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Course: ARCHITECTURE AND DESIGN
Curriculum: DESIGN (CODE 9493)

Course Coordinator: Gausa Navarro Manuel
Department of Architecture and Design (Dipartimento di Architettura e Design - DAD)

Places: 1

Grants: 1 (*)

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of ManyDesigns srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.243.

Research project: Strategie e modelli per la progettazione di componenti per il front end basati sui principi dell’accessibilità e dell’inclusione in ambito web e mobile.

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND EXAM
- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications

Every candidate is asked to present a research project proposal, which should be structured as follows:
- research goals
- research methods
- innovation criteria with respect to the discipline's current scientific landscape
- bibliography
- research impact factor

The research project proposal should contain max. 15,000 characters (excluding spaces), including the bibliography. The aforementioned project will then be evaluated by the Commission together with your qualifications and will be discussed during the oral exam. On the day of the exam, candidates can present a portfolio relating to their previous studies/research experience.

Exam Syllabus

Interview on the submitted research project, the PhD course topics, and the candidate's specific interests in the field.

English language test.

Research Themes

The research topics are related to the following areas:
- Inclusive design and web accessibility criteria;
- User experience design and optimization of the user interface;
- Challenge and opportunities of digital technologies for inclusion.

Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f):

Strategie e modelli per la progettazione di componenti per il front end basati sui principi dell’accessibilità e dell’inclusione in ambito web e mobile.

Information on references

Letters of recommendation are not requested. Any letter of recommendation received shall not be taken into consideration.

Foreign Languages

English

Further Information

Dott.ssa Michela Mazzucchelli
(+39)0102095810
dottoratodad@unige.it
https://architettura.unige.it/

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
**Course**: BIOINGEGNERIA E ROBOTICA – BIOENGINEERING AND ROBOTICS  
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

**Curriculum**: ADVANCED AND HUMANOID ROBOTICS (CODE 9494)

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<thead>
<tr>
<th>Course Coordinator:</th>
<th>Massobrio Paolo</th>
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<tbody>
<tr>
<td>Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)</td>
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<tr>
<td><strong>Places</strong>:</td>
<td>1 – <strong>Grants</strong>: 1 (*)</td>
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<tr>
<td>(*) 1 grant funded by Istituto Italiano di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500,00</td>
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<th>Research Themes</th>
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<tbody>
<tr>
<td>1. Wearable Interfaces for Teleoperation and Human Robot Interaction.</td>
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<tr>
<td>2. Intelligent End-effector Embodiment Principles</td>
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<tr>
<td>3. Semantics for Robot Locomanipulation</td>
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</tr>
<tr>
<td>For further information about the research themes please contact: Dr. Ferdinando Cannella (Advanced Robotics): <a href="mailto:Ferdinando.Cannella@iit.it">Ferdinando.Cannella@iit.it</a> Dr. Lorenzo Natale (Humanoid Robotics): <a href="mailto:Lorenzo.Natale@iit.it">Lorenzo.Natale@iit.it</a></td>
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</tbody>
</table>
Course: BIOINGEGNERIA E ROBOTICA – BIOENGINEERING AND ROBOTICS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: BIOENGINEERING (CODE 9495)

**Course Coordinator:** Massobrio Paolo  
Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)

**Places:** 2 – **Grants:** 2 (*)

(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

(*) 1 grant funded within PNRR – progetto RAISE under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP I33C21000330006).

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- the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average of marks or equivalent indicator.  
- the specific research themes candidates want to be evaluated on (see the list of research themes listed below and on the doctorate website: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply));  
- a project proposal related to one (or more) of the research themes offered (please use the template available at the website: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply));  
- a curriculum vitae et studiorum including all the technical scientific studies/activities already done and pertinent to the doctoral programme;  
- endorsement letters (maximum 3) from university professors or recognized experts in the field supporting the candidate.  

| Research Themes | The following research themes are proposed:  
1. Mechanobiology of cardiac muscle cells  
2. Neuromuscular characterization of human motor behavior |
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| Information on references | Candidates must choose not less than one and not more than three referees to endorse their candidature. The referees must be university professors or recognized experts in the field, and must send the reference letters (specifying their name, role and affiliation), within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: phd.biorob@dibris.unige.it. |

| Foreign Languages | Inglese |

| Further information | - The detailed description of the research themes can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)  
- The template for the research project can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)  
- The candidate summary profile form can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply) |
|--------------------|------------------------------------------------|
| For further information about the research themes please contact:  
Prof. Paolo Massobrio  
paolo.massobrio@unige.it |
Course: BIOINGEGNERIA E ROBOTICA – BIOENGINEERING AND ROBOTICS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: BIONANOTECHNOLOGY (CODE 9496)

Course Coordinator: Massobrio Paolo
Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)

Posti: 3 – Borse: 3(*)

(*) 3 grants funded by Istituto Italiano di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

Comparative assessment procedure

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<td>- a curriculum vitae et studiorum including all the technical scientific studies/activities already done and pertinent to the doctoral programme;</td>
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<td>- endorsement letters (maximum 3) from university professors or recognized experts in the field supporting the candidate.</td>
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</table>

Research Themes

The following research themes are proposed:

1. Green Nanomaterials for development of Conducting Inks, Circuits and Sensors for Flexible Electronics
2. Soft Materials for Water Harvesting
3. Design, Characterization and Application of Functional nano-emulsions for Sustainable Materials

The detailed description of the research themes can be found at the following links:

- [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- [https://www.iit.it/phd](https://www.iit.it/phd)

Information on references

Candidates must choose not less than one and not more than three referees to endorse their candidature. The referees must be university professors or recognized experts in the field, and must send the reference letters (specifying their name, role and affiliation), within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:

- phd.biorob@dibris.unige.it

Foreign Languages

*Inglese*

Further information

- The detailed description of the research themes can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- The template for the research project can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- The candidate summary profile form can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)

For further information about the research themes please contact:

- Dr. Giuseppe Vicidomini (IIT)
  - [giuseppe.vicidomini@iit.it](mailto:giuseppe.vicidomini@iit.it)
Course: BIOINGEGNERIA E ROBOTICA – BIOENGINEERING AND ROBOTICS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: COGNITIVE ROBOTICS, INTERACTION AND REHABILITATION TECHNOLOGIES (CODE 9497)

| Course Coordinator: | Massobrio Paolo |
| Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS) |
| Places: | 2 – Grants: 2 (*) |
| (*): 2 grants funded by Istituto Italiani di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00 |

### Comparative assessment procedure

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**Further information on how to present qualifications/publications**

Candidates must submit:
- the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average of marks or equivalent indicator.
- the specific research themes candidates want to be evaluated on (see the list of research themes listed below and on the doctorate website: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply));
- a project proposal related to one (or more) of the research themes offered (please use the template available at the website: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply));
- a curriculum vitae et studiorum including all the technical scientific studies/activities already done and pertinent to the doctoral programme;
- endorsement letters (maximum 3) from university professors or recognized experts in the field supporting the candidate;

### Research Themes

The following research themes are proposed:

1. Psychophysics and neurophysiology of tactile-visual integration and interaction
2. Human-Artificial Interaction System And Tools Development

The detailed description of the research themes can be found at the following links:

- [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- [https://www.iit.it/phd](https://www.iit.it/phd)

### Information on references

Candidates must choose not less than one and not more than three referees to endorse their candidature. The referees must be university professors or recognized experts in the field, and must send the reference letters (specifying their name, role and affiliation), within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: phd.biorob@dibris.unige.it.

### Foreign Languages

- Inglese

### Further information

- The detailed description of the research themes can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- The template for the research project can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)
- The candidate summary profile form can be found at the following link: [http://phd.dibris.unige.it/biorob/index.php/how-to-apply](http://phd.dibris.unige.it/biorob/index.php/how-to-apply)

For further information about the research themes please contact:

Dr. Alessandra Sciutti (IIT)

[alessandra.sciutti@iit.it](mailto:alessandra.sciutti@iit.it)
Course: BIOINGEGNERIA E ROBOTICA – BIOENGINEERING AND ROBOTICS

In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: ROBOTICS AND AUTONOMOUS SYSTEMS (CODE 9498)

Course Coordinator: Massobrio Paolo

Dipartimento di Informatica, Bioingegneria, Roboticae Ingegneria dei Sistemi (DIBRIS)

Places: 2 – Grants: 2 (*)

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4) in collaboration and with the contribution of IO Surgical Research srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Digital Twins of Body Organs and their use in Robot-assisted Surgery

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4) in collaboration and with the contribution of Teseo Srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Proactive speech-based virtual assistant for the elderly and people with special needs - Synthetic Personalities: a cognitive architecture for speech-based virtual assistants

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND EXAM

- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications

Candidates must submit:
- the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average of marks or equivalent indicator.
- the specific research themes candidates want to be evaluated on (see the list of research themes listed below and on the doctorate website: http://phd.dibris.unige.it/biorob/index.php/how-to-apply);
- a project proposal related to one (or more) of the research themes offered (please use the template available at the website: http://phd.dibris.unige.it/biorob/index.php/how-to-apply);
- a curriculum vitae et studiorum including all the technical scientific studies/activities already done and pertinent to the doctoral programme;
- endorsement letters (maximum 3) from university professors or recognized experts in the field supporting the candidate.

Research Themes

The following research themes are proposed:

1. Digital Twins of Body Organs and their use in Robot-assisted Surgery
2. Proactive speech-based virtual assistant for the elderly and people with special needs - Synthetic Personalities: a cognitive architecture for speech-based virtual assistants

The detailed description of the research themes can be found at the following link: http://phd.dibris.unige.it/biorob/index.php/how-to-apply

Information on references

Candidates must choose not less than one and not more than three referees to endorse their candidature. The referees must be university professors or recognized experts in the field, and must send the reference letters (specifying their name, role and affiliation), within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: phd.biorob@dibris.unige.it.

Foreign Languages

Inglese
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</table>

For further information about the research themes please contact:
Prof. Giorgio Cannata
giorgio.cannata@unige.it

Further information about commitments and conditions of the grants funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4)** are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 6
Course: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING

Curriculum: FLUID DYNAMICS AND ENVIRONMENTAL ENGINEERING (CODE 9499)

**Course Coordinator:** Massabò Roberta
Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria Civile, Chimica e Ambientale – DICCA)

**Places:** 2(*) – **Grants:** 1 (*)

(*) 1 grant funded by CNR-IMATI, themes “Open geodata and the Copernicus programme for monitoring natural or anthropic phenomena”; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

(*) 1 position reserved to employee of Latitude 40

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</tr>
</thead>
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<td>Interview</td>
<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the webpage <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
</tr>
<tr>
<td>Further information on how to present qualifications/publications</td>
<td>The application (curriculum vitae) must contain Transcripts of Records, stating the courses attended and marks obtained throughout the candidate's university career (Bachelor and M.Sc. degrees; Laurea Triennale and Magistrale degrees). The transcripts of Records must be official documents released by the universities which awarded the degrees. Undergraduate candidates at the deadline of the public notice may submit further documentation, which they deem appropriate, in order to document their university career. The knowledge of foreign languages certified by an international certificate (TOEFL, CPE, CAE, FCE, etc.) attached to the cv would be an asset.</td>
</tr>
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</table>

**Exam Syllabus**
The interview will be a detailed scientific discussion on the candidate's research project, Curriculum Vitae et Studiorum and qualifications/publications. The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

**Research Themes**
The research project (10 pages max) must be prepared on one of the Project Thematics. Details on some of the projects are given in: [http://dottorato.dicca.unige.it/documents/CNR-IMATI.pdf](http://dottorato.dicca.unige.it/documents/CNR-IMATI.pdf)
The project must be prepared under the guidance of the referent of the Project in the list above. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.

**Information on references**
Candidates must choose at least one and no more than three referees to support their candidature. One of the referees must be the member of the curriculum committee ([http://dottorato.dicca.unige.it/eng/info/staff/comitatofluamb.html](http://dottorato.dicca.unige.it/eng/info/staff/comitatofluamb.html)) with whom the research project has been agreed. The referees must be university professors or experts in the subject. The reference letter must be sent by the referee, within the deadline of the public notice and using their institutional e-mail address, to the doctoral secretariat at dottorato.dicca@unige.it. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

**Foreign Languages**
English

**Further Information**
[http://dottorato.dicca.unige.it/eng/](http://dottorato.dicca.unige.it/eng/)
Prof. Rodolfo Repetto
rodolfo.repetto@unige.it
**Course Coordinator:** Massabò Roberta

Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria Civile, Chimica e Ambientale – DICCA)

**Places:** 1 (*)  – **Grants:** 1 (*)

(*) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-F)** in collaboration and with the contribution of ETT S.p.a., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Marine environmental data management and post-processing via ICT tools

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<td></td>
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<tr>
<td></td>
<td>• Written test (research project)</td>
</tr>
<tr>
<td></td>
<td>• Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
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| Interview | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca) |

Further information on how to present qualifications/publications

The application (curriculum vitae) must contain Transcripts of Records, stating the courses attended and marks obtained throughout the candidate's university career (Bachelor and M.Sc. degrees; Laurea Triennale and Magistrale degrees). The transcripts of Records must be official documents released by the universities which awarded the degrees. Undergraduate candidates at the deadline of the public notice may submit further documentation, which they deem appropriate, in order to document their university career.

The knowledge of foreign languages certified by an international certificate (TOEFL, CPE, CAE, FCE, etc.) attached to the cv would be an asset.

**Exam Syllabus**

The interview will be a detailed scientific discussion on the candidate’s research project, Curriculum Vitae et Studiorum and qualifications/publications. The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

**Research Themes**

Research theme: “Marine environmental data management and post-processing via ICT tools”.

The project must be prepared under the guidance of the referent of the Project in the list above. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.

**Information on references**

Candidates must choose at least one and no more than three referees to support their candidature. One of the referees must be the member of the curriculum committee (http://dottorato.dicca.unige.it/eng/info/staff/comitato/fuamb.html) with whom the research project has been agreed. The referees must be university professors or experts in the subject.

The reference letter must be sent by the referee, within the deadline of the public notice and using their institutional e-mail address, to the doctoral secretariat at dottorato.dicca@unige.it. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

**Foreign Languages**

English

**Further Information**

[http://dottorato.dicca.unige.it/eng/](http://dottorato.dicca.unige.it/eng/)
Prof. Rodolfo Repetto
rodolfo.repetto@unige.it

Further information about commitments and conditions of the grants funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-F)** are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING

Curriculum: CHEMICAL, MATERIALS AND PROCESS ENGINEERING (CODE 9501)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Massabò Roberta</th>
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</thead>
<tbody>
<tr>
<td>Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria Civile, Chimica e Ambientale – DICCA)</td>
<td></td>
</tr>
<tr>
<td>Places: 2 – Grants: 2 (*)</td>
<td></td>
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<tr>
<td>(*) 1 grant funded by DICCA, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00.</td>
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</tr>
<tr>
<td>(*) 1 grant funded within PNRR – progetto CNN-Agritech “Development of innovative food waste valorization processes for combining biowaste upcycling into new farm models”, under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP D33C22000950007).</td>
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Exam Syllabus

The interview will be a detailed scientific discussion on the candidate’s research project, Curriculum Vitae et Studiorum and qualifications/publications. The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

Research Themes

The research project (10 pages max) must be prepared on one of the themes of the curriculum in “Chemical, Materials and Process Engineering”, which are described in details on the course web page: http://dottorato.dicca.unige.it/eng/chmatpr/ or on one of the thematic projects. Details on some of the thematic projects are in: http://dottorato.dicca.unige.it/documents/RegioneAnsaldoGreentech.pdf

The project must be prepared under the guidance of the referent of the Project. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references, and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.

Information on references

Candidates must choose at least one and no more than three referees to support their candidature. One of the referees must be the member of the curriculum committee (http://dottorato.dicca.unige.it/eng/info/staff/comitatochmatpr.html) with whom the research project has been agreed. The referees must be university professors or experts in the subject. The reference letter must be sent by the referee, within the deadline of the public notice and using their institutional e-mail address, to the doctoral secretariat at dottorato.dicca@unige.it. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

Foreign Languages

English

Further Information

http://dottorato.dicca.unige.it/eng/

Prof. Attilio Converti
converti@unige.it
Course: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING

Curriculum: CHEMICAL, MATERIALS AND PROCESS ENGINEERING (CODE 9502)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Massabò Roberta</th>
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<tr>
<td>Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria Civile, Chimica e Ambientale – DICCA)</td>
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<tr>
<td>Places: 1 – Grants: 1 (*)</td>
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<td>Research project: Engineering of redox flow batteries for renewable energy storage: improvement of materials and scale-up</td>
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<td>Details of the thematic projects are in: <a href="http://dottorato.dicca.unige.it/documents/RegioneAnsaldoGreentech.pdf">http://dottorato.dicca.unige.it/documents/RegioneAnsaldoGreentech.pdf</a></td>
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<td>The project must be prepared under the guidance of the referent of the Project. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references, and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.</td>
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<td>One of the referees must be the member of the curriculum committee (<a href="http://dottorato.dicca.unige.it/eng/info/staff/comitatochmatpr.html">http://dottorato.dicca.unige.it/eng/info/staff/comitatochmatpr.html</a>) with whom the research project has been agreed. The referees must be university professors or experts in the subject. The reference letter must be sent by the referee, within the deadline of the public notice and using their institutional e-mail address, to the doctoral secretariat at <a href="mailto:dottorato.dicca@unige.it">dottorato.dicca@unige.it</a>. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.</td>
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<tbody>
<tr>
<td><a href="http://dottorato.dicca.unige.it/eng/Prof">http://dottorato.dicca.unige.it/eng/Prof</a>. Attilio Converti <a href="mailto:converti@unige.it">converti@unige.it</a></td>
</tr>
<tr>
<td>Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) are available in the Notice of competition (article 6, paragraph 6)</td>
</tr>
<tr>
<td>Months to be spent abroad: 3</td>
</tr>
</tbody>
</table>
Course: LAW STUDIES

Curriculum: INTERNATIONAL LAW (COMMERCIAL, EUROPEAN UNION AND INTERNATIONAL LAW) (CODE 9503)

Course Coordinator: Chiassoni Pierluigi
Department of Law Studies (Dipartimento di Giurisprudenza – DDG)

Placements: 1 – Grants: 1 (*)

(*) 1 grant funded by Università degli Studi di Genova; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00

