

IMT SCHOOL PHD PROGRAM IN "MANAGEMENT OF DIGITAL TRANSFORMATION",

CALL FOR APPLICATIONS 2022/2023 EXECUTIVE SUMMARY

PHD PROGRAM DESCRIPTION

The IMT School for Advanced Studies Lucca has launched the call for applications for an additional position in the PhD Program in "Management of Digital Transformation" (2022/2023 academic year):

The digital transition implies profound and highly complex technological, organizational, managerial, and economic changes in all sectors of society, with an important impact on green revolution and environmental sustainability. The ability to govern such changes is essential to take advantage of the opportunities made available by digital innovation by dominating the potential associated risks. The entrepreneurial system, in particular the small and medium-sized enterprises that constitute the beating heart of the Italian economic fabric, may not be ready to grasp the challenges posed by the digital transition as they do not have distinctive multiand interdisciplinary skills capable of combining set strategic directions with the innovations deriving from the application of digital technologies. Digital transformation also necessarily addresses the psychological and cultural elements of change. Therefore, a correct socio-cultural, behavioral, and psychological approach is necessary to foster change. The objective of the PhD course in "Management of Digital Transformation" is to train a new executive class to respond to the management needs of digital transition **Course Description** processes, drawing inspiration from and responding to the needs outlined in the PNRR to bring businesses and institutions together with universities and research. The MDT doctoral program pursues this goal by combining a "horizontal" approach to academic activities with a "vertical" approach to research. The PhD Program offers a cross-disciplinary educational offer of a multidisciplinary nature dedicated to digital transition issues addressed from a cultural, economic, social, engineering, IT, legal, managerial, neuroscientific, and psychological perspective. Research activities envision a specific in-depth study on a highly-qualified scientific project aligned with the student's curricular profile and motivations. In this context, a distinguishing feature of the PhD Program is the presence of a company: in fact, a preponderant share of scholarships is expected to be co-financed by - and each scholarship linked to - a research project developed jointly by an academic advisor, to ensure scientific quality, and by a company representative, to ensure the relevance and industrial transferability, even in the long term, of the research object. In the study on "The Future of the Jobs" presented at the World Economic Forum 2016, it emerged that, in the coming years, technological and demographic factors would profoundly influence the evolution of the labor market. With the advent of **Output Profiles** enabling technologies for Enterprise 4.0, the skills and abilities sought will change. To date, companies and public institutions are encountering increasing difficulties in identifying, both at the level of graduates and graduates, the skills necessary for the digital transition. Universities cannot adequately train people and guarantee an effective and rapid placement into the job market around these innovative issues.



Output Profiles

Thus, this PhD Program aims to provide highly sought-after digital skills for the new tasks of the future, that is, that extensive set of technological skills that make it possible to identify, evaluate, use, share, and create content thanks to information technology and the Internet. The PhD Program will also provide in-depth transversal skills both in research and innovation on enabling technologies for Industry 4.0, with particular regard on their exploitation for the green revolution and the environmental sustainability, and for corporate lean and personnel management to be in line with the features of intelligent work, i.e., work that integrates manual interventions with solid technical skills of analysis, diagnosis, and scientific reasoning, and the application of complex knowledge.

Career opportunities comprise the academic field in different scientific disciplinary sectors, including engineering, information technology, and economics, as well as technical-scientific and managerial roles in public and private companies. The partnership with leading companies in their respective sectors to develop research projects of high industrial interest will provide an additional advantage to students in terms of employment opportunities.

The IMT School adopts equal opportunity principles in its selection procedures and rejects any type of discrimination based on sex, gender identity, nationality, ethnicity, religious belief, sexual orientation, state of health, and any other status or quality that is not strictly relevant to the call outlined in this document.

Program official duration: 3 years **Program starts on** January 9th, 2023

PhD Program Coordinator: Prof. Marco Paggi

Program official language: English

Scholarships: 1, funded for the project described below:

Research Project	Description	Partner institution	Funding
Local Roots and Digital Innovation for the Global Growth of Inner Areas and Urban Ecosystems	From a training point of view, the PhD student will attend specialized advanced courses provided by the PhD program of the IMT School for Advanced Studies Lucca on topics concerning enabling technologies for Industry 4.0, the management of digital transition processes, and their effect on ecological transition and environmental impact. Where necessary, this training activity can be enriched by additional external courses or seasonal schools on specialistic topics to develop the research thesis. In addition to the studies of a scientific-technological nature, the student will develop soft skills through seminars offered by the IMT School for Advanced Studies Lucca on the foundations of academic entrepreneurship, the deglobalization process, the management of intellectual property, communication techniques for dissemination and valorization of research and critical thinking. The skills acquired will be aimed at developing the research project and training a researcher for his future job placement both in academia and in	Union of Garfagnana Municipalities	Italian Territorial Cohesion Agency



