

Disclaimer: Please note that only the Italian version of the present call for applications, issued with Rector's Decree No. 4958 of 25.10.20221, is legally binding, the English version is provided for informational purposes only. The original Italian version is available at <https://unige.it/usg/it/dottorati-di-ricerca>

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Course in: **BIOENGINEERING AND ROBOTICS**

Curriculum: **BIOENGINEERING (CODE 8899)**

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| Coordinator: Giorgio Cannata | |
| Department of Information Technology, Bioengineering, Robotics and Systems Engineering– DIBRIS | |
| Places: 4– Grants: 4 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>Candidates must submit:</p> <ul style="list-style-type: none"> - 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. - the candidate summary profile form available at http://phd.dibris.unige.it/biorob/index.php/how-to-apply |
| Research Themes | <p>The Doctorate is selecting excellent candidates to work on innovative research topics in the area of bioengineering.</p> <p>The detailed description of the proposed research themes can be found at the following link: http://phd.dibris.unige.it/biorob/index.php/how-to-apply</p> |
| Information on references | <p>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:</p> <p>phd.biorob@dibris.unige.it</p> |
| Foreign Languages | English |
| Further Information | <ul style="list-style-type: none"> - 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 - The template for the research project can be found at the following link: 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 <p>For further information about the research themes please contact: Prof. Paolo Mas sobrio paolo.mas sobrio @ unige .it</p> |

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| Coordinator: Giorgio Cannata | |
| Department of Information Technology, Bioengineering, Robotics and Systems Engineering – DIBRIS | |
| Places: 3 – Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>Candidates must submit:</p> <ul style="list-style-type: none"> - 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. - the candidate summary profile form available at http://phd.dibris.unige.it/biorob/index.php/how-to-apply |
| Research Themes | <p>The Doctorate is selecting excellent candidates to work on innovative research topics in the area of robotics and autonomous systems.</p> <p>The detailed description of the proposed research themes can be found at the following link: http://phd.dibris.unige.it/biorob/index.php/how-to-apply</p> |
| Information on references | <p>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</p> |
| Foreign Languages | English |
| Further Information | <ul style="list-style-type: none"> - 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 - The template for the research project can be found at the following link: 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 <p>For further information about the research themes please contact: Prof. Giorgio Cannata giorgio.cannata@unige.it</p> |

Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE**Curriculum: BIOIMAGING (CODE 8901)**

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| Coordinator: Rodolfo Quarto | |
| Department of Experimental Medicine | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | All candidates are asked to submit a research project proposal (max 2 A4 sheets, font size 12) together with the qualifications. The project will be evaluated by the commission together with the qualifications and discussed during the oral interview. |
| Exam Syllabus | Interview on the titles and on the research project presented. |
| Research Themes | New imaging methodologies and techniques for the diagnosis, evaluation and management of sarcopenia in normal and pathological conditions. |
| Information on references | Candidates must choose not less than one and not more than three referees to support the application. These contacts must be university professors or experts in the subject. The referents will be responsible for sending the reference letters, within the deadline of the notice, to the Coordinator of the doctoral course at the following address: rodolfo.quarto@unige.it In the application for admission, candidates must indicate: the name, qualification and place of employment of the chosen contact persons. |
| Foreign Languages | English. |
| Further Information | Coordinator: Prof. Rodolfo Quarto - Department of Experimental Medicine - Tel. 0105558240 - rodolfo.quarto@unige.it Project contact person (to whom to request scientific information): Prof. Carlo Martinoli - Department of Health Sciences - Tel. 010555248 – carlo.martinoli@unige.it Organizing Secretariat (to request technical information): Mr. Enrico Zeraschi - Department of Experimental Medicine - Tel. 0105558266 - enrico.zeraschi@unige.it |

Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE**Curriculum: TRANSLATIONAL SURGERY (CODE 8902)**

