

ALMA MATER STUDIORUM Università di Bologna

IBES PhD Programme Kick-off meeting Cycle 40

21/11/2024

14.00 - Room 5.6

Department of Electrical, Electronic, and Information Engineering "Guglielmo Marconi" DEI

WELCOME ON BOARD



OUR ALMA MATER IN NUMBERS



Constituent Principles

The primary goals of the University are teaching and research, two inseparable activities aimed at pursuing critical knowledge open to dialogue and interaction between cultures, respecting the freedom of science and teaching.

Given its long-standing identity as a place of general studies, the University acknowledges the equal dignity and opportunities of all branches of learning that assure scientific and educational capital.

University Statute, Constituent Principles, Art. 1 para. 1, 3



University of Bologna

Multi-campus

- Bologna (DEI)
- Cesena Campus (DEI)
- Forlì Campus
- Ravenna Campus
- Rimini Campus
- Representación en la República Argentina





1088

STUDIUM IN BOLOGNA



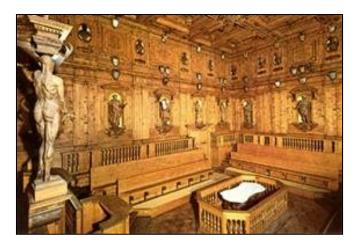
MAGNA CHARTA UNIVERSITATUM

IT IS THE OLDEST UNIVERSITY IN THE WESTERN WORLD



ARCHIGINNASIO

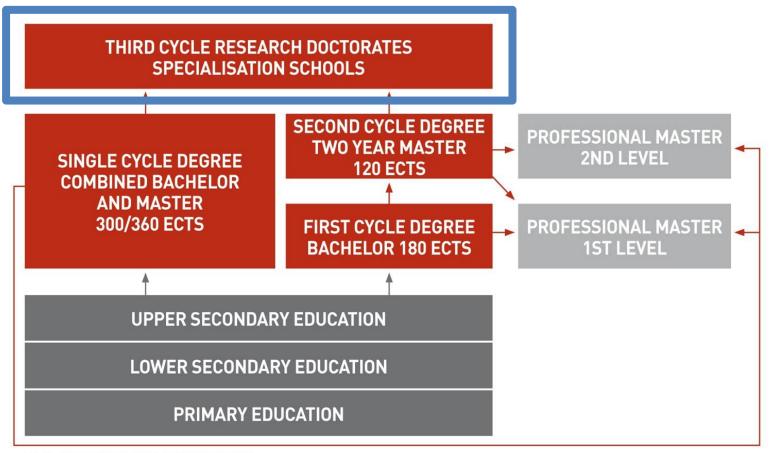
CONFIRMS THE ESSENTIAL ROLE OF THE UNIVERSITY IN CONTEMPORARY SOCIETY



ANATOMICAL THEATRE 1653



Italian University System



ECTS= EUROPEAN CREDIT TRANSFER SYSTEM. 1 CREDIT= 25 HOURS STUDENT WORKLOAD (CLASSES, INDIVIDUAL STUDY, EXAMS, ETC.)



our Alma Mater in numbers

- More than 96,000 students, among which 8,526 international students (2022/23 a.y.)
- 1672 grants for PhD positions in the last 3 years
- 260 degree programmes
- 51 PhD/ Doctoral programmes (a.y. 2022/23)
- 3382 Professors and 3235 members of the professional staff
- Many funded research projects (EU, national or regional funding, NRRP)
- 31 Departments; 11 of them have been selected as Departments of excellence by the Italian Ministry of Universities and Research (MUR)



OUR DEPARTMENT



The Department of Electrical, Electronic, and Information Engineering «Guglielmo Marconi» (DEI)

- More than 150 Professors and Researchers
- 30 internal research laboratories
- 3 Inter-departmental research centers:
 - ARCES
 - CIRI ICT
 - CIRI HST
- External research centers associated:
 - CNIT
 - CNR
 - NITEL
 - ELMO
- 3 PhD Programmes:
 - ET-IT: Electronics, Telecommunications and Information Technologies Engineering
 - EIT4SEMM: Engineering and Information Technology for Structural and Environmental Monitoring and Risk Management
 - IBES Biomedical, Eletrical and Systems Engineering







