PHD PROGRAMME TABLE Announcements of competition for admission to PhD Courses 41st cycle, Academic Year 2025/2026

PhD Course: INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

Available positions: 21

Evaluation Methods: based on academic and research records and interview

Available positions:

Place n.	Description	Financial support	Specific research topic
1	Scholarship	University scholarship	-
2	Scholarship	University scholarship	-
3	Scholarship	University scholarship – funded by Fondazione di Modena	-
4	Scholarship	University scholarship – funded by Fondazione di Modena	-
5	Scholarship	Scholarship funded by Skybackbone Engenio Srl	-
6	Scholarship	Scholarship funded by Local Health Unit / IRCCS Reggio Emilia	Application of Artificial Intelligence Techniques and Multi-Agent Systems for the Optimization of Medical- Diagnostic and Therapeutic Processes
7	Scholarship	Scholarship funded by Emilia Romagna Region in implementation of the program "High-Level Skills to Address the Challenges of the Technological, Cultural, Economic, and Social Transition Towards Sustainability"- PR ESF+ 2021/2027 CUP E83C25002380002	Resilient, distributed and continuous-learning artificial intelligence models based on brain functioning for energy- efficient applications
8	Scholarship	Scholarship funded by "Enzo Ferrari" Department of Engineering	Electric drives for green transportation applications
9	Scholarship	Scholarship funded by "Enzo Ferrari" Department of Engineering	Hot Carrier effects in advanced semiconductor devices for energy and power management
10	Scholarship	Scholarship funded by "Enzo Ferrari" Department of Engineering	Generative Approaches for Ethical and Privacy- Preserving Medical Imaging Data Synthesis
11	Scholarship	Scholarship funded by "Enzo Ferrari" Department of Engineering	Characterization and analysis of electrical

			parameters drifts in power devices
12	Scholarship	Scholarship co-funded by European Support Centre for Scalable AI Research and Deployment project – MINERVA G. A. n. 101182737 CUP E93C24002460007	Multimedia Technologies for Large-Scale Al
13	Scholarship	Scholarship co-funded by progressive PRINN2022 project "I-SHARM: Intelligent SHared Autonomy for Robotic Manipulation systems" – Project ID 2022NTZRFM- PRJ-0554- PRIN2022-I-SHARM- BIAGIOTTI – CUP E53C24002600006.	Context Aware Shared Autonomy for Robotic Manipulation Tasks
14	Scholarship	Scholarship funded by Symboolic s.r.l.	Extending Generative AI Systems with Modularity, Efficiency and Compositionality
15	Scholarship	Scholarship funded by Maticad s.r.l.	Generative AI models for Content Understanding and Generation
16	Scholarship	Scholarship funded by Nuovo Pignone Tecnologie – s.r.l.	Development of Multimodal Models for Visual Inspection
17	Position without scholarship	-	-
18	Position without scholarship	-	-
19	Position without scholarship	-	-
20	Position without scholarship	-	-
21	Position without scholarship	-	-

Areas of the PhD Programme: The PhD Programme offers three curricula:

1) Computer engineering and Science;

2) Electronics and Telecommunications;

3) Industrial Applications of ICT.

The topics of the ICT PhD Course concern the disciplines of Computer Engineering and Science, Electronics, Electronic Measurements, Telecommunications, Electromagnetic Fields, Control Theory and Automation and Electrical Engineering, as well as industrial applications of the aforementioned disciplines in the strategic priority areas defined by the Horizon Europe programs and the National Research Program. Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study. Further information is available from the PhD Programme website at: <u>http://www.ict.unimore.it/</u> (entry " Research Topics ").

The course is part of the PhD School in "E4E (Engineering for Economics – Economics for Engineering)".

Admission requirements: Italian second cycle master's degree ("Laurea Magistrale", under D.M. 270/04 or "Laurea Specialistica", under D.M. 509/99) or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) or Second cycle non-Italian Master's degree, equivalent to the Italian degrees mentioned above, in accordance with Article 2 of this Call.

