



<b>INDUSTRIAL ENGINEERING</b>	
<b>CYCLE</b>	<b>XXXVIII</b>
<b>COORDINATOR</b>	Prof. Gianni ROYER CARFAGNI email: <a href="mailto:gianni.royer@unipr.it">gianni.royer@unipr.it</a> Department of Engineering and Architecture
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• Theoretical and applied mechanics, mechanics of materials and structures, material technology, machine design, measurements and diagnostics;</li> <li>• Economic, organizational, managerial, logistics, plants and legal aspects in the field of engineering;</li> <li>• Energy systems, thermo-fluid dynamics, fluid machinery, applied physics.</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The Industrial Engineering PhD program aims at giving to the participants a deep knowledge in the main topics relevant to industrial engineering. The PhD course presents numerical, analytical and experimental techniques, in order to face any technical or scientific problem of the industrial engineering, with managerial skills, to provide autonomy in work and readiness of inclusion in a collaborative environment with other researchers and technicians. The internationalization phase, envisaged in the three-year curriculum, allows to forge links with other foreign realities by providing to the graduate student an additional tool to get into a scientific context, not just limited by national borders.</p>	
<b>ADMISSION REQUIREMENTS</b>	<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION*</b> (Modified by Rector Decree n. 2098 of 22.11.2022)	<b>3</b>	With Scholarship	<b>3</b>
<b>Position with Scholarship</b>			
<b>N°</b>	<b>Funding entity</b>	<b>Research Topic, if any</b>	
<b>1</b>	Scholarship co-funded by Fondazione Cariparma	---	
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b> (Modified by Rector Decree n. 2098 of 22.11.2022)			
<p>During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.</p>			

N°	Funding entity	BOUND RESEARCH TOPIC
1	<p>PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&amp;D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001)</p> 	<p>Advanced measurement and analysis techniques for condition monitoring of complex systems</p>
1	<p>PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&amp;D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001)</p> 	<p>Environmental, Social and Governance (ESG) responsible investing and finance: institutions, markets and tools</p>

<b>ADMISSION PROCEDURES</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 70 points (a minimum score of 40 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 50 points <b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	<p>Lingua di cui verrà accertata la conoscenza in sede di Prova Orale: <b>INGLESE</b>. La verifica della conoscenza di tale lingua avverrà in forma scritta/orale e consisterà nella lettura e traduzione di un testo scientifico.</p>
<p align="center"><b>CANDIDATES ADMITTED TO THE ORAL TEST CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p align="center">(The Oral Exam takes place <u>in presence</u>. Candidates who intend to take the Oral Exam remotely must submit a <b>motivated REQUEST</b>, to this purpose, as per the model attached to the competition notice)</p>	
<p align="center"><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>	
<p align="center"><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<p align="center"><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	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)
<b>Qualifications</b>	<p><b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> 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).</p>

<b>Research Project</b>	<p>Written in Italian or in English, according to the format attached to the competition notice, it will have to focus on an original research topic (<b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project</b>).</p> <p>To identify the topic of the aforementioned project, the candidate may contact one of the Members of the Academic Board (available at: <a href="https://dia.unipr.it/it/node/2834">https://dia.unipr.it/it/node/2834</a>).</p> <p><u>It does not represent a constraint with respect to the following choice of the doctoral thesis, which will be assigned by the Academic Board.</u></p>	
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)		
<b>Statement of Research interest</b>	Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing her/his specific research interests	
<b>Scientific Publications</b>	Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application	
<b>Reference Letters</b>	A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities (to be attached to the online application)	
<b>Other Academic qualifications</b>	First or second level Master's degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program	
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Curriculum Vitae et studiorum</b>	Including academic career and postgraduate experience, accompanied by a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark, both of the bachelor's and master's degrees.	<b>Up to 15 points</b>
<b>Graduation mark</b>	Score related to the final mark: - 110 with honours (magna cum laude): 10 points; - 110: 8 points; - From 105 to 109: up to 6 points; - From 100 to 104: up to 3 points; - From 66 to 99: 0 points - The scores will be proportionally renormalized in case of equivalent evaluations	<b>Up to 10 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 21 December 2022)	Score related to the average of the exam marks: - 30/30: 10 points; - From 28/30 to 29/30: up to 5 points; - From 26/30 to 27/30: up to 3 points; - From 18/30 to 25/30: 0 points; The scores will be proportionally renormalized in case of equivalent evaluations	<b>Up to 10 points</b>

<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics	<b>Up to 10 points</b>
<b>Research Project</b>	Consistency of the Research Project with the doctoral program research topics	<b>Up to 15 points</b>
<b>Statement of Research Interest</b>	Evaluation of the candidate's motivations to attend the doctoral course and congruity of the research interests with the research topics of the doctoral course.	<b>Up to 5 points</b>
<b>Scientific publications</b>	Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application	<b>Up to 5 points</b>
<b>Reference Letters</b>	a maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities	<b>Up to 5 points</b>
<b>Other Academic qualifications</b>	First or second level Master's degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program	<b>Up to 2 points</b>
<b>Other experiences</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	<b>Up to 3 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
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	<ul style="list-style-type: none"> <li>○ research project presentation</li> <li>○ general knowledge of issues connected to the PhD course</li> <li>○ knowledge of foreign languages</li> </ul>	<b>Up to 50 points</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022 (with possible extension in the following days)
	<b>TIME</b>	09:00 AM (Italian Time)
	<b>PLACE</b>	Meeting Room – Building 10 Department of Engineering and Architecture Parco Area delle Scienze, 181/A - Campus 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	