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| Coordinator: Rodolfo Quarto | |
| Department of Experimental Medicine | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | All candidates are asked to submit a research project proposal (max 2 A4 sheets, font size 12) together with the qualifications. The project will be evaluated by the commission together with the qualifications and discussed during the oral interview. |
| Exam Syllabus | Interview on the titles and on the research project presented. |
| Research Themes | Application of Deep Learning to diagnostic imaging for the customization of the diagnostic-therapeutic process and patient follow-up. |
| Information on references | Candidates must choose not less than one and not more than three referees to support the application. These contacts must be university professors or experts in the subject. The referents will be responsible for sending the reference letters, within the deadline of the notice, to the Coordinator of the doctoral course at the following address: rodolfo.quarto@unige.it In the application for admission, candidates must indicate: the name, qualification and place of employment of the chosen contact persons. |
| Foreign Languages | English |
| Further Information | Coordinator: Prof. Rodolfo Quarto - Department of Experimental Medicine - Tel. 0105558240 - rodolfo.quarto@unige.it Project contact person (to whom to request scientific information): Prof. Giovanni Spinella - Department of Integrated Surgical and Diagnostic Sciences - Tel. 0105552424 - giovanni.spinella@unige.it Organizing secretariat (to request technical information): Mr. Enrico Zeraschi - Department of Experimental Medicine - Tel. 0105558266 - enrico.zeraschi@unige.it |

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| Coordinator: Roberta Massabò | |
| Department of Civil, Chemical and Environmental Engineering | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | 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; 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, ...) 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 (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 | The research project (10 pages max) must be prepared on one of the Projects listed in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf under the general Thematic “Water engineering approaches for green energy production and saving and for mitigation of the effects of climate change on water bodies and ecosystems”. The project must be prepared under the guidance of the referent of the Project in the list above. Submitting projects on different thematics may result in exclusion from the public exam. The project must include the title of the General Thematic, the title of the Project (from the list above), 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. Additional information on the research themes of the course are on the course web page: http://dottorato.dicca.unige.it/eng/fluamb/ , curriculum in “Fluid Dynamics and Environmental Engineering”. |
| 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 referent of the chosen Project from the list in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf . 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, to the doctoral secretariat at dottorato.dicca@unige.it using an institutional account. 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. Rodolfo Repetto rodolfo.repetto@unige.it |

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| Coordinator: Roberta Massabò | |
| Department of Civil, Chemical and Environmental Engineering | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | 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; 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, ...) 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 (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 | The research project (10 pages max) must be prepared on one of the Projects listed in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf under the general Thematic "Green processes and technologies of chemical engineering aimed at environmental sustainability, energy transition and circular economy". The project must be prepared under the guidance of the referent of the Project in the list above. Submitting projects on different thematics may result in exclusion from the public exam. The project must include the title of the General Thematic, the title of the Project (from the list above), 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. Additional information on the research themes of the course are on the course web page http://dottorato.dicca.unige.it/eng/chmatpr/ , curriculum in "Chemical, Materials and Process Engineering". |
| 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 referent of the chosen Project from the list in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf . 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, to the doctoral secretariat at dottorato.dicca@unige.it using an institutional account. 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 |

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| Coordinator: Roberta Massabò | |
| Department of Civil, Chemical and Environmental Engineering | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | 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; 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, ...) 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 (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 | The research project (10 pages max) must be prepared on one of the Projects listed in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf under the general Thematic "Monitoring, modelling and technological innovation to reduce the impacts of climate change and promote sustainable development of structures, infrastructures and urbanized environments". The project must be prepared under the guidance of the referent of the Project in the list above. Submitting projects on different thematics may result in exclusion from the public exam. The project must include the title of the General Thematic, the title of the Project (from the list above), 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. Additional information on the research themes of the course are on the course web page http://dottorato.dicca.unige.it/eng/stmatgeo/ , curriculum in "Structural and Geotechnical Engineering, Mechanics and Materials". |
| 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 referent of the chosen Project from the list in http://dottorato.dicca.unige.it/documents/lista_progetti_sito_dottorato.pdf . 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, to the doctoral secretariat at dottorato.dicca@unige.it using an institutional account. 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. Maria Pia Repetto repetto@dicca.unige.it |

Course in: DIGITAL HUMANITIES. DIGITAL TECHNOLOGIES, THE ARTS, LANGUAGES, CULTURES AND COMMUNICATION

In agreement with the University of Turin

Curriculum: LANGUAGES, CULTURES AND DIGITAL TECHNOLOGIES (CODE 8906)

