






CIVIL ENGINEERING AND ARCHITECTURE	
<b>CYCLE</b>	<b>XL</b>
<b>COORDINATOR</b>	Prof. Andrea SPAGNOLI email: <a href="mailto:andrea.spagnoli@unipr.it">andrea.spagnoli@unipr.it</a> Dipartimento di Ingegneria e Architettura
<b>DURATION</b>	3 anni
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/11/2024
<b>AVAILABLE POSITIONS</b>	<b>13</b>
<b>ADMISSION METHODS</b>	Assessment of qualifications and research project Oral Examination in PRESENCE or REMOTELY
<b>ADMISSION REQUIREMENTS</b>	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"> <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> Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree <b>by 31.10.2024</b> .
<b>TRAINING OBJECTIVES</b>	
To develop specialized skills in the following fields: <ol style="list-style-type: none"> <li>(1) Infrastructure and Environmental Engineering: civil infrastructures for transport; survey, management, and analysis of land data, control and monitoring of displacements and deformations at all scales; issues related to surface waters and groundwater;</li> <li>(2) Structural and Geotechnical Engineering: mechanical behaviour of materials, structural components and structures; behaviour of soils and geotechnical structures;</li> <li>(3) Architecture and Urban Planning: theoretical, formal, distributional and functional aspects in architecture; the problems related to methods for survey and to computer-graphics in architecture; issues related to the implementation and the development of urban settlements; historical, artistic, technical and aesthetic themes in the architecture of the past.</li> </ol>	
<b>RESEARCH AREAS OF THE DOCTORAL COURSE</b> (the candidate <b>MUST mandatorily</b> select one research area in the ANNEX A and present a research project in the selected area)	
<ul style="list-style-type: none"> <li>• Infrastructure and Environmental Engineering</li> <li>• Structural and Geotechnical Engineering</li> <li>• Architecture and Urban Planning</li> </ul>	

Posti con Borsa di Studio		
N°	Position with Scholarship	Research Topic, if any
<b>3</b>	Scholarship funded by University of Parma (University funds)	
<b>1</b>	Scholarship co-funded by Fondazione Cariparma	

Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 6 of the Competition notice)		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Department of Engineering and Architecture	Exploring the Role of Street Experiments in Promoting Active Mobility and Sustainable Urban Development
1	Financed by Eni S.p.A.	Enhancing maximum circularity in the asphalt world through the innovative re-use of recycled asphalt pavements
1	Financed by REGIONE EMILIA ROMAGNA (PR.FSE + 2021/2027 – DGR n. 2111 del 04/12/2023) - CUP D92J24000010002 	Digital archives-platforms for architectural design. Innovative tools for teaching, dissemination, conservation and innovation with reduced environmental impact
1	Scholarship financed by European Union – NextGenerationEU with funds under the PNRR– Mission 4 component 1, Investment 4.1 (D.M. 629/2024 art. 10 “Patrimonio Culturale”) CUP D92J24000200006 	Cataloguing and analysing damage to churches in the Emilia-Romagna region following the 2012 earthquake for their preservation
1	Scholarship financed by European Union – NextGenerationEU with funds under the PNRR– Mission 4 component 2, Investment 3.3 (D.M. 630/2024) e by EcoRevive S.r.l. CUP D92J24000230004 	Re-use of plastics derived from multilayered food carton recycling processes as a modifier for asphalt mixtures
1	Scholarship financed by European Union – NextGenerationEU with funds under the PNRR– Mission 4 component 2, Investment 3.3 (D.M. 630/2024) e by ASE S.r.l. CUP D92J24000230004 	Development and application of algorithms based on Machine Learning for the analysis of the behavior of geotechnical structures
1	Scholarship financed by European Union – NextGenerationEU with funds under the PNRR– Mission 4 component 2, Investment 3.3 (D.M. 630/2024) e by Fassa Bortolo S.r.l. CUP D92J24000230004 	Effects and benefits of calcium oxide hydration reaction in cold recycling asphalt mixtures

Position reserved to HOLDERS OF RESEARCH GRANT	
Reserved to holders of Research Grant of “China Scholarship Council”	1
Reserved to holders of Research Grant within the project MARIE SKLODOWSKA-CURIE ACTIONS – COFUND “Training Future Big Data Experts for Europe (FutureData4EU)”	1

## 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

## ORAL EXAMINATION INDICATION

**Applicants admitted to the ORAL EXAM can take it either in PRESENCE or REMOTELY in Audio and Video Teleconference** (Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)

The ORAL EXAMINATION 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 research areas related to the PhD course.

