**Rettorato e Direzione Generale
Sezione Ricerca e Dottorati
Ripartizione Dottorati**

LAST REVISED 26/10/2012

DOCTORAL SCHOOL 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/dottorati/ >> Admission Announcement.

Deadline for online application	**31 August 2012 at 11.30 a.m. CET**

GENERAL DESCRIPTION

LOCATION: Trieste
ORGANIZING DEPARTMENT: Dipartimento di Ingegneria e Architettura

DURATION: 3
OFFICIAL LANGUAGE OF THE SCHOOL: Italian

CONTACT INFORMATION

DIRECTOR OF THE SCHOOL: Prof. Diego Micheli - Dipartimento di Ingegneria e Architettura - Università degli Studi di Trieste - tel. 040/5583809, email: micheli@units.it

VICE-DIRECTOR: Prof. Claudio Amadio - Dipartimento di Ingegneria e Architettura - Università degli Studi di Trieste - tel. 040/5583833, email: amadio@univ.trieste.it

SCIENTIFIC PROJECT: The PhD School in Engineering and Architecture is finalized to the formation of researchers with a high scientific preparation and a culture oriented towards the engineering and architecture applications in the sectors of competence, able to conceive and to develop knowledge and innovative methodologies of investigation and design and to develop, with technical-scientific and managerial competences, a highly qualified research activity in public or private bodies.

The Doctors formed by the School will develop their professional activity in the sectors defined by the official research themes of the two Doctorate branches, in which the School is organized:
- CIVIL ENGINEERING AND ARCHITECTURE
- INFORMATION ENGINEERING
- MECHANICAL ENGINEERING, NAVAL ARCHITECTURE, ENERGY AND PRODUCTION ENGINEERING.

The School aims to favour the collaboration and the synergies in teaching and research among the different branches. To this end, the present structure must be intended as a proposal open also to other sectors of the engineering, architecture and applied sciences that could take advantage from this opportunity of mutual development in future applications for PhD Schools.

Legge 241/1990 - Responsabile del procedimento: Elena Ferraro

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I - 34127 Trieste   Dottorati@amm.units.it
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The activities of the PhD students will be oriented to the planning, theoretical analysis, soft-computing and advanced experimentation. The first year of the formative project includes the participation to courses of lectures, common to all the branches of the School and partly common to other Doctorate Schools of the University of Trieste and of other Universities (in order to build shared advanced research paths), on basic scientific subjects and organizational aspects of the scientific search. These courses will be integrated by courses belonging to postgraduate (Laurea Magistrale) studies, selected in base to the needs and weaknesses identified in the individual initial preparation, also taking into account the specificities of the selected research themes.

During the first year an analysis of the state of the art will be carried out in the discipline of interest, and the main theme of study will be identified. The second and third year will be devoted to the development of the individual themes of research, and in this frame it will be proposed to the student, preferably during the second year, a period of permanence in a research body of international relevance specialized in the selected sector.

Important common features to the scientific formation that the School intends to transmit to the PhD students are an open and multidisciplinary approach to the problems of engineering and architecture. Particular attention will also be devoted to the interaction with the territory, industrial and professional productive world and the theoretical-experimental approach as qualifying aspects of the advanced research.

The whole scientific project will be therefore oriented to the valorisation of the abilities and individual professionalism of the PhD students, with whom the School assumes a precise responsibility of addressing and collocation of the given formation in the international job market. The correspondence of the planned activities to the obtainment of such objective will be carefully evaluated by the body of teachers and by the Scientific Council, constituted by external experts of known experience and high scientific profile

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CURRICULUM: INFORMATION ENGINEERING

GENERAL DESCRIPTION

SUBJECT AREAS:
- main area: ING-INF/04
- other areas: ING-INF/01, ING-INF/02, ING-INF/03, ING-INF/05, ING-INF/06, ING-INF/07, MAT/09

ING-IND/32, the amendment added 26/10/2012

RESEARCH FIELDS:
1. Automation
2. Electronic and Computer Bioengineering
3. Electromagnetic Fields
4. Signal and Image Processing
5. Computer Science
6. Electronic Measurement and Instrumentation
7. Operational Research
8. Telecommunications