IBES PhD Programme



IBES History and Scope

- IBES is the merging of three previously independent programmes:
 - Ingegneria dei Sistemi, later Automatica e Ricerca Operativa
 - Ingegneria Biomedica
 - Ingegneria Elettrica
 - all started from 1° Cycle (1983)
- "IBES" Alumni is a large and highly successful community including a large number of permanent academic staff and researchers employed in public and private industries worldwide
- Large number of students: >15 enrolled every year (>50% from external funds)
- Large number of potential PhD advisors ("IBES" disciplines are >60% of DEI staff)
- Wide scope and interdisciplinary nature
 - Automatic & Operations Research
 - Bioengineering
 - Electrical engineering
- Web site <u>https://phd.unibo.it/ibes/en</u>
- Email <u>dei-phd-ibes@unibo.it</u>



IBES PhD Program: our numbers

3 Curriculum:

- Automatic Control and Operations Research (ARO)
- Biomedical Engineering (BIO)
- Electrical Engineering (EE)

61 Enrolled PhD Students

- 24 in Cycle 40
- 17 in Cycle 39
- 20 in Cycle 38

22 Professors are members of the IBES PhD program Board

- **1 PhD Coordinator** and **3 Curriculum Advisors**
- 🗋 1 PhD Manager



Coordinator: prof. Michele Monaci (<u>michele.monaci@unibo.it</u>)

- PhD Manager: dott.ssa Francesca Lazzaretti (<u>dei-phd-ibes@unibo.it</u>)
- Curriculum Advisors
 - ARO → prof. Alessandro Macchelli (<u>alessandro.macchelli@unibo.it</u>)
 - BIO → prof. Stefano Severi (<u>stefano.severi@unibo.it</u>)
 - EE → prof. Luca Zarri (<u>luca.zarri2@unibo.it</u>)

N.B.: official communications take place only through the **institution email address** (name.surname@unibo.it).

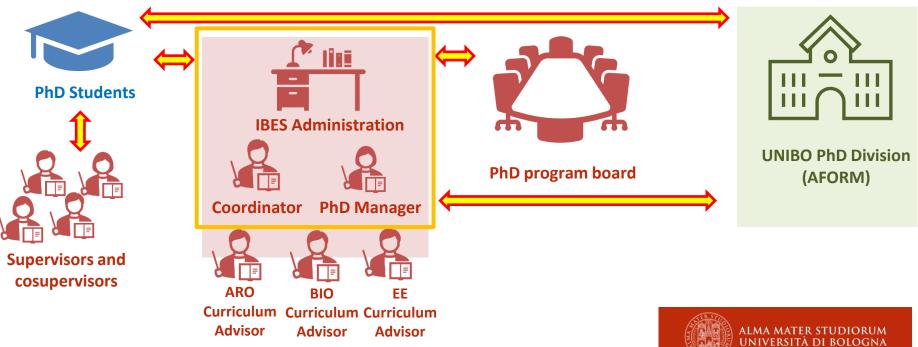


IBES PhD Program: organization structure

When you have a question, first check the IBES website and the UNIBO Intranet.

If you do not find the answer, **please contact us** (<u>dei-phd-ibes@unibo.it</u>).

Some information can only be provided by the UNIBO PhD Unit. In that case, we may refer you to **AFORM – Corsi e carriere** (aform.udottricerca@unibo.it).



IBES PhD Program: laws and regulations

The rights and obligations of PhD students, as well as the details of all the stages in the PhD career, are outlined in the documents mentioned below.

- UNIBO PhD Handbook (available in English and in Italian).
 We strongly recommend you to read it carefully.
- <u>Ministerial Decree n. 226/2021</u>, issued by the Italian Ministry of University and Research (MUR) (n.b. available only in Italian)
- <u>Regolamento in materia di corsi di dottorato</u>, issued by UNIBO (**n.b.** available only in Italian).

Moreover, any decisions by the IBES PhD Board will be published on the IBES website and notified to PhD Students via UNIBO email.