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| Coordinator: Giovanni Adorni | |
| Dipartimento di Modern Languages and di Cultures (DLCM) | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>Together with their qualifications, applicants must enclose a research project on a topic related to Digital Humanities and consistent with the themes and objectives specified in the 'Research Topics' section.</p> <p>The project should be structured in the following sections:</p> <ul style="list-style-type: none"> - title; - summary; - objectives of the research project; - analysis of existing literature on the research topic; - research problems that you want to face and to which you want to give an answer; - methodologies that you plan to use to achieve the objectives; - expected results at the end of the three-year research period. <p>The project will be evaluated according to</p> <ul style="list-style-type: none"> - clarity of objectives, hypotheses and methodological approach of the research; - originality and innovativeness of the proposal with respect to the reference literature; - clear feasibility of the timing of the work phases; - a solid bibliographical basis. <p>The candidate should also indicate potential foreign partner research centres/places to carry out the research.</p> <p>The project must be no longer than 4000 words plus references.</p> |
| Research Themes | <p>1 - Digital technologies to support linguistic and literary research (in diachronic and synchronic perspective, on specific literary genres, on socio-literary issues, on intermediality): development of models and multimedia and networked products, corpus analysis, etc. Computational linguistics for text analysis, information extraction, classification and interpretation of content and its relationships, as a basis for the development of conversational interfaces, intelligent digital resources (e.g., MOOCs and intelligent texts), personalized learning paths, for language simplification and the creation of annotated resources.</p> <p>2 - Digitalization and semantic enrichment of cultural resources for the personalization of their remote fruition: definition of guidelines and methods for the development of digitalization workflows and multimedial document enrichment, in order to make it easier and effective to design remote visit pathways, personalized according to the preferences of the expected audience and devices used for the access.</p> |
| Information on references | <p>Applicants must choose no fewer than one and no more than three referees to support their application. These referees must be university lecturers or experts in the field. It will be the responsibility of the referees supporting the application to send the letters of reference by the deadline of the call to the PhD coordinator at the address: giovanni.adorni@unige.it, and for information to the addresses: elisa.bricco@unige.it and luisa.zito@unige.it.</p> <p>In the application form, candidates must indicate the name, position and place of employment of their chosen referees.</p> |
| Foreign Languages | Applicants must demonstrate knowledge of at least two foreign languages chosen from English and French. |
| Further Information | The administrative contact person for the PhD is Ms Luisa Zito: luisa.zito@unige.it |

Course in: DIGITAL HUMANITIES. DIGITAL TECHNOLOGIES, THE ARTS, LANGUAGES, CULTURES AND COMMUNICATION

In agreement with the University of Turin

Curriculum: LINGUISTICS, APPLIED LINGUISTICS AND ONOMASTICS (CODE 8907)

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| Coordinator: Giovanni Adorni | |
| Dipartimento di Modern Languages and di Cultures (DLCM) | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>Together with their qualifications, applicants must enclose a research project on a topic related to Digital Humanities and consistent with the themes and objectives specified in the 'Research Topics' section.</p> <p>The project should be structured in the following sections:</p> <ul style="list-style-type: none"> - title; - summary; - objectives of the research project; - analysis of existing literature on the research topic; - research problems that you want to face and to which you want to give an answer; - methodologies that you plan to use to achieve the objectives; - expected results at the end of the three-year research period. <p>The project will be evaluated according to</p> <ul style="list-style-type: none"> - clarity of objectives, hypotheses and methodological approach of the research; - originality and innovativeness of the proposal with respect to the reference literature; - clear feasibility of the timing of the work phases; - a solid bibliographical basis. <p>The candidate should also indicate potential foreign partner research centres/places to carry out the research.</p> <p>The project must be no longer than 4000 words plus references.</p> |
| Research Themes | Study and development of a serious game in virtual reality (VR) in which players can experience intercomprehension in an environment specifically designed to elicit interaction in different languages. In this context, intercomprehension is the ability to understand a foreign language on the basis of another language without having studied it. The development of language skills in plurilingual environments is a strong need in those contexts where the use of a lingua franca is difficult and sometimes becomes an obstacle to the proper flow of communication. |
| Information on references | <p>Applicants must choose no fewer than one and no more than three referees to support their application. These referees must be university lecturers or experts in the field.</p> <p>It will be the responsibility of the referees supporting the application to send the letters of reference by the deadline of the call to the PhD coordinator at the address: giovanni.adorni@unige.it, and for information to the addresses: elis.a.corino@unito.it, veronica.orazi@unito.it and luisa.zito@unige.it.</p> <p>In the application form, candidates must indicate the name, position and place of employment of their chosen referees.</p> |
| Foreign Languages | Applicants must demonstrate knowledge of at least two foreign languages chosen from English, French, Spanish and Portuguese. Non-Italian applicants must also demonstrate knowledge of Italian. |
| Further Information | The administrative contact person for the PhD is Ms Luisa Zito: luisa.zito@unige.it |

