



CIVIL ENGINEERING AND ARCHITECTURE		
<b>Cycle</b>	<b>XXXIII</b>	
<b>Duration</b>	3 years	
<b>Coordinator</b>	Prof. Andrea CARPINTERI – Department of Engineering and Architecture E-mail: <a href="mailto:andrea.carpinteri@unipr.it">andrea.carpinteri@unipr.it</a>	
<b>Research Topics</b> (The Applicant must indicate <b>only ONE</b> between these 3 Research Topics)	<p>The Research Topics are the following :</p> <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>	
<b>Training objectives</b>	<p>To develop specialized skills in the following fields:</p> <ul style="list-style-type: none"> <li>• <b>Infrastructure and Environmental Engineering:</b> 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 groundwaters;</li> <li>• <b>Structural and Geotechnical Engineering:</b> mechanical behaviour of materials, structural components and structures; behaviour of soils and geotechnical structures;</li> <li>• <b>Architecture and Urban Planning:</b> 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> </ul>	
<b>Academic degree required</b>	Laurea pursuant to the previous university system, laurea specialistica or laurea magistrale, or a foreign academic qualification that has been recognized as equivalent	
POSITIONS PUT OUT TO COMPETITION		
<b>With Scholarship</b>		7
<b>Without Scholarship</b>		1
<b>Reserved to holders of Research Grant</b>		1
<b>Reserved to employees of companies having a “Industrial Engineering Doctorate” arrangement</b>		2
<b>TOTAL</b>		<b>11</b>
KIND OF SCHOLARSHIP		
N°	Funding entity	Research Topic, if any
3	Scholarship Ministerial funds	--
1	Scholarship University funds	--
2	Funded by Department of Engineering and Architecture	<ul style="list-style-type: none"> <li>• Both related to “Infrastructure and Environmental Engineering”</li> </ul>
1	Co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> <li>• Infrastructure and Environmental Engineering</li> </ul>



<b>Positions Reserved to holders of Research Grant</b>		
<b>N°</b>	<b>Subject area of the research</b>	
<b>1</b>	3D-WEBBIM: a Web-based Building Information Modelling System for integrated management of 3D Data, Geographical Information System and multi-scale analysis	
<b>Positions reserved to employees of companies having a “Industrial Engineering Doctorate” arrangement</b>		
<b>N°</b>	<b>Company/Institution</b>	
<b>1</b>	I.T.E. IdroTermo Esinese s.r.l.	
<b>1</b>	DNIT – Departamento Nacional de Infraestructura de Transportes (Brazil)	
<b>ADMISSION PROCEDURES</b>		
<p style="text-align: center;"><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>Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b>. The evaluation of the knowledge of this language will be evaluated orally and will consist in reading and translating a scientific text.</p>	
<p><b>Possibility of videoconference for candidates residing or temporarily abroad</b> (the relevant request shall be submitted using the form attached to the competitive examination announcement)</p> <p style="text-align: center;">THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</p>		<b>YES</b>
<b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b>		
<b>Graduation thesis</b>	<p>Abstract of the graduation thesis (10,000 characters maximum blank spaces included) <b>(mandatory qualification)</b></p>	<b>Up to 5 points</b>
<b>Curriculum Vitae et studiorum and other qualifications</b>	<p>Including academic career and postgraduate experience, accompanied with a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark <b>(mandatory qualification)</b></p>	<b>Up to 30 points</b>



<p><b>Research Project</b></p>	<p>The Research Project shall be related to the Research Topic specified by the Applicant in the application, and shall consist of a maximum of 3 pages written in Italian or in English. It shall focus on an original topic, and shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. <b>(mandatory qualification)</b></p> <p><u>Such a Research Project is not a constraint to the later choice of the Doctoral Thesis.</u></p> <p>To decide which Research Project to present, the Applicant is suggested to contact one of the Doctorate Members involved in the Research Topic specified by the Applicant in the application: <a href="http://www.dottingcivarch.unipr.it">http://www.dottingcivarch.unipr.it</a></p>	<p><b>Up to 20 points</b></p>
<p><b>Scientific publications</b></p>	<p>Articles on national and international journals, papers presented at conferences or symposia, book chapters: <u>a copy of each article must be mandatorily attached to the on-line application.</u></p>	<p><b>Up to 15 points</b></p>
<p><b>SCHEDULE OF THE ADMISSION EXAMS</b></p>		
<p><b>ORAL EXAM</b></p>	<p><b>ORAL EXAM DATE:</b> 19 September 2017  <b>TIME:</b> 10:00am  <b>PLACE:</b> Department of Engineering and Architecture          Parco Area delle Scienze, 181/A          43124 – PARMA - ITALY</p>	
<p><b>Oral Exam topics</b></p>	<p>The Oral Exam will focus on general concepts in the context of:</p> <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 groundwaters;</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>	
<p><b>OTHER INFORMATIONS</b></p>	<p>In the application to participate in the competitive examination, the Applicant must choose and specify only ONE Research Topic (between the 3 possible topics), and the Applicant must take the oral exam on the chosen Research Topic. In the case of admission to the Doctorate</p>	



program, the above choice will be binding with regard to the winner's research activity.

The Oral Exam must be taken in Italian or in English.

For the Applicants who will take the Oral Exam in Italian, the knowledge of English language will be evaluated orally, and the test will consist in reading and translating a scientific text.

The Applicants who will take the Oral Exam in English (in presence or in videoconference **using the platform of Skype** for the connection via web), if they will be in the list of winners of the present competitive examination, will have to mandatorily learn Italian during the 1st year of the Doctorate Course, attending a Course by the University of Parma (<http://www.lass.unipr.it/en/teaching/italian-courses-foreigners>) and passing the final exam, in order to be able to attend (at the 2nd year) the 'Preparatory Course' (by the Doctorate School in Engineering and Architecture) which is held in Italian.