Academic requirements



(Besides daily cooperation with the supervisor) **IBES PhD Students must**:

- obtain at least 36 Doctoral Credits (DC) of which at least 8 DCs within the IBES training provided for their curriculum during their career;
- 2. carry out a research period of at least 3 months abroad ;
- 3. attend at least 1 Summer School or 1 National/International School, whose topic is close to their own research topic;
- 4. present at least **1 paper at an international conference** on a topic related to their research topic
- 5. publish at least **1 article on an international journal** on a topic related to their research topic;
- 6. comply with the specific requirements for their curricula (if applicable).



Doctoral Credits: introduction

- Doctoral Credits (DCs) measure the workload that the Doctoral student is required to invest in research and research training activities to obtain the Doctoral degree.
- As far as research training is concerned, a DC is equivalent to a European Credit Transfer System (ECTS) credit.
- Doctoral students must complete 60 DCs per year, corresponding to 1,500 hours of activity; each DC is worth 25 hours of the doctoral student's commitment (including both frontal teaching and independent study).

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

Doctoral Credits: training activities

Training activities are divided into 5 categories

- Disciplinary and multidisciplinary training
- Soft skills
- Extra-curricular training
- Dissemination
- Supplementary teaching and tutoring

Each PhD Course establishes the **minimum and maximum DC value** to be achieved for each category of activities

Table B – Requirements for DC distribution between training activities								
Type of activity	Minimum number of DCs	Maximum number of DCs (optional)						
Disciplinary and multidisciplinary training	12	21						
Soft skills	3	6						
Extra-curricular training	1	6						
Dissemination	1	6						
Supplementary teaching and tutoring	0	9						



Disciplinary and multidisciplinary training

Training activities on specific topics related to

- the research project, also in relation to aspects of relevant scientific and technological achievements;
- more general topics (multidisciplinary, transdisciplinary and interdisciplinary), aimed at filling the training gaps of interest for all the scientific domains included in the PhD programme and in its Curricula;

These activities may be organized by the PhD Course or by the University, i.e., students can obtain DCs by means of activities taken from other PhD Courses (possibly, outside uniBO) and/or from cycle I and II didactics.



Doctoral Credits: training activities

Soft skills

- research valorisation (e.g. technology transfer, innovation management);
- methods, techniques and tools for research management (e.g. bibliographic sources, data management, publishing policies, open science);
- dissemination and communication of research activity (e.g. skills for writing articles and giving scientific presentations, written/oral/visual communication techniques, advanced study of foreign languages);
- impact of scientific research on society and sustainable development;
- knowledge of European and international research systems, with their mechanisms for access to competitive funding;
- job orientation and career planning;
- training in teaching;
- basic principles of ethics, gender equality and integrity.

These activities may be organized by the PhD Course or by the University.



Doctoral Credits: training activities

Extra-curricular training

Activities aimed at stimulating the growth of doctoral students as members of a scientific community

- participation in national and international training schools;
- formative moments of exchange/presentation of research results (e.g. PhD symposia);

Dissemination

It refers to the participation of PhD students in congresses, conferences, workshops, etc. as speakers or poster presenters.

Supplementary teaching and tutoring

It refers to the participation of PhD students in supplementary teaching and tutoring activities (within the limits of consistency and compatibility with the research activities carried out).



Doctoral Credits: intermediate requirements

To ensure a balanced performance of training activities with respect to research activities, each PhD Course establishes the **recommended number of DCs** to be acquired for training activities in each year of the course.

The Course establishes, for each year of the course, a **minimum number of DCs** below which the Doctoral student is **excluded** from the Doctorate

Table C – Training DCs to be acquired at the end of each course year							
Training DCs to be acquired	Recommended	Minimum (optional)					
at the end of the 1st year	15	0					
at the end of the 2nd year	24	9					
at the end of the 3rd year	36	36					



Doctoral Credits: how to obtain them

- The number of DCs associated with curricular training activities is calculated by considering both lecture hours and the presumed self-study effort.
- The PhD Course establishes general criteria for determining the number of DCs to be allocated for all activities.
- In any case, if an activity (carried out at the University of Bologna or elsewhere) provides for the formal award of a certain number of ECTS credits, 1 ECTS credit is equivalent to the acquisition of 1 DC.
- For all activities that do no require autonomous study commitment (e.g. mere attendance of an event/seminar), 1 DC is obtained when 25h of activity are done.