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| Coordinator: Pierluigi Chiassoni | |
| Department of Law | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>1. Under penalty of exclusion, candidates must submit:</p> <p>a) a CV;</p> <p>b) a research project on the theme of research specified below at the “Research Theme” point.</p> <p>2. From the CV and other documents enclosed the following data should result:</p> <p>a) University degree and the final note or qualification thereof;</p> <p>b) any other post-lauream degree (like, e.g., Master degrees);</p> <p>c) publications concerning the research topic of the present Curriculum, if any;</p> <p>d) research experiences and research and educational activities, if any.</p> <p>3. The research project must have a maximum length of 10000 characters, spaces and essential bibliographical references included, under penalty of exclusion. The research project must pertain to the INNOVATION research theme singled out in the box “Research Theme” below, under penalty of exclusion. The research project must contain, under penalty of exclusion, a clear statement of the topic, goals, and stages of the research activity, along with essential bibliographical references. The research project can be written, on the candidate’s choice, in Italian, French, English, or Spanish.</p> <p>4. Candidates may enclose publications and any other document they consider relevant to the purpose of the present competition.</p> |
| Research Theme | "Innovative Drafting of Legal Sources. Economization and optimization in the drafting of legal documents". The success of public policies depends in a paramount way on the technical adequacy of the legal documents that convey legal prescriptions. The PhD grant will be accorded to a INNOVATION research project concerning the use of digital technologies, artificial intelligence, or models of virtual reality to the purpose of economizing and optimizing the drafting of legal documents (like, e.g., statutes, executive orders, judicial decisions, administrative regulations, etc.), paying particular attention to communicative clarity, determinacy and simplicity, internal coherence, coherence with other legal documents, completeness, and not redundancy. In so doing, the focus will be on those legal documents concerning the law of environmental protection, green transition, ecosystem preservation, biodiversity, and the reduction of climatic changes' impact. |
| Information on references | <p>Candidates must provide up to three letters of reference (minimum one) 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 address: pierluigi.chiassoni@unige.it, stefania.vircillo@giuri.unige.it</p> <p>In their application form, upon penalty of forfeiture, candidates must point out the name, the qualification, and the workplace of the persons that have written reference letters for them.</p> |
| Foreign Languages | English, Spanish |
| Further Information | <p>During the three years of the Doctoral Program (and preferably during the second year) PhD candidates shall spend a minimum six-months period of study and research at a selected firm.</p> <p>Referente del curriculum/ Curriculum coordinator: Prof. Pierluigi Chiassoni pierluigi.chiassoni@unige.it Referente amministrativo/ Curriculum secretary: dott.ssa Stefania Vircillo stefania.vircillo@giuri.unige.it</p> |

