



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

PhD Program in Mechanics and Advanced Engineering Sciences (DIMSAI)

Welcome day for 41th cycle students

Prof. Lorenzo Donati

DIMSAI PhD Program Coordinator

Department of Industrial Engineering (DIN)

Welcome!

- Welcome aboard the **PhD Program in Mechanics and Advanced Engineering Sciences**, that we usually call by its short, **DIMSAI**.
- I am Prof. Lorenzo Donati, the **Coordinator** of the PhD Program,
- Prof. Andrea De Pascale is the **deputy-coordinator**, with the delegation to implement **the DIMSAI website**,
- Prof. Matteo Gherardi and Prof. ssa Beatrice Pulvirenti are the **delegates for PhD-student education and training activities**,
- Prof. Marco Troncossi is **the delegate for admission procedures and for consultation of advisory board**,
- Prof. Marco Pellegrini is the **delegate for Quality Assurance**.

We are the PHD PROGRAMME COMMITTEE also known in Italian as GIUNTA.



DIMSAI Board

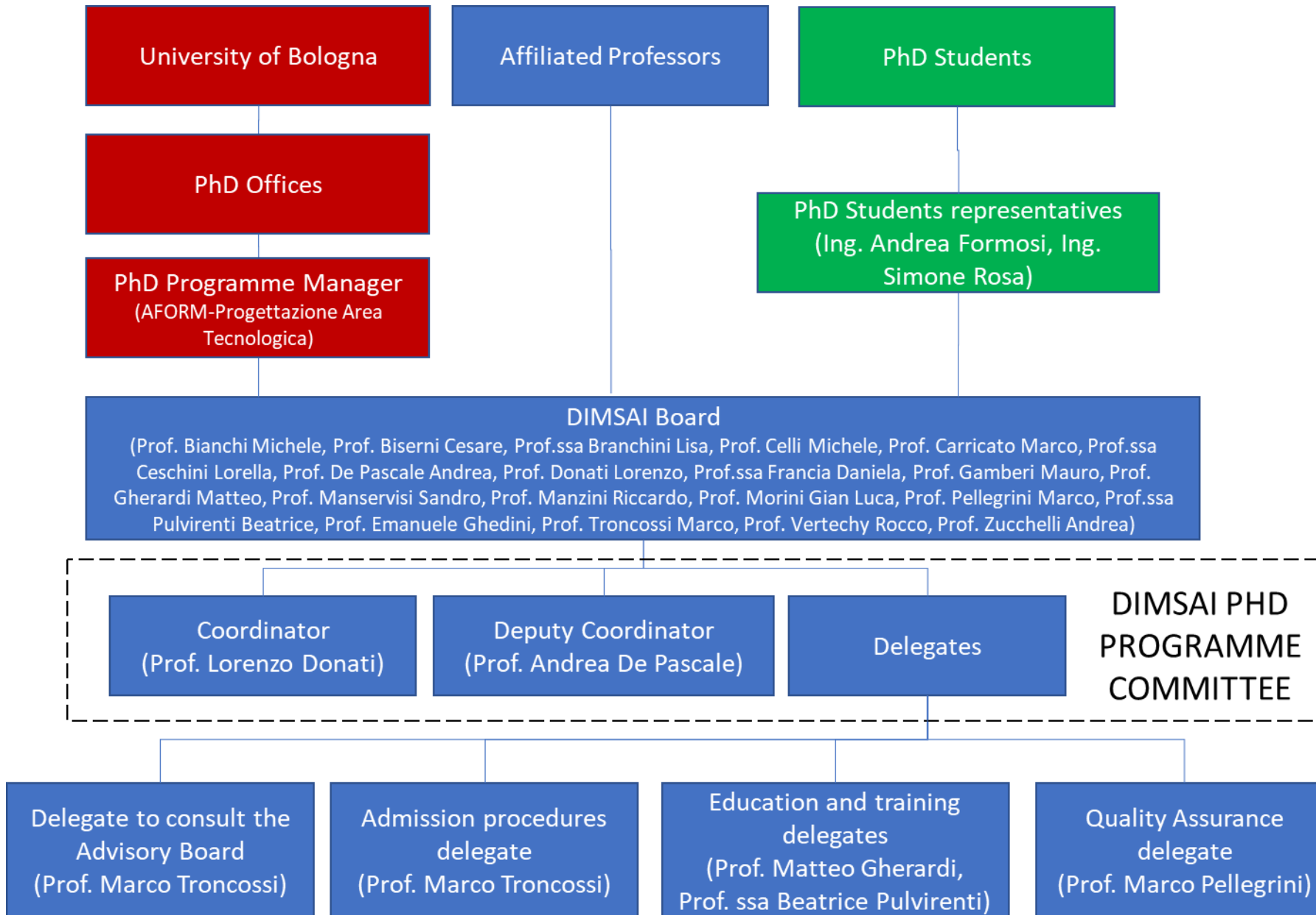
1. Prof. Lorenzo Donati (*Coordinator*)
2. Prof. Andrea De Pascale (*Deputy-Coordinator*)
3. Prof. Matteo Gherardi (*Delegate for PhD-student education and training activities*)
4. Prof.ssa Beatrice Pulvirenti (*Co-Delegate for PhD-student education and training activities*)
5. Prof. Marco Troncossi (*Delegate for admission procedures and for consultation of advisory board*)
6. Prof. Marco Pellegrini (*Delegate for Quality Assurance*)
7. Prof. Michele Bianchi
8. Prof. Cesare Biserni
9. Prof.ssa Lisa Branchini
10. Prof. Marco Carricato

11. Prof. Michele Celli
12. Prof.ssa Lorella Ceschini
13. Prof.ssa Daniela Francia
14. Prof. Mauro Gamberi
15. Prof. Sandro Manservigi
16. Prof. Riccardo Manzini
17. Prof. Gian Luca Morini
18. Prof. Emanuele Ghedini
19. Prof. Rocco Vertechy
20. Prof. Andrea Zucchelli

Eng. Andrea Formosi (*Student' representative*)

Eng. Simone Rosa (*Student' representative*)

DIMSAI organization



PhD Programs and DIMSAI

- PhD is short for **Doctor of Philosophy**. The PhD is the highest level of degree a student can achieve. This is an academic or professional degree that qualifies the degree holder to teach their chosen subject at **university level** or to **work in a specialized position** in their chosen field.
- In Italy it's also known as 3rd level of formation since it involves a **theoretical** and **practical** formation of the PhD candidates thus meaning **a further learning phase** in conjunction with a tutored application of the theory.