Doctoral Credits: how to obtain them

Table D – Correspondence between workload hours and acquired DCs									
Type of activity	Hours in class	Self-study hours	Total hours	DC					
Courses (disciplinary and multidisciplinary teaching)	5	20	25	1					
Other disciplinary and multidisciplinary university courses (1st and 2nd level) *	10	15	25	1					
Soft skills (attendance only)	25	0	25	1					
Soft skills (with additional individual work) *	15	10	25	1					
Laboratory courses	12,5	12,5	25	1					
Seminars that require self-study	15	10	25	1					
Seminars that do not require self-study	25	0	25	1					
Supplementary teaching and tutoring	8	17	25	1					
Teaching activities (cosupervision of bachelor/master theses, per single thesis, to be split among cosupervisors)	0	10	10	0,4					
Extra-curricular training	1 day								
Dissemination		1 day		0,4					

Doctoral Credits: general observations

- Doctoral students, in agreement with their supervisors and cosupervisors, flexibly define their specific training and research pathways
 - choosing the activities to be carried out, in terms of type and quantity,
 - in compliance with the minimum and maximum constraints established by the Academic Board for each activity and year of the course.
- Doctoral students may acquire DCs for activities carried out both at the University of Bologna and elsewhere.
- A minimum number of DCs must be obtained with IBES activities.
- Periods spent at bodies other than the University do not yield DCs, unless training activities are carried out at such bodies.
- The acquisition of DCs is verified during the Academic Board meeting deciding the transition to the following year



Doctoral Credits: operative rules

- An application ("dottorandi") will be used for DCs requests.
- This tool will be used by students (for submitting requests), supervisors (checking its coherence with the research and possibly asking for a revision of the request), and by the PhD board (possibly assigning DCs).
- Training activities that are validated will be reported in the diploma supplement at the end of the 3 years.

Tipo attività formativa* :				
 Formazione disciplinare e multidisciplinare Formazione extra-curriculare Disseminazione 	lleco	mpetenze trasversali 🔿 Tutorato o attività didatti	caintegrativa	
Dal*		AI*		
gg/mm/aaaa		gg/mm/aaaa		
Nome dell'attività formativa* :				
				h
Tipo di valutazione* :				
○ Solo partecipazione ○ Idoneo ○ Voto				
Numero ore *:		Crediti dottorali di cui si chiede il riconosciment	:* o	
Allegato*				
Inserire un attestato per l'attività formativa svolta			1 (ŧ

- Every year, the IBES PhD Board offers various courses and seminars addressed specifically to PhD Students.
- You can choose the ones that suit your academic needs in order to comply with the academic requirement n.2 obtain at least 8 Doctoral Credits within the IBES training provided for your curriculum during your career
- The schedule of the training activities for the a.y. 2024/2025 will be made available soon on the specific IBES webpage. Further information about each activity will be published also on the IBES Agenda and sent by email before its start.



First of all, you need specific authorization issued by the Coordinator.

Before starting

- 1. Collect the <u>supervisor approval</u> and the <u>invitation letter</u> by the research institute or industry
- 2. Fill in and sign the authorization request form
- 3. Send them to <u>dei-phd-ibes@unibo.it</u>

During the stay

 If you are planning to prolong your stay, you need the PhD Board authorization. Fill the <u>specific request form</u> and send it to <u>dei-phd-ibes@unibo.it</u>

Further info at: https://phd.unibo.it/ibes/en/career/internship-abroad



For periods of study and research abroad you may receive a financial endowment amounting to **50% of the standard PhD scholarship**, regardless how you are funding your PhD.

This cannot be obtained for periods shorter than one continuous month or longer than 12 months (or 18 months if you are in a cotutelle agreement), and in any case not in your country of residence.

In order to ask for this increase please follow the procedure explained on the <u>UNIBO Intranet</u> (**n.b.** available only in Italian) or contact AFORM – Corsi e carriere (<u>aform.udottricerca@unibo.it</u>).

N.B. This kind of funding is **managed by**:

- the UNIBO PhD Prog. Division (AFORM) if you have <u>a scholarship;</u>
- **the Department** if you have <u>a research grant</u>.



