineering and user experience, within specific use cases, ensuring effective development/refinement processes through the use of advanced prototyping technologies;</li> <li>•integration of advanced signal processing techniques and modelling;</li> <li>•implementation of physics-informed AI models and digital human modelling solutions able to support the definition of predictive approaches for monitoring, injury prevention, performance optimization and personalized intervention during rehabilitation;</li> <li>•evaluation of ethical issues and data integrity;</li> <li>•assessment of translational impact</li> </ul> <p>This methodological framework aligns with emerging needs in precision health, sustainable technology, and evidence-based sports science, providing a roadmap for advancing the current state-of-the-art of wearables.</p>
Educational objectives	<p>The educational objectives are addressing both technical-scientific and soft skills and expertise. In particular, the technical-scientific ones, include:</p> <ul style="list-style-type: none"> <li>- gaining in-depth knowledge of sensor systems, e-textiles, digital human modeling, and advanced AI techniques, particularly physics-informed models;</li> <li>- developing interdisciplinary literacy and familiarity with the principles of healthcare, sports science, and personalized wellbeing to bridge engineering innovations with domain-specific needs;</li> <li>- learning how to conduct comprehensive reviews of both academic literature and market solutions to identify gaps and current trends in wearable technology;</li> <li>- developing skills to define, model, and analyze specific scenarios and user cases where wearable technologies can be most effectively applied;</li> <li>- mastering design-based research (DBR) methodologies to iteratively design, develop, and refine prototypes in real-world contexts, so as ensure the development of comfortable and accessible solutions that can be seamlessly integrated into users' lives, thus promoting</li> </ul>



	<p>higher adoption rates;</p> <ul style="list-style-type: none"> <li>- engage in hands-on development and testing of wearable systems, integrating digital solutions and e-textiles with AI models for continuous feedback;</li> <li>- acquiring expertise in processing and analyzing complex sensor data, enabling real-time monitoring and feedback;</li> <li>- develop and validating predictive models that leverage AI and, more in details, physics-informed AI to optimize rehabilitation, performance management, injury prevention, etc.</li> <li>- develop and validating digital human models that can support the identification of specific metrics to predict specific behaviours;</li> <li>- learning the ethical and legal frameworks surrounding data integrity, privacy, and security, ensuring that wearable solutions comply with regulatory standards.</li> <li>- learning methods for iterative testing and real-world validation of prototypes within defined scenarios, including the use of pilot studies within clinical contexts, so as to assess the broader impact of technological innovations, translating laboratory findings into practical, scalable solutions in healthcare and sports.</li> </ul> <p>The educational objectives concerning soft skills, include:</p> <ul style="list-style-type: none"> <li>- developing competencies in managing collaborative projects that involve engineers, clinicians, sports scientists, and designers;</li> <li>- enhancing skills in effectively communicating complex technical and research findings to both academic and non-technical audiences, ensuring proper knowledge transfer. All these objectives are designed to ensure that the PhD candidate not only develops deep technical expertise but also gains a holistic understanding of the socio-ethical, methodological, and translational aspects necessary for advancing wearable technologies in precision health, sustainable technology, and evidence-based sports science.</li> </ul>
<b>Job opportunities</b>	<p>Given the inherently multidisciplinary nature of the proposed research, the PhD student will have the opportunity to collaborate closely with professionals from diverse fields, including engineering, healthcare, sports science, human-computer interaction, and design. This</p>



	<p>collaborative environment will serve as a foundation for developing the ability to work effectively within interdisciplinary teams—an essential skill in both academic and industry research settings. Throughout the PhD journey, the candidate will progressively build strong competencies in managing complex research workflows, from the ideation and prototyping phases to iterative testing and real-world validation. This will foster a high degree of autonomy, enabling the student to take ownership of the creative and methodological processes that underpin innovative technological solutions. By the conclusion of the PhD, the student will be equipped with a comprehensive skill set that supports career opportunities both within academia and in industry. Specifically, they will be well-prepared for roles in research and development departments of companies working on wearable technologies, digital health solutions, smart textiles, and AI-driven sports and rehabilitation platforms—sectors that are rapidly expanding in today's job market. Moreover, the mandatory international research internship will provide valuable exposure to global research environments, significantly broadening the student's professional network and enhancing their employability. The student will also actively participate in national and European research projects, often involving large consortia of universities, research centers, and companies. These collaborative initiatives will further strengthen their experience in project management, multidisciplinary teamwork, and translational research, while also opening doors to long-term career opportunities in innovation-driven sectors.</p>
<b>Composition of the research group</b>	2 Full Professors 1 Associated Professors 1 Assistant Professors 3 PhD Students
<b>Name of the research directors</b>	Proff. M. Tarabini, G.Andreoni, N. F. Lopomo

<b>Contacts</b>
Phone: 02.2399.8897 / 02.2399.8897 / 02.2399.8554 Email: nicola.lopomo@polimi.it / giuseppe.andreoni@polimi.it / marco.tarabini@polimi.it For questions about scholarship/support: phd-dmec@polimi.it



Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents	--

Scholarship Increase for a period abroad	
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By number of months	6

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