LOCATION: Trieste
ORGANIZING DEPARTMENT: Dip. di Ingegneria e Architettura

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD: 12

ADMISSION INFORMATION

NUMBER OF PLACES AVAILABLE: **8**
Please note that the number of seats available has increased from 6 to 8, the amendment added 25/10/2012
- SCHOLARSHIPS: 3
    FUNDING BODY/IES (preceded by the scholarship code):
    - [cod M/1] Università degli Studi di Trieste 1
    - [cod D/2] Dip. di Ingegneria e Architettura funded by Prof. Giorgio Sulligoi (Project title: "C*ontrol systems for smart grids voltage regulation"*...1
    amendment added on 19/10/2012:
    - [cod D/3] Dip. di Ingegneria e Architettura funded by POR FESR 2007/2013 obiettivo competitività e occupazione, ASSE 1 "innovazione, ricerca, trasferimento tecnologico e imprenditorialità", ATTIVITA' 1.1.B "sostegno ai progetti di ricerca industriale ad elevato impatto sistemico per il rafforzamento delle reti della ricerca e dell'innovazione e dei distretti tecnologici dell'innovazione" (Project title: "*Study and development of simulation and optimization methodologies for decision aided systems with regard to <<DOMARE – domotica per vivere il mare>>*") 1
Candidates who accept the earmarked project are committed to the pre-assigned topic

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ACADEMIC QUALIFICATION REQUIRED: see Announcement (art. 1.1 - Requirements)

DEADLINE FOR COMPLETION OF DEGREE: **26.10.2012**

ASSESSMENT CRITERIA: qualifications + interview

- 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:...........100/100
- FINAL SCORE (MINIMUM REQUIRED):...60/100

  MAX SCORE ATTRIBUTED TO THE QUALIFICATIONS: 40/40

  QUALIFICATIONS REQUIRED (RELATIVE WEIGHT):
  - Art. 11 Rules for Doctorates: all candidates are required to present the following documents, regardless of whether or not a score is assigned to them (see below):
    a. a detailed curriculum vitae et studiorum. max 10/40
    b. a copy of the Master's degree thesis: max 10/40
       For students with a degree awarded by a non-Italian university, an abstract of the thesis in English or Italian is sufficient.
    as well as:
    1. publications and other relevant qualifications: max 20/40
  - Qualifications Assessment Form (unless this form is presented, qualifications and publications CANNOT be assessed by the Examining Board)

  MINIMUM SCORE REQUIRED FOR THE QUALIFICATIONS:......................................no
- ORAL EXAMINATION MARK OUT OF: 60

  MINIMUM SCORE REQUIRED FOR INTERVIEW:..36/60

  DEADLINE FOR RECEIVING CERTIFICATES/ PUBLICATIONS: **26.10.2012**

  ADDRESSES TO WHICH CERTIFICATES SHOULD BE SENT: by mail to the Segreteria del Dipartimento di Ingegneria e Architettura (D.I.A. – former D.I.3 - former DEEI) – edificio C2 – Via A. Valerio,10 - 34127 TRIESTE (Please write on the envelope: Scuola di dottorato in Ingegneria e Architettura, Indirizzo Ingegneria dell'Informazione) or in person at the same address from Monday to Friday from 9:00 am to 1:00 pm.

EXAMINATION SCHEDULE:
- INTERVIEW: **29.10.2012 at 11.00 a.m.** at Dipartimento di Ingegneria e Architettura (D.I.A. – former D.I.3, former DEEI) – Biblioteca E. Carli - buillding C2 – Via A. Valerio, 10 – 34127 - TRIESTE

  LANGUAGE/S OTHER THAN THE ITALIAN FOR THE ORAL INTERVIEW: English

CEFR LEVEL: ability to access the international scientific literature

DATI GENERALI

CURRICULUM SUPERVISOR: Prof. Roberto Vescovo - Dipartimento di Ingegneria e Architettura - Università degli Studi di Trieste - phone +39 040/558.3458 email vescovo@univ.trieste.it

WEB SITE: temporary address of Information Engineering http://www.di3.units.it/scuoladottorato/

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from which you can access the school web site http://www.dicar.units.it/dottingarc

<u>EDUCATIONAL AIMS AND RESEARCH TOPICS</u>: The aim of the Course in Information Engineering of the Doctorate School in Engineering and Architecture, of the University of Trieste, is to take care of the education in the fields of the creation, acquisition, management and transfer of high level scientific knowledge in the area of interest. This task is oriented at the education of a high level figure devoted not only to research activities, but also to the innovation and management of research activities outside the academic and public research institutions. Therefore the Ph.D. students have to achieve the ability of analysing the state of the art and of identifying, suggesting, developing scientific innovations and technologies.

The cultural area of the Doctorate Course includes Computer Science, Telecommunications, Electromagnetic fields, Automation, Electronics and Bioengineering Science, Electrical and Electronic Measurements and Operations Research. Each of these cultural areas shows peculiar connotations for their specificity and offers formative paths, so that it is possible, on the one hand to supplement and enlarge the specific skills of every student, promoting individual interesting and talents, and on the other hand to transfer the state of the art of the specific field of interest, stimulating at the same time experiences and cross-fertilization events to increase and validate the research.

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