DIMSAI covers three main research areas (the curricula):

1. Engineering and Industrial Design, Machine Construction, Metallurgy, and Manufacturing Technologies;
2. Fluid Machinery, Energy Systems, Mechanics of Machines and Industrial Mechanical Plants;
3. Thermal Physics, HVAC Systems, Acoustics, Nuclear Technologies and Industrial Applications of Plasmas;

The DIMSAI PhD Programme is developed by the **Department of Industrial Engineering (DIN)** of the University of Bologna, Italy.



PhD Programs and DIMSAI

Today we will explain you some important information about the DIMSAI programme, in particular:

- the aim and scope of the DIMSAI program;
- the system of doctoral credits to be acquired during the course;
- the program of the course organized by DIMSAI for the year 2025/2026;
- the program of the courses offered by Unibo on Transferable Skills (Competenze Trasversali);
- other type of courses that you can select for your educational and training path;
- the planning of the research activities;
- the yearly evaluation of the performed activities (educational, training and research);
- the rules and procedures for getting several type of authorizations.

We will also allocate each one of you to one **curriculum**, and in particular, within your curriculum, we will assign you a **supervisor** and a **co-supervisor**, and possibly more **co-supervisors**, and a **research topic and project**. You will discuss the details of this topic directly with your supervisor and co-supervisors.

Your supervisor is not only the person who will monitor your research progress, but also the person that must **coordinate and approve your education and training**, and also assist you with the **PhD procedures**.

This presentation could seem boring, but it includes information useful for your next 3 years programme, please listen carefully in order to avoid to ask –as frequently happened in the past- these info again in future....



DIMSAI program aims and scope

The DIMSAI PhD Course aims to provide enrolled PhD students with the skills to carry out **highly qualified research activities** in the scientific areas described by the curricula, related to mechanics and the associated engineering sciences. The PhD offers a training course **with both academic and professional purposes**. It develops the candidate's ability to carry out **original studies and research independently, systematically and in depth**, with an appropriate process of advanced third-level studies, consisting of specialized courses and seminars. It aims to increase the level of knowledge of the candidate in the specific subjects of the research program and in the specific subjects of the PhD. It aims to provide PhD students with **multidisciplinary skills** by encouraging participation in events organized by the other Doctorates of the **Department or of other Departments**, stimulates participation in events useful for acquiring the **transversal skills** essential for future professional activities. Finally, it encourages participation in events organized by **other universities or research institutions, in Italy and abroad**. It aims to stimulate the ability to conduct research activities in collaboration with international research groups, developing alternative skills and methodologies in comparison with researchers belonging to foreign research centers. Thanks to the supervision of **one or more tutors**, the programme aims to provide the **theoretical and practical knowledge to develop a doctoral thesis that demonstrates the level of originality and relevance** of the studies carried out within the topics of the course.



DIMSAI Doctoral credits (from 40th cycle)

Doctoral Credits (CD) measure the workload required to the PhD student in research and training activities for the achievement of the degree. Each **CD is worth 25 hours** of commitment and the PhD student must obtain **60 CDs per year** (1.500 hours/year).

Table A – Distribution of CDs between research, training and teaching		
Type of activity	Total number of CDs	%
Research activities	144	80
Training and teaching activities	36	20
Total	180	100

The Course has also defined the recommended number of CDs to be acquired for training, dissemination and teaching in each year of the course, in order to ensure the balanced performance of these activities with respect to those of research.

Table C – CD for training and teaching to be acquired in the various years of the course		
Training and teaching CDs to be acquired	Recommended	Minimum
at the end of the 1st year	18	0
at the end of the 2nd year	30	12
at the end of the 3rd year	36	36



DIMSAI Doctoral credits (from 40th cycle) - Training and teaching CD

PhD students, in agreement with their **supervisors** and co-supervisors, flexibly define their specific **training and research paths**, choosing the activities to be carried out, by type and quantity, in compliance with the constraints established by the Board for each activity and year of the course. DIMSAI has defined the minimum value of CDs to be achieved for each of the following activities:

Table B – Requirements for the distribution of CDs between training and teaching activities		
Type of activity	Minimum number of CDs	Maximum number of CDs
i. Disciplinary and multidisciplinary training	6	-
ii. Transversal soft skills	1	-
iii. Extracurricular training	1	-
iv. Dissemination	2	-
v. Teaching and Tutoring	1	9

For the recognition of training, dissemination and teaching activities, the DIMSAI Board will use the DIMSAI Doctoral Credits regulations that will be updated soon on the website.

We will organize a course on credit system for you within January 2026.



