



UNIVERSITÀ
DEGLI STUDI DI TRIESTE

Rettorato e Direzione Generale
Sezione Ricerca e Dottorati
Ripartizione Dottorati

LAST REVISED 27/10/2014

**PhD IN
ENGINEERING AND ARCHITECTURE**

NOTE: This attachment provides only partial information. Exhaustive information, including how to register for the selection, is published in the Admission Announcement posted in the web page <http://www2.units.it/dott/en/> >> Admission Announcement.

Deadline for online application	21 August 2014 11:30 a.m. (ITALIAN TIME)
Deadline for paying the exam registration (application) fee	21 August 2014
Deadline for submitting qualifications and publications plus the form <i>Integration to the Application</i>	04 September 2014 11:30 a.m. (ITALIAN TIME)
Deadline for completion of the degree required for admission	31 October 2014
Oral examination/interview	12 September 2014 09:00 a.m. (ITALIAN TIME)
Documents required <i>(for further details see below "Weighting of the qualifications")</i>	<ol style="list-style-type: none">1. Form "Integration to the application"2. The following documents:<ol style="list-style-type: none">a. detailed curriculum vitae et studiorum, with a special focus on pre-PhD activities, including a list of exams taken and marks obtained, and degree gradeb. overview of the research work - minimum 3 pages (for the degree thesis or post thesis)c. scientific publications (if any)



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IN BREVE

CURRICULUM: Architecture

- 1 study and design of the city, territory and landscape
- 2 methods and forms of architectural and spatial, landscape planning and design
- 3 forms and techniques of architectural restoration project
- 4 representation and communication of project
- 5 enhancement of the environment and its resources
- 6 history and theory of architecture, urban and territory

CURRICULUM: Civil engineering

- 1 structural design
- 2 functional and architectonic design
- 3 design and management of infrastructure and transport systems
- 4 environmental engineering and earth resources
- 5 geomatics

CURRICULUM: Information engineering

- 1 electromagnetic fields
- 2 signal and image processing
- 3 informatics
- 4 measures and electronic instruments
- 5 operational research
- 6 telecommunication
- 7 converters, machines and electric drives

CURRICULUM: Mechanical engineering, naval architecture, energy and production

- 1 design and optimization of fluid machines and power plants
- 2 rational use of Energy in civil and industrial fields
- 3 inverse problems and functional and shape optimization in heat transfer
- 4 design, synthesis and mechanical construction
- 5 theoretical and experimental methodologies for the analysis and design of ships and ocean structures
- 6 product development, process modeling and optimization, design, management and logistics of industrial plants

Lines of research

Administrative location

University of Trieste

Organizing Department

Department of Engineering and Architecture



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<i>Duration</i>		3 years
<i>Maximum number of months to be spent abroad by each PhD student</i>		maximum 12
<i>Official language</i>		Italian
<i>Language (alternative to Italian) partially used in PhD activities</i>		The PhD activity may be partly carried out in English, either upon request of the lecturer or if there are non-Italian speaking students
<i>Subject Area</i>	<i>main</i>	09
	<i>others</i>	08A, 08B
<i>Macro Research Fields</i>	<i>main</i>	09/C
	<i>others</i>	01/A; 04/A, 08/A, 08/B; 08/C, 08/D, 08/E, 08/F, 09/A; 09/B, 09/E, 09/F, 09/G, 09/H
<i>Scientific Disciplinary Sector</i>	<i>main</i>	ING-IND/08
	<i>others</i>	GEO/10, ICAR/02, ICAR/05, ICAR/09, ICAR/10, ICAR/14, ICAR/17, ICAR/19, ICAR/21, ICAR/22, ING-IND/01, ING-IND/02, ING-IND/09, ING-IND/10, ING-IND/13, ING-IND/14, ING-IND/16, ING-IND/17, ING-IND/32, ING-INF/01, ING-INF/02, ING-INF/03, ING-INF/04, ING-INF/05, ING-INF/06, ING-INF/07, MAT/09
<i>Domain European Research Council</i>		PE
<i>ERC Panels</i>	<i>main</i>	--
	<i>others</i>	PE6, PE7, PE8, PE10, PE1
<i>Erasmus Subject Area Codes</i>	<i>main</i>	--
	<i>others</i>	02.1, 02.3, 02.4, 02.5, 02.6, 06.1, 06.2, 06.5, 06.6
Information on the codes can be found online at: http://www2.units.it/dott/en/?file=DottBandi.inc >> Admission Announcement and relative attachments (...) >> "Labelling" (file.xls)		