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</tr>
<tr>
<td>Further information on how to present qualifications/publications</td>
<td>Qualifications include the information contained in the application and in the curriculum vitae et studiorum, the research project, any further qualifications. The application and attached documents may be written in Italian or English, French or Spanish.</td>
</tr>
<tr>
<td>Exam Syllabus</td>
<td>The interview consists:</td>
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<td>- an in-depth examination of the candidate’s skills in relation to the key issues relating, at candidate’s choice, to one of the following areas: international law, European Union law and commercial law, with particular regard to the research topics set out below;</td>
</tr>
<tr>
<td></td>
<td>- in the discussion of the research project presented.</td>
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<tr>
<td>Research Themes</td>
<td>Within the curriculum in international law, European Union law and commercial law there are three research themes, substantially corresponding to the disciplinary “areas” (and related “competences”) that are represented in it. These themes are part of a unitary framework, characterized by the sharing of a system of sources known as “multiple sources”, by the presence of consolidated systems of protection and by the multidisciplinary approach. The first research theme concerns the most significant recent developments in international law (both public and private), including references to the international maritime law, analyzed from the perspective of the extension of the rights guaranteed to individuals and their “effective” judicial protection. The same perspective is adopted with reference to the European Union’s legal system, of which the profiles of institutional as well as material law are highlighted (single market and other areas of competence of the Union, including those with external relevance). With respect to commercial law, again within the framework of the European Union’s harmonization regulations, specific attention is paid to the regulation of banking, financial and insurance intermediaries and the corporate governance of listed companies, including the recent legislative and regulatory initiatives on EU sustainable finance.</td>
</tr>
<tr>
<td>Information on references</td>
<td>Candidates must choose no less than one and no more than three contacts to support their application. These contacts must be academics or experts in the field. It will be the responsibility of the referees to send the letters of reference, within the deadline of the call, to Prof. Paola Ivaldi, to the following e-mail address: <a href="mailto:Paola.Ivaldi@unige.it">Paola.Ivaldi@unige.it</a> as well as to the administrative contact, Dr. M. Stefania Lavezzo: <a href="mailto:55563@unige.it">55563@unige.it</a>. In the application form, candidates must specify the name, qualification and place of employment of the contact persons chosen by them.</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>English</td>
</tr>
<tr>
<td>Further Information</td>
<td>During the three-year period (and, preferably, during the second year) PhD students must spend at least 12 months abroad, or in Italy at international training center, to carry out in-depth studies in their respective fields of research.</td>
</tr>
<tr>
<td>Contact person for the curriculum</td>
<td>Prof. <a href="mailto:Paola.Ivaldi@unige.it">Paola.Ivaldi@unige.it</a></td>
</tr>
<tr>
<td>Administrative contact person</td>
<td>Dr. M. Stefania Lavezzo</td>
</tr>
<tr>
<td></td>
<td>e-mail: <a href="mailto:55563@unige.it">55563@unige.it</a></td>
</tr>
</tbody>
</table>
**Course:** ECONOMICS AND QUANTITATIVE METHODS  
(CODE 9504)

| **Course Coordinator:** | Piga Claudio Antonio Giuseppe  
Department of Economics (Dipartimento di Economia – DIEC) |
|--------------------------|----------------------------------------------------------|
| **Places:** | 1 – Grants: 1 (*)  
(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) in collaboration and with the contribution of AMT - Azienda Mobilità e Trasporti S.p.A., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.243.  
Research project: Evaluation and assessment of the impacts arising from the application of a “nudging” approach toward a sustainable urban mobility. |

| **Comparative assessment procedure** | QUALIFICATIONS/PUBLICATIONS AND EXAM  
- Assessment of qualifications/publications and the curriculum vitae et studiorum  
- Written test (research project)  
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum |
| **Interview** | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| **Exam Syllabus** | Discussion on the candidate's CV and of the submitted Research Project. The discussion will be held in English |
| **Research Themes** | Evaluation and assessment of the impacts arising from the application of a “nudging” approach toward a sustainable urban mobility. In particular, the focus will be on the adoption of free or partially free fares (depending on time of day, age/income of traveller, employment status etc) for public transport, the implication for polluting emissions' reduction and the financial sustainability of such initiatives. |
| **Information on references** | Send at least one and no more than three reference letters in support of application to the following e-mail address: dottoratodiec@economia.unige.it |
| **Foreign Languages** | English |
| **Further Information** | For further information: https://economia.unige.it/dottorato-di-ricerca-in-economics-and-political-economy or write an e-mail to: dottoratodiec@economia.unige.it or to the PhD Coordinator, Professor Claudio Piga: claudio.piga@unige.it |

The scholarship is financed by Regione Liguria and co-financed by the company AMT - Azienda Mobilità e Trasporti S.p.A., which will host the Candidate for a 12 months’ period of study and research.  
Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) are available in the Notice of competition (article 6, paragraph 6)  
Months to be spent abroad: 6
Course: **HAEMATO-ONCOLOGY AND CLINICAL-TRANSLATIONAL INTERNAL MEDICINE**

Curriculum: **CLINICAL PATHOPHYSIOLOGY OF RENAL, CARDIOVASCULAR, ARTERIAL HYPERTENSIVE DISEASES** (CODE 9505)

| Course Coordinator: Nencioni Alessio |
| Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche – DIMI) |
| Places: 1 |
| Grants: 1 (*) |

(*) 1 grant funded by Università degli Studi di Genova; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00

| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca) |

| Exam Syllabus | Remote interview: during the interview, the candidate will be evaluated with respect to the following criteria: |
| - Knowledge of the research topics |
| - Motivation |
| - Logical thinking |
| - Ability to carry out an independent project |
| - Potential for excellence and leadership qualities |
| - Ability to work in a team |
| - Discussion of the presented project |

Knowledge of the English language will be assessed through a short reading and translation test or if the interview is held in English.

| Research Themes |
| - Hemodynamic and metabolic mechanisms involved in the development of renal and extra-renal organ damage |
| - Cardiovascular and renal risk factors in hypertension, diabetic nephropathy, glomerulonephritis and kidney transplantation. |
| - Atherosclerosis, diabetic nephropathy, chronic kidney disease: role of innate and acquired immune system. |
| - Biology, pathophysiology and epidemiology of heart failure. |
| - Clinical experimental cardio-oncology |
| - Thrombosis and anticoagulation in atrial fibrillation and acute coronary syndromes. |
| - Role of inflammatory mediators in ischemic heart disease, in ischemic stroke, in metabolic and kidney diseases and their complications. |

| Information on references | Applicants are required to indicate 1 to 3 supporters to their application. Those supporters will have to be University Professors or recognized experts in the field. Supporters will take care of sending their approval letters, within the term, to the Responsible of the PhD Course Prof. Alessio Nencioni, Dip. Di Medicina Interna DIMI, viale Benedetto XV n.6, (16132 Genova) e-mail: alessio.nencioni@unige.it, ricercadimi@unige.it, to Prof. Francesca Chiara Viazzi e-mail: francesca.viazzi@unige.it, Prof. Pietro Ameri e-mail: pietroameri@unige.it and Prof. Fabrizio Montecucco e-mail: fabrizio.montecucco@unige.it. Within the application form, applicants will have to specify in detail name, surname and affiliation of the reference tutors. |

| Foreign Languages | English |

| Further Information | Reference professors: |
| Prof.ssa Francesca Chiara Viazzi e-mail: francesca.viazzi@unige.it |
| Prof. Pietro Ameri e-mail: pietroameri@unige.it |
| Prof. Fabrizio Montecucco e-mail: fabrizio.montecucco@unige.it |
## Course: HAEMATO-ONCOLOGY AND CLINICAL-TRANSLATIONAL INTERNAL MEDICINE

### Curriculum GERONTOLOGY, NUTRITION, AND ANTI-AGING MEDICINE (CODE 9506)

| **Coordinator:** Nencioni Alessio  
Department of Internal Medicine and Medical Specialties (DIMI) |  |
|---|---|
| **Places:** 1  
Grants: 1 (*) |  |
| (*) 1 grant funded by Università degli Studi di Genova; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00 |  |
| **Methods of comparative assessment** | **BY QUALIFICATIONS AND INTERVIEW** |
| **Interview** | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| **Exam content** | During the interview, the candidate will be assessed on the basis of the following criteria:  
- Knowledge of the research topics  
- Motivation  
- Logical thinking  
- Ability to carry out an independent project  
- Potential for excellence and leadership qualities  
- Ability to work in a team  
- Discussion of the presented project  
Knowledge of the English language will be assessed through a short reading and translation test or if the interview is held in English. |
| **Research themes** | • Food chemistry and biochemistry  
• Physiology of nutrition  
• Malnutrition, epidemiology of eating habits, food geography  
• UN Agenda 2030 objectives, definition and evaluation of sustainability.  
• Principles of sustainable nutrition: characterizing elements and fields of application |
| **Information on references** | Applicants are required to indicate 1 to 3 supporters to their application. Those supporters will have to be University Professors or recognized experts in the field. Supporters will take care of sending their approval letters, within the term, to the Coordinator of the PhD program at the address: Prof. Alessio Nencioni, Dip. DIMI, viale Benedetto XV, 6 (16132 Genova) e-mail: alessio.nencioni@unige.it, ricercadimi@unige.it and to Prof. Livia Pisciotta livia.pisciotta@unige.it. Within the application form, applicants will have to specify in detail name, surname and affiliation of the reference tutors |
| **Foreign languages** | English |
| **Further information** | Reference teachers: Livia Pisciotta livia.pisciotta@unige.it |
**Course:** HAEMATO-ONCOLOGY AND CLINICAL-TRANSLATIONAL INTERNAL MEDICINE

**Curriculum: GERONTOLOGY, NUTRITION, AND ANTI-AGING MEDICINE (CODE 9507)**

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<tr>
<td><strong>Places:</strong></td>
<td>1 – Grants: 1 (*)</td>
</tr>
<tr>
<td>(*) I grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of Camera di Commercio, Industria, Artigianato e Agricoltura di Genova, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243. Research project: Sostenibilità alimentare per le eccellenze produttive della ristorazione e dell’agroalimentare.</td>
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<tr>
<th><strong>Research themes</strong></th>
<th>Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f): Sostenibilità alimentare per le eccellenze produttive della ristorazione e dell’agroalimentare.</th>
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<th><strong>Information on references</strong></th>
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</table>

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<tr>
<th><strong>Further information</strong></th>
<th>Reference teachers: Prof. Livia Pisciotta <a href="mailto:livia.pisciotta@unige.it">livia.pisciotta@unige.it</a></th>
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<tr>
<th></th>
<th>Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)</th>
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<tr>
<td></td>
<td>Months to be spent abroad: 0</td>
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Course: PHYSICS AND NANOSCIENCES
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: PHYSICS (CODE 9509)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Ferrando Riccardo</th>
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<tbody>
<tr>
<td>Department of Physics (Dipartimento di Fisica – DIFI)</td>
<td></td>
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</tbody>
</table>

Places: 6 – Grants: 6 (*)

(*) 1 grant funded within PNRR – progetto KM3NET4RR under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP IS7G21000040001).

(*) 1 grant funded within PNRR – progetto ITINERIS under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP B53C22002150006).

(*) 2 grants funded within PNRR – progetto ETIC under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP IS3C21000420006).

(*) 1 grant funded within PNRR – progetto RAISE under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP IS3C21000330006).

(*) 1 grant funded by Istituto Italiano di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500,00.

Comparative assessment procedure

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Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca).

Further information on how to present qualifications/publications

Each candidate must submit a description of the research project he/she intends to carry out during the three years of the PhD course. The project must be written in English. A maximum length of 6000 characters including spaces is allowed.

Exam Syllabus

- Discussion about the qualification of the candidate.
- Discussion of the Master's thesis.
- Presentation and discussion of the proposed research project.
- Interview on basic physics topics (general physics, modern physics).
- Verification of knowledge of the English language.

Research Themes

Research themes for grant funded within PNRR

1. Fellowship within project KM3NET4RR
   Title: Follow-up of neutrino emission from celestial gamma-ray sources
   Contact: Mauro Taiuti
   e-mail: Mauro.Taiuti@ge.infn.it

2. Fellowship within project ITINERIS
   Title: Characterization of natural and anthropogenic aerosols with an atmospheric simulation chamber
   Contact: Paolo Prati
   e-mail: Paolo.Prati@ge.infn.it

3. Fellowship within project ETIC
   Title: Development of strategies to minimize optical absorption in mirrors used in future advanced interferometers for the detection of gravitational waves (Einstein Telescope experiment).
   Contact: Maurizio Canepa
   e-mail: canepa@fisica.unige.it

4. Fellowship within project ETIC
   Title: Quantum optics methods used in future advanced interferometric detectors of gravitational waves (Einstein Telescope experiment). Generation of “squeezed” states of light, low noise measurement of the quantum squares of the optical field, entanglement of the optical fields.
   Contact: Maurizio Canepa
   e-mail: canepa@fisica.unige.it

5. Fellowship within project RAISE
   Title: Development of innovative AI-supported experimental techniques for the detection of special nuclear materials (SNM) in maritime transport.
   Contact: Mauro Taiuti
   e-mail: Mauro.Taiuti@ge.infn.it
Research theme of the scholarship funded by IIT:

1. Title: Modelling dynamics in materials with complex orders
Recent advances enabled experiments on materials at the natural timescale of their excitations. Significant efforts are focused on manipulating orders in magnetic and ferroelectric materials. We will use methods of theoretical and computational condensed matter theory to study ordered materials and address outstanding puzzles in experimental data on ultrafast phase transitions.

Contact: Sergey Artyukhin - sergey.artyukhin@iit.it, www.iit.it/phd

| Information on references | Candidates must choose up to three referees to support their application. These contacts must be university professors or experts in the field. It is preferable that at least one contact belongs to the University of Genoa or to the affiliated research bodies (CNR/INFN/IIT). The referents will be responsible for sending the reference letters, preferably written in English, within the deadline of the call. The letters must be addressed to the attention of the course coordinator Prof. Riccardo Ferrando to the e-mail address: phd@fisica.unige.it. The subject of the e-mail must be: PHD REFERENCE LETTER – PHYSICS. |
| Foreign Languages | Excellent knowledge of both spoken and written English. A very basic knowledge of Italian is desirable. |
Course: PHYSICS AND NANOSCIENCES
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: BIO-NANOSCIENCE (CODE 9508)

<table>
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<tr>
<th>Course Coordinator:</th>
<th>Ferrando Riccardo</th>
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<td>Department of Physics (Dipartimento di Fisica – DIFI)</td>
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<tr>
<th>Places:</th>
<th>2 – Grants:</th>
<th>2 (*)</th>
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<tr>
<td>(*) 2 grants funded within PNRR – progetto SEELIFE under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP B53C22001810006).</td>
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**Comparative assessment procedure**
QUALIFICATIONS/PUBLICATIONS AND INTERVIEW

**Interview**
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

**Further information on how to present qualifications/publications**
Each candidate must submit a description of the research project he/she intends to carry out during the three years of the PhD course. The project must be written in English. A maximum length of 6000 characters including spaces is allowed.

**Exam Syllabus**
- Discussion about the qualification of the candidate.
- Discussion of the Master's thesis.
- Presentation and discussion of the proposed research project.
- Interview on basic physics topics (general physics, modern physics).
- Verification of knowledge of the English language.

**Research Themes**
Fellowships funded by PNRR, project IR Seelife Eurobioimaging

1. Title: Development of a Multimodal Optical Microscopy Super resolution approach to study cellular systems at the nanoscale.

2. Title: Optimized precision localisation at molecular level with minimal illumination impact by means of the MINFLUX approach.

Info available at https://www.eurobioimaging.eu/nodes/molecular-imaging-italian-node

Contact: Alberto Diaspro
e-mail diaspro@fisica.unige.it

**Information on references**
Candidates must choose up to three referees to support their application. These contacts must be university professors or experts in the field. It is preferable that at least one contact belongs to the University of Genoa or to the affiliated research bodies (CNR/INFN/IIT). The referents will be responsible for sending the reference letters, preferably written in English, within the deadline of the call. The letters must be addressed to the attention of the course coordinator Prof. Riccardo Ferrando to the e-mail address: phd@fisica.unige.it. The subject of the e-mail must be:
PHD REFERENCE LETTER – BIO-NANOSCIENCES.

**Foreign Languages**
Excellent knowledge of both spoken and written English. A very basic knowledge of Italian is desirable.
Course: PHYSICS AND NANOSCIENCES  
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)  
Curriculum: APPLIED SUPERCONDUCTIVITY  (CODE 9510)

| **Course Coordinator:** | Ferrando Riccardo  
Department of Physics (Dipartimento di Fisica – DIFI) |
|--------------------------|--------------------------------------------------|
| **Places:** | 1  
**Grants:** | 1 (*) |
| (*) 1 grant funded within PNRR – progetto IRIS under condition of the approval of ministerial funding: the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP I43C21000230006). |

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| **Further information on how to present qualifications/publications** | Each candidate must submit a description of the research project he/she intends to carry out during the three years of the PhD course. The project must be written in English. A maximum length of 6000 characters including spaces is allowed. |

| **Exam Syllabus** | - Discussion about the qualification of the candidate.  
- Discussion of the Master's thesis.  
- Presentation and discussion of the proposed research project.  
- Interview on basic physics topics (general physics, modern physics).  
- Verification of knowledge of the English language. |

| **Research Themes** | PNNR Fellowship within project IRIS - Innovative Research Infrastructure on applied Superconductivity  
Contact: Marina Putti  
e-mail putti@fisica.unige.it |

| **Information on references** | Candidates must choose up to three referees to support their application. These contacts must be university professors or experts in the field. It is preferable that at least one contact belongs to the University of Genoa or to the affiliated research bodies (CNR/INFN/IIT). The referees will be responsible for sending the reference letters, preferably written in English, within the deadline of the call. The letters must be addressed to the attention of the course coordinator Prof. Ferrando to the e-mail address: phd@fisica.unige.it. The subject of the e-mail must be: PHD REFERENCE LETTER – APPLIED SUPERCONDUCTIVITY. |

| **Foreign Languages** | Excellent knowledge of both spoken and written English.  
A very basic knowledge of Italian is desirable. |
**Course Coordinators:** Sivori Simona  
**Department of Experimental Medicine (Dipartimento di Medicina Sperimentale – DIMES)**  

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<tr>
<th><strong>Places</strong></th>
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**Interview**  
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the webpage https://unige.it/usg/it/dottorati-di-ricerca

**Further information on how to present qualifications/publications**  
Candidates must submit:  
- the pdf file of their Bachelor’s and Master’s degree and/or equivalents (BS, Master)  
- a project proposal related to a topic within the field of the Clinical and Experimental Immunology  
- the curriculum vitae et studiorum including all the already done technical scientific studies/activities pertinent to the doctoral program  
- the list and pdf files of scientific publications  
- certifications related to periods spent in research laboratories  
- up to 3 recommendation letters from university professors or recognized experts in the field supporting the candidate.

**Exam Syllabus**  
Presentation and discussion of the submitted project proposal, evaluation of the candidate’s preparation on basic and clinical immunology topics. Evaluation of English language skills by reading, translating and understanding part of a scientific article.

**Research Themes**  
- Innate response and characterization of Innate Immunity cells (Natural Killer cells and ILCs)  
- Adaptive response and characterization of T lymphocytes  
- Autoimmunity  
- Cancer immunology  
- Immunology of infections

**Information on references**  
The Candidates must choose up to three referees to endorse their candidature. The referees, chosen among university professors or recognized experts in the field, must send the recommendation letters (specifying their name, role and affiliation), within the deadline of the public notice, to the Coordinator of the Doctoral Course, Prof. Simona Sivori, at the following address: doottorato.immunologia@unige.it

The candidate must state in the application the name, status and current position of the referees chosen.

**Foreign Languages**  
English

**Further Information**  
Doctoral secretariat: Dr. Eva Baraldi - doottorato.immunologia@unige.it
**Course**: COMPUTER SCIENCE AND SYSTEMS ENGINEERING

**Curriculum**: COMPUTER SCIENCE (CODE 9512)

<table>
<thead>
<tr>
<th><strong>Course Coordinator</strong></th>
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<tr>
<td><strong>Department of IT, Bioengineering, Robotics and Systems Engineering</strong> (Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi – DIBRIS)</td>
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<tr>
<td><strong>Places</strong>: 1 - <strong>Grants</strong>: 1 (*)</td>
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<td><strong>Further information on how to present qualifications/publications</strong></td>
<td>Instructions and guidelines to prepare a research project are available at the URL <a href="http://phd.dibris.unige.it/csse/index.php/admission-procedure">http://phd.dibris.unige.it/csse/index.php/admission-procedure</a></td>
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| **Exam Syllabus** | The comparative procedure consists of  
| - an assessment of the candidate qualifications  
| - an interview to verify background and knowledge of the candidate as well as motivations and goals of the research proposal submitted with the application. |

| **Research Themes** | The research areas of the Computer Science Curriculum [http://phd.dibris.unige.it/csse/](http://phd.dibris.unige.it/csse/) are:  
| Artificial intelligence and Multi-agent Systems; Data Science and Engineering; Secure and Reliable Systems; Human-Computer Interaction; Science and Technology for Health.  
| Research theme for 1 grant funded by Dibris/CNR:  
| Analysing visual data for weather and climate prediction  
| More details on the above mentioned research projects are available at the URL: [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure). |

| **Information on references** | Candidates must select between one and three external references (academic researchers or experts in the research area of the research proposal). Candidates must also indicate their names, qualifications, and affiliations in the application form.  
| Furthermore, reference persons are required to send a recommendation letter for the candidate to the e-mail: [phd.compsci@dibris.unige.it](mailto:phd.compsci@dibris.unige.it) before the deadline of the application.  

| **Foreign Languages** | English |
Course: COMPUTER SCIENCE AND SYSTEMS ENGINEERING

Curriculum: COMPUTER SCIENCE (CODE 9513)

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<td></td>
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</table>

| Places: | 2 |
| Grants: | 2 (*) |

(*) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f)** in collaboration and with the contribution of Gter s.r.l., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: GNSS Positioning with low cost devices and GIS applications

(*) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f)** in collaboration and with the contribution of Leonardo S.p.a., under condition of the project and GNSS Positioning with low cost devices and GIS applications funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Trustworthy AI

### Comparative assessment procedure

- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

### Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

### Further information on how to present qualifications/publications

Instructions and guidelines to prepare a research project are available at the URL [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure).