DIN-DIMSAI Doctoral courses 2025/2026 (PhD@DIN)

Titolo attività (1)	Tipologia (2)	Modalità di	Crediti	Ore di	Modalità di	Periodo di erogazione (6)	Anno (7)	Lingua di
MATLAB Course on Artificial Intelligence Algorithms and Machine Learning	Formazione	Carico didattico	2,8	14	Idoneità	IN PRESENZA -GIUGNO 2026	I, II, III	Inglese (italiano)
The Craft of Scientific Research	Formazione	Carico didattico	12	60	Idoneità	ONLINE - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
Python programming for scientific research	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE - APRILE-MAGGIO 2026	I, II, III	Inglese (italiano)
Open source codes for the solution of differential equations in engineering	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE - APRILE-MAGGIO 2026	I, II, III	Inglese (italiano)
Design of Experiments: theory and applications	Formazione	Carico didattico	2,4	12	Voto	IN PRESENZA e ONLINE -GIUGNO 2026	I, II	Inglese (italiano)
Mathematica™ Course for DIN PhD Students	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE - FEBBRAIO 2026	I, II, III	Inglese (italiano)
An elementary introduction to quantum mechanics	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE - APRILE 2026	I, II, III	Inglese (italiano)
Instability in Fluid Dynamics	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE -SETTEMBRE 2026	I, II, III	Inglese (italiano)
Mechanical Characterization of Conventional and Advanced Materials	Formazione	Carico didattico	4	20	Idoneità	IN PRESENZA - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
Codes and methods for neutronic analysis of nuclear fission and fusion reactors /	Formazione	Contratto	4	20	Idoneità	IN PRESENZA - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
Data-driven methods in engineering	Formazione	Carico didattico	2,4	12	Idoneità	ONLINE - LUGLIO 2026	I, II, III	Inglese (italiano)
Advanced materials and manufacturing technologies for Automotive - Part 1	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
Reduction of CO2 emissions for automotive powertrains - Part 1	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
Connected and Autonomous Vehicles - Part 1	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA - GENNAIO-FEBBRAIO 2026	I, II, III	Inglese (italiano)
		Carico didattico						
Aerospace and Climate Change	Formazione	Carico didattico	1,6	8	Idoneità	IN PRESENZA e ONLINE MAGGIO 2026	I,II,III	Inglese (italiano)
Embedded software development for engineering applications	Formazione	Carico didattico	1,6	8	Idoneità	IN PRESENZA DICEMBRE 2025	I,II,III	Inglese (italiano)
Uncertainty Analysis for Engineers	Formazione	Carico didattico	2,4	12	Idoneità	IN PRESENZA e ONLINE - FEBBRAIO-MARZO	I,II,III	Inglese
First semester Seminars	Seminari	Coordinamento			Idoneità	IN PRESENZA e ONLINE - NOVEMBRE		Inglese (italiano)
Second semester Seminars	Seminari	Coordinamento			Idoneità	IN PRESENZA e ONLINE - MAGGIO		Inglese (italiano)
Totale			52,4	262				

UniBo Doctoral courses on Transferable 'Soft Skills' (Competenze Trasversali)

<https://eventi.unibo.it/competenze-trasversali-dottorato>

Soon the 2025/2026 will be published

Enhance and communicate research:

- Knowledge valorisation and technology transfer to create impact on society
- University research compared to global challenges

Methods, techniques and tools:

- PhD Information Literacy Workshop
- Open Science Research data management principles and practices
- Data visualization for dissemination

Planning your future:

- Resources and skills for my professional future
- Working in a research team: the importance of communication, organizational and personal skills

Language Courses for Academics

Transversal Skills Program for PhD Students

academic year 2024-2025

Home

Program structure/Struttura
del piano

Public Speaking for Scientific
Research

Artificial Intelligence Tools for
Content Production in
Academia

Risorse e competenze per il
mio futuro professionale

Data visualization per la
divulgazione

La ricerca universitaria a
confronto con le sfide globali

Open Science: research data
management principles and
practices

Public speaking per la ricerca

PhD Information Literacy,
Open Access & Copyright
Workshop - english edition

Public speaking

Knowledge valorisation and
technology transfer to create
impact on society



During the doctoral path, a PhD student learns how to perform original, innovative and independent research in a specific scientific domain, acquiring expertise and knowledge that allow him/her to become an international expert in his/her research topic.

However, by solving challenging problems with methodological rigour and creativity, the PhD student also acquires cross-cutting expertise and abilities that have a general value beyond a specific scientific field, such as thinking outside the box, analysing situations and finding solutions, working in a team, organizing time and tasks efficiently, using technology effectively, expressing ideas and results clearly and effectively, disseminating knowledge to both specialists and non-specialists, interacting with international and multidisciplinary contexts, navigating diverse cultural environments, and so on.

In our complex society, these transversal skills are greatly valued across different jobs and life situations, not only in academia, but also in companies and public administration, throughout the top-tier level of professions in both the private and the public sector.

In this perspective, the University of Bologna organizes a rich portfolio of initiatives to strengthen PhD students' transversal skills, believing that such abilities are crucial for their future.

Click on the tab "Program structure" to find out more!

DIMSAI other courses

Seminars, courses and scientific events - offered by external institutions:

- Courses by AIM (Aim Italian Association for Metallurgy in Milan training courses, metallurgy laboratories - AIM)
- Courses by PHD-NET IN INDUSTRIAL SYSTEMS ENGINEERING - SCUOLA VIRTUALE DI DOTTORATO (<https://www.docenti-impianti-industriali.it/section.php?id=66>)
- Corso Nazionale Automazione Industriale e Robotica (<https://www.robosiri.it/corsi-organizzati-da-siri/>)
- Courses by A.I.T.E.M. Academy (<https://www.aitem.org/cosa-e-lacademy/>)
- Courses by AIMSEA (Associazione Italiana delle Macchine a fluido e dei Sistemi per l'Energia e l'Ambiente - Cos'è la SVD)

Summer/winter schools, technical courses by companies or software houses, courses on instruments/testing methodologies, etc.

You can take courses wherever you want! Not only at Unibo, not only in Universities, not only in Italy!
The selection criterion has to be.. courses useful for your doctoral program.

Agree on your personalized educational and training plan with your supervisors, he/she can provide you with information on more specific courses for you!