PLACES, SCHOLARSHIPS, RESEARCH GRANTS AVAILABLE

<i>Total number of places available (excluding R/2 R/3 – see below)</i>	14	
LAST UPDATED ON 09.10.2014:		
14 places available (excluding R/2 R/3 – see below)		
<i>without scholarship</i>	4	
LAST UPDATED ON 06.08.2014:		
4 places without scholarship		
<i>with scholarship</i>	10	N.B.: Candidates who accept an earmarked scholarship are committed to the pre-assigned topic.
LAST UPDATED ON 09.10.2014:		
10 places with scholarship		
	D/1	1 Department of Engineering and Architecture funded by ALI GROUP S.P.A. (Project title "Development of an equipment for cooking food in catering based on electronically modulated infrared quartz emitters")
	D/2	1 Department of Engineering and Architecture funded by Electrolux Professional (Project title "Energy efficiency of professional equipment for catering services")
	G/3	1 MIUR "Progetto Giovani Ricercatori" (Project title "Ship and aircraft design and building with high ability to penetrate foreign markets")



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	G/4	1	MIUR "Progetto Giovani Ricercatori" (Project title "Broadband innovative telecommunication systems also employing satellites, for different users, aimed to safety, prevention and intervention in case of natural disasters")
	D/5	1	LAST UPDATED ON 14.07.2014: scholarship [cod D/5] Department of Engineering and Architecture funded by Electrolux Professional (Project title "Control of mechatronics systems of professional equipment for catering services")
	D/6	1	LAST UPDATED ON 05.08.2014: scholarship [cod D/6] Department of Engineering and Architecture funded by Elettra - Sincrotrone Trieste S.C.p.A. (Project title "Optimization of diagnostic protocols for biomedical imaging with synchrotron radiation")
	D/7-9	3	LAST UPDATED ON 29.09.2014: scholarships [cod D/7-D/9] Department of Engineering and Architecture funded by Programmi di ricerca nazionali Smart Cities and Communities and Social Innovation, Decreto Direttoriale 5 luglio 2012 n. 391/Ric., Ministero dell'Istruzione, Università e Ricerca (Project title "Analysis and development of models and methods for the management of complex systems in the fields of logistics, transportation and health, with special reference to: - COoperative loGISTICS for Sustainable Mobility of Goods (CO-GISTICS)" 7th FP European Union; - Pilot Applications post Directive 2010/65 in Italian port realities of the Suite MIELE to support the Authority to optimize the interoperability in the intermodality of city-port flows (ASMARA)")
	D/10	1	LAST UPDATED ON 09.10.2014: scholarship [cod D/10] Department of Engineering and Architecture funded by ICAM - Institut Catholique d'Arts et Métiers – Nantes Campus + Research funds (Project title "Numerical and experimental analysis of the dynamic behaviour at low frequency of the resilient elements used to isolate the diesel engines on board marine vehicles")
<i>Reserved places with scholarships/research grants available for graduates at universities abroad [R/1] with indication of the code, total number and funding body</i>	R/1	0	--
<i>Reserved places with no PhD scholarship provided</i>	R/2	1	Scholarships funded by foreign Countries LAST UPDATED ON 27.10.2014: 1 place available
	R/3	0	Scholarships funded by international mobility programmes
<i>PhD students from foreign universities may be admitted with a joint supervision of their thesis</i>			Yes
<i>Erasmus Mundus PhD students from foreign universities may be admitted on a joint supervision of their thesis</i>			Yes
<i>Erasmus Mundus PhD students from foreign universities may be admitted on international mobility programmes</i>			Yes