Documenti da allegare alla domanda:

- In order to express interest in also competing for the scholarships linked to a specific research topic, candidates must complete and attach the file "<u>Declaration of priority interest to compete for scholarships linked to a specific</u> research topic";
- 2) degree certificate (or self-certification for Italian degrees) and Transcript of Records including the full list of examinations with corresponding marks. Applicants with a non-Italian degree must attach their certificate (including the full list of examinations with corresponding marks) and a legalized translation or Diploma Supplement and, if available, the Declaration of Value ("Dichiarazione di Valore in loco") issued by the competent Italian diplomaticconsular Representation, or the certificates issued by the CIMEA - ENIC-NARIC centre. If the degree certificate is not yet available or if the degree has not yet been obtained, the candidate must attach a description of the degree with a list of the examinations taken using <u>Annex A</u>;
- a curriculum vitae including their scientific and teaching activities in Italian or English using the form in <u>Annex B</u>; the CV must include the university-level qualifications held;
- 4) a summary of the Master's thesis, written in Italian or English, consisting of a minimum of three and a maximum of six pages, and structured as follows: thesis motivations, research methods, and results obtained. In the case of graduating students, a written presentation of the thesis to be discussed must be provided;
- 5) a short text in English (Statement of Research Interest) using the form in <u>Annex</u> <u>C</u>, in which the candidate illustrates her/his motivation for attending the Course and the description of her/his specific research interests. The candidate must indicate a preference for one of the research topics available on the program's website <u>http://www.ict.unimore.it/</u> under the section "Research Topics", and may also express, in order of priority, any preferences among the thematicallybound scholarships;
- 6) optional certificates of English competence (TOEFL, Proficiency or others);
- 7) optional certificate of completion of the GRE (Graduate Record Examination) test, if owned;
- 8) letters of introduction/recommendation/reference (maximum three); in the online application, applicants must enter all the personal details of the professor/researcher/expert who will be sending the letter of recommendation. Once the application has been submitted, the computer system will send an automatic e-mail to the contact person requesting the letter of recommendation. The deadline for uploading letters is June 30th 2025, 11.59 pm (CET); applicants can check on the application summary page whether the contact

person has sent the cover letter/recommendation. Within the aforementioned deadline, applicants may send a reminder to the contact person who has not yet done so by selecting the 'reminder' item from the application summary page;

- any other document considered useful for the candidate's assessment and/or scientific publications; candidates must provide a full list of all the documents and publications attached;
- 10)a copy of a valid identity document.

Evaluation criteria:

In the evaluation of candidates' qualifications, the Selection Committee assigns scores up to a total of 60 points, as follows:

- Curriculum vitae including research and teaching activities, and description of motivation (Motivation) and research interests (Statement of Research Interest): 0 to 35 points,

- Exams taken and grades achieved: from 0 to 15 points,
- Publications: from 0 to 5 points,

- Other qualifications: from 0 to 5 points.

Candidates will be admitted to the interview if the evaluation of their presented qualifications has reached a score of at least 40 points out of the 60 available.

The list of the candidates admitted to the interview, and any variation in the selection procedure, will be published by July 15th, 2025 at the following University website address: <u>https://www.unimore.it/en/bando-phd-41</u>.

For the interview, the Examiners may award a score of up to 40 points.

The interview, which will be conducted in English, will focus on the research project submitted by the candidates and on their knowledge of the topics listed under the "Research Topics" section of the application.

Candidates who achieve a total score of 70 out of 100 will be considered eligible.

INTERVIEW SCHEDULE

In-person interview: July 21st, 2025 from 10.00 am. In the event of a high number of candidates, the interview will continue on July 22nd, 2025 from 10.00 am.

The interview will be held at the "Enzo Ferrari" Department of Engineering; the room in which the interview will be held will be communicated with the results of the selection based on academic and research qualifications.

Interview via Microsoft Teams (allowed for each candidate, regardless of residence): July 21^{st,} 2025, 10:00 am. In the event of a large number of candidates, the interview will continue on July 22nd, 2025, 9:00 am.

The operational indications on how to carry out the interview via Microsoft Teams will be communicated with the publication of the list of the candidates admitted to the interview.