An example of 3-year plan for Training and teaching CD

NAME	TYPE & LOCATION	TYPE OF ACTIVITY	DURATION	CD
i. Courses (disciplinary and multidisciplinary training)				
Example: 'Machine mechanics'	Master course with final examination, at UniBo	Courses	60h, 6 official ECTS	(6 ECTS recognized)= 6.0
Example: 'Machine dynamics'	Master course without final examination, at UniBo	Courses	60h, 6 official ECTS if taken with examination	(60h/25)= 2.4
Example: 'Design of Experiments: theory and applications'	PhD course with final examination, at UniBo	Courses	12h, no official ECTS	(12h/5)= 2.4
Example: 'Artificial Intelligence: theory and applications'	PhD course with final examination, at TU Dortmund	Courses	30h, no official ECTS	(30h/5)= 6.0
Total Credits (>6CD in the three years)				16.8
i. Transferable Skills (Competenze Trasversali)				
Example: 'English course AcES'	English course for PhD students in transferable skills UniBo plan	Transferable Skills	50h, 5 ECTS	5 ECTS recognized, 5.0
Total Credits (>1CD in the three years)				5.0
i. Extracurricular training				
Example: 'International symposium on plasma chemistry' attendance only	International conference, Kyoto, Japan	Extracurricular training	5 days -including travelling-	(5x8/25)= 1.6
Example: Summer school 'AI data management'	Summer School without final examination, Rome, Italy	Extracurricular training	5 days -including travelling-, 32h, no official ECTS	(5x8/25)= 1.6

NAME	TYPE & LOCATION	TYPE OF ACTIVITY	DURATION	CD
Example: Summer school 'AI data management'	Summer School with final examination, Rome, Italy	Extra curricular training or Courses	5 days -including travelling-, 32h, 3 official ECTS	Max among (5x8/25)= 1.6 and 3 ECTS, 3.0
Total Credits (>1CD in the three years)				6.2
i. Dissemination				
Example: Paper presentation at 'International symposium on plasma chemistry'	International conference Kyoto, Japan	Dissemination	5 days -including travelling-	(5x12/25)= 2.4
Total Credits (>2CD in the three years)				2.4
i. Teaching and Tutoring				
Example: Co-supervisor in master thesis	Student: Francesco Bruni, master thesis, Meccanica Bo	Thesis Tutoring		1.0
Example: Tutoring contract	Course "Propulsione navale"	Tutoring contract	30h	(30/10)= 3.0
Example: Course Teaching	Corso ITS "Dal progetto al processo", Imola, Italy	Teaching contract	Teaching contract for 30 hours in class	(30/5)= 6.0
Total Credits (>1CD in the three years, maximum of 9CD)				10.0 (9CD)
Total Credits acquired in the I year (recommended >18)				39,4

At least 36 CD



Credit recognition and monitoring

- **Through UniBo Dottorandi platform (Italian/English)**

<https://dottorandi.unibo.it/>

Platform for phd students:

- Training activities:
 - Upload documents for official recognition (upload the data at the end of the training course);
 - Supervisor validation
 - DIMSAI Board recognition
 - Credits monitoring
- Authorization requests (tutorship authorization, remunerated activities authorization, etc);
- Upload of yearly report;
- Management of all bureaucratic pashes of your phd programme
- Database for checking enrollment status.

IT EN



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Dottorandi

È il servizio che ti permette di interagire online con l'ufficio dottorati dell'**Università di Bologna**. Per iniziare segui questi semplici passi:

autenticati con le tue **credenziali istituzionali** dell'Università di Bologna se ti colleghi da un personal computer disattiva il blocco dei popup per questo sito

Coordinatori e supervisor devono accedere al link: dottorandi.unibo.it

Accedi

Per problemi di utilizzo dell'applicativo Dottorandi, rivolgerti a: AFORM – Settore Dottorato di Ricerca
E-mail: aform.udottricerca@unibo.it – Tel: +39 051.20.94620
Il servizio è attivo il mercoledì dalle ore 9.00 alle ore 11.15 e il giovedì dalle ore 14.30 alle ore 15.30.

Per problemi di accesso al servizio tramite le credenziali personali rivolgerti a: CESIA – Servizio Contact Center
E-mail: assistenza.cesia@unibo.it – Tel: +39 051.20.80300
Il servizio è attivo dal lunedì al venerdì dalle ore 9.00 alle ore 13.00 e dalle ore 14.00 alle ore 17.00.



DIMSAI Doctoral credits (from 40th cycle) – Research CD

Doctoral Research credits will be recognized annually as a **complement to 60** of the Training and Teaching credits in the event of a **positive evaluation of the Annual Report** and related duties.

Table A – Distribution of CDs between research, training and teaching		
Type of activity	Total number of CDs	%
Research activities	144	80
Training and teaching activities	36	20
Total	180	100

- Doctoral students are required to carry out, during the duration of the doctoral programme, a **period of research at least 3 MONTHS in a foreign country** including universities, research centers, organizations or companies. This period may be non-continuous (but each period must be longer than a month to be able to access the 50% salary increase) and the obligation can only be waived for reasons of force majeure, such as illness, maternity/paternity or other similar reasons. Approval of the exemption request is decided by the DIMSAI Board.



DIMSAI Doctoral credits (from 40th cycle) – Research CD

- As a criterion for the evaluation of the congruity and quality of the research activities carried out, each candidate is required **to publish**, during the duration of the doctoral course, **at least 2 articles, preferably in Scientific Journals**, or in indexed Conference proceedings. PhD students are also required to keep the iris (<https://cris.unibo.it/>) database updated with the results of the research activity.
- Finally, PhD students are suggested to carry out **a total period of at least 6 months outside Unibo** (6 months including the period abroad, then a further 3 months in the case of a period abroad of 3 months) at National and International Companies or Universities or Research Centers and to keep track of these periods to be reported annually in the Annual Report. This additional period can also be carried out - with or without continuity - in the same location where the period abroad is carried out.

Further obligations of candidates are:

- Set-up of the **personal UniBo web page** (i.e. <https://www.unibo.it/sitoweb/l.donati/>) with photo, CV and ORCID code at the beginning of the doctoral course and its updating;
- Yearly fill in of **the OPID questionnaires** (opinion of doctoral students) in July and of **the Almalaurea questionnaire** when uploading the final doctoral thesis.



