






INFORMATION TECHNOLOGIES	
CYCLE	XXXIX
COORDINATOR	Prof. Marco LOCATELLI email: marco.locatelli@unipr.it Department of Engineering and Architecture
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/11/2023
TRAINING OBJECTIVES	
The course aims at educating the future Ph.D.'s so that they will enter the research world with an active role, within both universities and industries.	
RESEARCH AREAS	
<ul style="list-style-type: none">• Electronics instrumentation and electrical drives• Computer systems and automatic control• Telecommunications and electromagnetic fields	
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission: <ul style="list-style-type: none">– Laurea specialistica or Laurea magistrale (second cycle master's degree)– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree by 31.10.2023

POSITIONS PUT OUT TO COMPETITION		9
With Scholarship		8
Reserved to holders of Research Grant		1
Position with Scholarship		
N°	Funding entity	Research Topic, if any
3	Scholarship funded by University of Parma (Ministerial funds)	---
1	Scholarship funded by University of Parma (University funds)	---
1	Scholarship co-funded by Fondazione Cariparma	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Scholarship funded by EMILIA ROMAGNA REGION 	Multisensory Analysis based on Deep Learning for an Innovative, Sustainable and Safe Mobility



	The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna	
1	Scholarship financed with funds under the PNRR – Mission 4 component 1 (Ministerial Decree 118/2023 art. 9 “Public Administration”) CUP D91I23000080006 	Analysis and development of Artificial Intelligence-based techniques and tools for automatic discovery and improvement of PA business processes from events and data generated by the information systems in use
1	Scholarship co-financed with funds under the PNRR - Mission 4 component 2 (Ministerial Decree 117/2023) and co-financed by the Company thing2i S.r.l. CUP D92J23000380004 	Design and implementation of a scalable IoT architecture with distributed intelligence and integration of heterogeneous communication protocols for innovative smart city applications
Position reserved to HOLDERS OF RESEARCH GRANT		
N°	Subject area of the research	
1	ING-INF/05 “Information processing systems”	

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 70 points
(a minimum score of 40 points shall be required to be admitted to the Oral Exam)
ORAL EXAM: up to 50 points
Minimum score for ELIGIBILITY: 70/120

Foreign Language	Language the fluency of which shall be assessed during the Oral Exam The evaluation of the knowledge of this language will be oral and will consist of a brief interview on a technical topic (for example a translation of a scientific text).	ENGLISH
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ORAL EXAMINATION INDICATION

THE ORAL EXAM TAKES IN THE PRESENCE and with the possibility of carrying out the interview **REMOTELY** for candidates residing abroad or temporarily abroad for study / work reasons or in isolation / quarantine for COVID-19 virus infection. To this end, candidates must submit a **motivated REQUEST** as per the model attached to the competition announcement)

THE INTERVIEW MAY BE HELD ALSO IN ENGLISH

LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION

ANNEX A	(art. 5 of the Competition notice)
Identification Document	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae et studiorum	No specific CV format is required (see art. 4 of the Competition notice)
Abstract of degree thesis	Abstract of the second cycle master’s degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
Academic Qualifications	Certificates and academic transcript of records for both Bachelor’ and Master’ degrees containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle)



	Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).	
Research Project	<p>Max 10.000 characters, written in English, it will have to focus on an original research topic and structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation.</p> <p><u>It does not represent a constraint with respect to the following choice of the doctoral thesis</u>, that shall be defined together with the supervisor and approved by the Academic Board. However, this project must be prepared after having contacted and consulted one of the research groups related to the PhD course in Information Technologies (information on the research groups and their contacts can be found at https://dia.unipr.it/en/node/3080).</p> <p>Failure to submit the project will result in exclusion from procedure for admission to the course.</p>	
LIST OF EVALUABLE QUALIFICATIONS (only qualifications attested by a document drawn up in Italian or in English)		
Curriculum Vitae et studiorum	<p>Evaluation of the marks of the exams and of the master's degree mark (if available). The candidate is required to provide the average of the marks of all the exams of the master's degree, in addition to the details of the same</p> <p>It will also be evaluated the congruence of the degree obtained with the PhD themes.</p>	Up to 25 points
Abstract of the Master's degree thesis	It will be evaluated the congruence of the Master's Degree thesis with the doctoral program research topics	Up to 5 points
Research Project	<p>Points relating to the research project shall be allocated on the basis of the following criteria:</p> <ul style="list-style-type: none"> ○ Scientific value and originality of the proposal: max 10 points ○ description and structure of the proposal: max 10 points ○ proposal feasibility: max 10 points 	Up to 30 points
Scientific Publications	<p>Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.</p> <p>Evaluation of the editorial position of the publication and its impact on the scientific community on the basis of the available indicators. It will be evaluated only publications from the past five years.</p>	Up to 5 points
Reference Letters	<p>Maximum 2 letters and must be sent directly by the signer to the address e-mail: marco.locatelli@unipr.it (The candidate, therefore, must not upload them through the procedure of the competition online registration).</p> <p>Evaluation of the judgments reported in the reference letters.</p>	Up to 2 points
Other experiences and qualifications	<ul style="list-style-type: none"> – Periods of study abroad, outside the country of origin (e.g., Erasmus programme or other similar mobility programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.) <p>Duration evaluation (for scholarships and internships), score (for the GRE test), prestige (for awards)</p>	Up to 3 points
ORAL EXAM		
Interview Program	Evaluation CRITERIA	POINTS



<p>The ORAL EXAM includes the presentation of the research project and is intended to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course</p>	<ul style="list-style-type: none">○ knowledge of the foreign language: max 5 points○ research project presentation: max 25 points○ general knowledge of issues connected to the PhD course: max 20 points	Up to 50 points
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SCHEDULE OF THE ADMISSION EXAMS

It is the candidate's responsibility to verify the outcome of the evaluation of qualifications, which can be consulted in their reserved area by connecting to the page <http://unipr.esse3.cineca.it/Home.do> in the days preceding the date of the Oral Exam.

ORAL EXAM	DATE	14 September 2023 (with possible extension in the following days)
	TIME	02:30 PM (Italian Time)
	PLACE	Department of Engineering and Architecture Scientific Engineering Headquarters Parco Area delle Scienze, 181/A – Campus Universitario 43124 PARMA - ITALY
ALTRE INDICAZIONI	<p>The choice of the Research Topic to be expressed in Annex A is not binding on the assignment of the research project, and it is intended to assess candidates skills during the admission exam. <u>The PhD research topic will be assigned by the Academic Board.</u></p> <p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p> <p>For foreign candidates all documents written in a language other than Italian will have to be translated into English, otherwise they will not be evaluated</p>	