### Exam Syllabus

The comparative procedure consists of:

- an assessment of the candidate qualifications
- an interview to verify background and knowledge of the candidate as well as motivations and goals of the research proposal submitted with the application.

### Research Themes

The research areas of the Computer Science Curriculum [http://phd.dibris.unige.it/csse/](http://phd.dibris.unige.it/csse/) are:

- Artificial intelligence and Multi-agent Systems
- Data Science and Engineering
- Secure and Reliable Systems
- Human-Computer Interaction
- Science and Technology for Health

Research theme for 1 grant co-funded by Regione Liguria and Gter s.r.l.: GNSS Positioning with low cost devices and GIS applications

Research theme for 1 grant co-funded by Regione Liguria and Leonardo S.p.a.: Trustworthy AI

More details on the above mentioned research projects are available at the URL: [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure).

### Information on references

Candidates must select between one and three external references (academic researchers or experts in the research area of the research proposal). Candidates must also indicate their names, qualifications, and affiliations in the application form.

Furthermore, reference persons are required to send a recommendation letter for the candidate to the e-mail: phd.compsci@dibris.unige.it before the deadline of the application.


### Foreign Languages

English

### Further Information

Further information about commitments and conditions of the grants funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f)** are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: COMPUTER SCIENCE AND SYSTEMS ENGINEERING

Curriculum: SYSTEMS ENGINEERING (CODE 9514)

| Course Coordinator: Delzanno Giorgio |
| Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi – DIBRIS) |

**Places:** 1\(^(*)\) - **Grants:** 0

\(^(*)\) 1 position reserved to employee of Docspace

<table>
<thead>
<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
</table>

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the webpage [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

| Further information on how to present qualifications/publications | Instructions and guidelines to prepare a research project are available at the URL [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure) |

<table>
<thead>
<tr>
<th>Exam Syllabus</th>
<th>The comparative procedure consists of:</th>
</tr>
</thead>
</table>

- an assessment of the candidate qualifications
- an interview to verify background and knowledge of the candidate as well as motivations and goals of the research proposal submitted with the application.

<table>
<thead>
<tr>
<th>Research Themes</th>
<th>The research areas of the Systems Engineering Curriculum <a href="http://phd.dibris.unige.it/csse/">http://phd.dibris.unige.it/csse/</a> are:</th>
</tr>
</thead>
</table>

- Modelling of dynamic systems, Performance optimization schemes and algorithms, Design and development of regulation methods and schemes, Planning at different levels of decision making, Monitoring and supervision.

- Distributed software platforms for shared dynamic data

Research theme for 1 PhD executive in collaboration with Docspace

More details on the above mentioned research projects are available at the URL: [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure)

| Information on references | Candidates must select between one and three external references (academic researchers or experts in the research area of the research proposal). Candidates must also indicate their names, qualifications, and affiliations in the application form. |

Furthermore, reference persons are required to send a recommendation letter for the candidate to the e-mail: phd.syseng@dibris.unige.it before the deadline of the application.

A template for the reference letter is available at the URL: [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure)

| Foreign Languages | English |
# Course: COMPUTER SCIENCE AND SYSTEMS ENGINEERING

**Curriculum: SYSTEMS ENGINEERING (CODE 9515)**

<table>
<thead>
<tr>
<th>Course Coordinator: Delzanno Giorgio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi – DIBRIS)</td>
</tr>
</tbody>
</table>

**Placements:** 1

**Grants:** 1 (*)

(*) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4)** in collaboration and with the contribution of Docspace, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Software technologies for the management of shared dynamic data

<table>
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<tr>
<th>Comparative assessment procedure</th>
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<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td>• Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
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</table>

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**Further information on how to present qualifications/publications**

Instructions and guidelines to prepare a research project are available at the URL [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure)

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</tbody>
</table>

**Research Themes**

The research areas of the Systems Engineering Curriculum [http://phd.dibris.unige.it/csse/](http://phd.dibris.unige.it/csse/) are:

- Modelling of dynamic systems
- Performance optimization schemes and algorithms
- Design and development of regulation methods and schemes
- Planning at different levels of decision making
- Monitoring and supervision.

Research theme for 1 grant co-funded by Regione Liguria and Docspace:

- Software technologies for the management of shared dynamic data

More details on the above mentioned research projects are available at the URL: [http://phd.dibris.unige.it/csse/index.php/admission-procedure](http://phd.dibris.unige.it/csse/index.php/admission-procedure)

**Information on references**

Candidates must select between one and three external references (academic researchers or experts in the research area of the research proposal). Candidates must also indicate their names, qualifications, and affiliations in the application form.

Furthermore, reference persons are required to send a recommendation letter for the candidate to the e-mail: [phd.syseng@dibris.unige.it](mailto:phd.syseng@dibris.unige.it) before the deadline of the application.

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**Foreign Languages**

- English

**Further Information**

Further information about commitments and conditions of the grants funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4)** are available in the Notice of competition (article 6, paragraph 6)

- Months to be spent abroad: 0
**Course**: ENGINEERING OF MODELS, MACHINE AND SYSTEMS FOR ENERGY, ENVIRONMENT AND TRANSPORT

**Curriculum**: MACHINES AND SYSTEMS FOR ENERGY, ENVIRONMENT AND PROPULSION (CODE 9516)

<table>
<thead>
<tr>
<th><strong>Course Coordinator</strong></th>
<th>Cianci Roberto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)</td>
<td></td>
</tr>
<tr>
<td><strong>Places</strong>: 1 – <strong>Grants</strong>: 1 (*)</td>
<td></td>
</tr>
<tr>
<td>(*) 1 grant funded by MUR/DIME, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Comparative assessment procedure</strong></th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Research Themes</strong></th>
<th>The research topics of the Curriculum concern energy production and aeronautical propulsion. They have experimental, numerical and theoretical nature and concern:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Turbomachinery and combustors for power generation and aeronautical propulsion:</td>
<td></td>
</tr>
<tr>
<td>2. Internal combustion engines for automotive traction and ship propulsion:</td>
<td></td>
</tr>
<tr>
<td>3. Energy generation systems based on traditional and renewable primary sources:</td>
<td></td>
</tr>
<tr>
<td>4. The development of methodologies and tools for monitoring and diagnostics of rotating machines at industrial plants</td>
<td></td>
</tr>
<tr>
<td>The topics covered present important connections with transport systems, with modeling aspects related to Mathematical Physics and numerical processing, with controls and signal processing.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Information on references</strong></th>
<th>Candidates must choose not less than one and not more than three referees to support their candidacy. These referees must be university professors or experts in the subject. It will be the responsibility of the contact persons to send the reference letters, within the deadline of the call, to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Andrea Cattanei</td>
<td>DIME</td>
</tr>
<tr>
<td>Via Montallegro 1</td>
<td>16145 Genoa</td>
</tr>
<tr>
<td><a href="mailto:andrea.Cattanei@unige.it">andrea.Cattanei@unige.it</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Foreign Languages</strong></th>
<th>English language</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Further Information</strong></th>
<th>For further information, please contact the PhD Coordinator Prof. Roberto Cianci for information <a href="mailto:roberto.cianci@unige.it">roberto.cianci@unige.it</a>, or Prof. Andrea Cattanei <a href="mailto:cattanei@unige.it">cattanei@unige.it</a></th>
</tr>
</thead>
</table>
## Course: ENGINEERING OF MODELS, MACHINE AND SYSTEMS FOR ENERGY, ENVIRONMENT AND TRANSPORT

## Curriculum: MACHINES AND SYSTEMS FOR ENERGY, ENVIRONMENT AND PROPULSION (CODE 9517)

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<tr>
<th>Course Coordinator:</th>
<th>Cianci Roberto</th>
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</thead>
<tbody>
<tr>
<td>Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)</td>
<td></td>
</tr>
<tr>
<td><strong>Places:</strong></td>
<td>1 – <strong>Grants:</strong> 1 (*)</td>
</tr>
<tr>
<td>(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of Istituto Italiano della Saldatura, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.</td>
<td></td>
</tr>
<tr>
<td>Research project: The development of methodologies and tools for monitoring and diagnostics of rotating machines at industrial plants</td>
<td></td>
</tr>
</tbody>
</table>

### Comparative assessment procedure

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<td>- Assessment of qualifications/publications and the curriculum vitae et studiorum</td>
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<td>- Written test (research project)</td>
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### Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di ricerca](https://unige.it/usg/it/dottorati-di ricerca)

### Research Themes

The research topics of the Curriculum concern energy production and aeronautical propulsion. They have experimental, numerical and theoretical nature and concern:

1. Turbomachinery and combustors for power generation and aeronautical propulsion:
   - Internal combustion engines for automotive traction and ship propulsion:
   - Energy generation systems based on traditional and renewable primary sources:
   - The development of methodologies and tools for monitoring and diagnostics of rotating machines at industrial plants

The topics covered present important connections with transport systems, with modeling aspects related to Mathematical Physics and numerical processing, with controls and signal processing.

Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f): The development of methodologies and tools for monitoring and diagnostics of rotating machines at industrial plants

### Information on references

Candidates must choose not less than one and not more than three referees to support their candidacy. These referents must be university professors or experts in the subject. It will be the responsibility of the contact persons to send the reference letters, within the deadline of the call, to:

Prof. Andrea Cattanei  
DIME  
Via Montallegro 1  
16145 Genoa  
[andrea.Cattanei@unige.it](mailto:andrea.Cattanei@unige.it)

### Foreign Languages

English language

### Further Information

For further information, please contact the PhD Coordinator Prof. Roberto Cianci for information [roberto.cianci@unige.it](mailto:roberto.cianci@unige.it), or Prof. Andrea Cattanei [cattanei@unige.it](mailto:cattanei@unige.it)

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 6
Course: ENGINEERING OF MODELS, MACHINE AND SYSTEMS FOR ENERGY, ENVIRONMENT AND TRANSPORT

Curriculum: MATHEMATICAL ENGINEERING AND SIMULATION (CODE 9518)

<table>
<thead>
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<tbody>
<tr>
<td>Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)</td>
<td></td>
</tr>
<tr>
<td>Places: 1 – Grants: 1 (*)</td>
<td></td>
</tr>
<tr>
<td>(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00.</td>
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<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Themes</td>
<td>The following research topics are proposed within the curriculum:</td>
</tr>
<tr>
<td>1. Continuous and discrete mathematical models for the thermo-fluid dynamics of energy systems; fluid mechanics and related equations. Problems of acoustics and wave propagation in fluid and solid media using &quot;analogous instruments&quot;. Metamaterials. The Dirac field in interaction.</td>
<td></td>
</tr>
<tr>
<td>2. Methods of development and analysis of discrete and continuous models for the simulation of systems. Numerical analysis tools and problems; development of simulators and simulator federations for complex systems. Definition of objectives, formalization, implementation solutions, integration, verification, validation, testing, accreditation and execution of real-time, fast-time and slow-time models.</td>
<td></td>
</tr>
<tr>
<td>5. Development of aggregate and operational programming systems, realized through finite capacity tools, with discrete event simulation techniques. Optimal state estimation for linear and nonlinear systems.</td>
<td></td>
</tr>
<tr>
<td>7. Simulation applied to the military, tactical and strategic sector.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information on references</th>
<th>In the admission application, candidates must indicate the name, qualification and place of employment of the contact persons chosen by them.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Languages</td>
<td>English</td>
</tr>
<tr>
<td>Further Information</td>
<td>For further information, please contact Prof. Patrizia Bagnerini: <a href="mailto:patrizia.bagnerini@unige.it">patrizia.bagnerini@unige.it</a></td>
</tr>
</tbody>
</table>
**Course Coordinator:** Berselli Giovanni  
**Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)**

| Places: | 1  
| Grants: | 1 (*)  

(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00.

### Comparative assessment procedure

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<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
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</table>

### Further information on how to present qualifications/publications

Further information on Qualifications/publications must contain a detailed explanation and the planning of the development of a possible research project concerning one of the syllabuses of the field Technical Physics (FT.1, FT.2, FT.3), in order to evaluate the candidate’s ability to organize and carry out research.

If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on the specific activities described in the actual project submitted.

### Exam Syllabus

The interview will focus on the discussion of the project, the qualifications presented by the candidate and on all the specific themes bound to the Technical Physics curriculum (FT).

### Research Themes

**FT.1 Physics of buildings and environmental control**
- Components, heating and air-conditioning plants
- Physics of buildings and environmental control
- Lighting techniques and applied acoustics.

The issues are developed according to the traditional approach of Environmental Technical Physics.

**FT.2 Energetics, Applied Thermofluid dynamics and refrigeration**
- Thermodynamic analysis of energy systems
- Energy sources, vectors and rational consumption of energy
- Environmental impact of energy systems
- Refrigeration and heat pump systems
- Single and multiphase thermofluid dynamics. Thermophysical properties of materials. Techniques to increase the efficiency of the energy processes and thermofluid dynamic exchange mechanisms.

The themes are developed according to the traditional approach of Industrial Technical Physics.

**FT.3 Nuclear Plants**

The themes which characterise Nuclear Plants, within the limits of the available sources, are added to the first two fields, for the innovative application of the functioning principles of nuclear fission plants for the production of electricity and hydrogen and the solution to advanced thermohydraulic problems of the core of thermal and fast fission reactors.
| **Information on references** | Candidates must choose not less than one and not more than three referees to support their candidacy. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator Prof. Giovanni Berselli at the following address giovanni.berselli@unige.it and to the contact person for the curriculum FT, Prof. Corrado Schenone (corrado.schenone@unige.it). The name, status and service place of the referees chosen by the candidates must be stated in their applications. |
| **Foreign Languages** | English |
| **Further Information** | Coordinator of the PhD IMEG course:  
Prof. Giovanni Berselli  
DIME/MEC  
Via all'Opera Pia 15/A  
16145 Genova  
(+39) 0103352839  
giovanni.berselli@unige.it  

Contact person for the FT curriculum:  
Prof. Corrado Schenone  
DIME/TEC  
Via all'Opera Pia 15/A  
16145 Genova  
(+39) 0103352309  
corrado.schenone@unige.it |
Course: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

Curriculum: MECHANICS, MEASUREMENTS AND MATERIALS (CODE 9520)

<table>
<thead>
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<td>Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)</td>
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<tr>
<th>Places: 2</th>
<th>Grants: 2 (*)</th>
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<tbody>
<tr>
<td>(*) 2 grants funded within PNRR – progetto RAISE under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP I33C21000330006).</td>
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</tr>
<tr>
<td>Further information on how to present qualifications/publications</td>
<td>The qualifications/publications must contain a detailed explanation and the development plan of how to present a possible research project, quoting the Robotics and Mechatronics (RM) syllabus, and the field qualifications/publications it refers to, in order to evaluate the candidate's ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on the specific activities described and planned in the actual project.</td>
</tr>
</tbody>
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| Exam Syllabus | The interview will focus on the discussion of the project, the qualifications presented by the candidate and on all the specific themes bound to the Mechanics, Measurements And Materials curriculum (MMM). |

| Research Themes | The Mechanics, Measurements and Materials (MMM) syllabus focuses on research themes typical of the Macrosectors it refers to. In particular, the research themes suggested concern the functional and constructive design sector, CAD, CAE, PLM, PDM, additive manufacturing (polymer-based metals and composites), the mechanic behaviour of materials, materials and implants for medical, industrial and marine applications, calculus modelling and applications of composite components also for orthotics and biomedical applications, environmental compatibility and recycling, mechanical and mechatronic systems, motor vehicles, railway vehicles, airplanes, mechanical automation, working, raising and transport systems, lubrication, vibrations and noise, sound quality, experimental methods, diagnostics and qualifying of machines and components, monitoring and maintenance, reliability, reverse logistics. |

| Research Themes | |
| 1. Mechatronic development of assistive devices and technologies for inclusion and engagement |
| 2. Additive manufacturing for sustainable, compliant and soft robots |

| Information on references | Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator Prof. Giovanni Berselli, at giovanni.berselli@unige.it. The name, status and service place of the referees chosen by the candidates must be stated in their applications. |

| Foreign Languages | English |

| Further Information | Coordinator of the PhD IMEG course: Prof. Giovanni Berselli DIME/MEC via all'Opera Pia 15/A 16145 Genova (+39) 0103352839 giovanni.berselli@unige.it |
|                    | Contact person for the MMM curriculum: Prof. Giovanni Berselli DIME/MEC via all'Opera Pia 15/A 16145 Genova (+39) 0103352309 giovanni.berselli@unige.it |
Course: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

Curriculum: MECHANICS, MEASUREMENTS AND MATERIALS (CODE 9521)

<table>
<thead>
<tr>
<th>Course Coordinator: Berselli Giovanni</th>
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</table>

Research project: Production fault identification by means of noise and vibration

Comparative assessment procedure

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<td>• Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
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</tbody>
</table>

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

Further information on how to present qualifications/publications

The qualifications/publications must contain a detailed explanation and the development plan of how to present a possible research project, quoting the Robotics and Mechatronics (RM) syllabus, and the field qualifications/publications it refers to, in order to evaluate the candidate’s ability to organize and carry out research.

If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on the specific activities described and planned in the actual project.

Exam Syllabus

The interview will focus on the discussion of the project, the qualifications presented by the candidate and on all the specific themes bound to the Mechanics, Measurements And Materials curriculum (MMM).

Research Themes

The Mechanics, Measurements and Materials (MMM) syllabus focuses on research themes typical of the Macrosectors it refers to. In particular the research themes suggested concern the functional and constructive design sector, CAD, CAE, PLM, PDM, additive manufacturing (polymer-based metals and composites (machine and material methods in combination), the mechanic behaviour of materials, materials and implants for medical, industrial and marin applications, calculus modelling and applications of composite components also for orthotics and biomedical applications, environmental compatibility and recycling, mechanical and mechatronic systems, motor vehicles, railway vehicles, airplanes, mechanical automation, working, raising and transport systems, lubrication, vibrations and noise, sound quality, experimental methods, diagnostics and qualifying of machines and components, monitoring and maintenance, reliability, reverse logistics.

Research theme: Production fault identification by means of noise and vibration

Information on references

Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator Prof. Giovanni Berselli, at giovanni.berselli@unige.it.

The name, status and service place of the referees chosen by the candidates must be stated in their applications.