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| Coordinator: Pierluigi Chiassoni | |
| Department of Law | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>1. Under penalty of exclusion, candidates must submit:</p> <p>a) a CV;</p> <p>b) a research project on the theme of research specified below at the “Research Theme” point.</p> <p>2. From the CV and other documents enclosed the following data should result:</p> <p>a) University degree and the final note or qualification thereof;</p> <p>b) any other post-lauream degree (like, e.g., Master degrees);</p> <p>c) publications concerning the research topic of the present Curriculum, if any;</p> <p>d) research experiences and research and educational activities, if any.</p> <p>3. The research project must have a maximum length of 10000 characters, spaces and essential bibliographical references included, under penalty of exclusion. The research project must pertain to the research theme singled out in the box “Research Theme” below, under penalty of exclusion. The research project must contain, under penalty of exclusion, a clear statement of the topic, goals, and stages of the research activity, along with essential bibliographical references. The research project can be written, on the candidate’s choice, in Italian, French, English, or Spanish.</p> <p>4. Candidates may enclose publications and any other document they consider relevant to the purpose of the present competition.</p> |
| Research Theme | The research covers the European regulatory framework for sustainable finance with a focus on ESG information and the provision of investment products to facilitate the transition to a more sustainable economic system. The European regulatory framework is geared towards adopting measures to enable investors to make informed decisions also from a sustainability perspective. The revision of disclosure and duties of financial operators in terms of organization, risk management and conduct, in order to take into account sustainability factors, will have a significant impact on investment decisions. The candidate will critically examine the European and national regulations on sustainable finance, already adopted or in preparation, in order to assess the effectiveness and adequacy of these policies and regulatory choices, as well as the socio-economic implications arising from sustainability-oriented financial choices, organizational structures and models and related regulation. Particular attention will be given to the link between non-financial corporate information and duties of financial intermediaries, the role of ESG ratings and the impact and possible contribution of digital finance. |
| Information on references | <p>Candidates must provide up to three letters of reference (minimum one) 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 address: michele.siri@unige.it, and in copy to maria.stefania.lavezzo@unige.it.</p> <p>In their application form, upon penalty of forfeiture, candidates must point out the name, the qualification, and the workplace of the persons that have written reference letters for them.</p> |
| Foreign Languages | English |
| Further Information | The ideal candidate should have a thorough knowledge of financial market law and European law (experience in comparative or empirical research would be a plus) and an adequate awareness of the functioning of both financial markets and corporate governance. The candidate should also show intellectual and interdisciplinary curiosity, critical thinking, commitment, passion for research, ability to work in a team and motivation to participate in an international network of young scholars at EUSFIL the Jean Monnet Centre of Excellence on Sustainable Finance and Law (www.eusfil.eu). |

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| | <p>The winner of the scholarship will have to spend a period of study and research of six months at the company that will be indicated to him/her.</p> <p>Scientific referee: Michele Siri E-mail: michele.siri@unige.it</p> <p>Curriculum secretary: Stefania Lavezzo E-mail: maria.stefania.lavezzo@unige.it</p> |
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Course in: LAW STUDIES

Curriculum: PRIVATE LAW (LABOUR, PRIVATE, PRIVATE COMPARATIVE AND CIVIL PROCEDURAL LAW) (CODE 8910)

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| Coordinator: Pierluigi Chiassoni | |
| Department of Law | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>1. Under penalty of exclusion, candidates must submit:</p> <p>a) a CV;</p> <p>b) a research project on the theme of research specified below at the “Research Theme” point.</p> <p>2. From the CV and other documents enclosed the following data should result:</p> <p>a) University degree and the final note or qualification thereof;</p> <p>b) any other post-lauream degree (like, e.g., Master degrees);</p> <p>c) publications concerning the research topic of the present Curriculum, if any;</p> <p>d) research experiences and research and educational activities, if any.</p> <p>3. The research project must have a maximum length of 10000 characters, spaces and essential bibliographical references included, under penalty of exclusion. The research project must pertain to the research theme singled out in the box “Research Theme” below, under penalty of exclusion. The research project must contain, under penalty of exclusion, a clear statement of the topic, goals, and stages of the research activity, along with essential bibliographical references. The research project can be written, on the candidate’s choice, in Italian, French, English, or Spanish.</p> <p>4. Candidates may enclose publications and any other document they consider relevant to the purpose of the present competition.</p> |
| Research Theme | <p>“The theme of the research will concern “the GREEN law of public and private buildings”.</p> <p>In particular, the theme of the research will concern the energy efficiency and seismic compliance of public and private buildings in the framework of the legislation provided by the “Decreto Rilancio” on super-ecobonus and super-sismabonus</p> <p>The PhD scholarship will be awarded to the research project in which will be studied and developed in depth, in an interdisciplinary way, the issues concerning: 1) technical interventions of energy efficiency and seismic; 2) tax profiles; 3) contractual; 4) profiles of condominium law</p> |
| Information on references | <p>Candidates must provide up to three letters of reference (minimum one) 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 address: pierluigi.chiassoni@unige.it, stefania.vircillo@giuri.unige.it</p> <p>In their application form, upon penalty of forfeiture, candidates must point out the name, the qualification, and the workplace of the persons that have written reference letters for them.</p> |
| Foreign Languages | English |
| Further Information | <p>During the three years of the Doctoral Program (and preferably during the second year) PhD candidates shall spend a minimum six-months period of study and research at a selected firm</p> <p>Referente del curriculum/ Curriculum coordinator: Prof. Alessandra Pinori Alessandra.pinori@giuri.unige.it</p> <p>Referente amministrativo / Curriculum secretary: dott.ssa Stefania Lavezzo Maria.Stefania.Lavezzo@unige.it</p> |