DIMSAI Doctoral credits (from 40th cycle) – Yearly evaluation

The progress and adequacy of the **training and research program** is evaluated annually, together with the acquisition of the CDs and compliance with the additional duties, by the DIMSAI Board in the **year evaluation meeting** in which the following elements are analyzed:

- End of **first year** of the Doctorate, the PhD student must submit to the DIMSAI Academic Board **a report** of the research activities performed and a program for his future educational path, agreed and countersigned by the tutor; They have also to prepare and present **a 8-minutes presentation** on the performed activity to be presented to the DIMSAI Board.
- End of **second year** of the Doctorate, the PhD student must submit to the DIMSAI Academic Board **a report** of the research activities performed and a program for the last year educational path, agreed and countersigned by the tutor; They have also to prepare and present **a 8-minutes presentation** on the performed activity to be presented to the DIMSAI Board.
- At the end of the **third year** of the doctorate, the PhD student must submit to the DIMSAI Academic Board **a report** of the research activities performed and of his three-years educational path, countersigned by his tutor. The report on the scientific activities must summarize the activities performed during the first two years and highlight the activities of the third year; They have also to prepare and present **a 12-minutes presentation** on the performed activity to be presented to the DIMSAI Board.

Yearly evaluation meeting is typically held **in September**.

The templates of the annual reports are available in a fillable version on the PhD website.



DIMSAI Doctoral credits (from 40th cycle) – Yearly evaluation

Candidates who **have not obtained** the required CDs or **have not complied with the additional duties** in terms of period abroad, publications, OPID questionnaires or updating of UniBo databases and webpages, will **be denied the admission to the following year or to the final exam.**



DIMSAI Research Budget (a.k.a. Budget 10%)

All PhD students have a research budget to cover some of the expenses relevant to the PhD activities.

The budget is equal to 10% of the scholarship (**around 5.800€**);

it is available for the student research expenses (software, computers, equipment, consumables material, travels and period abroad expenses, etc);

it is allocated to the Supervisor, who must approve the expenses.



DIN-DIMSAI Infrastructures

Equipment and/or laboratories: DIMSAI doctoral students have direct access to the equipment of the laboratories of the Department of Industrial Engineering (TECHNICAL PHYSICS, MECHANICS, METALLURGY, NUCLEAR ENGINEERING in Bologna, MECHANICS and AERONAUTICS in Forlì, www.energiaindustriale.unibo.it/it/ricerca/laboratori-di-ricerca) and, upon request to the contact person, to the equipment of the research groups belonging to the DIN, the CIRI or the other UniBo structures located both in Bologna and on the various Campuses;

Book heritage - consistency in volumes and coverage of the course topics: The Engineering and Architecture Library in Bologna branch and the Roberto Ruffilli Central Library at the Forlì Campus are accessible to doctoral students as well as all the libraries of the University library system which host paper and digital resources. Doctoral students can propose the purchase of titles useful for their research activities free of charge if there is capacity in the dedicated budget of the Libraries or through their own 10% budget or through Supervisor funds.

Databases, intended as access to the content of sets of journals and/or editorial series: PhD students can consult, on site or via VPN, the electronic collections of e-journals, e-books and manuals of the main international publishers, as well as technical standards and other external databases, such as IEEE, MathSciNet, Scopus, Web Of Science, SAE, ASME, ASM, etc. The individual research groups make specific databases available to doctoral students which contain the main previous scientific results obtained by them.

Software and computational hardware available inside each research group.



DIMSAI rules and procedures for getting several type of authorizations

Some PhD student's activities require **DIMSAI board prior approval**, in particular:

- Approval of **tutorship contracts** (on dottorandi.unibo.it platform);
- Approval of **remunerated activities** (on dottorandi.unibo.it platform);
- Approval before execution of **ANY kind of remunerated activities** –also personal- (on dottorandi.unibo.it platform);

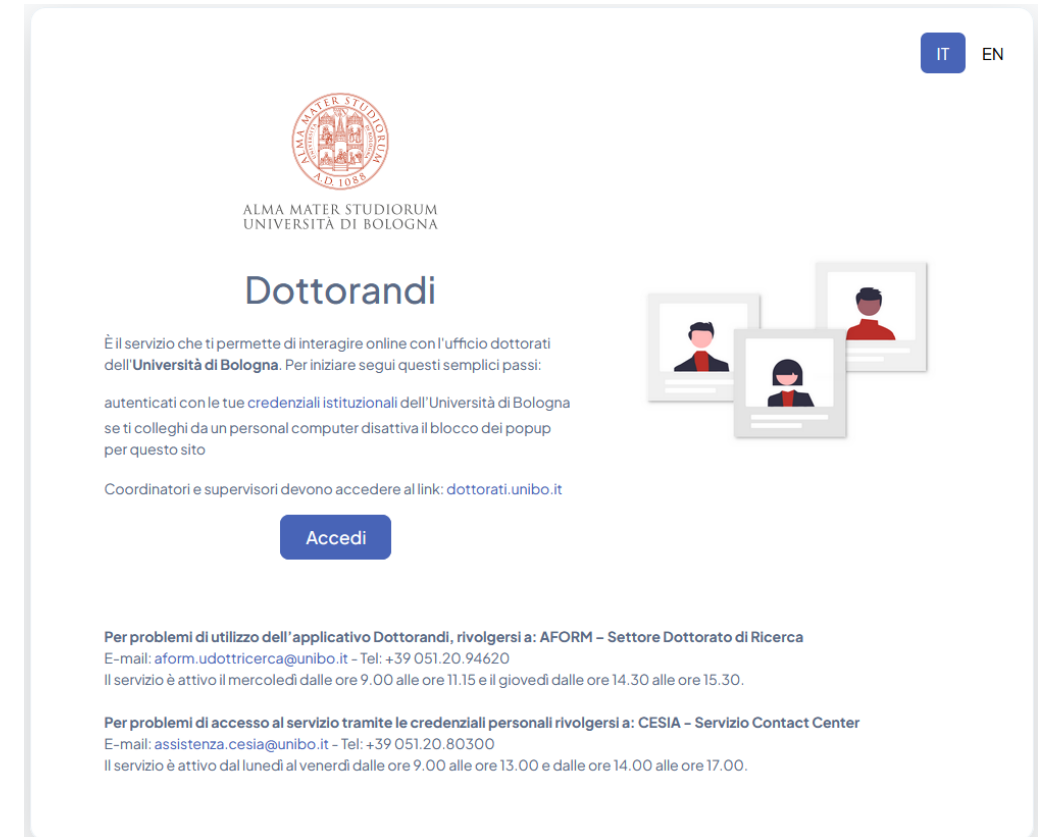
Only the:

- Request of **authorization for period abroad**;

Has to be sent to the DIMSAI coordinator by email (form is available on DIMSAI website

<https://phd.unibo.it/dimsai/en/career/procedures--rules-and-services>) for Board approval.