Foreign Languages

English

Further Information

Coordinator of the PhD IMEG course:

Prof. Giovanni Berselli

DIME/MEC

via all'Opera Pia 15/A

16145 Genova

(+39) 0103352839

giovanni.berselli@unige.it

Contact person for the MMM curriculum:

Prof. Giovanni Berselli
Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
### Course: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

### Curriculum: ROBOTICS AND MECHATRONICS (CODE 9522)

<table>
<thead>
<tr>
<th>Course Coordinator: Berselli Giovanni</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Places: 1</th>
<th>Grants: 1 (*)</th>
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</thead>
<tbody>
<tr>
<td>(*) 1 grant funded by MUR/DIME, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00</td>
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</table>

<table>
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<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
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</thead>
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<tr>
<td>Interview</td>
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</tr>
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</table>

| Further information on how to present qualifications/publications | The qualifications/publications must contain a detailed explanation and the development plan of how to present a possible research project, quoting the Robotics and Mechatronics (RM) syllabus, and the field qualifications/publications it refers to, in order to evaluate the candidate’s ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on the specific activities described and planned in the actual project. |

| Exam Syllabus | The interview will focus on the discussion of the project, the qualifications presented by the candidate and on all the specific themes bound to the Robotics and Mechatronics curriculum (RM). |

| Research Themes | The Robotics and Mechatronics (RM) syllabus focuses on research themes typical of the Macrosectors it refers to. In particular, the research themes suggested concern the development of robot and manipulation, switch systems, home automation (domotics), remote manipulation, modular robots and robots for safety, intelligent mini-vehicles, assembly systems, fluid automation; models and simulation of systems for robotics and mechatronics, man-machine interaction, collaborative robotics, cooperative robotics, robot programming, integration of robotic systems, mechatronics for the automatic machine sectors and for the mechanical and marine mechanical industry. |

| Information on references | Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and will be of their concern to send reference letters, within the deadline of the public notice, to the Coordinator Prof. Giovanni Berselli at the following address giovanni.berselli@unige.it and to the contact person for the curriculum RM, Prof. Matteo Zoppi, at matteo.zoppi@unige.it. The name, status and service place of the referees chosen by the candidates must be stated in their applications. |

| Foreign Languages | English |

### Further Information

<table>
<thead>
<tr>
<th>Coordinator of the PhD IMEG course:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Giovanni Berselli</td>
</tr>
<tr>
<td>DIME/MEC</td>
</tr>
<tr>
<td>via all'Opera Pia 15/A</td>
</tr>
<tr>
<td>16145 Genova</td>
</tr>
<tr>
<td>(+39) 0103352839</td>
</tr>
<tr>
<td><a href="mailto:giovanni.berselli@unige.it">giovanni.berselli@unige.it</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Contact person for the RM curriculum:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Matteo Zoppi</td>
</tr>
<tr>
<td>DIME/MEC</td>
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<tr>
<td>via all'Opera Pia 15/A</td>
</tr>
<tr>
<td>16145 Genova</td>
</tr>
<tr>
<td>(+39) 0103352964</td>
</tr>
<tr>
<td><a href="mailto:matteo.zoppi@unige.it">matteo.zoppi@unige.it</a></td>
</tr>
</tbody>
</table>
Course: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

Curriculum: TECHNOLOGIES AND PLANTS (CODE 9523)

Course Coordinator: Berselli Giovanni

Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti – DIME)

Places: 1

Grants: 1 (*)

(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

<table>
<thead>
<tr>
<th>Comparative assessment procedure</th>
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</thead>
<tbody>
<tr>
<td>Further information on how to present qualifications/publications</td>
<td>The qualifications/publications must contain a detailed explanation and the development plan of how to present a possible research project, quoting the Technologies and Plants (TP) syllabus, and the field (TP.1 or TP.2) it refers to, in order to evaluate the candidate’s ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on the specific activities described in the actual project.</td>
</tr>
</tbody>
</table>

Research Themes

The Technologies and Plants (TP) syllabus focuses on research themes typical of the macro sectors it refers to. It is organized into two specializations:

**TP.1 Processing Technologies and Systems Specialization:**

- Analysis of the variables that influence the mechanical and micro-structural characteristics of welded joints implemented with traditional and innovative techniques.
- Study of the potential of robotic welding plants.
- Singling out of solutions that allow the obtaining of glued joints with adequate characteristics (study of the surface preparation methods, analysis of the behaviour of adhesives in different environmental conditions).
- Study of the problems concerning the fine-tuning and monitoring of the processing of metallic and non-metallic materials.
- Study and singling out of construction techniques of moulds for polymeric materials.
- Surface analysis and fine-tuning of techniques to obtain the desired degree of finishing and chemical reactivity.

**TP.2 Industrial Plants Specialization:**

- Design and management of production processes.
- Technical and economic assessments of Engineering and industrialization of new products and production cycles.
- Industrial sustainability, quality, safety, remanufacturing, demanufacturing.
- Manufacturing strategies: Lean Manufacturing, World Class Manufacturing, Agile Manufacturing.
- Industrial logistics.
- Life Cycle Assessment of plants and processes.
- Key enabling technology 4.0 for production and industrial plants: simulation, IoT, augmented and virtual realities, manufacturing analytics.

The activities that will be carried out within the doctoral course aim at training young researchers to be capable of developing theoretical and experimental research starting from the analysis of the state of the art and autonomously developing innovative solutions.

Information on references

Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator Prof. Giovanni Berselli at the following address giovanni.berselli@unige.it and to the contact person for the curriculum TP, Prof. Enrico Lertora at enrico.lertora@unige.it The name, status and service place of the referees chosen by the candidates must be stated in their applications.

Foreign Languages

English

Further Information

Coordinator of the PhD IMEG course:
Prof. Giovanni Berselli
DIME/MEC
via all’Opera Pia 15/A
16145 Genova
(+39) 0103352839
giovanni.berselli@unige.it

Contact person for the Technology and Plants - TP curriculum:
Prof. Enrico Lertora
DIME/ITIMAT
via all'Opera Pia 15
16145 Genova
(+39) 0103352964
enrico.lertora@unige.it
Course: MATHEMATICS AND APPLICATIONS

Curriculum: MATHEMATICAL METHODS FOR DATA ANALYSIS (CODE 9524)

Course Coordinator: Vigni Stefano
Department of Mathematics (Dipartimento di Matematica – DIMA)

Places: 1 – Grants: 1 (*)

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-1) in collaboration and with the contribution of Esaote S.p.A., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Machine learning for low-field MRI

Comparative assessment procedure
QUALIFICATIONS/PUBLICATIONS AND EXAM
- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

Interview
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the webpage https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications
Besides the documentation listed in art. 3 of the public notice, candidates must present: - if available, their 5-year degree thesis (to be uploaded online).
Furthermore:
- their three-year degree and 5-year degree marks should be indicated in their curriculum;
- a research project (2 pages max.) which describes the research theme they intend to work on during the Doctoral Course.

Exam syllabus:
The comparative assessment procedure consists in the assessment of qualifications/publications and in interview on the research project presented by the candidate.

Research themes
Research theme (grant co-funded by Esaote S.p.A.) Machine Learning for MRI imaging

Abstract: In the last 30 years, magnetic resonance research has been focused on high-field MRI, bringing a number of improvements that are not always dependent on the strength of the magnetic field. Low-field MRI machines offer a competitive alternative that is cost effective and presents several advantages for the comfort of the patient. Many of the advancements obtained in the high field regime have not yet been extended to the low field machines. In this project we will explore several important open issues in low field MRI that can be tackled with the help of AI techniques. The aim of the research is to combine the mathematical model of low field MRI with recent advances in AI to improve image reconstruction algorithms.

Information on references
Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:

Prof. Stefano Vigni
Dipartimento di Matematica, Università di Genova
Via Dodecaneso 35 16146 Genova
or, alternatively, to the e-mail address: vigni@dima.unige.it

The name, status and service place of the referees chosen by the candidates must be stated in their applications.

Foreign languages
English

Further information
Prof. Stefano Vigni
Dipartimento di Matematica, Università di Genova
via Dodecaneso 35
16146 Genova GE
E-mail: stefano.vigni@unige.it

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-1) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: NEUROSCIENCES
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: NEUROSCIENCE AND NEUROTECHNOLOGIES (CODE 9525)

<table>
<thead>
<tr>
<th>Coordinator: Nobili Lino</th>
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</thead>
<tbody>
<tr>
<td>Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili (DINOGMI)</td>
</tr>
<tr>
<td>Positions: 1 – Grants: 1 (*)</td>
</tr>
</tbody>
</table>

(*) 1 grant funded by Istituto Italiano di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

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<thead>
<tr>
<th>Methods of comparative evaluation</th>
<th>QUALIFICATIONS/PUBLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Further information on how to prepare the application</td>
<td>The following documents must be sent as described in the call text: a) title and brief description of the degree thesis; b) list of exams taken, with marks; c) postgraduate research activities (including abstracts at conferences and scientific publications); d) an original research project in English signed by the candidate, on Neuroscience topics related to the research topics of the call, of a maximum of 10 pages (Arial 11 character). The project must include: Background and Rationale, Experimental Plan, Expected Results, Timeline of the Project, References; e) names, qualification and places of employment of the referees, not less than 1 and not more than 3, who must send the reference letters on the candidate directly to the following mail address: <a href="mailto:rossana.ciancio@iit.it">rossana.ciancio@iit.it</a> f) declaration of knowledge of English as used in the PhD school.</td>
</tr>
</tbody>
</table>

| Research themes: | 1) Deciphering the novel principles of the octopus motor control system Tutor: Letizia Zullo, Barbara Mazzolai barbara.mazzolai@iit.it; letizia.zullo@iit.it |

| Information about references | Candidates must choose not less than one and not more than three Referees to support their application. These contacts must be university professors or experts in the field. The Referees must be responsible for sending the reference letters as pdf files, within the deadline of the call, to the contact person of the Curriculum in Neuroscience and Brain Technologies, Prof. Fabio Benfenati, to the following mail address: rossana.ciancio@iit.it In the application, candidates have to list the name, position and affiliation of the chosen Referees. |

| Foreign language | English |

| Further information | Project contact person: Letizia.zullo@iit.it barbara.mazzolai@iit.it For further information, please write to: rossana.ciancio@iit.it |
**Course: MARINE SCIENCES AND TECHNOLOGIES**

**Curriculum: LOGISTICS AND TRANSPORTATION (CODE 9528)**

<table>
<thead>
<tr>
<th>Course Coordinator: Ferrari Claudio</th>
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<tr>
<td>Centro del Mare</td>
</tr>
<tr>
<td><strong>Places:</strong> 4 (°) – <strong>Grants:</strong> 3 (*)</td>
</tr>
</tbody>
</table>

(°) 1 position reserved to employee of Schenker Italiana SpA

(*) 1 grant funded within PNRR – progetto CNMS - Sustainable Mobility Center (CNMS) under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP D33C22000940007).

(*) 1 grant funded by ASPI - Autostrade per l'Italia, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500,00

(*) 1 grant funded by CIELI within OPTIWISE project, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500,00

(°) 1 grant funded within PNRR - progetto CNMS - Sustainable Mobility Center (CNMS) under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP D33C22000940007).

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<td>Interview</td>
<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
</tr>
</tbody>
</table>

| Further information on how to present qualifications/publications | Qualifications and publications must be attached to the application form. |

| Exam Syllabus | The interviews will assess the candidates’ knowledge of the transport sector in its multidisciplinary aspects and their aptitude for scientific research as well as their understanding of the English language. |

| Research Themes | Research Theme #1: funded within National Center for Sustainable Mobility, spoke 3 waterways, thematics “Green strategies, technologies and investment options for shipping companies: selection criteria, Key Performance Indicators, Dashboards and Decision Management Systems (DSS)” |

| Research Themes | Research Theme #2 (grant co-founded by Regione Liguria and Circle Touch): “Mathematical optimisation methods and algorithms applied to the last-mile multimodal transport segment” |

| Research Themes | Research theme #3 (grant funded by ASPI - Autostrade per l'Italia): Transport analyses, also using simulation models, within the Genoa Metropolitan area, integrating different urban transport flows to identify integrated sustainable mobility solutions. |

| Research Themes | Research theme #4 (grant funded by CIELI within OPTIWISE project): Economic assessment of wind and solar propulsion. |

| Research Themes | Research theme #5 (reserved to an employee of Schenker Italiana SpA): Evolution of integrated logistics |

| Information on references | Letters of reference should be sent to: [ciel@unige.it](mailto:ciel@unige.it) [claudio.ferrari@unige.it](mailto:claudio.ferrari@unige.it) |

| Foreign Languages | English |
### Course: MARINE SCIENCES AND TECHNOLOGIES

### Curriculum: LOGISTICS AND TRANSPORTATION (CODE 9529)

| Course Coordinator: | Ferrari Claudio |
| Places: | 1 – | Grants: | 1 (*) |

(*) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f)** in collaboration and with the contribution of Circle Spa, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.243.

Research project: Mathematical optimisation methods and algorithms applied to the last-mile multimodal transport segment

#### Comparative assessment procedure

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<thead>
<tr>
<th>QUALIFICATIONS/PUBLICATIONS AND EXAM</th>
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<tr>
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</tbody>
</table>

#### Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

#### Further information on how to present qualifications/publications

Qualifications and publications must be attached to the application form.

#### Exam Syllabus

The interviews will assess the candidates’ knowledge of the transport sector in its multidisciplinary aspects and their aptitude for scientific research as well as their understanding of the English language.

#### Research Themes

Research Theme (grant co-founded by Regione Liguria and Circle Spa): “Mathematical optimisation methods and algorithms applied to the last-mile multimodal transport segment”

#### Information on references

Letters of reference should be sent to: ciei@unige.it claudio.ferrari@unige.it

#### Foreign Languages

English

#### Further Information

Further information about commitments and conditions of the grants funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f)** are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 3
Course: MARINE SCIENCES AND TECHNOLOGIES

Curriculum: MARINE ECOSYSTEM SCIENCES (CODE 9530)

| Course Coordinator: Ferrari Claudio  
Centro del Mare  
| Places: 2 – Grants: 2 (*)  
(*) 2 grants funded within PNRR – progetto NBCF Biodiversità under condition of the approval of ministerial funding: the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP D33C22000960007).  
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW  
| Interview | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca  
The interviews will be held face to face, remote interviews via computer platforms are not allowed  
| Exam Syllabus | The interview will focus on the discussion of the candidate's curriculum and the research project with particular reference to the relevance of the proposed activities with the research themes of the doctorate, the scientific content, the innovativeness and the feasibility of their realization.  
| Research Themes | Theme #1: Evaluation of the health status of farmed fish and bivalves for a sustainable aquaculture  
Theme #2: Characterization and assessment of the ecological status of priority coastal marine habitats: influence of anthropogenic pressures and change over time - the case study of the new dam of the port of Genoa  
Theme #3: Development of methods to support the transition to a circular, sustainable and regenerative use of resources and marine spaces  
Non-priority research topics may also concern basic and applied aspects relevant for the study and conservation of marine biodiversity, the protection and enhancement of coastal and oceanic ecosystems, the management and mitigation of coastal risk and environmental monitoring, development and application. Marine biotechnology, analysis and control of risks to the health of marine ecosystems (also in relation to human health) and the sustainable exploitation of marine ecosystem resources and services.  
| Information on references | Candidates must choose not less than one and not more than three referees to support their application. The referees must be university professors or experts in the subject. The referents will be responsible for sending the reference letters, within the deadline of the call, to the following e-mail address: luigi.vezzulli@unige.it. In the application for admission, candidates must indicate the name, qualification and place of employment of the contact persons they have chosen.  
| Foreign Languages | English  
| Further Information | Contact Prof. Luigi Vezzulli, e-mail: luigi.vezzulli@unige.it |
Course: MARINE SCIENCES AND TECHNOLOGIES

Curriculum: NAVAL ARCHITECTURE AND MARINE ENGINEERING - MARINE TECHNOLOGIES (CODE 9527)

**Course Coordinator:** Ferrari Claudio
Centro del Mare

**Places:** 1 – **Grants:** 1 (*)

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) in collaboration and with the contribution of CETENA, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Development of reliability models for structural robustness of unconventional ship structures and components.

<table>
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<td>• Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
<td></td>
</tr>
</tbody>
</table>

**Interview**
Date, hour and how the interview will be carried out will be posted on the web page [https://unige.it/usgs/usgs/dottoradi-ricerca](https://unige.it/usgs/usgs/dottoradi-ricerca)

**Further information on how to present qualifications/publications**
Applicants will:
1) submit a research project (maximum 10 pages A4 format);
2) an updated CV;
Italian candidates not yet graduated must present the list with a score of the exams taken in the master degree.

**Exam Syllabus**
The interview will focus on the topics of the proposed research project and on related issues.

**Research Themes**
Research topic for the grant co-founded by Regione Liguria and CETENA: “Development of reliability models for structural robustness of unconventional ship structures and components”.

Further information may be requested via e-mail (cesare.rizzo@unige.it)

**Information on references**
Candidates must choose not less than one and not more than three referees to support their application.
The referees must be university professors or experts in the subject. Referees shall directly send endorsement letters, within the deadline of the notice, to the following address e-mail: cesare.rizzo@unige.it
In their application, candidates must indicate the name, qualification and place of employment of the chosen referees.

**Foreign Languages**
English

**Further Information**
Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 3
Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND EXAM
- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

Interview
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications
The curriculum must be completed by a document from the university that issued the degree (transcript of records) attesting to the courses and grades obtained throughout the candidate’s university education (BSc and MSc).

The presentation of international language certifications (TOEFL, CPE, CAE, FCE, ...) attached to the curriculum is preferential.

Candidates not yet in possession, at the deadline of the announcement, of the title that allows access to the PhD may submit additional documentation, which they deem more appropriate, in order to document their academic career.

Exam Syllabus
The interview, in English, consists of an in-depth scientific discussion on the research project, on the Curriculum and on the titles presented by the candidate, and is also aimed at verifying that the candidate has adequate knowledge to deal profitably with the studies in the chosen curriculum.

Research Themes
Research Theme #1: funded within National Center for Sustainable Mobility, Spoke 3 waterways, thematics "Slippery surfaces and materials for the reduction of hydrodynamic resistance"
Research Theme #2: funded within National Center for Sustainable Mobility, spoke 3 waterways, thematics "Damage mitigation in lightweight marine composites". Details on the project "Damage mitigation in lightweight Materials" can be found in: http://dottorato.dicca.unige.it/documents/CNMsandwich.pdf
Research Theme #3: “Ocean Data and Technology”. The project is within the activities of the PNRR RAISE – Robotics and AI for Socio-economic Empowerment project and it is funded by ENEA - Marine Environment Research Centre - S. Teresa (Lerici, SP).

For additional info, see: http://dottorato.dicca.unige.it/documents/PhD_ENEA_Fellowship_in_OceanDataTechnology.pdf

The project must be prepared under the guidance of the referent of the Project. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.

Information on references
Applicants should choose no fewer than one and no more than three referees to support the application.
One of the referees must be a faculty member of the curriculum committee (http://dottorato.dicca.unige.it/eng/info/staff/comitatoemaces.html) with whom the research project has been agreed upon.
It will be the responsibility of the referees to send the letters of reference, within the deadline of the call, to the secretariat of the PhD dottorato.dicca@unige.it and the coordinator of the curriculum giovanni.besio@unige.it.

In the application form, candidates must indicate the name, position and place of service of the references they have chosen.
Letters of reference that are not submitted as required will not be considered.

Foreign Languages
English

Further Information
http://dottorato.dicca.unige.it/eng/emaces/
Giovanni Besio giovanni.besio@unige.it
Course: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: DRUG DISCOVERY AND NANOBIO TECHNOLOGIES (CODE 9531)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Ferrari Claudio</th>
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<tr>
<td>Centro del Mare</td>
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<th>Grants:</th>
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<tbody>
<tr>
<td>1</td>
<td>(*)</td>
</tr>
<tr>
<td>(*) 1 grant funded by Istituto Italiano di Tecnologia (IIT); the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00</td>
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</table>

<table>
<thead>
<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
</table>

**Interview**
- Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

**Further information on how to present qualifications/publications**
- The curriculum must be completed by a document from the university that issued the degree (transcript of records) attesting to the courses and grades obtained throughout the candidate’s university education (BSc and MSc).
- The presentation of international language certifications (TOEFL, CPE, CAE, FCE, ...) attached to the curriculum is preferential.
- Candidates not yet in possession, at the deadline of the announcement, of the title that allows access to the PhD may submit additional documentation, which they deem more appropriate, in order to document their academic career.

**Exam Syllabus**
- The interview, in English, consists of an in-depth scientific discussion on the research project, on the Curriculum and on the titles presented by the candidate, and is also aimed at verifying that the candidate has adequate knowledge to deal profitably with the studies in the chosen curriculum.

**Research Themes**
- Research Theme #1: funded within National Center for Sustainable Mobility, Spoke 3 waterways, thematics "Slippery surfaces and materials for the reduction of hydrodynamic resistance"
- Research Theme #2: funded within National Center for Sustainable Mobility, spoke 3 waterways, thematics "Damage mitigation in lightweight marine composites". Details on the project "Damage mitigation in lightweight Materials" can be found in: [http://dottorato.dicca.unige.it/documents/CNMsandwich.pdf](http://dottorato.dicca.unige.it/documents/CNMsandwich.pdf)
- Research Theme #3: "Ocean Data and Technology". The project is within the activities of the PNRR RAISE – Robotics and AI for Socio-economic Empowerment project and it is funded by ENEA - Marine Environment Research Centre - S. Teresa (Lerici, SP). For additional info, see: [http://dottorato.dicca.unige.it/documents/PhD_ENEA_Fellowship_in_OceanDataTechnology.pdf](http://dottorato.dicca.unige.it/documents/PhD_ENEA_Fellowship_in_OceanDataTechnology.pdf)

The project must be prepared under the guidance of the referent of the Project. The project must include a title, the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the objectives of the research activity. Projects that are not submitted as requested might be penalized in the evaluation process.