Mobility funding – Marco Polo Programme

The Marco Polo Programme offers mobility scholarships to promote research activities abroad for young UNIBO researchers and PhD students.

The Programme has **two calls**: one in May and one in November.

To apply for the Marco Polo Programme you need the authorization for spending a research period abroad issued by the Coordinator.

The deadlines and the application procedure are set by the Department Council, not by the IBES PhD Board. Therefore, please submit your authorization request at least one week before the Marco Polo deadlines.

N.B. This kind of funding is **managed by the Department**.

The Marco Polo grant and the 50% increase are compatible up to the maximum amount of Marco Polo assigned.

Working while attending the PhD

Any time you are planning to accept a job assignment, **no matter if the employer is UNIBO**:

- Collect the <u>supervisor approval</u>
- Fill in the <u>authorization request form</u>
- Send them to <u>dei-phd-ibes@unibo.it</u>

Wait for the approval of the Coordinator or the PhD Board <u>before</u> signing the contract.



N.B. Only working activities that are **strictly related** to your research duties can be authorized

Further info at: https://phd.unibo.it/ibes/en/career/working-while-attending-the-phd

10% budget for funding research

- Starting on the first year, you have access to a budget that amounts to at least 10% of the standard PhD scholarship, regardless how your PhD is funded.
- This budget
 - is provided and managed by your supervisor;
 - can be used to fund your PhD research (e.g., hardware) and training activities (e.g., travels, courses, conferences, both in Italy and abroad.).
- All expenses must be approved by your supervisor and must comply with uniBO rules.
 - In particular: before starting a research travel, please check the <u>Regolamento delle</u> <u>missioni, mobilità intra - ateneo e trasferte</u> and contact DEI-Missioni (<u>dei.missioniweb@unibo.it</u>) in case any further information about the procedure to ask for reimbursement is needed.



How does the 10% budget work?

- If you have been granted a PhD scholarship or an «Assegno di Ricerca» funded by an external institution or by specific National and European Programmes (e.g. NRRP), your 10% budget is set aside in a specific fund, accessible only to the Supervisor and/or the Coordinator, or even to the Student him/herself.
- If you have been granted a PhD scholarship or an «Assegno di Ricerca» funded by UNIBO or the Department, your 10% budget is ensured through your supervisor's research funds. For instance, when your supervisor covers your travel expenses for a conference, you are already utilizing your 10% funds.

N.B. While this is a general rule, there may be specific cases that differ from what has just been mentioned. Please reach out to <u>dei-phd-ibes@unibo.it</u> for further information.



Admission to the following year and to the final exam

 After each academic year, the Curriculum Board and the PhD Board assess the research activity and the work carried out by PhD Students and decide about their admission to the following year.

The evaluation process requires to prepare a document reporting the main activities done and possibly includes a presentation (in case, be present!)

- At the end of 3rd year, PhD Students are required to write a thesis and defend it (typically, in April)
- The thesis is evaluated by external examiners who assign a score.
 - If the score is not assigned, the defense is postponed for 6 months so that the thesis can be improved and re-evaluated.
 - If the score is still negative, you cannot proceed any further.
- PhD Students defend their thesis in front of a committee of professors from UNIBO and other research institutions.

Meet your colleagues: PhD Students 37°, 38°, and 39° cycle

https://phd.unibo.it/ibes/en/people/current-ph-d-students

ALMA MATHE STUDIORUM UNIVERSITÀ DI BOLOGNA	phd programme BIOMEDICAL, ELECTR	ical and sys	STEM ENGINEERING
HOME IBES -	PEOPLE - ADMISSION - CAREER -	COURSES AND EVENTS	NVEST IN IBES + CONTACTS
Home / People / Cur	rent Ph.D. students		<
Curi	ent Ph.D. students		
	Gabriele Ancora 34° Cycle - Automatic Control and Operational Research <u>Read more</u> gabriele.ancora2@unibo.it in	Luca Muratori 36° Cycle - Electrica luca.muratori12@u Research topic: Adv vehicle energy man Supervisor: prof. Lo	inibo.it ranced sensors and measurement approaches for Electric lagement
Decese texter Dec	Selamawet Workalemahu Atnafu 34° Cycle - Bioengineering Read more selamawet.atnafu2@unibo.it in Q		Alan Osorio Mora 36° Cycle - Automatic Control and Operational Research alan.osorio2@unibo.it Research topic: Heuristic Algorithms for Combinatorial Optimization Problems
	Giorgia Pulazza 34° Cycle - Electrical Engineering Read more giorgia.pulazza3@unibo.it	daniele.pettinari3@ Research topic: Opt	ic Control and Operational Research



