



Università degli Studi di Cagliari

<b>International PhD Programme in INDUSTRIAL ENGINEERING in collaboration with the University of Novi Sad</b>	
DISCIPLINARY SCIENTIFIC AREA	09 - INDUSTRIAL AND INFORMATION ENGINEERING
COORDINATOR	PROF. FRANCESCO AYMERICH
HEAD DEPARTMENT	DEPARTMENT OF MECHANICAL, CHEMICAL AND MATERIAL ENGINEERING
DURATION	3 YEARS
EDUCATIONAL OBJECTIVES AND RESEARCH TOPICS	<p>The goal of the PhD programme is to form professionals who will find suitable job placements at academic institutions, research centers, industries, and who will be able to develop new projects with high scientific and technological content. To this aim, the student has to pass specific exams and develop an original research project aimed at the advancement of knowledge in the relevant field of engineering.</p> <p>At the end of each academic year, the student has to present her/his activities to the PhD board.</p> <p>The main topics (ERC subsector) of the PhD programme in Industrial Engineering are:</p> <p>PE7_1 Control engineering  PE7_2 Electrical and electronic engineering: semiconductors, components, systems  PE7_4 Simulation engineering and modeling  PE6_6 Informatics and information systems  PE8_2 Chemical engineering, technical chemistry  PE8_6 Energy systems (production, distribution, application)  PE8_8 Mechanical and manufacturing engineering (shaping, mounting, joining, separation)  PE2_3 Nuclear physics  LS7_1 Medical engineering and technology</p>
ELIGIBILITY AND OTHER REQUIREMENTS FOR CANDIDATES	<p>Italian degree awarded according to the Ministerial Decree no. 509/1999 (<i>laurea specialistica</i>) and according to the Ministerial Decree no. 270/2004 (<i>laurea magistrale</i>):</p> <p>LM-4 <i>Architettura e ingegneria edile-architettura</i>  LM-13 <i>Farmacia e farmacia industriale</i>  LM-17 <i>Fisica</i>  LM-20 <i>Ingegneria aerospaziale e astronautica</i>  LM-21 <i>Ingegneria biomedica</i>  LM-22 <i>Ingegneria chimica</i>  LM-23 <i>Ingegneria civile</i>  LM-24 <i>Ingegneria dei sistemi edilizi</i>  LM-25 <i>Ingegneria dell'automazione</i>  LM-26 <i>Ingegneria della sicurezza</i>  LM-27 <i>Ingegneria delle telecomunicazioni</i>  LM-28 <i>Ingegneria elettrica</i>  LM-29 <i>Ingegneria elettronica</i>  LM-30 <i>Ingegneria energetica e nucleare</i>  LM-31 <i>Ingegneria gestionale</i></p>