**Information on references**
- Applicants should choose no fewer than one and no more than three referees to support the application.
- One of the referees must be a faculty member of the curriculum committee (http://dottorato.dicca.unige.it/eng/info/staff/comitatoemaces.html) with whom the research project has been agreed upon.
- It will be the responsibility of the referees to send the letters of reference, within the deadline of the call, to the secretariat of the PhD dottorato.dicca@unige.it and the coordinator of the curriculum giovanni.besio@unige.it
- In the application form, candidates must indicate the name, position and place of service of the references they have chosen.
- Letters of reference that are not submitted as required will not be considered.

**Foreign Languages**
- English

**Further Information**
- [http://dottorato.dicca.unige.it/eng/emaces/](http://dottorato.dicca.unige.it/eng/emaces/)
- Giovanni Besio giovanni.besio@unige.it
Course: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: NANOChemISTRY (CODE 9532)

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Riva Renata</th>
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<tbody>
<tr>
<td>Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale – DCCI)</td>
<td></td>
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| Places: 2 – Grants: 2 (*) |
| (*) 2 grants funded by Istituto Italiano di Tecnologia (IIT); the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16,500.00

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<td>2. transcript of records (list of exams with marks);</td>
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<td>3. recommendation letters (maximum three);</td>
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<td></td>
<td>4. research project written in English;</td>
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<td>5. curriculum vitae et studiorum;</td>
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<tr>
<td></td>
<td>6. additional qualifications (postgraduate qualifications, publications in scientific journals, congress presentations, patents, study or research awards).</td>
</tr>
</tbody>
</table>

All candidates have to attach to the application the certificates related to all the academic qualifications, reporting the mark and duration of the study cycles. For students not yet graduated, who are admitted sub condicione, the presentation of the certificate is required with the marks obtained in the individual exams. The provision of the title and a short M.Sc. thesis abstract is recommended.

Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University.

In case of admission to the doctorate, the candidate will carry out his research not necessarily in the specific activities described in the project he/she has presented.

<table>
<thead>
<tr>
<th>Research Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. From macro- to micro-batteries.</td>
</tr>
<tr>
<td>2. Superlattices and quantum confinement in 2D materials via substrate effects.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<td>Candidates must provide not less than one and not more than three recommendation letters to support their application. The authors are university professors or experts in the research topics of the PhD course and they must provide the letters within the deadline of the call, exclusively by e-mail to <a href="mailto:phd_nach@iit.it">phd_nach@iit.it</a> (subject: PhD_letter).</td>
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<td>The name, status and place of employment of the authors of the recommendation letters must be stated in the application.</td>
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<tr>
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<tr>
<td>Further information on the research theme: <a href="https://chimica.unige.it/en/node/1327">https://chimica.unige.it/en/node/1327</a></td>
</tr>
<tr>
<td>Administrative contact person</td>
</tr>
<tr>
<td>Dr. Iulia Manolache</td>
</tr>
<tr>
<td>Tel: (+39) 0102896718</td>
</tr>
<tr>
<td><a href="mailto:iulia.manolache@iit.it">iulia.manolache@iit.it</a></td>
</tr>
</tbody>
</table>
Course: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: CHEMICAL SCIENCES AND TECHNOLOGIES (CODE 9533)

Course Coordinator: Riva Renata
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale – DCCI)

Places: 3 – Grants: 3 (*)

(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

(*) 1 grant funded by MUR/DCCI/Lamberti S.p.A., the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

(*) 1 grant funded within PNRR – progetto CNN-Agritech under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP D33C22000950007).

Comparative assessment procedure

<table>
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<tbody>
<tr>
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Further information on how to present qualifications/publications

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<tbody>
<tr>
<td>1. educational qualifications with marks;</td>
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<tr>
<td>2. transcript of records (list of exams with marks);</td>
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</tr>
<tr>
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</table>

All candidates have to attach to the application the certificates related to all the academic qualifications, reporting the mark and duration of the study cycles. For students not yet graduated, who are admitted sub condicione, the presentation of the certificate is required with the marks obtained in the individual exams.

Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University.

In case of admission to the doctorate, the candidate will carry out his research not necessarily in the specific activities described in the project he/she has presented.

Exam Syllabus

The candidate will discuss with the Committee the research project he/she has presented. The Committee will evaluate the research project for its originality, feasibility, methodology, timeline and relevance within the research topics listed in the call. In this way the Committee will be able to evaluate the candidate's attitude to develop a scientific project. During the presentation the Committee will ascertain the candidate knowledge of English language.

Research Themes

1. Phase equilibria and thermodynamics of metallic materials: experimental and theoretical aspects.
2. New synthetic routes with low environmental impact of surfactants.
3. Use of agrifood waste, treated with innovative separation technologies, as bio-pesticides or bio-fertilizers for various national crops, such as vineyards, fruit crops, and cereals.
4. Experimental study of material behavior and fitness for service of metal components operating in a gaseous hydrogen environment at varying pressures and concentrations.

Information on references

Candidates must provide not less than one and not more than three recommendation letters to support their application. The authors are university professors or experts in the research topics of the PhD course and they must provide the letters within the deadline of the call, exclusively by e-mail to luca.banfi@unige.it (subject: PhD_letter).

The name, status and place of employment of the authors of the recommendation letters must be stated in the application.

Foreign Languages

English
<table>
<thead>
<tr>
<th><strong>Further Information</strong></th>
<th>Further information on the research themes: <a href="https://chimica.unige.it/en/node/1327">https://chimica.unige.it/en/node/1327</a></th>
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<tbody>
<tr>
<td></td>
<td>Prof. Luca Banfi</td>
</tr>
<tr>
<td></td>
<td>(+39) 0103356111</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:luca.banfi@unige.it">luca.banfi@unige.it</a></td>
</tr>
<tr>
<td></td>
<td>Administrative contact person</td>
</tr>
<tr>
<td></td>
<td>Dr. Stefano Benetto</td>
</tr>
<tr>
<td></td>
<td>(+39) 0103356138</td>
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<tr>
<td></td>
<td><a href="mailto:dottorato_STCM@unige.it">dottorato_STCM@unige.it</a></td>
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</tbody>
</table>
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: CHEMICAL SCIENCES AND TECHNOLOGIES  (CODE 9534)

| Course Coordinator: | Riva Renata |
| Places: | 1 – Grants: 1 (*) |
| (*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-i) in collaboration and with the contribution of Istituto Italiano della Saldatura, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243. Research project: Experimental study of material behavior and fitness for service of metal components operating in a gaseous hydrogen environment at varying pressures and concentrations. |

**Comparative assessment procedure**

- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

**Further information on how to present qualifications/publications**

Evaluable qualifications:
1. educational qualifications with marks;
2. transcript of records (list of exams with marks);
3. recommendation letters (maximum three);
4. research project written in Italian or English;
5. curriculum vitae et studiorum;
6. additional qualifications (postgraduate qualifications, publications in scientific journals, congress presentations, patents, study or research awards).

All candidates have to attach to the application the certificates related to all the academic qualifications, reporting the mark and duration of the study cycles. For students not yet graduated, who are admitted sub condicione, the presentation of the certificate is required with the marks obtained in the individual exams. Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University. In case of admission to the doctorate, the candidate will carry out his research not necessarily in the specific activities described in the project he/she has presented.

**Exam Syllabus**

The candidate will discuss with the Committee the research project he/she has presented. The Committee will evaluate the research project for its originality, feasibility, methodology, timeline and relevance within the research topics listed in the call. In this way the Committee will be able to evaluate the candidate’s attitude to develop a scientific project. During the presentation the Committee will ascertain the candidate knowledge of English language.

**Research Themes**

Experimental study of material behavior and fitness for service of metal components operating in a gaseous hydrogen environment at varying pressures and concentrations.

**Information on references**

Candidates must provide not less than one and not more than three recommendation letters to support their application. The authors are university professors or experts in the research topics of the PhD course and they must provide the letters within the deadline of the call, exclusively by e-mail to luca.banfi@unige.it (subject: PhD_letter). The name, status and place of employment of the authors of the recommendation letters must be stated in the application.

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</table>

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 6
**Course:** SCIENCE AND TECHNOLOGY FOR THE ENVIRONMENT AND TERRITORY (STET)

**Curriculum:** BIOLOGY APPLIED TO AGRICULTURE AND TO THE ENVIRONMENT (CODE 9535)

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Scambelluri Marco</th>
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<tbody>
<tr>
<td>Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della Terra, dell' Ambiente e della Vita – DISTAV)</td>
<td></td>
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<tr>
<td>Places:</td>
<td>1</td>
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<td>Grants:</td>
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<tr>
<td>(*) 1 grant funded within PNRR – progetto NBCF Biodiversità under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.500 (CUP D33C22000960007).</td>
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</tr>
</tbody>
</table>

**Further information on how to present qualifications/publications**
Qualifications are all information contained in the application and in the documents attached to it.
The application must include: a) the curriculum vitae et studiorum of the PhD candidate (maximum ten pages); b) a detailed research project concerning the Doctorate Research theme published in the official call for the XXXVII Doctorate Cycle in Science and Technology for the Environment and the Territory of the Genova University (maximum ten pages); c) a document containing the title and a brief description of the Master's thesis, together with the list of exams and their marks; d) the titles documenting the qualifications acquired by the PhD candidate during his/her career that are relevant to the research project submitted and to the Doctorate Course (maximum ten pages); e) minimum one, up to three reference letters. In the application form candidates must indicate the names, qualification and Institution of referents writing the support letters.

PhD candidates can apply in English and Italian.

**Exam Syllabus**
The interview will deal with:
1- the knowledge of biological themes and processes. The topics covered during the discussion are both of general interest, as well as specific to the proposed research.
2- the activity carried out by the PhD candidates during their course of study and during the Master's degree thesis, their level of knowledge of the related topics and of the analytical and experimental methodologies related to the Master Thesis and to research topic of the project presented;
3- the research topic that the candidate aims at developing during the PhD.
4 - the knowledge of the English language.

**Research Themes**
The candidate must produce a research program on the theme presented hereafter. Projects on topics other than the one listed below will be evaluated with zero points.

1) Macroalgal forests restoration in Italy: from the biomolecular monitoring to the mining of bioactive compounds

**Information on references**
In accordance with article 3 paragraph 3 of the call, the candidate must choose minimum one, up to three referents supporting their PhD application. In their application forms, the PhD candidates must indicate the name, qualification and Institution of each referent. Referents must be University professors and researchers, or well-known experts in the subject. Referents must send their letters in "pdf" format, within the deadline for submitting the application to Prof. Mauro Mariotti (m.mariottii@unige.it, the responsible for the Doctorate curriculum).

**Foreign Languages**
The research project can be written in Italian or in English, but knowledge of the English language is required.

**Further Information**
Further information is available on the PhD website (http://www.distav.unige.it/phdstat/it) or can be requested from:
- Prof. Sonia Scarfi soniascarfi@unige.it;
- Prof. Mariachiara Chiantore mariachiara.chiantore@unige.it
Course: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY

Curriculum: ELECTRICAL ENGINEERING (CODE 9536)

**Course Coordinator:** Marchesoni Mario

Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni – DITEN)

**Places:** 1

**Grants:** 1 (*)

(*): 1 grant funded by MUR/DITEN, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00

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</tr>
</tbody>
</table>

**Further information on how to present qualifications/publications**

Applicants will have to submit:
1. a research project up to 10 pages long, relating to one of the topics listed below in the "Research Themes";
2. an updated CV;
3. a short abstract of the master's thesis, if available.

Candidates who have not yet graduated must present the list and the marks of the exams passed in the master's degree program up to the moment of submission of the application.

**Exam Syllabus**

Interview on the submitted research project, the PhD course topics, and the candidate's specific interests in the field. English language test.

**Research Themes**


(F) Environment: Numerical simulation and measurement and field reduction techniques. Optimized design of low emission devices. Low environmental impact systems.

**Information on references**

Candidates must choose not less than one and not more than three referees to support the application. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to Prof. Mario Marchesoni at the following address: [mario.marchesoni@unige.it](mailto:mario.marchesoni@unige.it)

The name, status and service place of the referees chosen by the candidates must be stated in their applications.

**Foreign Languages**

English
Further Information

Prof. Mario Marchesoni
University of Genova
DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture)
Via all’Opera Pia 11a, I-16145 - Genova, Italy
mario.marchesoni@unige.it
tel: +39 0103532183; fax: +39 0103532700;

Laura Brunelli
University of Genova
DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture)
Via all’Opera Pia 11a, I-16145 - Genova, Italy
brunelli@dina.unige.it
tel: +39 0103532286; fax: +39 0103532777
Course: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY

Curriculum: ELECTRICAL ENGINEERING (CODE 9537)

Course Coordinator: Marchesoni Mario

Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni – DITEN)

Places: 2 – Grants: 2 (*)

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-f) in collaboration and with the contribution of Phase Motion Control S.p.A., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.243.

Research project: Development of innovative topologies and control systems for smart Battery Management Systems (BMS) (smart battery).

(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-f) in collaboration and with the contribution of Poseico S.p.A., under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16.243.

Research project: Study and optimization of innovative high current static converters.

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND EXAM
- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications

Applicants will have to submit:
1) a research project up to 10 pages long, relating to one of the topics listed below in the "Research Themes";
2) an updated CV;
3) a short abstract of the master's thesis, if available.

Candidates who have not yet graduated must present the list and the marks of the exams passed in the master's degree program up to the moment of submission of the application.

Exam Syllabus

Interview on the submitted research project, the PhD course topics, and the candidate's specific interests in the field. English language test.

Research Themes

(A) Development of innovative topologies and control systems for smart Battery Management Systems (BMS) (smart battery).
(B) Study and optimization of innovative high current static converters.

Information on references

Candidates must choose not less than one and not more than three referees to support the application. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to Prof. Mario Marchesoni at the following address: mario.marchesoni@unige.it

The name, status and service place of the referees chosen by the candidates must be stated in their applications.

Foreign Languages

English

Further Information

Prof. Mario Marchesoni
University of Genova
DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) Via all’Opera Pia 11a, I-16145 - Genova, Italy
mario.marchesoni@unige.it

Laura Brunelli
University of Genova
DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) Via all’Opera Pia 11a, I-16145 - Genova, Italy
brunelli@dinav.unige.it

tel: +39 0103532286; fax +39 0103532777

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATION ENGINEERING
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: ELECTROMAGNETISM, ELECTRONICS, TELECOMMUNICATIONS (CODE 9538)

<table>
<thead>
<tr>
<th>Course Coordinator: Valle Maurizio</th>
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</thead>
<tbody>
<tr>
<td>Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni – DITEN)</td>
</tr>
<tr>
<td>Places: 4(<em>) – Grants: 1(</em>)</td>
</tr>
<tr>
<td>(*): 3 places reserved to employees of AIZOON Spa</td>
</tr>
<tr>
<td>(**): 1 grant funded by Istituto Nazionale di Fisica Nucleare (INFN), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00</td>
</tr>
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</table>

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND INTERVIEW

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati](https://unige.it/usg/it/dottorati)

Further information on how to present qualifications/publications

In presenting their CV, the candidates must highlight the following features as they will be used as evaluation parameters: number and quality of publications (e.g. International Journals, International Conferences, Book Chapters), the obtained degree mark (or equivalent qualification), work experience and acquired skills.

The candidates MUST highlight the following features when presenting their research project as they will be used as evaluation parameters: Relevance to the research themes that appear in this public exam notice, Originality, Execution modalities, Feasibility, Clear presentation/exposition.

A possible outline for the presentation of the research project plan, which must not exceed 10 pages, is the following:

- motivations and logic foundation;
- state of the art;
- objectives;
- methods employed;
- preliminary workplan;
- expected outcomes;
- bibliography.

Exam Syllabus

The interview will aim to verify the candidate’s competence in relation to the listed research topics and the methodological ability to deal with research projects. In addition, the interview will also focus on the content of the research project, inherent to one of the listed research themes, submitted by the candidate.

The interviews may also take place on line through MS Teams with video mode enabled to check the candidate’s identity, upon request sent by e-mail to the Coordinator of the Doctoral Course, Prof. Maurizio Valle (maurizio.valle@unige.it), subject: Interview Ph.D. STIET XXXVIII cycle.

Research Themes

1. Systems for neurostimulation on flexible electronics for innovative therapeutic applications (funded by Liguria Region)
2. Innovative and modular high-performance electronic systems for signal and data acquisition in high-energy physics experiments (funded by National Institute for Nuclear Physics)
4. Cyber-secure decentralized energy management for IoT-enabled active distribution networks (Exec. PhD., AIZOON Spa)

More detailed information on the themes at: [http://www.phd-stiet.diten.unige.it](http://www.phd-stiet.diten.unige.it)

Information on references

Candidates MUST choose AT LEAST one and not more than three referees to support their candidacy. The referees must be university professors or experts in the subject and MUST send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following e-mail address maurizio.valle@unige.it, with subject: Ph.D. STIET XXXVIII cycle_ Candidate Name_ reference letter.

The candidate MUST indicate in the submitted application names, status and affiliation of the referees. The referees MUST clearly indicate in the reference letters the supported candidate’s aptitude to scientific research development.

Foreign Languages

English
| Further Information | Prof. Maurizio Valle  
DITEN - Università di Genova  
Via Opera Pia 11A  
16145, Genova, Italy  
maurizio.valle@unige.it |
Course: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATION ENGINEERING
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: ELECTROMAGNETISM, ELECTRONICS, TELECOMMUNICATIONS (CODE 9539)

| Course Coordinator: Valle Maurizio |
| Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni – DITEN) |
| Places: 1 – Grants: 1 (*) |
| (*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ISO 4.6 (OS-6) in collaboration and with the contribution of FREMSLIFE srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243. |

Research project: Systems for neurostimulation on flexible electronics for innovative therapeutic applications.

| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND EXAM |
| - Assessment of qualifications/publications and the curriculum vitae et studiorum |
| - Written test (research project) |
| - Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum |

Interview Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di ricerca](https://unige.it/usg/it/dottorati-di ricerca)

Further information on how to present qualifications/publications In presenting their CV, the candidates must highlight the following features as they will be used as evaluation parameters: number and quality of publications (e.g. International Journals, International Conferences, Book Chapters), the obtained degree mark (or equivalent qualification), work experience and acquired skills. The candidates MUST highlight the following features when presenting their research project as they will be used as evaluation parameters: Relevance of the research themes that appear in this public exam notice, Originality, Execution modalities, Feasibility, Clear presentation/exposition.

A possible outline for the presentation of the research project plan, which must not exceed 10 pages, is the following:
- motivations and logic foundation;
- state of the art;
- objectives;
- methods employed;
- preliminary workplan;
- expected outcomes;
- bibliography.

Exam Syllabus The interview will aim to verify the candidate’s competence in relation to the listed research topics and the methodological ability to deal with research projects. In addition, the interview will also focus on the content of the research project, inherent to one of the listed research themes, submitted by the candidate. The interviews may also take place on line through MS Teams with video mode enabled to check the candidate’s identity, upon request sent by e-mail to the Coordinator of the Doctoral Course, Prof. Maurizio Valle (maurizio.valle@unige.it), subject: Interview Ph.D. STIET XXXVIII cycle.

Research Themes Systems for neurostimulation on flexible electronics for innovative therapeutic applications (funded by Liguria Region) More detailed information on the themes at: [http://www.phd-stiet.diten.unige.it](http://www.phd-stiet.diten.unige.it)

Information on references Candidates MUST choose AT LEAST one and not more than three referees to support their candidacy. The referees must be university professors or experts in the subject and MUST send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following e-mail address maurizio.valle@unige.it, with subject: Ph.D. STIET XXXVIII cycle_Candidate Name_reference letter. The candidate MUST indicate in the submitted application names, status and affiliation of the referees. The referees MUST clearly indicate in the reference letters the supported candidate’s aptitude to scientific research development.