PhD Student Representative Election (2024-2027)

- Students of the PhD Course are asked to elect their (at most 2) representatives.
- The representatives participate in the PhD Board to address teaching and organizational issues and they act as an important link between the Board and the students enrolled in the program.
- The voting will take place on **3rd December 2024, from 9:00 AM to 3:00 PM, using the Eligo e-voting platform**.
- **Candidacies are mandatory and** must be submitted to the email addresses indicated in the notice within **28th November 2024 (3PM).**
- To address any questions about the voting process and to offer a chance for discussion among the voters, we strongly encourage you to attend an <u>online meeting</u> on Monday, 25th November 2024 at 11:30 AM. This will also be an opportunity for any candidates to introduce themselves to the electorate.



IBES Board

Faculty

- Monaci Michele
- Borghetti Alberto
- Breschi Marco
- Cavallini Andrea
- Cristofolini Andrea
- Furini Simone
- Giordano Emanuele Domenico
- Macchelli Alessandro
- Malaguti Enrico
- Marconi Lorenzo
- Melchiorri Claudio
- Notarstefano Giuseppe
- Nucci Carlo Alberto
- Palli Gianluca
- Peretto Lorenzo
- Sandrolini Leonardo
- Severi Stefano
- Tani Angelo
- Traverso Pier Andrea
- Ursino Mauro
- Vigo Daniele
- Zarri Luca

DEI - PhD Support office Dott.ssa Francesca Lazzaretti <u>dei-phd-ibes@unibo.it</u> 3rd floor of the "new-building" DEI Department

Viale del Risorgimento 2, Bologna

Unibo - PhD Unit aform.udottricerca@unibo.it Via Zamboni 33, Bologna



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
ALATI	NICOLE	Controllo di sistemi cyberfisici complessi per la manipolazione mobile tramite task priority	ROBERTO MEATTINI	GIANLUCA PALLI	Automatic Control and Operations Research	IINF-04/A	DEI
BARRALES ARANEDA	ALEX FABIAN	Optimization for sustainable public transport	VALENTINA CACCHIANI	MICHELE MONACI	Automatic Control and Operations Research	MATH-06/A	DEI
BENRABAH	HAMZA	Sviluppo di sistemi di alimentazione contactless di tipo Transformer-rectifier flux pump per impiego in magneti DC toroidali da fusione	ANTONIO MORANDI	MATTIA SIMONAZZI	Electrical engineering	IIET-01/A	DEI
BOICO	GABRIELE	Advanced control strategies for High-Performance Electric Drives	MICHELE MENGONI	LUCA ZARRI	Electrical engineering	IIND-08/A	DEI

UNIVERSITÀ DI BOLOGNA

Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
COTTONE	DARIO	Sviluppo di sistemi isolanti per dispositivi a propulsione ionica	DAVIDE FABIANI	SIMONE VINCENZO SURACI	Electrical engineering	IIND-08/B	DEI
DI ROSA	ELEONORE FEDERICA	Neurocomputational techniques for the analysis of neurodevelopmental disorders	CRISTIANO CUPPINI	LAURA ASTOLFI	Biomedical engineering	IBIO-01/A	DEI
DIAZ	ROLANDO EZEQUIEL	Modelli di vita e affidabilità per sistemi di cavo ad alta tensione continua (HVDC)	GIOVANNI MAZZANTI	BASSEL DIBEL	Electrical engineering	IIND-08/B	DEI
DRUDI	ANDREA	Metodi e Toolbox di controllo e apprendimento ottimo per robotica spaziale	GIUSEPPE NOTARSTEFANO	GUIDO CARNEVALE	Automatic Control and Operations Research	IINF-04/A	DEI