In a near future, such authorizations will be managed by means of dottorandi.unibo.it platform too.



Useful resources

- **First contact point** for all questions is your **supervisor** (or co-supervisors);
- **Second contact point** is your **supervisor** and your co-supervisors (yes, again!), she/he has knowledge and experience emerging from supervising other PhD students, and is supposed to well know the PhD regulations and procedures.
- Do you have issues with your supervisor or on topics you can't talk directly to him/her? Talk with doctoral **students representative** or with **Delegate to quality assurance** (prof. Marco Pellegrini) or with the **Programme Coordinator**;
- **DIMSAI PhD course website (ENG only)**

<https://phd.unibo.it/dimsai/en>

RESEARCH (Objectives/Curricula), ORGANIZATION/PEOPLE (PHD Board, PHD PROGRAMME COMMITTEE, FACULTY MEMBERS, ADVISORY BOARD, Current and Previous PhD Students), CARRER (EDUCATION AND TRAINING RULES - 40th PHD Cycle, EDUCATION AND TRAINING RULES - 37th, 38th and 39th PHD Cycles, Research stay abroad, USEFUL RESOURCES), COURSES PLAN, EVENTS/ COURSES AGENDA, ADMISSION, PARTNERS, INVEST IN DIMSAI, CONTACTS)



Useful resources

- **DIN Department website (Italian/English)**

<https://ingegneriaindustriale.unibo.it/it>

DIN Department presentation: People; Department structure and buildings; **Administrative organization, contacts and forms**; Research Topics; Calls for funding; etc. **To be used for travel reimbursements or purchase procedures.**

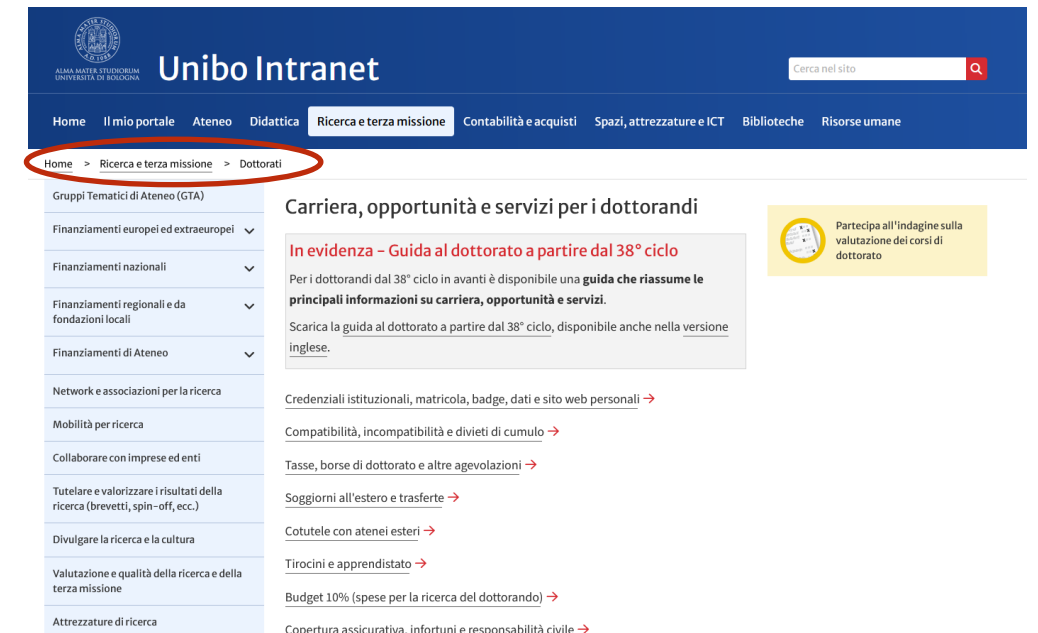
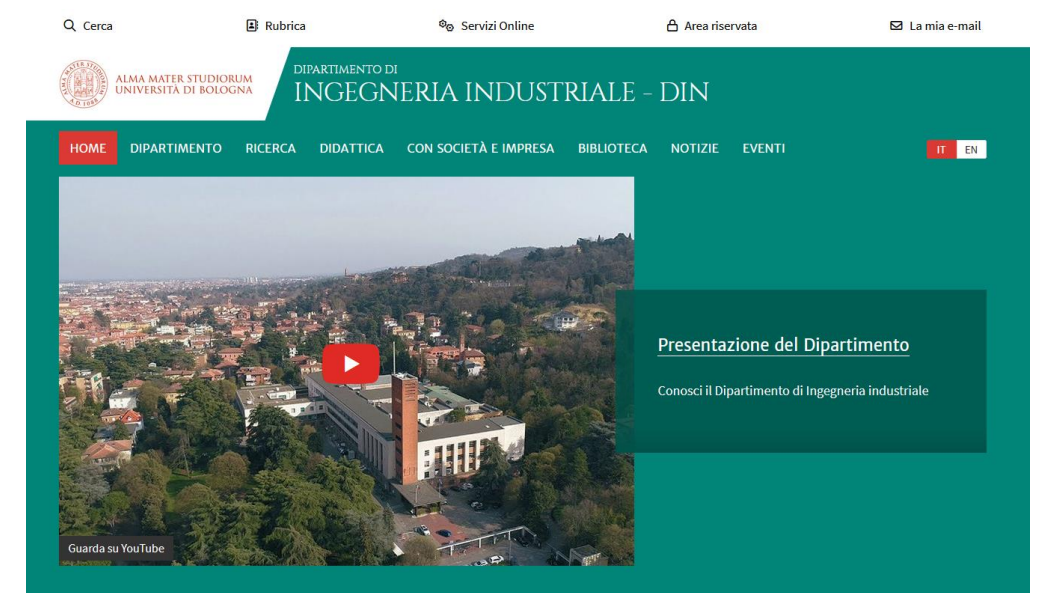
- **UniBo Intranet on PhD programs (Italian)**