<b>Foreign language</b>	<b>ENGLISH</b>	The language for which the fluency must be assessed during the Oral Examination. The assessment of knowledge of this language will be oral and will consist in reading and translating a scientific text.
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## SCHEDULE OF THE ADMISSION EXAMS

<b>EVALUATION OF QUALIFICATIONS</b>	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 <a href="http://unipr.esse3.cineca.it/">http://unipr.esse3.cineca.it/</a> in the days preceding the date of the Oral Exam.	
<b>ORAL EXAM</b>	<b>DATE</b>	2 September 2024, with possible extension to the following day
	<b>TIME</b>	09.30 AM (Italian Time)
	<b>PLACE</b>	Auditorium Centro S. Elisabetta Parco Area delle Scienze, 95 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>	The choice of the research area to be expressed in Appendix A is not binding on the assignment of the PhD research topic, but is intended to assess the candidates' skills during the admission examination. The PhD research topic will be assigned by the Board of Lecturers.	
	<b>THE INTERVIEW MAY ALSO TAKE PLACE IN ENGLISH</b>	For foreign candidates, it is possible to take the admission tests in English only. For Italian candidates, it is possible to take the admission tests in Italian or English, at the candidate's choice.

## LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

### MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION

<b>ANNEX A</b>	(art. 3.2 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. 3.2 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>Academic Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held (art. 3.2 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).	
<b>Research Project</b>	The research project shall consist of a maximum of 3 pages, be written in Italian or in English, and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results. The project must focus on an original research topic (unpublished, personally developed by the candidate) related to the topics listed in <a href="https://dia.unipr.it/it/node/6470">https://dia.unipr.it/it/node/6470</a> . <b>It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project.</b> <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. Il Progetto di Ricerca <u>non costituisce vincolo alla successiva scelta del tema di ricerca di dottorato</u> , che sarà assegnato dal Collegio dei Docenti.	
<b>Statement of Research Interest</b>	Short text – maximum 2 pages – 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>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</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. The reference letters must sent directly by the signer to the address e-mail: <a href="mailto:spagnoli@unipr.it">spagnoli@unipr.it</a> . Reference letters sent directly by the candidate or received in any other way will not be evaluated.	
<b>Scientific Publications</b>	A maximum of 2 articles on national and international journals, papers presented at conferences or symposia, book chapters etc.	
<b>LIST OF EVALUABLE QUALIFICATIONS</b> (only qualifications attested by a document drawn up in Italian or in English)		
<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. Mandatory: <b>Statement of Research Interest</b> Not mandatory: <b>Reference Letters</b>	<b>Up to 30 points</b>
<b>Graduation mark</b>	---	<b>Up to 5 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 31st October 2023)	---	<b>Up to 5 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae by attaching the abstract of the degree thesis or draft of the thesis approved by the supervisor)	<b>Up to 6 points</b>
<b>Research Project</b>		<b>Up to 25 points</b>

<b>Scientific Publications</b>		<b>Up to 4 points</b>
<b>LIST OF EVALUABLE QUALIFICATIONS Reserved to holders of Research Grant</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. Mandatory: <b>Statement of Research Interest</b> Not mandatory: <b>Reference Letters</b>	<b>Up to 30 points</b>
<b>Graduation mark</b>	---	<b>Up to 5 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae by attaching the abstract of the degree thesis or draft of the thesis approved by the supervisor)	<b>Up to 6 points</b>
<b>Research Project</b>		<b>Up to 25 points</b>
<b>Scientific Publications</b>		<b>Up to 4 points</b>
<b>ORAL EXAM</b>		
<b>Interview program</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 research areas related to the PhD course	<ul style="list-style-type: none"> <li>○ knowledge of the foreign language</li> <li>○ research project presentation</li> <li>○ general knowledge of research areas related to the PhD course</li> </ul>	<b>Up to 50 points</b>