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THE SELECTION PROCEDURE

<p><i>Academic qualification required: see Announcement: see Announcement (art. 2 - Requirements)</i></p>	<p>Italian Master's Degree "Laurea Specialistica/Magistrale" or Degree awarded prior to approval of Ministerial Decree D.M. n. 509 of 3 November 1999, updated with D.M. n. 270 of 22 October 2004, n. 270, (or a qualification corresponding to a Master's -second level- degree)</p> <p>An equivalent foreign academic qualification awarded abroad</p> <p>An academic qualification awarded abroad which is considered to be equivalent to the Italian degree that allows the holder to undertake PhD studies for duration, level and area of study</p>									
<p><i>Deadline for completion of the Degree required for admission</i></p>	<p>31 October 2014</p>									
<p><i>Assessment criteria</i></p>	<p>qualifications + oral examination/interview</p>									
<p><i>Maximum final score (the final score is based on the sum total of marks obtained in the interview plus the points given for qualifications and publications)</i></p>	<p>100/100</p>									
<p><i>Minimum final score required for eligibility</i></p>	<p>70/100</p>									
<p><i>Maximum score awarded for qualifications+publications</i></p>	<p>30/30</p>									
<p><i>Minimum score required for qualifications+publications</i></p>	<p>5/30</p>									
<p>Weighting of the qualifications Unless the form "Integration to application" is presented, qualifications and publications cannot be assessed by the Examining Board. The form is available at: http://www2.units.it/dott/en/?file=DottBandi.inc&cod=1010</p>	<table border="0"> <tr> <td style="vertical-align: top;"> <p>a</p> </td> <td> <p>detailed <i>curriculum vitae et studiorum</i>, with a special focus on pre-PhD activities, including a list of exams taken and marks obtained, and degree grade</p> </td> <td style="vertical-align: top;"> <p>14/30</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>b</p> </td> <td> <p>full text or abstract of the degree thesis (minimum 3 pages)</p> </td> <td style="vertical-align: top;"> <p>6/30</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>c</p> </td> <td> <p>Scientific publications (if any)</p> </td> <td style="vertical-align: top;"> <p>10/30</p> </td> </tr> </table>	<p>a</p>	<p>detailed <i>curriculum vitae et studiorum</i>, with a special focus on pre-PhD activities, including a list of exams taken and marks obtained, and degree grade</p>	<p>14/30</p>	<p>b</p>	<p>full text or abstract of the degree thesis (minimum 3 pages)</p>	<p>6/30</p>	<p>c</p>	<p>Scientific publications (if any)</p>	<p>10/30</p>
<p>a</p>	<p>detailed <i>curriculum vitae et studiorum</i>, with a special focus on pre-PhD activities, including a list of exams taken and marks obtained, and degree grade</p>	<p>14/30</p>								
<p>b</p>	<p>full text or abstract of the degree thesis (minimum 3 pages)</p>	<p>6/30</p>								
<p>c</p>	<p>Scientific publications (if any)</p>	<p>10/30</p>								
<p>If the degree score is not out of 110 it will be converted. Undergraduates will be assigned a score out of 110 based on the average of their exams (provided they submit an official transcript)</p>										
<p><i>Oral examination/interview score out of – maximum score</i></p>	<p>70/70</p>									
<p><i>Oral examination/interview score out of – minimum score</i></p>	<p>49/70</p>									
<p><i>Deadline for submitting qualifications and publications</i></p>	<p>04 September 2014</p>									
<p><i>Qualifications and publications shall be submitted:</i> <i>(art. 5.1.4 of the PhD Announcement)</i></p>	<p>- as an attachment to the online admission application (upload), deadline 11:30 am Italian time</p> <hr/> <p>only for publications that are voluminous or not available in electronic format, as long as they are listed in the form "Integration to application" (digital format preferable):</p> <ul style="list-style-type: none"> - email to: isabella.furlan@dicamp.units.it or - by registered letter with acknowledgement of receipt or in person to the Dpt. 									



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Engineering and Architecture – edificio (building) C8 c/o sig.ra Barzelogna -
Università di Trieste, via A.Valerio 6/1- 34127 TRIESTE (in this case you will
be given a receipt) from Mondays to Fridays from 9:30 to 12:30 a.m.

<i>Examination schedule</i>	<i>Oral examination/interview</i>	12. September 2014 at 09:00 a.m. (ITALIAN TIME) , University of Trieste – ex D.E.E.I. – building C2 – Library “Edoardo Carli” - Via A. Valerio, 10 – TRIESTE
	<i>Language(s) of the interview</i>	Upon request of the candidate the interview may be in English
	<i>Language(s) tested in the oral examination/interview</i>	English
	<i>CEFR (Common European Framework of Reference for Languages)</i>	B1
	<i>Videoconference interview</i>	Upon request from the candidate, the interview may be carried out through videoconference, with the same schedule (check 6.2 Admission Announcement)



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WHO'S WHO	
<i>Chair</i>	Prof. Diego Micheli - Department of Engineering and Architecture – University of Trieste – phone N. 040/5583809, e-mail: micheli@units.it
<i>Vice</i>	Prof. Claudio Amadio – Department of Engineering and Architecture – University of Trieste – phone N. 040/558.3833 e-mail amadio@univ.trieste.it
<i>Web site</i>	http://www.dicar.units.it/dottingarc/
<i>Learning outcomes</i>	<p>The PhD course prepares researchers with high scientific profile and culture oriented to the engineering and architecture applications, able to develop knowledge, new methods of investigation and design and research activity in public or private bodies, also with managerial competences. Curricula are active in: Architecture - Civil Engineering - Information Engineering - Mechanical, Naval Architecture, Energy and Production Engineering.</p> <p>Activities are oriented to advanced design, theoretical analysis, soft-computing and experimentation. The first year includes courses or lectures on basic scientific subjects and organizational aspects of research, selected according to the weaknesses of the individual initial preparation and the selected research themes. An analysis of the state of the art will be also carried out, and the main theme of study identified. The second and third year will be devoted to the individual themes, and it will be proposed a stay in a research body of international relevance. Common features are a multidisciplinary theoretical/experimental approach and the interaction with territory, industrial and professional world.</p> <p>Main objective is the enhancement of skills and professionalism of the PhD students, with reference to the international job market. The correspondence of the planned activities to the course objectives will be evaluated during the planned meetings of the body of teachers.</p>
<i>Job placement opportunities</i>	<p>The PhD program will train various professionals of researchers capable of be placed in many areas of the labor market: the business world, that of research and education (universities, research institutions ...), public administration (local public authorities ...), or the professions. The title of Doctor of Philosophy is also particularly valued in the academic and industrial communities abroad, with important benefits for the employment and career prospects in the international field.</p>
<i>Main cooperating international Universities and Research Institutions</i>	1 Osaka University - Department of Naval Architecture and Ocean Engineering