Foreign Languages English
<table>
<thead>
<tr>
<th>Further Information</th>
</tr>
</thead>
</table>
| Prof. Maurizio Valle  
DITEN - Università di Genova  
Via Opera Pia 11A  
16145, Genova, Italy  
maurizio.valle@unige.it |

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-6) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATION ENGINEERING
In agreement with the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia – IIT)

Curriculum: COMPUTATIONAL VISION, AUTOMATIC RECOGNITION AND LEARNING (CODE 9540)

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Valle Maurizio</th>
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</thead>
<tbody>
<tr>
<td>Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni – DITEN)</td>
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</tr>
<tr>
<td>Places</td>
<td>2 (*)</td>
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<tr>
<td>Grants</td>
<td>2 (*)</td>
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<tr>
<td>(*): 2 grants funded by Istituto Italiano di Tecnologia (IIT), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00</td>
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Comparative assessment procedure

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<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
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<tbody>
<tr>
<td>Interview Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the webpage <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
</tr>
</tbody>
</table>

Further information on how to present qualifications/publications

The candidates must clearly highlight in the Curriculum Vitae the following features as they will be used for the evaluation: number and quality of scientific publications (e.g. International Journals, International Conferences, Book Chapters), the achieved degree mark (or equivalent qualification), the work experience and acquired skills.

In particular the following features of the submitted research project will be assessed: relevance to the research themes that appear in this public notice, originality, implementation, feasibility, clarity of presentation.

The research project MAXIMUM LENGTH IS 10 PAGES

A possible structure of the research project plan is the following:

- Motivations and rationale
- State of the art
- Objectives
- Employed methods
- Preliminary work plan
- Expected outcomes
- Bibliography

Exam Syllabus

The interview will aim to verify the candidate's competence in relation to the listed research topics and the methodological ability to deal with research projects. In addition, the interview will also focus on the themes of the research project, inherent to the listed research themes, submitted by the candidate.

The interviews may also take place online through MS Teams with video mode enabled to check the candidate’s identity, upon request sent by e-mail to the Coordinator of the Doctoral Course, Prof. Maurizio Valle (maurizio.valle@unige.it) and to Dr. Alessio Del Bue (alessio.delbue@iit.it), subject: Interview Ph.D. STIET XXXVIII cycle.

Research Themes

Theme A: 3D scene understanding with geometrical and deep learning reasoning
Theme B: Deep Learning for Multi-modal scene understanding
Theme C: Self-Supervised and Unsupervised Deep Learning
Theme D: Visual Reasoning with Knowledge and Graph Neural Networks

More detailed information on the specific themes and indication of supervisors, at [https://pavisdata.iit.it/data/phd/2023_ResearchTopicsPhD_IIT-PAVIS.pdf](https://pavisdata.iit.it/data/phd/2023_ResearchTopicsPhD_IIT-PAVIS.pdf)

Information on references

Candidates MUST choose not less than one and not more than three referees to support their candidacy. The referees must be university professors or experts in the subject and MUST send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: maurizio.valle@unige.it and alessio.delbue@iit.it, with subject: Ph.D. STIET XXXVIII cycle_Candidate Name_reference letter

The candidate MUST indicate in the submitted application names, status and affiliation of the referees.

The referees MUST clearly indicate in the reference letters the supported candidate’s aptitude to scientific research development.

Foreign Languages

English
<table>
<thead>
<tr>
<th>Further Information</th>
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<tbody>
<tr>
<td>Prof. Maurizio Valle</td>
</tr>
<tr>
<td>DITEN - Università di Genova</td>
</tr>
<tr>
<td>Via Opera Pia 11A</td>
</tr>
<tr>
<td>16145, Genova, Italy</td>
</tr>
<tr>
<td><a href="mailto:maurizio.valle@unige.it">maurizio.valle@unige.it</a></td>
</tr>
<tr>
<td>and</td>
</tr>
<tr>
<td>Dr. Alessio Del Bue, Ph.D.</td>
</tr>
<tr>
<td>Director, PAVIS - Pattem Analysis &amp; Computer Vision</td>
</tr>
<tr>
<td>IIT Istituto Italiano di Tecnologia</td>
</tr>
<tr>
<td>Via Enrico Melen, 83, 16152, Genova, GE</td>
</tr>
<tr>
<td><a href="mailto:alessio.delbue@iit.it">alessio.delbue@iit.it</a></td>
</tr>
</tbody>
</table>
Course: PAEDIATRIC SCIENCES  
In agreement with IRCCS Istituto Giannina Gaslini

Curriculum: PAEDIATRIC SPECIALITIES  (CODE 9541)

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Striano Pasquale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Neurosciences, Rehabilitation, Ophthalmology, Genetics and Mother and Child Sciences (Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili – DINOGMI)</td>
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<tr>
<th>Places</th>
<th>3 (°) – Grants: 0</th>
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<tr>
<td>(°) 3 positions reserved to employee of IRCSS Istituto G. Gaslini</td>
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<thead>
<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
</table>

| Interview | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/l/dottorati-di-ricerca |

| Exam Syllabus | Contents of the Interview:  
- previous experience of research work, including that relating to the thesis;  
- project ideas;  
- knowledge of basic methodologies for clinical and laboratory research;  
- knowledge of English through the presentation of the research project |

| Research Themes | Paediatric Specialties |

| Information on references | Candidates must choose no less than one and no more than three candidates to support the application. These contacts must be university lecturers or subject matter experts. It will be the responsibility of the contact persons to send the reference letters, within the deadline of the deadline of the call, to the Coordinator of the PhD course Prof. Pasquale Striano (pstriano@unige.it) and for information to: chiara.armani@unige.it. |

| Foreign Languages | English |
Course: PAEDIATRIC SCIENCES
In agreement with IRCCS Istituto Giannina Gaslini

Curriculum: PAEDIATRIC SPECIALITIES (CODE 9542)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Striano Pasquale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Neurosciences, Rehabilitation, Ophthalmology, Genetics and Mother and Child Sciences (Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili – DINOGMI)</td>
<td></td>
</tr>
<tr>
<td>Places:</td>
<td>1 – Grants: 1 (*)</td>
</tr>
<tr>
<td>(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of Kolfarma, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243. Research project: Studio delle interazioni tra dieta ed efficacia di un AFMS per le epilessie resistenti</td>
<td></td>
</tr>
</tbody>
</table>

### Comparative assessment procedure
- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

### Exam Syllabus
- Contents of the Interview:
  - previous experience of research work, including that relating to the thesis;
  - project ideas;
  - knowledge of basic methodologies for clinical and laboratory research;
  - knowledge of English through the presentation of the research project

### Research Themes
Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f): Studio delle interazioni tra dieta ed efficacia di un AFMS per le epilessie resistenti

### Information on references
Candidates must choose no less than one and no more than three candidates to support the application. These contacts must be university lecturers or subject matter experts. It will be the responsibility of the contact persons to send the reference letters, within the deadline of the deadline of the call, to the Coordinator of the PhD course Prof. Pasquale Striano (pstriano@unige.it) and for information to: chiara.armani@unige.it.

### Foreign Languages
English

### Further Information
Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 0
Course: SOCIAL SCIENCES

Curriculum: MIGRATIONS AND INTERCULTURAL PROCESSES (CODE 9543)

Course Coordinator: Andrighetto Luca
Department of Education (Dipartimento di Scienze della Formazione - DISFOR)

Places: 4 – Grants: 4 (*)

(*) The grants are funded within the ERC AdG project "SOLROUTES - Solidarities and migrants routes across Europe at Large" (GA n.101053836); the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00.

The grants are intended to explore the theme of solidarity with migrants in transit and civic support to borders crossing in the following four countries (Morocco, Tunisia, Turkey, Belgium) through ethnographic, participatory and art-based methods.

The research projects presented must focus on only one of these countries chosen by the candidate within the themes listed below.

<table>
<thead>
<tr>
<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview</td>
<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
</tr>
</tbody>
</table>

Further information on how to present qualifications/publications

The following will be assessed:

1. The quality of the research project presented (before writing the research project please carefully read the instructions at this link: [https://tinyurl.com/mw9xnhzd](https://tinyurl.com/mw9xnhzd))
2. Research experience and scientific publications, deemed congruent with the research topics of the PhD course
3. Thesis of the 5 or 4-year degree course.
4. Specific professional experiences relevant to the Doctorate themes and SOLROUTES project
5. Motivation Letter

CV, titles, theses, motivation letter and publications (no more than 10) and research project must be presented in pdf format, attached to the application.

Exam Syllabus

For the admission to the interview, a minimum score, resulting from the qualifications and the project evaluation, is required.

The interview will focus on the discussion of the research project and of the qualifications presented, with special reference to some aspects of research methodologies and relevant theory in the specific subject areas.

During the interview, the candidate’s real motivation, together with his/her languages knowledge will be assessed.

Research Themes

- Borders, migration and refugees studies
- Solidarity and social movements in the field of migration
- Participatory and ethnographic methods in migration studies.
- Visual and art-based methods in migration studies.

These research themes can be addressed in the frame of an interdisciplinary approach in social sciences (anthropology, geography, sociology).

Information on references

Reference letters are not required. Any reference letters received will not be taken into consideration for the final score.

Foreign Languages

English for all candidates; in addition, for the grant relating to Tunisia and Morocco: Arabic. For the one relating to Belgium French. For the one relating to Turkey: Turkish.

Further Information

SOLROUTES, Principal Investigator:
Prof. Luca Queirolo Palmas, luca.palmas@unige.it

Website: [https://scienzesociali.dottorato.unige.it/](https://scienzesociali.dottorato.unige.it/)

Curriculum Coordinator:
Prof. Nadia Rania, DISFOR, C.so Podestà 2
nadia.rania@unige.it

Coordinator of the PhD Course in Social Science:
Prof. Luca Andrighetto, DISFOR, C.so Podestà 2
luca.andrighetto@unige.it

Administrative manager:
Dott.ssa Francesca Figus, DISFOR, C.so Podestà 2
dottoratoscienzesociali.disfor@unige.it
Course: SECURITY, RISK AND VULNERABILITY
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: CYBERSECURITY AND RELIABLE ARTIFICIAL INTELLIGENCE (CODE 9544)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Armando Alessandro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità</td>
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</tbody>
</table>

Places: 1 – Grants: 1 (*)

(*) 1 grant funded within PNRR – progetto PE07 under condition of the approval of ministerial funding; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500 (CUP D35C22001300002).

Comparative assessment procedure

<table>
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<tr>
<td>Interview</td>
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</tr>
</tbody>
</table>

Further information on how to present qualifications/publications

The research project (10 pages max) must include the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the aims of the research activity.

The application (curriculum) must contain Transcripts of Records, stating the courses attended and marks obtained throughout the candidate's university career (Bachelor and M.Sc. Degrees). Undergraduate candidates at the deadline of the public notice may submit further documentation, which they deem appropriate, in order to document their university career.

Exam Syllabus

The interview will be a detailed scientific discussion on the candidate’s research project (10 pages max), Curriculum Vitae et Studiorum (10 pages max) and qualifications/publications (10 pages max). The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

Research Themes

Research lines:

- Cybersecurity of distributed systems (ad es, Mobile, Cloud, Web, IoT)
- Data Protection and Privacy
- Reliable Artificial Intelligence for Mobility

Further information and guidelines for the writing the research projects are available at [http://sicurezza.unige.it](http://sicurezza.unige.it)

Information on references

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications.

The reference letter must be send by the referees, within the deadline of the public notice, to the Coordinator of the curriculum at the following e-mail address: luca.oneto@unige.it

The name, status and current position of the referees chosen by the candidate must be stated in the application.

Reference letters that are not presented as requested will not be taken into consideration.

Foreign Languages

English

Further Information

Curriculum Coordinator
Prof. Luca Oneto
DIBRIS, Opera Pia 11a, Genova
luca.oneto@unige.it
Course: SECURITY, RISK AND VULNERABILITY
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: CYBERSECURITY AND RELIABLE ARTIFICIAL INTELLIGENCE (CODE 9545)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Armando Alessandro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità</td>
<td></td>
</tr>
</tbody>
</table>

**Places:** 1

(*1*) grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITY 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4) in collaboration and with the contribution of Progetto Adele srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: Metodi di intelligenza artificiale applicati al segmento di trasporto multimodale di ultimo miglio.

**Comparative assessment procedure**

- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di ricerca](https://unige.it/usg/it/dottorati-di ricerca)

**Further information on how to present qualifications/publications**

The research project (10 pages max) must include the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the aims of the research activity.

The application (curriculum) must contain Transcripts of Records, stating the courses attended and marks obtained throughout the candidate's university career (Bachelor and M.Sc. Degrees). Undergraduate candidates at the deadline of the public notice may submit further documentation, which they deem appropriate, in order to document their university career.

**Exam Syllabus**

The interview will be a detailed scientific discussion on the candidate’s research project (10 pages max), Curriculum Vitae et Studiorum (10 pages max) and qualifications/publications (10 pages max). The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

**Research Themes**

Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITY 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4);

Metodi di intelligenza artificiale applicati al segmento di trasporto multimodale di ultimo miglio.

Further information and guidelines for the writing the research projects are available at [http://sicurezza.unige.it](http://sicurezza.unige.it)

**Information on references**

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications.

The reference letter must be send by the referees, within the deadline of the public notice, to the Coordinator of the curriculum to the following e-mail address: [luca.oneto@unige.it](mailto:luca.oneto@unige.it)

The name, status and current position of the referees chosen by the candidate must be stated in the application.

Reference letters that are not presented as requested will not be taken into consideration.

**Foreign Languages**

English

**Further Information**

Curriculum Coordinator
Prof. Luca Oneto
DIBRIS, Opera Pia 11a, Genova
[luca.oneto@unige.it](mailto:luca.oneto@unige.it)

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITY 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 3
Course: SECURITY, RISK AND VULNERABILITY  
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation  

Curriculum: SECURITY AND LAW (CODE 9546)  

| Course Coordinator: Armando Alessandro  
| Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità  
| Places: 1 – Grants: 1 (*)  
| (**) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00  

| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW  
| --- | ---  
| Interview | Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati  

Further information on how to present qualifications/publications  
“Qualifications” the information contained in the application and in the curriculum vitae et studiorum, the research project, further qualifications. The application form and its attachment can be written in Italian or English or French or Spanish.  

Exam Syllabus  
The comparative assessment will be based on an evaluation of the candidate's qualifications, a research project and an interview designed to assess the skills and knowledge required for admission to a PhD programme. More specifically:  
- The RESEARCH PROJECT must fit into some of the research topics of the PhD programme. It must contain (i) a clearly defined research problem, indicate (ii) basic methodological choices, list (iii) the main bibliography, and give (iv) a rough outline of the argument(s) the candidate will use to address the problem.  
- The INTERVIEW will be used to discuss the research project presented by the candidate and its relation to some of the research topics of the PhD curriculum in Security and Law, namely  
  - Artificial intelligence and law  
  - Conceptual analysis of security  
  - Cybersecurity and cybercrime  
  - Cybersecurity and law  
  - Data retention and search engines  
  - Digital Identity  
  - e-Democracy, e-Government and Rule of law  
  - Health security  
  - Human rights in the digital age  
  - Internet governance  
  - Machine learning and law  
  - New technology and labor relations  
  - Philosophy of privacy and new surveillance society  
  - Personal data protection  
  - Privacy and big data  
  - Smart contracts  
  - Technology induced developments in the philosophy of criminal responsibility and punishment  

Research Themes  
Lines of research are focused on the following macro-areas:  
- Conceptual analysis of legal issues connected to security, risk, and vulnerability in public or private law  
- Doctrinal analysis of legal issues connected to security, risk and vulnerability in public or private law  
- Economic analysis of legal issues connected to security, risk, or vulnerability in public or private law
| **Information on references** | Coordinator of the PhD Programme  
Prof. Alessandro Armando  
DIBRIS, Via Dodecaneso 35, Genova (+39) 3281003201  
alessandro.armando@unige.it |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|                             | Coordinator of the curriculum  
Prof. Giorgio Afferni  
DIGI, Via Balbi 22, Genova (+39) 3356063568  
giorgio.afferni@unige.it |
|                             | Administrative contact of the curriculum  
Dott.ssa M. Stefania Lavezzo  
Via Balbi 22, Genova (+39) 0102095436, int. 55436  
maria.Stefania.Lavezzo@unige.it |
| **Foreign Languages**       | English |
**Course:** SECURITY, RISK AND VULNERABILITY  
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

**Curriculum: SECURITY AND STRATEGIC STUDIES (CODE 9547)**

| **Course Coordinator:** | Armando Alessandro  
Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità |
|-------------------------|--------------------------------------------------|
| **Places:** | 1  
Grants: 1 (*)  
(*) 1 grant funded by Università degli Studi di Genova, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500.00 |

<table>
<thead>
<tr>
<th><strong>Comparative assessment procedure</strong></th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview</strong></td>
<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
</tr>
</tbody>
</table>
| **Further information on how to present qualifications/publications** | The Commission will assess:  
1. Quality of the research project  
2. Research experiences and scientific publications  
3. Master thesis (which must be attached in PDF format)  
4. Academic curriculum and final degree mark  

   The Commission will set a minimum threshold obtained by the candidate in the evaluation of cv and research project in order to access the interview |
| **Exam Syllabus** | Candidates who obtain the minimum score established by the Commission on research projects and the cv will be admitted to the interview.  
The interview will focus on the discussion of the research project and the titles presented, with a specific attention devoted to research methodology.  
During the interview, the motivational aspects will be assessed and the knowledge of English will be ascertained. |
| **Research Themes** | Within International Relations, Security Studies, Foreign Policy Analysis a specific attention will be devoted to:  
Causes and features of civil wars;  
Institutional and political solutions to civil wars;  
Evolution of Peacekeeping and Peace-building;  
Tools and approaches in foreign and defense policy.  
Technology and security |
| **Information on references** | Two references letters to be sent by e-mail to the curriculum coordinator. |
| **Foreign Languages** | English |
| **Further Information** | For further information please get in contact with prof. Giampiero Cama (curriculum coordinator e-mail: gcama@unige.it) or prof. Fabrizio Coticchia (e-mail: fabrizio.coticchia@unige.it) |
Course: SECURITY, RISK AND VULNERABILITY
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: MANAGEMENT AND SECURITY (CODE 9561)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Armando Alessandro</th>
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</thead>
<tbody>
<tr>
<td>Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità</td>
<td></td>
</tr>
<tr>
<td>Places:</td>
<td>1 – Grants: 0</td>
</tr>
</tbody>
</table>

**Comparative assessment procedure**

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<thead>
<tr>
<th><strong>Interview</strong></th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati-di-ricerca">https://unige.it/usg/it/dottorati-di-ricerca</a></td>
<td></td>
</tr>
</tbody>
</table>

**Further information on how to present qualifications/publications**

“Qualifications” mean useful information to appreciate the application, starting from the Curriculum Vitae et Studiorum, the research project and any further element. The application form and its attachment can be written in Italian or English. Documents must be sent in electronic form.

