

PhD Programme Table - 39th cycle
Call for Applications for further PhD positions
funded by Next Generation EU - NRRP ex M.D. 117/2023 and 118/2023
and from other sources - PhD Programmes (39th cycle)
A.Y. 2023/2024



Section "Available Positions and Scholarships" integrated on 20/07/2023

Section "Available Positions and Scholarships" integrated on 02/08/2023

PROGRAMME'S NAME	AUTOMOTIVE ENGINEERING FOR INTELLIGENT MOBILITY
ASSOCIATED PARTNERS <i>Pursuant to art. 3 para 2 lett. a) of the MD n. 226/2021</i>	Università degli Studi di Modena e Reggio Emilia Università degli Studi di Parma
DURATION	3 years
PROGRAMME START DATE	01/11/2023 (DD/MM/YYYY)
LANGUAGES	English
COORDINATOR	Prof. Nicolò Cavina (nicolo.cavina@unibo.it)
CURRICULA	1. Vehicle Design, Manufacturing and Systems Integration 2. Energy Systems, Powertrains, Vehicle Performance 3. Vehicle Informatics and Connectivity
PHD POSITIONS	5
ADMISSION PROCEDURE	Qualifications and research proposal evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Curriculum	Positions linked to research topics
1	PhD Scholarship PNRR	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) – M4C2 Investment 1.4, title: Sustainable Mobility Center - code CN00000023 - CUP J33C22001120001 - Prof. Vittorio Maniezzo	2	Optimization and forecast algorithms with application to layout and energy management of a Fuel Cell based powertrain
2	PhD Scholarship PNRR ex M.D. 118/2023 - PNRR Research	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 1, Investment 4.1 (M.D. 118/2023) – PNRR Research	3	Advanced electronic systems for driver-car interactions
3	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by FEV Italia S.r.l.	2	Use of e-fuels in internal combustion engines as a solution to contribute in the short and medium term to the achievement of neutrality from the point of view of CO2 emissions in the mobility sector

				(impact on hardware, control system and industrialization)
4	PhD Scholarship PNR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Automobili Lamborghini S.p.A.	2	Analysis and development of architectures and innovative control strategies for hybrid powertrains in Motorsport
5	PhD Scholarship	Funded by Università degli Studi di Parma	2	Energy management optimization in high-performance electric/hybrid vehicles

The number of positions and scholarships may be incremented in case additional funding becomes available, notwithstanding the terms of the application process as detailed in Art. 3 of the Call for Applications. Any amendment, update or integration of the Programme Table will be published, even after the Call for Applications has expired. Any further PhD positions shall be integrated in the PhD Programme Table within ten days before the oral examination.

All PhD positions winners shall fulfill the learning and research obligations decided by the Academic Board and the obligations foreseen in the relevant regulations, funding schemes and eventual agreements, and in the Call for Applications. Moreover, applicants awarded with PhD scholarships funded by Next Generation EU shall fulfill specific obligations foreseen in the relevant funding scheme, in the relevant regulations and in the Call for Applications.

Admission Exams

	DATE AND TIME	RESULTS
Qualifications and research proposal evaluation	Applicants' participation is not required	Available from 31/08/2023**
Oral examination	Date: starting from 04/09/2023 – 9.00 a.m. CEST* Place: In presence, Scuola di Ingegneria, Viale Risorgimento 2, Bologna. Remotely, using Microsoft Teams	Available from 05/09/2023**

* In case that the oral examination cannot be completed in one day due to the large number of applicants, the oral examination detailed schedule shall be made available on the webpage [Studenti Online](#) together with the results of the qualifications and research proposal evaluation. **During the oral examination, applicants may express their interest in one or more positions linked to specific research topics.**

** The **results of the admission exams** will be available on the webpage [Studenti Online](#) (select "summary of the requests in progress" > "see detail" and open the .pdf file at the bottom of the page). **No personal written communication will be sent to applicants concerning the examinations results.**

Required and Supporting Documents to be attached to the application

All the documents listed below **shall be drawn up in English or in Italian**. In case of documents originally issued in any other language (e.g. identity document, qualifications), an official translation is required.

Only qualifications obtained **during the last 5 calendar years** shall be taken into consideration, except for the University Degree. The Admission Board will assess the relevance of the supporting documents to the PhD Programme.

REQUIRED DOCUMENTS	
Identity document	Valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae	No specific CV format is required
Degrees	Documents attesting the awarding of the first and second cycle degrees, the exams taken and the marks obtained (see Art. 3 of the Call for Applications)
Research proposal	Multi-annual research proposal, with special emphasis on the activities to be completed during the first-year course . The proposal must meet the following requirements: <ul style="list-style-type: none"> - it must mention on the cover page the Curriculum and the main research topic the applicant is interested to and the proposal is about;

	<ul style="list-style-type: none"> - it cannot exceed 20,000 characters, including spaces and formula possibly used. This figure does not include: the title of proposal, the outline, references and images (such as graphs, diagrams, tables, etc. - if present); - it must include: the state of the art; description of the proposal; expected results; references.
SUPPORTING DOCUMENTS	
Thesis abstract	Abstract of the second cycle degree thesis . Graduands applicants may submit the draft of the thesis. Abstracts cannot exceed 5,000 characters, including spaces and formula possibly used. The above figure does not include: the title of the thesis, the outline, references, and images such as graphs, diagrams, tables etc.
Publications	Lists of publications (i.e. monographs, articles on scientific journals), minor publications (conference papers, etc.), abstracts and posters presented during national and international conferences, etc.
Other documents	<ul style="list-style-type: none"> - Postgraduate vocational training programmes relevant to the PhD Programme main research topics - Teaching activities carried out at university level - Research activity of any kind - whether basic, applied, translational, etc. - carried out in any capacity, including when covered by research grants, and as a staff member of research projects - Documents attesting the knowledge of foreign languages - Study periods completed by applicants outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes) - Other qualifications attesting the suitability of the applicants (scholarships, prizes, etc.)

Evaluation criteria*

Scores will be expressed in points out of 100, as follows.

1. Qualifications and research proposal evaluation

Minimum score for admission to the oral examination: 30 points, Maximum score: 50 points

Qualifications evaluation	Second cycle (Master's) degree final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	20 points max
	Publications and other qualifications attesting the applicant's training and skills	5 points max
Research proposal evaluation	Scientific value and ground-breaking nature of the proposal	15 points max
	Structure of the proposal	5 points max
	Proposal feasibility	5 points max

2. Oral examination

Minimum score for eligibility: 30 points, Maximum score 50 points

Foreign language proficiency	5 points max
Research proposal presentation	30 points max
General knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions	15 points max

Oral examination aims to assess the suitability of the applicant for scientific research as well as the general knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions.

The oral examination is carried out in English.

* Possible further evaluation criteria will be available on the [University website](#), selecting the relevant PhD Programme > "More information".