



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

AREA  
FORMAZIONE E DOTTORATO

## PHD PROGRAMME TABLE

**Call for applications for the admission to the PhD programmes (42<sup>nd</sup> cycle) - A.Y. 2026/2027  
Second round**

Section "Available Positions and Scholarships" integrated on 27/05/2026

|                                                                                        |                                                                                                                                                            |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROGRAMME'S NAME                                                                       | <b>AUTOMOTIVE ENGINEERING FOR INTELLIGENT MOBILITY</b>                                                                                                     |
| ASSOCIATED PARTNERS<br><i>Pursuant to art. 3 para 2 lett. a) of the MD n. 226/2021</i> | Università degli Studi di Modena e Reggio Emilia<br>Università degli Studi di Parma                                                                        |
| DURATION                                                                               | 3 years                                                                                                                                                    |
| PROGRAMME START DATE                                                                   | 01/11/2026 (DD/MM/YYYY)                                                                                                                                    |
| LANGUAGES                                                                              | English                                                                                                                                                    |
| COORDINATOR                                                                            | Prof. Davide Moro ( <a href="mailto:davide.moro@unibo.it">davide.moro@unibo.it</a> )                                                                       |
| CURRICULA                                                                              | 1. Vehicle Design, Manufacturing and Systems Integration<br>2. Energy Systems, Powertrains, Vehicle Performance<br>3. Vehicle Informatics and Connectivity |
| PhD POSITIONS                                                                          | 9                                                                                                                                                          |
| ADMISSION PROCEDURE                                                                    | Qualifications and research proposal evaluation<br>Oral examination                                                                                        |

### Available Positions and Scholarships

| Pos. n. | Financial Support      | Description                                                                                                                                                                                                                               | Curriculum | Positions linked to research topics                                                                           |
|---------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------|
| 1       | <b>PhD Scholarship</b> | Funded by the University of Bologna general budget and by the Dept. of Industrial Engineering                                                                                                                                             | 1          | Characterization, modeling and assessment of bolted joints                                                    |
| 2       | <b>PhD Scholarship</b> | Funded by the University of Bologna general budget and by the Dept. of Industrial Engineering. In memory of Prof. Francesco Masi, formerly Professor Emeritus of the Chair of Applied Mechanics to Machinery at the University of Bologna | 2          | Advanced methods for the analysis, estimation and identification of the dynamics of high-performance vehicles |
| 3       | <b>PhD Scholarship</b> | Funded by Ferrari S.p.A.                                                                                                                                                                                                                  | 2          | Simulation models and control strategies for advanced hybrid power unit systems                               |
| 4       | <b>PhD Scholarship</b> | Funded by InterMech centre - University of Modena and Reggio Emilia                                                                                                                                                                       | 1          | Definition and development of Extended Reality tools for upskilling, reskilling, and lifelong                 |

|   |                                           |                                                                                                                                                |   |                                                                                                                      |
|---|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------|
|   |                                           |                                                                                                                                                |   | learning in production and maintenance processes                                                                     |
| 5 | <b>PhD Scholarship</b>                    | Funded by the University of Modena and Reggio Emilia                                                                                           | 2 | Electrical machines, drives and systems for advanced electrified transportation                                      |
| 6 | <b>PhD Scholarship</b>                    | Funded by the University of Modena and Reggio Emilia                                                                                           | 2 | Study of advanced control methods for the dynamic of high-performance autonomous vehicles                            |
| 7 | <b>PhD Scholarship</b>                    | Funded by the University of Bologna general budget and by the Dept. of Electrical, Electronic, and Information Engineering "Guglielmo Marconi" | 2 | Process optimization and performance enhancement of formation and aging in lithium-ion battery manufacturing         |
| 8 | <b>PhD Scholarship</b>                    | Funded by the University of Parma                                                                                                              | 2 | Energy management/storage systems in electric or hybrid vehicles                                                     |
| 9 | <b>PhD position without a scholarship</b> |                                                                                                                                                | 3 | Development of advanced active control techniques for improving the acoustic experience in high-performance vehicles |

The yearly gross amount of the scholarships awarded for the PhD Programme in “Automotive Engineering for Intelligent Mobility” is € 18,341.04.

All winners of PhD positions must fulfil the study and research obligations decided by the Academic Board, as well as the obligations set out in the relevant regulations, in the call for applications, in the funding schemes and in any agreements relating to specific positions.

## Admission Exams

|                                                        | DATE AND TIME                                                                                                                                                                                               | RESULTS                          |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Qualifications and research proposal evaluation</b> | Applicants' participation is not required                                                                                                                                                                   | Available from <b>06/07/2026</b> |
| <b>Oral examination</b>                                | <b>Date:</b> starting from <b>15/07/2026– 9.00 a.m. CEST</b><br><b>Place:</b> In presence, Sala Giunta, Dept. of Industrial Engineering, Viale del Risorgimento 2, Bologna. Remotely, using Microsoft Teams | Available from <b>23/07/2026</b> |

The results of the qualifications and research proposal evaluation, as well as the oral examination detailed schedule, shall be available on the webpage [Studenti Online](#) (select “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.

**During the oral examination, applicants will express their interest in one or more PhD positions linked to specific research topics.**

## Required and Supporting Documents to be attached to the application

Only documents in Italian or English will be considered valid and will be assessed by the Admission Board. Identity documents and diplomas/degree certificates issued in a language other than Italian or English must be accompanied by an official translation. The translation must be carried out by an authorized body or by the awarding university. Only qualifications obtained in the last 5 years will be taken into account, with the exception of university degrees. The Admission Board will assess the relevance of the supporting documents to the PhD programme.

| REQUIRED DOCUMENTS       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Identity document</b> | Valid identity document with photo (i.e. identity card, passport)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Curriculum Vitae</b>  | No specific CV format is required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Degrees</b>           | 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Research proposal</b> | <p>Multi-annual research proposal, with special emphasis on the <b>activities to be completed during the first-year course</b>. The proposal must meet the following requirements:</p> <ul style="list-style-type: none"> <li>- it must <b>mention on the cover page the Curriculum and the main research topic</b> the applicant is interested to and the proposal is about;</li> <li>- <b>it cannot exceed 20,000 characters</b>, 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);</li> <li>- <b>it must include</b>: the state of the art; description of the proposal; expected results; references.</li> </ul> <p>In accordance with the <a href="#">University's policy on the ethical and responsible use of Generative Artificial Intelligence in teaching and research activities</a>, candidates must explicitly state whether they have used Generative Artificial Intelligence systems in the production of the research proposal attached to their application form, specifying which tools were used and for which parts of the document. During the oral examination, the Admission Board will assess the candidate's full mastery of the content included in the document and their ability to justify the methodological and scientific choices made in the project.</p> |
| SUPPORTING DOCUMENTS     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Thesis abstract</b>   | Abstract of the <b>second cycle degree thesis</b> . Graduands applicants may submit an abstract of the thesis to be defended. 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Publications</b>      | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Other documents</b>   | <ul style="list-style-type: none"> <li>- Postgraduate vocational training programmes relevant to the PhD Programme main research topics</li> <li>- Teaching activities carried out at university level</li> <li>- 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</li> <li>- Documents attesting the knowledge of foreign languages</li> <li>- Study periods completed by applicants outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>- Other qualifications attesting the suitability of the applicants (scholarships, prizes, etc.)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## 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

|                                     |                                                                                                                      |               |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Qualifications evaluation</b>    | 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  |
| <b>Research proposal evaluation</b> | 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

|                                                                                                                                |               |
|--------------------------------------------------------------------------------------------------------------------------------|---------------|
| English 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".