<https://intranet.unibo.it/Ricerca/Pagine/default.aspx>

Career, opportunities and services for PhD students (Institutional credentials, matriculation number, badges, personal data and website; Compatibility, incompatibility and cumulation prohibitions; Fees, PhD scholarships and other benefits; Stays abroad and business trips; Collaboration with foreign universities, Internships and apprenticeships; Insurance coverage, accidents and civil liability; Suspension (maternity, TFA, etc.) and renunciation of the doctorate; Final exam and doctoral thesis; Self-certifications, certificates and diploma);

- **UniBo PhD program regulation**

- (Italian official) <https://normateneo.unibo.it/regolamento-in-materia-di-corsi-di-dottorato>
- (English unofficial) <https://www.unibo.it/en/teaching/phd/regulation-governing-the-phd-programme-degrees-third-cycle-programme/phd-programme-regulation/@@download/file/PhD%20Programmes%20Regulation%20English%20version%202.0.pdf>



Useful contacts

- **DIMSAI PROGRAM COORDINATOR:** Prof. Lorenzo Donati, l.donati@unibo.it
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Summary of PhD students' Duties

- Acquire at least **36 Doctoral Educational and training Credits** in the three-year course;
- Yearly reporting of your **Research, educational and training activities** (in September) for 144 CDs:
 - a report (Annual Report at the end of each year),
 - a presentation (at the end of the first and second year)
 - a discussion of the work done (at the end of the third year for admission to the final exam).
- Perform a period abroad in an University or Research Center of at **least 3 months** and it's **suggested** to perform other periods **out of UniBo** (in Italy or abroad) **for 3 more months**;
- Publications: at least **2 significant articles** in international journals or in indexed conference proceedings.
- Participation to DIMSAI dissemination events like DIMSAI/DIN Day, 'Notte dei Ricercatori' event, or thematic fairs;
- Filling of OPID and Almalaurea questionnaires and updating of UniBo databases and webpages.