	<p>LM-32 <i>Ingegneria informatica</i>                  LM-33 <i>Ingegneria meccanica</i>                  LM-34 <i>Ingegneria navale</i>                  LM-35 <i>Ingegneria per l'ambiente e il territorio</i>                  LM-40 <i>Matematica</i>                  LM-44 <i>Modellistica matematico-fisica per l'ingegneria</i>                  LM-53 <i>Scienza e ingegneria dei materiali</i>                  LM-54 <i>Scienze chimiche</i>                  LM-70 <i>Scienze e tecnologie alimentari</i>                  LM-71 <i>Scienze e tecnologie della chimica industriale</i>                  LM-75 <i>Scienze e tecnologie per l'ambiente e il territorio</i>                  14/S (<i>specialistiche in farmacia e farmacia industriale</i>)                  20/S (<i>specialistiche in fisica</i>)                  25/S (<i>specialistiche in ingegneria aerospaziale e astronautica</i>)                  26/S (<i>specialistiche in ingegneria biomedica</i>)                  27/S (<i>specialistiche in ingegneria chimica</i>)                  28/S (<i>specialistiche in ingegneria civile</i>)                  29/S (<i>specialistiche in ingegneria dell'automazione</i>)                  30/S (<i>specialistiche in ingegneria delle telecomunicazioni</i>)                  31/S (<i>specialistiche in ingegneria elettrica</i>)                  32/S (<i>specialistiche in ingegneria elettronica</i>)                  33/S (<i>specialistiche in ingegneria energetica e nucleare</i>)                  34/S (<i>specialistiche in ingegneria gestionale</i>)                  35/S (<i>specialistiche in ingegneria informatica</i>)                  36/S (<i>specialistiche in ingegneria meccanica</i>)                  37/S (<i>specialistiche in ingegneria navale</i>)                  38/S (<i>specialistiche in ingegneria per l'ambiente e il territorio</i>)                  45/S (<i>specialistiche in matematica</i>)                  50/S (<i>specialistiche in modellistica matematico-fisica per l'ingegneria</i>)                  61/S (<i>specialistiche in scienza e ingegneria dei materiali</i>)                  62/S (<i>specialistiche in scienze chimiche</i>)                  82/S (<i>specialistiche in scienze e tecnologie per l'ambiente e il territorio</i>) and all the equivalent degrees awarded according to the old Italian Regulations.</p> <p>Foreign students:                  Academic qualification issued by a foreign university, comparable in duration and content to the Italian titles requested and providing access to PhD education in the country of achievement, recognized as equivalent (degree in Engineering (all fields), Physics, Chemistry)</p>
<p>ADMISSION TESTS</p>	<p>ASSESSMENT OF QUALIFICATIONS AND CURRICULUM VITAE, AND A VIDEO CONFERENCE INTERVIEW.                  The interview will include an evaluation of the level of English proficiency of the candidate.</p>
<p>ADMISSION TESTS FOR FOREIGN CANDIDATES APPLYING FOR RESERVED POSITIONS SUPPORTED BY A SCHOLARSHIP</p>	<p>EVALUATION OF THE CURRICULUM VITAE, REFERENCE LETTERS AND A VIDEO CONFERENCE INTERVIEW.                  The interview can be conducted in English by teleconference (Skype) with audio and video modality that allows the verification of the identity of the candidate.                  The reference letters must be written in English, following the form available at <a href="https://www.unica.it/unica/page/it/dottoratiricerca">https://www.unica.it/unica/page/it/dottoratiricerca</a> (How to apply for PhD selection: Guidelines and forms - Annex C), on letterhead of the University of the professor or expert in the scientific field(s) of the PhD programme, who signs and dates it. The curriculum vitae should be written in English.</p>



POSITIONS	5
SCHOLARSHIPS	<p>4 FUNDED BY THE UNIVERSITY OF CAGLIARI, 1 RESERVED FOR FOREIGN GRADUATES OF FOREIGN UNIVERSITIES.</p> <p>Two additional scholarships funded by INPS with a specific research topic – ‘Multidisciplinary design and optimization of aeronautical components’ and ‘Study, design and development of solutions for the production and distribution of electricity with stand-alone multi-energy micro-nets’ - reserved for the children and orphans of individuals registered for the Unified Management of Credit and Social Benefits, and of retired users of the Management for public employees, are also available. The scholarship recipients will be selected among the candidates who will gain a suitable position in the ranking lists for the admission to PhD programme for the academic year 2020/2021, upon INPS verification of the right to benefit.</p>
POSITIONS WITHOUT SCHOLARSHIP	1
REFERENCE PERSON	<p>PROF. FRANCESCO AYMERICH - EMAIL: <a href="mailto:francesco.aymerich@dimcm.unica.it">francesco.aymerich@dimcm.unica.it</a> - TEL. 070.675.5706/5727</p>
WEBSITE	<a href="https://dottorati.unica.it/ingegneriindustriale/general-info/">https://dottorati.unica.it/ingegneriindustriale/general-info/</a>