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
FALOTICO	MARCO	Metodi e toolbox di apprendimento, ottimizzazione e controllo per Morfeo, il modulo di ottica adattiva del telescopio ELT	GIUSEPPE NOTARSTEFANO	GUIDO AGAPITO	Automatic Control and Operations Research	IINF-04/A	DEI
GAZZONI	DIEGO	Analyses of conduction events in membrane proteins at the atomic scale	SIMONE FURINI	STEFANO SEVERI	Biomedical engineering	IBIO-01/A	DEI
LENZI	ALICE	Combining system identification and statistical methods for diagnosis and prognosis of complex dynamical systems	ROBERTO DIVERSI	ANDREA TILLI	Automatic Control and Operations Research	IINF-04/A	DEI
MAZZOLANI	FRANCESCA	Machine learning per stima di attrattori complessi e progetto di regolatori nonlineari robusti	LORENZO MARCONI	MICHELANGELO BIN	Automatic Control and Operations Research	IINF-04/A	DEI



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
MURARI	LUCA	Sviluppo di metodi di caricamento di bulk e avvolgimenti superconduttivi	ANTONIO MORANDI	MASSIMO FABBRI	Electrical engineering	IIET-01/A	DEI
MONGARETTO	GIORGIO	Indagine numerica e sperimentale del plasma e del vento ionico in scariche a corona	ANDREA CRISTOFOLINI	ARTURO POPOLI	Electrical engineering	IIET-01/A	DEI
TAFURI	MATTIA	Programming by demonstration tramite interfacce uomo-robot avanzate per sistemi cyberfisici complessi	ROBERTO MEATTINI	GIANLUCA PALLI	Automatic Control and Operations Research	IINF-04/A	DEI



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
LAN	HONGYU	Robotic Manipulation and Grasp Based on Deep Reinforcement Learning	GIANLUCA PALLI	ALESSIO CAPORALI	Automatic Control and Operations Research	IINF-04/A	DEI
REN	ZHIHAO	Non-invasive techniques for gait and balance rehabilitation and fall prevention	LORENZO CHIARI	STEFANO SEVERI	Biomedical engineering	IBIO-01/A	DEI
XIE	JILI	Study on Reliability of HVDC Cable Accessories	ANDREA CAVALLINI	PAOLO SERI	Electrical engineering	IIND-08/B	DEI



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
ALI	MURAD	Sviluppo di sistemi multifase per trasferimento induttivo di potenza	VINCENZO CIRIMELE	RICCARDO MANDRIOLI	Electrical engineering	IIET-01/A	DEI/ENRX IPT GmbH
DI GREGORIO	STEFANO	Controllo e apprendimento ottimo per sistemi complessi in contesti di industria intelligente	GIUSEPPE NOTARSTEFANO	IVAN RAGAZZINI	Automatic Control and Operations Research	IINF-04/A	DEI/IMA
MWINISIN	PETER	Analysis and optimization of the deployment of Sensors in the Distribution grids for Diagnostic purpose	LORENZO PERETTO	ROBERTO TINARELLI	Electrical engineering	IMIS-01/B	DEI/G&W Altea



Family name	Name	Research topic	Supervisor	Co-supervisor	Curriculum	SSD	Place
PANSERA	FRANCESCO	Valutazione del potenziale osteoinduttivo di scaffold bioattivi biomimetici	EMANUELE DOMENICO GIORDANO	GIACOMO MOROZZI	Biomedical engineering	BIOS-07/A	DEI/Greenbone Ortho
VALENTI	DAVIDE	Metodi e tool di controllo e ottimizzazione per robot mobili autonomi	GIUSEPPE NOTARSTEFANO	VALERIO DIGANI	Automatic Control and Operations Research	IINF-04/A	DEI/SACMI
VILLANI	LORENZO	Sviluppo di materiali polimerici avanzati per il trasporto dell'Energia ad alta tensione	DAVIDE FABIANI	MAURO RICCI	Electrical engineering	IIND-08/B	DEI/Versalis

PhD Manager

Dott.ssa Francesca Lazzaretti

dei-phd-ibes@unibo.it

3rd floor - "new building"

DEI Department - Viale del Risorgimento, 2 – Bologna

Coordinator

Prof. Michele Monaci michele.monaci@unibo.it

