




INFORMATION TECHNOLOGIES	
CYCLE	XXXVII
COORDINATOR	Prof. Marco LOCATELLI email: marco.locatelli@unipr.it Department of Engineering and Architecture
DURATION	3 anni
STARTING DATE OF THE PHD PROGRAM	01/11/2021
RESEARCH TOPICS (The candidate MUST mandatorily indicate one research topic in the ANNEX A)	
<ul style="list-style-type: none"> • Electronics instrumentation and electrical drives • Computer systems and automatic control • Telecommunications and electromagnetic fields 	
TRAINING OBJECTIVES	
The course aims at educating the future Ph.D.'s so that they will enter the research world with an active role, within both universities and industries.	
ADMISSION REQUIREMENTS	<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none"> – Laurea specialistica or Laurea magistrale (second cycle master's degree) – Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations); – Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2021.</p>

POSITION PUT OUT TO COMPETITION	11	With Scholarship	9
		Reserved to holders of scholarship funded by foreign States	1
		Reserved to employees of companies having an "Industrial Doctorate" arrangement	1
Position with Scholarship			
N°	Funding entity	Research Topic, if any	
3	Scholarship funded by University of Parma (Ministerial funds)	---	
1	Scholarship funded by University of Parma (University funds)	---	
1	Scholarship co-funded by Fondazione Cariparma	---	



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)		
During the Oral Exam, applicants may express and / or confirm their interest to the Examination Board in being assigned a scholarship dedicated to a specific research topic.. The Board will express its judgement on eligibility to be assigned the scholarship in consideration of the specific competences, experience and specific aptitudes of the applicants.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Scholarship funded by Department of Engineering and Architecture	<ul style="list-style-type: none"> Applications of Artificial Vision To Autonomous Driving
1	Scholarship partly financed with UNIVERSITY funds and co-financed by Casappa S.p.A.	<ul style="list-style-type: none"> Electrification of endothermic and hydraulic components and systems for machinery
1	Scholarship partly financed with UNIVERSITY funds and co-financed by Elettric 80 S.p.A.	<ul style="list-style-type: none"> Design and programming of a mobile manipulator for grasping and transportation of packages in industrial environments
1	Scholarship funded by EMILIA ROMAGNA REGION  The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna	<ul style="list-style-type: none"> Big data in the management of autonomous vehicle fleets in industry: analysis of sensory data, detection and prediction of faults and optimization of system operation
Position reserved to HOLDERS OF SCHOLARSHIP FUNDED BY FOREIGN STATES		
N°	University or Foreign State	
1	Reserved to holders of Qatar	
Position reserved for "INDUSTRIAL DOCTORATE" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	
1	Reserved to employees of RETAIL TUNE S.r.l.	

ADMISSION PROCEDURES	Assessment of QUALIFICATIONS: up to 70 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 50 points Minimum score for ELIGIBILITY: 70/120
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist of a brief interview on a technical topic (for example a translation of a scientific text).
CANDIDATES ADMITTED TO THE ORAL TEXT CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE (Candidates who intend to take the Oral Exam remotely must submit request, to this purpose, as per the model attached to the competition notice)	
THE INTERVIEW MAY BE HELD ALSO IN ENGLISH	



LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION

ANNEX A	(art. 5 of the Competition notice)
Identification Document	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae et studiorum	No specific CV format is required (see art. 4 of the Competition notice)
Abstract of degree thesis	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)
Qualifications	Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 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).
Research Project	The research project shall consist of a maximum of 3 pages, be written in English, focused on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. <u>It does not represent a constraint with respect to the following choice of the doctoral thesis, that shall be defined together with the supervisor and approved by the Academic Board.</u>

FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT

(only qualifications attested by a document drawn up in Italian or in English)

Scientific Publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.
Reference Letters	Maximum 2 letters and must be sent directly by the signer to the address e-mail: marco.locatelli@unipr.it (The candidate, therefore, must not upload them through the procedure of the competition online registration)
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> – Periods of study abroad, outside the country of origin (e.g., Erasmus programme or other similar mobility programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	Evaluation of the marks of the exams and of the master's degree mark (if available). The candidate is required to provide the average of the marks of all the exams of the master's degree, in addition to the details of the same It will also be evaluated the congruence of the degree obtained with the PhD themes.	Up to 25 points
Abstract of the Master's degree thesis	Consistency of the Master's Degree thesis with the doctoral program research topics	Up to 5 points



Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: <ul style="list-style-type: none"> ○ Scientific value and originality of the proposal: max 10 points ○ description and structure of the proposal: max 10 points ○ proposal feasibility: max 10 points 	Up to 30 points
Scientific publications	Evaluation of the editorial position of the publication and its impact on the scientific community on the basis of the available indicators.	Up to 5 points
Reference Letters	Evaluation of the judgments reported in the reference letters.	Up to 2 points
Other experiences	Duration evaluation (for scholarships and internships), score (for the GRE test), prestige (for awards)	Up to 3 points
ORAL EXAM	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> ○ knowledge of the foreign language: max 5 points ○ research project presentation: max 25 points ○ general knowledge of issues connected to the PhD course: max 20 points 	Up to 50 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	15 September 2021 (with possible extension in the following days)
	TIME	09:00 am (Italian Time)
	PLACE	Department of Engineering and Architecture Parco Area delle Scienze, 181/A – Campus Universitario 43124 PARMA - ITALY
OTHER INFORMATION	<p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p> <p>For foreign candidates all documents written in a language other than Italian will have to be translated into English, otherwise they will not be evaluated</p>	