**Exam Syllabus**

The interview will be a discussion on the Curriculum Vitae et Studiorum and qualifications/publications and an in depth presentation of the candidate’s research project. The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

**Research Themes**

The research lines characterizing the curriculum are focused on the following macro-areas:
- Industry analysis and case studies, in relationship to security
- Security as common and cross topic involving any organization (deepened as, for example, business ethics, sustainability and environmental management, technology, innovation and knowledge management, organizational issues, performance and crisis management, alternative finance, risk management and performance, turnaround: retrenchment and recovery, compliance, financial reporting transparency, accounting scandals and crisis communication)
- Corporate reorganization of international groups
- Open innovation strategies: risks and opportunities

**Information on references**

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee is not a university professor, he/she must also send his/her Curriculum Vitae and a list of publications. The reference letter must be send by the referees, within the deadline of the public notice, to the responsible of the curriculum (teresina.torre@economia.unige.it), object: reference letter – Name – phd. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

**Foreign Languages**

Inglese

**Further Information**

Coordinator of the PhD Programme
Prof. Alessandro Armando
DIBRIS, Via Dodecaneso 35, Genova (+39) 3281003201
alessandro.armando@unige.it

Responsible of the Curriculum
Prof.ssa Teresina Torre
DIEC, Via Vivaldi 5, Genova (+39)
teresina.torre@economia.unige.it
Course: SECURITY, RISK AND VULNERABILITY
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: MANAGEMENT AND SECURITY (CODE 9548)

| Course Coordinator: | Armando Alessandro |
| Places: 2 | Grants: 1 (*) |
| (*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of ESAOTE SpA, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243. |
| Research project: Corporate reorganization and development of international groups |

### Comparative assessment procedure

<table>
<thead>
<tr>
<th>QUALIFICATIONS/PUBLICATIONS AND EXAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of qualifications/publications and the curriculum vitae et studiorum</td>
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<tr>
<td>Written test (research project)</td>
</tr>
<tr>
<td>Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
</tr>
</tbody>
</table>

### Interview

- Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

### Further information on how to present qualifications/publications

“Qualifications” mean useful information to appreciate the application, starting from the Curriculum Vitae et Studiorum, the research project and any further element. The application form and its attachment can be written in Italian or English. Documents must be sent in electronic form.

### Exam Syllabus

The interview will be a discussion on the Curriculum Vitae et Studiorum and qualifications/publications and an in depth presentation of the candidate’s research project. The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

### Research Themes

Research project for grant within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f): Corporate reorganization of international groups

### Information on references

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee is not a university professor, he/she must also send his/her Curriculum Vitae and a list of publications. The reference letter must be send by the referees, within the deadline of the public notice, to the responsible of the curriculum (teresina.torre@economia.unige.it), object: reference letter – Name – phd. The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

### Foreign Languages

**Inglese**

### Further Information

- Coordinator of the PhD Programme
  - Prof. Alessandro Armando
  - DIBRIS, Via Dodecaneso 35, Genova (+39) 3281003201
  - alessandro.armando@unige.it

- Responsible of the Curriculum
  - Prof.ssa Teresina Torre
  - DIEC, Via Vivaldi 5, Genova (+39)
  - teresina.torre@economia.unige.it

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

- Months to be spent abroad: 3
Course: SECURITY, RISK AND VULNERABILITY  
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: RISK, CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT (CODE 9549)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Armando Alessandro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità</td>
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<tr>
<td>Places:</td>
<td>2 (*)</td>
</tr>
<tr>
<td>Grants:</td>
<td>2 (**)</td>
</tr>
<tr>
<td>(*) 1 grant funded by Agenzia per la Coesione territoriale (Fondo per lo sviluppo e la coesione) in memory of Prof. Antonella Primi. The gross annual amount of the scholarship is € 16,500 including social security contributions charged to the scholarship recipient.</td>
<td></td>
</tr>
<tr>
<td>(**) 1 grant funded within ERC 2019 ANTIGONE project - Starting Grant Archaeology of Sharing practices. The material evidence of mountain marginalisation in Europe (G.A. n. 853539). The gross annual amount of the scholarship is € 16,500 including social security contributions charged to the scholarship recipient.</td>
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<th>Comparative assessment procedure</th>
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<td>Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page <a href="https://unige.it/usg/it/dottorati">https://unige.it/usg/it/dottorati</a></td>
</tr>
</tbody>
</table>
| Further information on how to present qualifications/publications | The research project (10 pages max) must include the candidate’s research interests and motivations, a short abstract, the State of the Art and relevant references and the aims of the research activity.  
The application (curriculum) must contain Transcripts of Records, stating the courses attended and marks obtained throughout the candidate's university career (Bachelor and M.Sc. Degrees). Undergraduate candidates at the deadline of the public notice may submit further documentation, which they deem appropriate, in order to document their university career. |
| Exam Syllabus | The interview will be a detailed scientific discussion on the candidate’s research project (10 pages max), Curriculum Vitae et Studiorum (10 pages max) and qualifications/publications (10 pages max). The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum. |

### Research Themes

#### Research lines for the fellowship in memory of Prof. Antonella Primi “Resources and opportunities for social, cultural and tourist sustainability in the inner and mountain areas”.

The research topics of the scholarships covered by the call must concern the case study of the Val di Vara, addressing the analysis of resources and development opportunities in terms of social, cultural and tourist sustainability. Projects will have to study and evaluate:

- the environmental and social vulnerabilities of those internal territories starting from the national and international state of the art, in light of the sustainable development goals of the 2030 Agenda;
- virtuous cases of environmental, economic, cultural and demographic recovery conditions to highlight the processes that can mitigate environmental and socio-economic vulnerability;
- identify and analyze the potential, in particular tourism, of the internal territories through the collection and processing of quantitative and qualitative data.

#### Research lines ANTIGONE fellowship

Research projects have to present a possible case study, addressing the study of the transformation in European mountains in the last three centuries. Projects have to consider the changes in environmental resources management practices, in the landscape and in the organisation of local communities, through archaeological and – or archival research. Possible themes could be:

- Changes in practices and management of environmental resources
- Landscape archaeology and history: space, practices and conflicts
- The relationship between the changes in environmental resources management practices and the organisation of local communities between oral history and archaeology
- Water, Husbandry and Woods: the cycles of environmental resources management practices

Further information and guidelines for the writing the research projects are available at [http://sicurezza.unige.it/dottorato](http://sicurezza.unige.it/dottorato)

### Information on references

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee...
is not a university professor, he/she must also send the Curriculum Vitae and a list of publications.

The reference letter must be send by the referees, within the deadline of the public notice, to the Coordinator of the curriculum to the following e-mail address:
- luca.ferraris@unige.it
- RCCSD@cimafoundation.org

The name, status and current position of the referees chosen by the candidate must be stated in the application.

Reference letters that are not presented as requested will not be taken into consideration.

<table>
<thead>
<tr>
<th>Foreign Languages</th>
<th>English</th>
</tr>
</thead>
</table>
| **Further Information** | PhD Program Coordinator  
Prof. Alessandro Armando  
DIBRIS, Via Dodecaneso 35, Genova  
alessandro.armando@unige.it |
| Curriculum Coordinator  
Prof. Prof. Luca Ferraris  
DIBRIS, Campus Universitario, Savona  
luca.ferraris@unige.it |
Course: SECURITY, RISK AND VULNERABILITY
Doctoral Course in agreement with the Bruno Kessler Foundation (Fondazione Bruno Kessler – FBK) and CIMA Foundation

Curriculum: RISK, CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT – CLOE Project (CODE 9559)

Course Coordinator: Armando Alessandro

Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità

Places: 1 (*) - Grants: 0

(*) 1 position covered with Research Grant as per the amount foreseen within the European project H2020-MSCA-COFUND-2020 “CLOE - Training to complexity: multidisciplinary approaches to rural and mountain sustainable development and conservation” GA n. 10103449. For more details, see the Marie Skłodowska Curie COFUND project website at https://cloe.dp.unige.it.

For the CLOE COFUND project, the position is reserved to early-stage researchers (ESRs); researchers must be in their first 4 years of research career at the date of the recruitment and not have been already awarded a PhD degree before. ESRs have also to satisfy the ‘mobility rule’: they must not have resided or carried out their main activity (work, study etc.) in Italy for more than 12 months in the three years prior to the date of recruitment. Compulsory national service, short stays such as holidays and time spent under a procedure to obtain refugee status under the Geneva Convention are not taken into account for the calculation.

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND INTERVIEW

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications

The application must include the following documents (.pdf format):
1. A copy of a Valid Passport/ID;
2. A translation of the academic qualifications duly notarized by the Italian diplomatic or consular office of the Country in which the qualifications were obtained and Declaration of Value of the qualifications prepared by the Italian diplomatic-consular Representatives, that is located in the Country where the qualifications were obtained. If the Italian diplomatic or consular office does not provide the documentation in time for the application, applicants should enclose all the documentation available (e.g. degree certificates, transcript of records);
3. In case of qualifications issued by an EU country, previous documents may be replaced by the Diploma Supplement delivered by the University which has issued the title, according to the standards of the EU and UNESCO/CEPES;
4. Master thesis extended abstract (max. 10 pages); option 2 10.000 characters
5. Curriculum Vitae;
6. Letter of Motivation;
7. A self-declaration (https://cloe.dp.unige.it/en/application_package_2022) to demonstrate that they respect the MSCA mobility rule, the ESR definition, and the English language proficiency (IELTS scores, TOEFL results, or proof of a degree awarded in English);
8. Research project proposal (max. 10.000 characters, including spaces, footnotes and references);
9. Ethics self-assessment - through the form available at the following link: https://cloe.dp.unige.it/en/application_package_2022
10. Up to three letters of reference;
11. Publication(s)/Patent(s) (optional; max. 5)

From the CV and other documents enclosed the following data should result:
a) University degree and the final note or qualification thereof;
b) any other post-lauream degree (like, e.g., Master degrees);
c) publications concerning one or more of the research topics of the present Curriculum, if any;
d) research experiences and research and educational activities, if any.

Further information on the submission of the applications are available on the project website at the following link: http://cloe.dp.unige.it

Only the titles and publications relating to the LAST 3 SOLAR YEARS prior to the calendar year of publication of the call (excluding the degree diploma, which will be assessed even if previous) will be assessed and deemed congruent with the research topics of the PhD course.
### Exam Syllabus

The interview in English will be a detailed scientific discussion on the candidate’s research project (10 pages max), Curriculum Vitae et Studiorum (10 pages max) and qualifications/publications (10 pages max). The interview is also aimed at verifying that the candidate has adequate knowledge to deal with studies in the chosen curriculum.

- The research project has to be written in English and must fit clearly into one of the research topics singled out in the box “Research topics”.

The PhD research project must be organized according to the following points:

- Objectives;
- Sources and state of the art;
- Importance for the advancement of knowledge;
- Proposed methodology;
- A developmental work plan.

### Research Themes

Research lines:

- Theme 1. History and archaeology of commons (access rights, space, practices)
- Theme 2. Historical processes of mountain abandonment: historical and/or archaeological perspectives
- Theme 3. Historical practices and new models of sustainable conservation and development: archaeological and historical perspectives

For further information on research themes and on the project proposal structure is recommended to visit the the project’s website at the following link: https://cloe.dp.unige.it.

### Information on references

Candidates must choose at least one and no more than three referees to support their candidature. The referees must be university professors or experts in the subject. If the referee is not a university professor, he/she must also send the Curriculum Vitae and a list of publications. The reference letter must be sent by the referees, within the deadline of the public notice, to the Coordinator of the curriculum to the following e-mail addresses:

- luca.ferraris@unige.it
- anna.stagno@unige.it
- cloe.dp@unige.it
- RCCSD@cimafoundation.org

The name, status and current position of the referees chosen by the candidate must be stated in the application. Reference letters that are not presented as requested will not be taken into consideration.

### Foreign Languages

English

### Further Information

PhD Program Coordinator
Prof. Alessandro Armando
DIBRIS, Via Dodecaneso 35, Genova
alessandro.armando@unige.it

Curriculum Coordinator
Prof. Prof. Luca Ferraris
DIBRIS, Campus Universitario, Savona
luca.ferraris@unige.it

Referente CLOE per il curriculum RCSS: Prof. Anna M. Stagno anna.stagno@unige.it
Course: HISTORY, ART HISTORY AND ARCHEOLOGY
Curriculum: ART HISTORY (CODE 9550)

Course Coordinator: Valenti Paola
Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia – DAFIST)

Places: 1 (°) – Grants: 0
(°) 1 place reserved to employee of Promo P.A. Fondazione

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND INTERVIEW

Interview
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page
https://unige.it/usp/it/dottorati-di-ricerca

Further information on how to present qualifications/publications
Curriculum vitae, qualifications, Master Thesis, publications and Research Project must be included in pdf format, as attachments to the application. Only the qualifications and publications relating to the LAST 3 SOLAR YEARS prior to the calendar year of publication of the call (excluding the Master’s degree, which will be assessed even if previous) will be assessed. Qualifications and publications must be congruent with the research themes of the PhD Programme. Qualifications include:
1) Master’s Degree (Laurea Magistrale or quadriennale (vecchio ordinamento) or an equivalent degree;
2) Copy of the MA dissertation;
3) Scientific Publications, consistent with the research themes of the PhD programme:
   - books;
   - articles in scientific journals (Class A or B in the ANVUR classification);
   - essays in collective volumes;
   - brief essays, critical notes, editorships;
4) Other qualifications:
   Advanced Training Courses Degrees (corsi di perfezionamento e/o di specializzazione e/o di Alta Formazione); Masters in disciplines related to the research themes of the PhD Programme; PhD title;
   Additional Master’s degree in disciplines related to the research themes of the PhD Programme;
   Grants, Fellowships, Awards;
   Research activity in scientific institutions;
   Teaching activity in academic institutions;
   Study experiences abroad;
   Internships, Traineeships and professional experiences related to the research themes of the PhD programme;
   Title of cultura della materia or member of examination committees in academic institutions.

Exam Syllabus
The comparative assessment will be based on the evaluation of the candidate's qualifications, the research project and the interview designed to assess the skills and knowledge required for admission to the PhD programme.
The interview will evaluate in particular:
- Argumentative and analytical skills with regard to the presentation of the research project;
- knowledge of the state-of-the-art and historiographic context related to the research project;
- Foreign language proficiency

Research Themes
Research Themes are published on the website of the PhD Programme:

(*) Research Theme for the position in partnership with Fondazione Agostino De Mari / Fondazione Museo della Ceramica di Savona:
The research grant is intended to support interventions that lie between the research fields of contemporary art history and museology. During the 20th century, the province of Savona in fact witnessed important moments of encounter and exchange between national and international artists, especially linked to the production of ceramics, who chose to reside on the western Ligurian coast.
The research projects submitted should be structured around one (or more) of these lines:
- national and international presences in the western Ligurian territory, with particular attention to the Hinterland of Savona area, during the 20th century;
- centres of artistic and craft production of excellence (Albisola ceramics, Altare glasses);
- places and opportunities for artists to meet as starting points for artistic experiences of international significance from the historical avant-gardes to the present day;
- reconnaissance and promotion of projects with artists of the present who can continue traditions and be promoters of new experiences for the enhancement and involvement of communities in the area.
These lines of research will have to be related to the heritage, collections and activities of the Museo della Ceramica di Savona, which will have the role of supporting the candidate’s research within this PhD programme.

(**) Research Theme for the position reserved to employee of Promo P.A. Fondazione: Business and Culture: the Production of Social and Economic Value Through the Contamination of the two Systems. The model that characterized the encounter between business and culture was characterized, for a long time, by the “patronage” approach, which manifests itself through sponsorship: a vehicle of social commitment, a manifestation of a cultural sensitivity on the part of the entrepreneur, but an action functional only to the reputation and corporate image. The research intends to investigate, also in a comparative perspective extended to the international context, alternative models.

<table>
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<tr>
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<tbody>
<tr>
<td><strong>Foreign Languages</strong></td>
<td>The interview will test the candidate’s knowledge of one of these languages: English, French, German or Spanish. The candidate can choose one of these languages for the interview: Italian, English, French, German or Spanish.</td>
</tr>
<tr>
<td><strong>Further Information</strong></td>
<td>For further information of this curriculum, send an email to: <a href="mailto:paola.valenti@unige.it">paola.valenti@unige.it</a></td>
</tr>
</tbody>
</table>
Course: HISTORY, ART HISTORY AND ARCHEOLOGY

Curriculum: ART HISTORY (CODE 9551)

<table>
<thead>
<tr>
<th>Course Coordinator:</th>
<th>Valenti Paola</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia – DAFIST)</td>
</tr>
<tr>
<td>Places:</td>
<td>1 – Grants: 1 (*)</td>
</tr>
<tr>
<td>(*) 1 grant funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in collaboration and with the contribution of Fondazione Museo della Ceramica di Savona Onlus, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.</td>
<td></td>
</tr>
<tr>
<td>Research project:</td>
<td>Promozione culturale e valorizzazione del territorio nel savonese</td>
</tr>
</tbody>
</table>

**Comparative assessment procedure**

<table>
<thead>
<tr>
<th>QUALIFICATIONS/PUBLICATIONS AND EXAM</th>
</tr>
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<tbody>
<tr>
<td>• Assessment of qualifications/publications and the curriculum vitae et studiorum</td>
</tr>
<tr>
<td>• Written test (research project)</td>
</tr>
<tr>
<td>• Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum</td>
</tr>
</tbody>
</table>

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di ricerca](https://unige.it/usg/it/dottorati-di ricerca)

**Further information on how to present qualifications/publications**

Curriculum vitae, qualifications, Master Thesis, publications and Research Project must be included in pdf format, as attachments to the application. Only the qualifications and publications relating to the LAST 3 SOLAR YEARS prior to the calendar year of publication of the call (excluding the Master’s degree, which will be assessed even if previous) will be assessed. Qualifications and publications must be congruent with the research themes of the PhD Programme.

Qualifications include:

1) Master’s Degree (*Laurea Magistrale or quadriennale (vecchio ordinamento) or an equivalent degree;*
2) Copy of the MA dissertation;
3) Scientific Publications, consistent with the research themes of the PhD programme:
   - books;
   - articles in scientific journals (Class A or B in the ANVUR classification);
   - essays in collective volumes;
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4) Other qualifications:
   - Advanced Training Courses Degrees (*corsi di perfezionamento e/o di specializzazione e/o di Alta Formazione*); Masters in disciplines related to the research themes of the PhD Programme; PhD title;
   - Additional Master’s degree in disciplines related to the research themes of the PhD Programme;
   - Grants, Fellowships, Awards;
   - Research activity in scientific institutions;
   - Teaching activity in academic institutions;
   - Study experiences abroad;
   - Internships, Traineeships and professional experiences related to the research themes of the PhD programme;
   - Title of *cultore della materia* or member of examination committees in academic institutions.

**Exam Syllabus**

The comparative assessment will be based on the evaluation of the candidate's qualifications, the research project and the interview designed to assess the skills and knowledge required for admission to the PhD programme.

The interview will evaluate in particular:

- Argumentative and analytical skills with regard to the presentation of the research project; knowledge of the state-of-the-art and historiographic context related to the research project;
- Foreign language proficiency

**Research Themes**

Research Themes are published on the website of the PhD Programme:

(*) Research Theme for the position funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) in partnership with Fondazione Agostino De Mari / Fondazione Museo della Ceramica di Savona: *The research grant is intended to support interventions that lie between the research fields of...*
contemporary art history and museology. During the 20th century, the province of Savona in fact witnessed important moments of encounter and exchange between national and international artists, especially linked to the production of ceramics, who chose to reside on the western Ligurian coast.

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(**) Research Theme for the position reserved to employee of Promo P.A. Fondazione: Business and Culture: the Production of Social and Economic Value Through the Contamination of the two Systems. The model that characterized the encounter between business and culture was characterized, for a long time, by the “patronage” approach, which manifests itself through sponsorship: a vehicle of social commitment, a manifestation of a cultural sensitivity on the part of the entrepreneur, but an action functional only to the reputation and corporate image. The research intends to investigate, also in a comparative perspective extended to the international context, alternative models.

Information on references
Letters of reference are not required and, if eventually received, will not be taken into account for the evaluation.

Foreign Languages
The interview will test the candidate’s knowledge of one of these languages: English, French, German or Spanish
The candidate can choose one of these languages for the interview: Italian, English, French, German or Spanish.

Further Information
For further information of this curriculum, send an email to: paola.valenti@unige.it

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITÀ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-f) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 6
Course: HISTORY, ART HISTORY AND ARCHEOLOGY

Curriculum: ART HISTORY – CLOE Project (CODE 9552)

Course Coordinator: Valenti Paola

Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia – DAFIST)

Places: 1 (*) – Grants: 0

(*) 1 position covered with Research Grant as per the amount foreseen within the European project H2020-MSCA-COFUND-2020 “CLOE - Training to complexity: multidisciplinary approaches to rural and mountain sustainable development and conservation” GA n. 101034449. For more details, see the Marie Skłodowska Curie COFUND project website at https://cloe.dp.unige.it.