Research Project	Description	Partner institution	Funding
Research Project	technical-scientific and managerial roles in public and private companies. Regarding the research project, the PhD student will focus the activities on the study of the inner areas, territories characterized by poor accessibility, depopulation, low level of entrepreneurship, aged population, distance from essential services – such as schools, hospitals, and railways – and hydrogeological risk. Because of such enduring adverse dynamics, these territories fall behind, thus calling for a place-specific strategy to break the vicious cycle of territorial imbalances and marginalization. Specifically, the research project will focus on the inner area		Italian Territorial Cohesion Agency
Local Roots and Digital Innovation for the Global Growth of Inner Areas and Urban Ecosystems	"Garfagnana, Lunigiana, media Valle del Serchio, Appennino Pistoiese", which includes the mountain communities of the northern part of Tuscany and consists of 39 municipalities. By focusing on digitalization, infrastructure upgrading, local cultural heritage valorization, and local entrepreneurship, the research project aims to define bottom-up interventions to boost the inner area's development. To this end, the research project will involve supporting the local government in creating a digital platform to improve and optimize existing services and develop new ones for citizens and businesses.	Union of Garfagnana Municipalities	
	The research product will concern publications and analytical methodologies, also of an applied nature, on the local development of inner and peripheral areas. These results can be achieved through traditional methods of analyzing local development strategies such as case studies and innovative ways involving Big Data, the Internet of Things (IoT), and artificial intelligence. The latter are also configured as enabling technologies for Industry 4.0 aimed at improving the local government's efficiency concerning service delivery, environmental issues, social sustainability, and smart mobility.		

The number of positions may be increased in the event that additional funding is made available after the publication of the Call.

Scholarship gross amount: 16,243.00 Euros/year (see the "Scholarships" paragraph).

Additional benefits:

- All PhD students admitted to the PhD Program are exempt from paying tuition fees, although they are still
 responsible for paying the yearly Regional Education Tax (currently 140.00 Euros/year);
- All PhD students are offered free meals (lunch and dinner) at the on-campus canteen;
- All PhD students are provided with free accommodation in shared double rooms within the campus residential facilities.



REQUIREMENTS

Applications are open to candidates who meet the following requirements:

1. Degree:

- "Laurea Magistrale" or "Specialistica" (according to DM no. 509, of November 3, 1999), or a four- or five-year degree (according to the previous rules of the Italian higher education system) obtained in Italy;
- Foreign degrees with a minimum duration equivalent to 4 years (full time). The 4-year duration should be considered a minimum but not sufficient requirement: the Selection Committees will assess the eligibility of degrees.

<u>For the selection procedure</u>, candidates are required to upload the documents indicated in Table 2 - Attachments to the application.

Applicants who obtain their degree by no later than **October 31st, 2022,** can also apply. These candidates will be admitted to the selection procedure "with reserve" and must provide their degree certificate by the date of enrollment, or they will be excluded from the program.

2. **Knowledge of the English language**: Applicants are required to indicate their level of English.

APPLICATION

The **application form** must be **mandatorily** filled out in **English** through the School's online procedure **by November 25th, 2022, at 1:00 pm (CET)**.

Applicants must upload the **documents** in **PDF**. The **maximum size is 30MB** for each attachment.

The Selection Committee will accept **attachments** in **Italian or English only** (unless otherwise specified in the table below).

Table 1: Information		
Personal information	compulsory	In this section, applicants must enter their personal data (name, address, contact details, etc.).
English Language Level	compulsory	Applicants must indicate their level of English.
Additional information/Interview	compulsory	Applicants have to indicate the modality for the interview (IMT School campus, videoconference, or similar, or by telephone at an Italian embassy/consulate).
Additional information/Disability	optional	Applicants should indicate if they need assistance to participate in the selection procedure.
Additional information/How did you first find out about IMT?	compulsory	Applicants are required to indicate how they found out about the IMT School.



Table 1: Information		
Education	compulsory	Applicants are required to indicate their university degrees (whose duration must be equivalent to at least 4 years of university studies), the average exam mark, and final grade (if any) for each degree obtained.
Additional qualifications	optional	In this section, applicants may list any other qualifications considered relevant in relation to their application.
Publications	optional	Applicants can list their own published articles, books, or any material that may be considered relevant for the PhD and research activity.
		Applicants are required to provide the names and contact information of two referees.
References	compulsory	The referees who are invited to submit a reference letter in English through the IMT School's online application system, - by December 2th, 2022, at 1:00 pm (CET) , will receive an automatic notification from the School's application system.
		Applicants will receive an automatic notification when a letter is submitted, but they may not access any reference provided.