								COGNOME	DIPARTIMENTO					COGNOME							
NOME	COGNOME	CURRICULUM	VECHIO	SSD	SC	SETTORE	DIPARTIMENTO	TEMA	COGNOME	DIPARTIMENTO	COGNOME	DIPARTIMENTO	COGNOME	DIPARTIMENTO	COGNOME	DIPARTIMENTO	COGNOME	DIPARTIMENTO	COGNOME	DIPARTIMENTO	
PIETRO	BINNI	2	ING-IND/08	IIND-06/A	09/C1	09/IIND-06	DIN	Studio e analisi della massimizzazione delle prestazioni di Turbomacchine mediante l'utilizzo di algoritmi avanzati di ottimizzazione del profilo palare / Study and analysis of the maximization of turbomachinery performance through the use of advanced blade profile optimization algorithms.	Antonio	Peretto	DIN	UNIBO	Andrea	De Pascale	DIN-UNIBO	Michele	Bianchi	DIN-UNIBO	Borsa Ministeriale	Bologna, Viale Risorgimento 2	
IVAN	BOSCHI	2	ING-IND/13	IIND-02/A	09/A2	09/IIND-02	DIN	Sistemi avanzati di manipolazione robotica per incrementare l'autonomia e la riconfigurabilità delle macchine automatiche /Advanced robotic manipulation systems for enhanced automatic machinery autonomy and reconfigurability	Edoardo	Ida'	DIN	UNIBO	Marco	Carricato	DIN-UNIBO				Borsa finanziata da DIN su FISA2023-00210 – APACHE	Bologna, Via Terracini 24	DIGIMECH LAB, via 1° Maggio 14/16, Ozzano dell'Emilia (BO)
ANDREA	FERRARI	2	ING-IND/13	IIND-02/A	09/A2	09/IIND-02	DIN	Sistemi avanzati di confezionamento robotizzato per il settore dell'e-commerce / Advanced robotic packaging systems for the e-commerce sector	Marco	Carricato	DIN	UNIBO	Edoardo	Ida'	DIN-UNIBO				Borsa finanziata da DIN su FISA2023-00210 – APACHE	Bologna, Via Terracini 24	DIGIMECH LAB, via 1° Maggio 14/16, Ozzano dell'Emilia (BO)
SALVATORE	FICI	2	ING-IND/17	IIND-05/A	09/B2	09/IIND-05	DIN	Impianti industriali avanzati per il trasporto di materiali in forma granulari / Advanced industrial plants for the convey of fine-grained and powder materials	Cesare	Saccani	DIN	UNIBO	Alessandro	Guzzini	DIN-UNIBO	Marco	Pellegrini	DIN-UNIBO	Borsa Ministeriale	Bologna, Viale Risorgimento 2	Technosilos srl, via Piana, 67, 47032 Capocolle FC
FILIPPO	GAIBA	1	ING-IND/21	IIND-03/C	09/A3	09/IIND-03	DIN	Controllo delle microstrutture e delle proprietà meccaniche in leghe di titanio convenzionali e innovative/Control of microstructure and related mechanical performance of conventional and innovative titanium alloys	Lorella	Ceschini	DIN	UNIBO	Lavinia	Tonelli	DIN-UNIBO	Alessandro	Morri	DIN-UNIBO	Borsa Ministeriale	Bologna, Viale Risorgimento 4	
LORENZO	MARMOTTA	1	ING-IND/15	IIND-03/B	09/A3	09/IIND-03	DIN	Sviluppo e integrazione di tecnologie avanzate a basso impatto sull'ambiente / Development and integration of advanced technologies with low environmental impact	Daniela	Francia	DIN	UNIBO	Alfredo	Liverani	DIN-UNIBO	Gian Maria	Santi	DIN-UNIBO	Borsa finanziata da PR FSE+ 2021/2027	Bologna, Viale Risorgimento 2	
ALESSIA	NORA	3	ING-IND/11	IIND-07/B	09/C2	09/IIND-07	DIN	Acustica negli impianti HVAC: impatto sul comfort indoor e progettazione di soluzioni per il controllo rumore/ Acoustics in HVAC equipment: impact on indoor comfort and design of noise control solutions	Luca	Barbareschi	DIN	UNIBO	Giovanni	Semprini	DIN-UNIBO				Borsa Ministeriale	Bologna, Via Terracini 34	
BARAN	ÖZDEMİR	1	ING-IND/21	IIND-03/C	09/A3	09/IIND-03	DIN	Caratterizzazione metallurgica e modellazione del processo di trasformazione dell'acciaio per una produzione sostenibile ed ecologica.../ Advanced Metallurgical Characterization and Modeling of Steel Processing for sustainable and green manufacturing: from rolling of Fe-Si steels to Wire Arc Additive Manufacturing (WAAM) of low carbon steels	Lavinia	Tonelli	DIN	UNIBO	Lorenzo	Donati	DIN-UNIBO	Alessandro	Morri	DIN-UNIBO	Borsa finanziata governo Turco	Bologna, Viale Risorgimento 4	
DAVIDE	PANCALDI	2	ING-IND/13	IIND-02/A	09/A2	09/IIND-02	DIN	Analisi Numerico-Sperimentale di Utensili per Lavorazioni Meccaniche ad Ultrasuoni / Numerical-Experimental Analysis of Tools for Ultrasonic Mechanical Processing	Marco	Troncosi	DIN	UNIBO	Riccardo	Franci	DIN-UNIBO	Alberto	Martini	DIN-UNIBO	Borsa Ministeriale	Forlì, Via Montaspro 97	Tetrapack, Via Antonio Delfini, 1, 41123 Modena MO
PAOLA	PAPALEO	1	ING-IND/15	IIND-03/B	09/A3	09/IIND-03	DIN	Sviluppo di un ambiente gemello digitale decentralizzato per applicazioni sanitarie/ Development of decentralized Digital Twin environment for health applications	Leonardo	Frizziero	DIN	UNIBO	Giampiero	Donnici	DIN-UNIBO				Borsa finanziata su progetto EU DTRIP4H	Bologna, Viale Risorgimento 2	
GIOVANNI	PIGNONI	1	ING-IND/15	IIND-03/B	09/A3	09/IIND-03	DIN	Sviluppo di un'interfaccia avanzata per visualizzazione di gemelli digitali decentralizzati per applicazioni sanitarie/ Development of advanced HMI for visualization of decentralized Digital Twin environment for health applications	Leonardo	Frizziero	DIN	UNIBO	Margherita	Peruzzini	DIN-UNIBO				Borsa Ministeriale cofinanziata con progetto EU DTRIP4H	Bologna, Viale Risorgimento 2	Via Luciano Montaspro, 97, 47121 Forlì FC (DIN)
DARIO	RIMONDINI	3	ING-IND/19	IIND-07/D	09/C2	09/IIND-07	DIN	Modelli di flussi bifase con l'uso di metodi multi-fluido e di cattura dell'interfaccia per simulazioni accoppiate CFD-sistema / Two-phase flow modeling using multi-fluid and interface-capturing methods for coupled CFD-system simulations	Sandro	Manservigi	DIN	UNIBO	Giorgio	Bornia	DIN-UNIBO				Borsa Ministeriale	Bologna, Via dei Colli 16	
FRANCESCA	ROSATI	3->2	ING-IND/08	IIND-06/A	09/C1	09/IIND-06	DIN	Sistemi energetici avanzati per il recupero termico anche in integrazione con la produzione d'idrogeno/Advanced energy systems for heat recovery and hydrogen	Andrea	De Pascale	DIN	UNIBO	Saverio	Ottaviano	DIN-UNIBO	Francesco	Melino	DIN-UNIBO	Borsa Ministeriale + PRIN2022_DE_PASCALE (vincolo 17942/2025) - progetto Prin 2022 REHP-4-TUNE	Bologna, Viale Risorgimento 2	
THOMAS	OLIVA	3	ING-IND/18	IIND-07/C	09/C2	09/IIND-07	DIN	Studio di eventi STGR in piscina per reattori LFR / Investigation of LFR SGTR events in large pool	Matteo	Gherardi	DIN	UNIBO	Mariano	Tarantino	ENEA	Fabio	Moretti	Newcleo	Borsa finanziata da NewCleo	Bologna, Via Terracini 24	Centro Ricerche Brasimone - ENEA, Località Brasimone, 40032 Camugnano BO
SIMONE	VITELLARO	1	ING-IND/21	IIND-03/C	09/A3	09/IIND-03	DIN	Produzione di metalli mediante PBF-LB: ottimizzazione di microstruttura e proprietà meccaniche attraverso controllo di processo e trattamenti successivi/ Production of metals by PBF-LB: optimization of microstructure and mechanical properties by process and post- process control	Lorella	Ceschini	DIN	UNIBO	Gianluca	Di Egidio	DIN-UNIBO	Lavinia	Tonelli		Borsa finanziata da Azienda AUTEBO	Bologna, Viale Risorgimento 4	AU.TE.BO, Via Sagittario, 15 40037 Sasso Marconi Bologna



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

*Welcome to DIMSAI
and enjoy your journey!*

Lorenzo Donati

Department of Industrial Engineering (DIN)

PhD Program in

“Mechanics and Advanced Engineering Sciences (DIMSAI)”

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www.unibo.it