For the CLOE COFUND project, the position is reserved to early-stage researchers (ESRs): researchers must be in their first 4 years of research career at the date of the recruitment and not have been already awarded a PhD degree before. ESRs have also to satisfy the ‘mobility rule’: they must not have resided or carried out their main activity (work, study etc.) in Italy for more than 12 months in the three years prior to the date of recruitment. Compulsory national service, short stays such as holidays and time spent under a procedure to obtain refugee status under the Geneva Convention are not taken into account for the calculation.

Comparative assessment procedure

QUALIFICATIONS/PUBLICATIONS AND INTERVIEW

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

Further information on how to present qualifications/publications

The application must include the following documents (.pdf format):

1. A copy of a Valid Passport/ID;
2. A translation of the academic qualifications duly notarized by the Italian diplomatic or consular office of the Country in which the qualifications were obtained and Declaration of Value of the qualifications prepared by the Italian diplomatic-consular Representatives, that is located in the Country where the qualifications were obtained. If the Italian diplomatic or consular office does not provide the documentation in time for the application, applicants should enclose all the documentation available (e.g. degree certificates, transcript of records);
3. In case of qualifications issued by an EU country, previous documents may be replaced by the Diploma Supplement delivered by the University which has issued the title, according to the standards of the EU and UNESCO/CEPES;
4. Master thesis extended abstract (max. 10 pages);
5. Curriculum Vitae;
6. Letter of Motivation;
7. A self-declaration (https://cloe.dp.unige.it/en/application_package_2022) to demonstrate that they respect the MSCA mobility rule, the ESR definition, and the English language proficiency (IELTS scores, TOEFL results, or proof of a degree awarded in English);
8. Research project proposal (max. 10,000 characters, including spaces, footnotes and references);
9. Ethics self-assessment - through the form available at the following link: https://cloe.dp.unige.it/en/application_package_2022
10. Up to three letters of reference;
11. Publication(s)/Patent(s) (optional; max. 5)

From the CV and other documents enclosed the following data should result:

a) University degree and the final note or qualification thereof;

b) any other post-lauream degree (like, e.g., Master degrees);

c) publications concerning one or more of the research topics of the present Curriculum, if any;

d) research experiences and research and educational activities, if any.

Further information on the submission of the applications are available on the project website at the following link: http://cloe.dp.unige.it.

From the Curriculum Vitae and the related documents the following information should result:

a) University degree and the final note or qualification thereof;

b) any other post-lauream degree (like, e.g., Master degrees);

c) publications, if any (they will be assessed only if pdf copy will be provided);

d) research experiences and research and educational activities, if any.

For further information it is recommended to visit the the project’s website at the following link: https://cloe.dp.unige.it.
**Exam Syllabus**
The comparative assessment will be based on an evaluation of the candidate’s qualifications, a research project and an interview designed to assess the skills and knowledge required for admission to a PhD programme.

- The research project has to be written in English and must fit clearly into one of the research topics singled out in the box “Research topics.”
- The PhD research project must be organized according to the following points: - Objectives; - Sources and state of the art; - Importance for the advancement of knowledge; - Proposed methodology; - A developmental work plan.
- The PhD research project, including bibliography, must not exceed 30,000 characters, spaces included.

- The interview will be in English and will concern the presentation and discussion of the research project by the candidate and is aimed at verifying its aptitude for scientific research.
- The evaluation will be based on the following criteria:
  - Argumentative skills in the presentation of the research project, knowledge of the state of the art and general preparation on themes and topics related to the project;
  - Foreign language knowledge.

Further information at the following link: [https://cloe.dp.unige.it](https://cloe.dp.unige.it)

**Research Themes**
The applicant must submit a project based on one of the two research paths proposed below or combine them:

- Retracing and mapping the presence of major artists and architects of the XX century in the Ligurian hinterland.
- Designing and developing strategies to connect cultural memories and the sustainable enhancement of the mountain and rural areas surrounding the region.

For further information on research themes and on the project proposal structure it is recommended to visit the project’s website at the following link: [https://cloe.dp.unige.it](https://cloe.dp.unige.it).

**Information on references**
Candidates must provide up to three letters of reference supporting their application.

The letters must be written by Academics, or Experts, in the research topics of the Curriculum. They will send their letter of reference, within the deadline established in the Call, directly to the following addresses: paola.valenti@unige.it (with cloe.dp@unige.it in cc).

In their application form, candidates must point out the name, the qualification, and the workplace of the persons that will write reference letters for them.

**Foreign Languages**
English

**Further Information**
Within the three years of the Program (and, preferably, during the second year) PhD students shall spend at least 6 months abroad, or at qualified international training centers in Italy, doing research on the topic of their PhD dissertation (possibly also non-consecutive, but in any case – for each fraction – of adequate consistency).

PhD Programme coordinator: Prof. Paola Valenti
[paola.valenti@unige.it](mailto:paola.valenti@unige.it)

CLOE COFUND Supervisor in the PhD curriculum: Prof. Paola Valenti
[paola.valenti@unige.it](mailto:paola.valenti@unige.it)
Course: ROBOTICS AND INTELLIGENT MACHINES
Dottorato di “interesse nazionale” in agreement with Università di PISA, Università degli Studi della BASILICATA, Università degli Studi di FERRARA, Università degli Studi di SIENA, Università degli Studi di TRENTO, Università “Campus Bio-Medico” di ROMA, Politecnico di BARI, Università degli Studi di MILANO-BICOCCA, Università degli Studi di CALABRIA, Università degli Studi di FIRENZE, Università degli Studi di SALENTO, Università degli Studi di UDINE, Università degli Studi di PADOVA, Libera Università di BOLZANO, Università degli Studi di CATANIA, Università degli Studi di ROMA “La Sapienza”, Università degli Studi della Campania “Luigi Vanvitelli”, Università degli Studi di PALERMO, Politecnico di TORINO, Università Politecnica delle MARCHE, Università degli Studi di MODENA e REGGIO EMILIA, Università degli Studi di BOLOGNA, Istituto Italiano di Tecnologia (IIT) Consiglio Nazionale delle Ricerche (CNR) and Scuola Superiore Sant’Anna

Curriculum: HOSTILE AND UNSTRUCTURED ENVIRONMENTS (CODICE 9553)

**Coordinator:** Cannata Giorgio

Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi – DIBRIS)

**Places:** 3

**Grants:** 3 (*)

(*) 3 doctorate grants fully funded by the associated parties; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

### Comparative assessment procedure

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<td>Candidates are ranked separately for each research theme they applied.</td>
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**Step 1 – Assessment of qualifications** (maximum 60 points).
Candidates are ranked on the basis (not in order of relevance) of their student career, Curriculum Vitae, motivation letter, qualified scientific and technical skills, endorsement letters.

Candidates are admitted to Step 2 if their score is greater than or equal to 40 points.

**Step 2 – Oral examination** (maximum 60 points).
The Candidates are expected to discuss about their qualifications and scientific and technical skills, and to show their motivation and attitude for scientific research. Then they are interviewed on the research theme(s) they have applied for (see below) receiving a specific score for each interview.

The oral examination for each research theme is passed if the score is greater than or equal to 40 points.

The final score is the sum of the scores in Step 1 and Step 2 (for each research theme the candidate applied to).

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

**Further information on how to present qualifications/publications**

Candidates must:
- submit the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average marks (GPA or equivalent indicator);
- specify up to three research themes of their interest (see the research themes listed below and at Admission – Drim – Irim (i-rim.it));
- submit a motivation letter (Research project) related to one (or more) of the research themes selected; use the template available at: Admission – Drim – Irim (i-rim.it);
- submit a Curriculum Vitae including all the technical scientific studies/activities already done and pertinent to the doctoral program;
- submit up to 3 recommendation letters from university professors or recognized experts in the field supporting the candidate;

**Research Themes**

1. Machine learning for mobile manipulation in dynamic environment – Italian Inst. of Technology
2. Scene perception with frame-based and event-driven visual sensors - Italian Inst. of Technology
3. Underwater obstacle detection and avoidance with sonar data – University of Genova/ISME
For a complete description of the research themes proposed check: [Admission – Drim – Irim (i-rim.it)]

**Information on references**

Candidates must choose no more than three recommenders to endorse their candidature. The recommenders must be university professors or recognized experts in the field, and must upload the recommendation letters (specifying their name, role and affiliation), within the deadline of the public notice, to: [https://forms.gle/TT4UwLqrj88Cban6](https://forms.gle/TT4UwLqrj88Cban6)

**Foreign Languages**

<table>
<thead>
<tr>
<th>Language</th>
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<tbody>
<tr>
<td>English</td>
</tr>
</tbody>
</table>

**Further Information**

For more information about

- the research themes please check the contact person indicated in the project themes description file available at: [Admission – Drim – Irim (i-rim.it)]

- the doctorate rules and structure please check: [RULES – Drim – Irim (i-rim.it)]
  [CURRICULA_AND_THEMES – Drim – Irim (i-rim.it)]

- other enquiries contact the Doctorate Secretary: [phd_drim@unige.it](mailto:phd_drim@unige.it)

A step-by-step guideline for the application is available here: [https://unige.it/sites/contenti.unige.it/files/documents/Guida_eng_XXXVII.pdf](https://unige.it/sites/contenti.unige.it/files/documents/Guida_eng_XXXVII.pdf)
Corso: ROBOTICS AND INTELLIGENT MACHINES
Dottorato di “interesse nazionale” in agreement with Università di PISA, Università degli Studi della BASILICATA, Università degli Studi di FERRARA, Università degli Studi di SIENA, Università degli Studi di TRENTO, Università “Campus Bio-Medico” di ROMA, Politecnico di BARI, Università degli Studi di MILANO-BICOCCA, Università della CALABRIA, Università degli Studi di FIRENZE, Università del SALENTO, Università degli Studi di UDINE, Università degli Studi di PADOVA, Libera Università di BOLZANO, Università degli Studi di CATANIA, Università degli Studi di ROMA “La Sapienza”, Università degli Studi della Campania “Luigi Vanvitelli”, Università degli Studi di PALERMO, Politecnico di TORINO, Università Politecnica delle MARCHE, Università degli Studi di MODENA e REGGIO EMILIA, Università degli Studi di BOLOGNA, Istituto Italiano di Tecnologia (IIT) Consiglio Nazionale delle Ricerche (CNR) and Scuola Superiore Sant’Anna

Curriculum: INDUSTRY 4.0 (CODICE 9554)

Coordinator: Cannata Giorgio
Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi – DIBRIS)

Places: 3  Grants: 3 (*)

(*) 3 doctorate grants fully funded by the associated parties; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

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**Step 1 – Assessment of qualifications** (maximum 60 points).
Candidates are ranked on the basis (not in order or relevance) of their student career, Curriculum Vitae, motivation letter, qualified scientific and technical skills, endorsement letters.

Candidates are admitted to Step 2 if their score is greater than or equal to 40 points.

**Step 2 – Oral examination** (maximum 60 points).
The Candidates are expected to discuss about their qualifications and scientific and technical skills, to show their motivation and attitude for scientific research. Then they are interviewed on the research theme(s) they have applied for (see below) receiving a specific score for each interview.

The oral examination for each research theme is passed if the score is greater than or equal to 40 points.

The final score is the sum of the scores in Step 1 and Step 2 (for each research theme the candidate applied to).

Interview
Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

Further information on how to present qualifications/publications
Candidates must:

- submit the **complete list of all the exams sat during their Bachelor’s and Master’s degree** and/or equivalents (BS, Master) specifying the average marks (GPA or equivalent indicator);

- specify **upto three research themes** of their interest (see the research themes listed below and at [Admission – Drim – Irim (i-rim.it)](https://admission.drim.irime.it));

- submit a **motivation letter** (Research project) related to one (or more) of the research themes selected; use the template available at: [Admission – Drim – Irim (i-rim.it)](https://admission.drim.irime.it);

- submit a **Curriculum Vitae** including all the technical scientific studies/activities already done and pertinent to the doctoral program;

- submit **up to 3 recommendation letters** from university professors or recognized experts in the field supporting the candidate;

Research Themes
1. Innovative distributed control approaches for intelligent multiagent cooperative systems - Politecnico di Bari
2. Cyber-physical social security applied to emergent innovative technologies – Italian Institute of Technology & Univ. Genova
3. Robotics and autonomous systems – University of Genova

For a complete description of the research themes proposed check:
| **Information on references** | Admission – Drim – Irim (i-rim.it)  
Candidates must choose no more than three recommenders to endorse their candidature. The recommenders must be university professors or recognized experts in the field, and must upload the recommendation letters (specifying their name, role and affiliation), within the deadline of the public notice, to: [https://forms.gle/TT4UwLqrjI88Cban6](https://forms.gle/TT4UwLqrjI88Cban6) |
| **Foreign Languages** | English |
| **Further Information** | For more information about  
- the research themes please check the contact person indicated in the project themes description file available at:  
  [Admission – Drim – Irim (i-rim.it)](https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf)  
- the doctorate rules and structure please check:  
  [RULES – Drim – Irim (i-rim.it)](https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf)  
  [CURRICULA AND THEMES – Drim – Irim (i-rim.it)](https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf)  
- for other enquiries contact the Doctorate Secretary:  
  [phd_drim@unige.it](mailto:phd_drim@unige.it) |
|  | A step-by-step guideline for the application is available here:  
  [https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf](https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf) |
Curriculum: HEALTHCARE AND WELLNESS OF PERSONS (CODICE 9555)

Coordinator: Cannata Giorgio

Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi – DIBRIS)

Places: 7 – Grants: 7 (*)

(*) 7 doctorate grants fully funded by the associated parties; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,500,00

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<tr>
<td><strong>Step 1 – Assessment of qualifications</strong> (maximum 60 points).</td>
<td>Candidates are ranked on the basis (not in order of relevance) of their student career, Curriculum Vitae, motivation letter, qualified scientific and technical skills, endorsement letters.</td>
</tr>
<tr>
<td>Candidates are admitted to Step 2 if their score is greater than or equal to 40 points.</td>
<td></td>
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<tr>
<td><strong>Step 2 – Oral examination</strong> (maximum 60 points).</td>
<td>The Candidates are expected to discuss about their qualifications and scientific and technical skills, and to show their motivation and attitude for scientific research. Then they are interviewed on the research theme(s) they have applied for (see below) receiving a specific score for each interview.</td>
</tr>
<tr>
<td>The oral examination for each research theme is passed if the score is greater than or equal to 40 points.</td>
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<tr>
<td>The final score is the sum of the scores in Step 1 and Step 2 (for each research theme the candidate applied to).</td>
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</tbody>
</table>

Interview

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page [https://unige.it/usg/it/dottorati-di-ricerca](https://unige.it/usg/it/dottorati-di-ricerca)

Further information on how to present qualifications/publications

Candidates must:

- submit the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average marks (GPA or equivalent indicator);
- specify up to three research themes of their interest (see the research themes listed below and at Admission – Drim – Irim (i-rim.it));
- submit a motivation letter (Research project) related to one (or more) of the research themes selected; use the template available at: Admission – Drim – Irim (i-rim.it) ;
- submit a Curriculum Vitae including all the technical scientific studies/activities already done and pertinent to the doctoral program;
- submit up to 3 recommendation letters from university professors or recognized experts in the field supporting the candidate;

Research Themes

1. Motion and action prediction for human-robot collaboration facilitated by body signals and context – Univ. of Bolzano
2. Chaotic Recurrent Neural Networks to Study the Brain Basal Ganglia-Thalamo-Cortical System – CNR ISTC
3. Non-verbal Human-Robot Interaction through social signals – Univ. of Genova
| 4. | Culture-aware Artificial Intelligence and Robotics – Univ. of Genova |
| 5. | Magnetic multi-robot system control – Sant’Anna School of Advanced Studies, Pisa |
| 6. | Microrobots able to move through body tissues – Sant’Anna School of Advanced Studies, Pisa |
| 7. | A platform to understand and monitor sensorimotor deficits in multiple sclerosis – Univ. of Genova and NeXtage |
| 8. | Robotics enhanced by IoT and AI for healthcare 4.0 – Univ. Campus Biomedico, Rome |

For a complete description of the research themes proposed check: [Admission – Drim – Irim (i-rim.it)](https://forms.gle/TT4UwLqrj88Cban6)

### Information on references

Candidates must choose no more than three recommenders to endorse their candidature. The recommenders must be university professors or recognized experts in the field, and must upload the recommendation letters (specifying their name, role and affiliation), within the deadline of the public notice, to: [https://forms.gle/TT4UwLqrj88Cban6](https://forms.gle/TT4UwLqrj88Cban6)

### Foreign Languages

- **English**

### Further Information

For more information about
- the research themes please check the contact person indicated in the project themes description file available at: [Admission – Drim – Irim (i-rim.it)](https://forms.gle/TT4UwLqrj88Cban6)
- the doctorate rules and structure please check: [RULES – Drim – Irim (i-rim.it)](https://forms.gle/TT4UwLqrj88Cban6)  
  [CURRICULA AND THEMES – Drim – Irim (i-rim.it)](https://forms.gle/TT4UwLqrj88Cban6)
- for other enquiries contact the Doctorate Secretary: [phd_drim@unige.it](mailto:phd_drim@unige.it)

A step-by-step guideline for the application is available here: [https://unige.it/sites/contenti.unige.it/files/documents/Guida_eng_XXXVII.pdf](https://unige.it/sites/contenti.unige.it/files/documents/Guida_eng_XXXVII.pdf)
**Curriculum: HEALTHCARE AND WELLNESS OF PERSONS (CODICE 9556)**

<table>
<thead>
<tr>
<th>Coordinator: Cannata Giorgio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi – DIBRIS)</td>
</tr>
</tbody>
</table>

**Places**: 1 – **Grants**: 1 (*)

(*1) 1 grant funded within **PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITA’ 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-4)** in collaboration and with the contribution of NeXtage Srl, under condition of the project and funding approval; the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 16,243.

Research project: A platform to understand and monitor sensorimotor deficits in multiple sclerosis

**Comparative assessment procedure**

- Assessment of qualifications/publications and the curriculum vitae et studiorum
- Written test (research project)
- Interview that includes the description of the candidate’s research area of interest, also on the basis of previous activities stated in his/her scientific professional curriculum

**Interview**

Date, hour and how the interview will be carried out will be posted by 6.12.2022 on the web page https://unige.it/usg/it/dottorati-di-ricerca

**Further information on how to present qualifications/publications**

Candidates must:

- submit the complete list of all the exams sat during their Bachelor’s and Master’s degree and/or equivalents (BS, Master) specifying the average marks (GPA or equivalent indicator);
- specify up to three research themes of their interest (see the research themes listed below and at Admission – Drim – Irim (i-rim.it));
- submit a motivation letter (Research project) related to one (or more) of the research themes selected; use the template available at: Admission – Drim – Irim (i-rim.it);
- submit a Curriculum Vitae including all the technical scientific studies/activities already done and pertinent to the doctoral program;
- submit up to 3 recommendation letters from university professors or recognized experts in the field supporting the candidate;

**Research Themes**

A platform to understand and monitor sensorimotor deficits in multiple sclerosis

For a complete description of the research themes proposed check: Admission – Drim – Irim (i-rim.it)

**Information on references**

Candidates must choose no more than three recommenders to endorse their candidature. The recommenders must be university professors or recognized experts in the field, and must upload the recommendation letters (specifying their name, role and affiliation), within the deadline of the public notice, to: https://forms.gle/TT4UwLqjJ8Bc6 unsurpassed

**Foreign Languages**

English

**Further Information**

For more information about

- the research themes please check the contact person indicated in the project themes description file available at: Admission – Drim – Irim (i-rim.it)
- the doctorate rules and structure please check: RULES – Drim – Irim (i-rim.it)
- CURRICULA AND THEMES – Drim – Irim (i-rim.it)
- for other enquiries contact the Doctorate Secretary:
A step-by-step guideline for the application is available here: https://unige.it/sites/contenuti.unige.it/files/documents/Guida_eng_XXXVII.pdf

Further information about commitments and conditions of the grants funded within PROGRAMMA REGIONALE FONDO SOCIALE EUROPEO+ 2021-2027 PRIORITY 2 - ISTRUZIONE E FORMAZIONE - ESO 4.6 (OS-I) are available in the Notice of competition (article 6, paragraph 6)

Months to be spent abroad: 6