Та	Table 2: Attachments			
1 I	Copy of National Identity Card or Passport	compulsory	Applicants have to upload a copy of a valid identity document:	
			For Italian and EU citizens: Valid National Identity card or Passport	
			 <u>Non-EU applicants</u>: National Identity card or Passport (the latter is highly recommended). 	
			The copy has to be signed by the candidate , indicating the date and place of the signature . In particular, the document has to contain the applicant's photograph, personal data, and document number, place and date of issue. If any of the above information is missing, the document will not be accepted.	
			If the document is not in English or Italian, a translation into English or Italian should also be uploaded (an official/legal translation is not required).	
			In the event that the copy of the document is unreadable, the Selection Committee may request a new submission.	
2	Curriculum vitae et studiorum/Resume	compulsory	Applicants must upload their curriculum vitae et studiorum/resume in Italian or English (the latter is highly recommended), indicating their university degrees, work and research experience, and publications (if any).	



Ta	Table 2: Attachments			
3	Education	compulsory	Candidates are required to upload one of the following documents in Italian or English:	
			 for degrees obtained in Italy and/or in France, Ireland, Belgium, Denmark (Bruxelles Convention of May 25, 1987), and Germany (Italian-German Convention, ratified by the Law no. 176 of 1973): a self-declaration stating the possession of a degree, conferral date, issuing University, and final grade; 	
			 for degrees obtained in all other EU and non-EU countries: an official certificate indicating the possession of a degree, conferral date, issuing University, and final grade. 	
4	Academic transcript/Diploma supplement	compulsory	For each degree, the applicant has to attach one of the documents listed below in Italian or English (English is highly recommended): • Academic transcript: an official document detailing the course, classes attended or subjects studied and results, completion date, graduation date; or alternatively, • Diploma Supplement: document produced by the University accompanying the diploma, providing a standardized description of the nature, level, context, content, and status of the studies completed by the applicant (https://ec.europa.eu/education/diploma-supplement_en).	
5	Research Statement	compulsory	To best evaluate the candidate's aptitude for the PhD Program and for the project described in art. 1 of the present document, all candidates must upload a document (maximum 10,000 characters, spaces included) mandatorily in English, describing: - the candidate's competencies and experiences within the scientific or academic field relevant to the project and how they would use them to address the project; - the candidate's motivation for pursuing study at the IMT School, with particular reference to the project; - future projects.	

If the application lacks a piece of information or an attachment referred to as "compulsory", applicants can be conditionally admitted to the selection procedure. Their application will be considered valid only if they produce the required documents by the day scheduled for the interview.

The correct completion of the online application procedure is **confirmed by an automatic email** sent to the email address indicated by each applicant while registering for the procedure; the message only confirms the receipt of the application. The School will not verify the validity and completeness of applications before the call closes.

After the submission, no changes are allowed to the entered data.



SELECTION COMMITTEES

The Selection Committee is nominated by decree by the Rector of the IMT School in accordance with the School regulations and comprises experts from relevant fields.

EVALUATION CRITERIA AND SELECTION PROCEDURE

Evaluation criteria

The Selection Committees will evaluate candidates'

- academic background, knowledge, skills, and scientific potential;
- general aptitude for research and potential to collaborate in the specific research activities of the project described in art. 1 of the present document;
- interdisciplinarity, knowledge, and skills with reference to the multidisciplinarity of the PhD Program and of the project described in art. 1.

Assessment of qualifications

The first phase of the selection procedure is the assessment of qualifications. This assessment is carried out in relation to the specifics of the PhD Program and of the project described in art. 1 of the present document and specifically to determine who is admitted to the interview.

In the assessment of qualifications phase, the evaluation of the candidates is carried out by the Committees defined in the previous paragraph "Selection Committees" and based on the candidates' application form, uploaded documents, and reference letters provided by referees.

Based on the assessment of qualifications, the Selection Committees will draw up a shortlist of candidates admitted to the interview in alphabetical order.

The shortlist of applicants admitted to the interview will be published on the School's website and Online Notice Board ("Albo Online").

This is the only official communication of the preliminary results to all applicants.

Interview

Candidates admitted to the interview must confirm their participation by email to phdapplications@imtlucca.it within two (2) days of the publication of the shortlist, confirming their preference to have the interview conducted in one of the methods indicated in the "Application" paragraph of this call.

During the comprehensive interview, that will take place in the period **December 12th-16th, 2022**, the Selection Committees will assess the candidates' knowledge and skills with reference to the specific characteristics of the PhD Program.

The Selection Committees will assess all interviews by assigning a score (up to 100 points): applicants scoring at least 70 out of 100 will be eligible for the Program and, therefore, listed in the final ranking.

Final ranking

At the end of the interviews, the Selection Committee will draft the final ranking of the eligible candidates according to the scores obtained in the interview.

If multiple candidates get the same score, preference will be given to the youngest candidate.



In the event of the withdrawal or exclusion of a candidate, he ore she shall be replaced by the next suitable candidate according to the ranking.

The ranking will be published on the School's website and Online Notice Board ("Albo Online").

ENROLLMENT

Once admitted to the PhD Program, candidates wishing to enroll must submit the complete enrollment form to the IMT School **no later than five (5) days from the publication of the results** on the School's Online Notice Board ("*Albo Online*") and website, using one of the following methods:

• in person or by post to:

IMT School for Advanced Studies Lucca PhD and Higher Education Office Piazza S. Ponziano, 6 55100 Lucca – Italy

- by fax to +39 0583 4326565
- by certified email to imtlucca@postecert.it

Failure to submit the enrollment request by the deadline and through the above-mentioned methods will result in an automatic withdrawal of the candidate from the Program.

The enrollment request is valid only if all the requested documents have been enclosed.

If any of the documents submitted during the application procedure do not correspond to those submitted during enrollment due to an intentional false declaration, the applicant will automatically lose their right to enroll in the program.

Enrollment is effective on the first day of official classes. Unauthorized absences may nullify the enrollment procedure.

SCHOLARSHIP

The scholarship amount is 16,243.00 Euros/year and shall be disbursed in monthly installments.

For any research or training activities at universities or research centers abroad, the scholarship amount is increased by 50% for the first nine (9) months.

Scholarships are subject to the payment of social security contributions (INPS) managed separately under Article 2, paragraph 26 of Law no. 335 of August 8, 1995, as amended, with two-thirds paid by the Administration and one-third by the scholarship recipient.

Admitted candidates who have already benefited from a PhD scholarship in Italy cannot be assigned another one.

The scholarship has a maximum duration of three (3) years and is subject to annual confirmation: according to articles 15 and 16 of the IMT School PhD Regulations, students must complete all the activities provided for each academic year.

If a student withdraws or is excluded within 45 days from the beginning of the Program, he or she is not entitled to the scholarship. The scholarship will be awarded to the next eligible candidate according to the final ranking. For this reason, the first scholarship payment will be made only after the successful completion of the first 45 days of the program.

If a student registers after 45 days from the beginning of the Program, he/she is entitled to the scholarship starting from the actual date of enrollment.



FACILITIES

Residential facilities: accommodation

All PhD students who are granted a scholarship have free accommodation in shared double rooms with private bathrooms, priority being given to on-campus residential facilities, or are assigned a housing grant for the entire official duration of the Program (3 years), except for periods spent off campus for study and/or research.

The School can revoke the right to accommodation if it is rarely or not used.

Residential facilities: canteen

All PhD students are offered free meals (lunch and dinner) at the School canteen located on campus for the entire official duration of the Program (3 years). Lunch and dinner are served each day, Monday through Sunday, for the entire academic year, except for the closing periods.

Other facilities

All PhD students have access to library facilities and can benefit from the IT support services for all technical requests related to study and research until the thesis defense.

The School subscribes to an insurance policy for all PhD students. It provides coverage against accidents and injuries incurred by students in Lucca or abroad while performing academic activities. The IMT School also provides students with health insurance policies for research trips outside Europe (students are automatically covered in European countries).

All international PhD students are offered the possibility to take an Italian language and culture course to receive an A2 language certificate (as defined by the Common European Framework of Reference for Languages), useful for obtaining credits in accordance with Italian Immigration law.

TREATMENT OF PERSONAL DATA

The IMT School will use the personal data provided by applicants solely for selection procedures and institutional aims in accordance with the provisions of the current European and Italian legislation (EU Regulation 2016/679 and Italian D. Lgs. 196/03 - *Italian Privacy Code*, as modified by the D. Lgs. 101/2018) and the relevant School Regulations.

Applicants are granted all the rights established by art. 15, sections 2, 3, and 4 of Chapter III, and art. 77 of the EU Regulation 2016/679.

For further information regarding the call and the selection procedure, please contact the PhD and Higher Education Office by email at phdapplications@imtlucca.it or by phone at +39 0583 4326530.

Further information regarding the PhD Program and the IMT School is available at www.imtlucca.it.

FINAL PROVISIONS

Having adopted all the necessary measures to carry out the activities planned for the 2019/20, 2020/21 and 2021/22 academic years, during the health emergency related to COVID-19, if the aforementioned emergency continues, the IMT School will provide the activities and services planned for the 2022/23 academic year in ways that allow new PhD students to enroll, attend education activities, and undertake their doctoral studies.

Relevant laws and the IMT School PhD Regulations shall be applied to any issue or item not covered by the present call for applications.