Course in: LAW STUDIES

Curriculum: PUBLIC LAW (ADMINISTRATIVE, CONSTITUTIONAL, CRIMINAL, CRIMINAL PROCEDURAL AND TAX LAW) (CODE 8911)

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| Coordinator: Pierluigi Chiassoni | |
| Department of Law | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS |
| Further information on how to present qualifications/publications | <p>1. Under penalty of exclusion, candidates must submit:</p> <p>a) a CV;</p> <p>b) a research project on the theme of research specified below at the “Research Theme” point.</p> <p>2. From the CV and other documents enclosed the following data should result:</p> <p>a) University degree and the final note or qualification thereof;</p> <p>b) any other post-lauream degree (like, e.g., Master degrees);</p> <p>c) publications concerning the research topic of the present Curriculum, if any;</p> <p>d) research experiences and research and educational activities, if any.</p> <p>3. The research project must have a maximum length of 10000 characters, spaces and essential bibliographical references included, under penalty of exclusion. The research project must pertain to the research theme singled out in the box “Research Theme” below, under penalty of exclusion. The research project must contain, under penalty of exclusion, a clear statement of the topic, goals, and stages of the research activity, along with essential bibliographical references. The research project can be written, on the candidate’s choice, in Italian, French, English, or Spanish.</p> <p>4. Candidates may enclose publications and any other document they consider relevant to the purpose of the present competition.</p> |
| Research Theme | <p>"Criminal proceedings for environmental offences and incentives for their green definition". In the context of criminal proceedings for environmental offenses, punitive needs coexist with those related to environmental restoration. The l. n. 68/2015 amended d.lgs. 152/2006 (T.U.A.) providing for a specific hypothesis of extinction of environmental misdemeanors, governed by art. 318-bis and ss. This mean of extinction of the offence represents a direct green definition of criminal proceedings from a double point of view: it pushes for restoration of the status quo prior to the commission of the crime, with evident positive impact on the protection of the environment, and it also open the door to an alternative definition of the proceedings, with a sure deflationary effect. It should also be remembered that it makes possible to move away from the imposition of a traditional sanction, in relation to which the convicted person is “passive”, making him/her active in the fulfilment of the prescriptions, with further possible special-preventive effect, green because it reduces the recidivism rate, avoids further environmental impairment and determines saving of resources within the administration of justice.</p> <p>The PhD scholarship will be awarded to a research project concerning the procedural aspects of the above described mean for extinction of the misdemeanors which also includes all the other green aspects of the proceedings relating to environmental crimes.</p> |
| Information on references | <p>Candidates must provide up to three letters of reference (minimum one) supporting their application. The letters must be written by Academics or Experts in the research topics of the Curriculum.</p> <p>They will send their letter of reference, within the deadline established in the Call, directly to the following address: mitja.gialuz@unige.it, maria.stefania.lavezzo@unige.it</p> <p>In their application form, upon penalty of forfeiture, candidates must point out the name, the qualification, and the workplace of the persons that have written reference letters for them.</p> |
| Foreign Languages | English, Spanish, French |
| Further Information | <p>During the three years of the Doctoral Program (and preferably during the second year) PhD candidates shall spend a minimum six-months period of study and research at a selected firm.</p> <p>Referente del curriculum/ Curriculum coordinator: Prof. Mitja Gialuz (mitja.gialuz@unige.it) Referente amministrativo / Curriculum secretary: Dott.ssa Maria Stefania Lavezzo (maria.stefania.lavezzo@unige.it)</p> |

Course in: **ECONOMICS AND POLITICAL ECONOMY (CODE 8912)**

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| Coordinator: Anna Bottasso | |
| Department of Economics | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>1. Under penalty of exclusion, candidates must submit:</p> <p>a) a CV;</p> <p>b) a research project on the theme of research specified below at the “Research Theme” point.</p> <p>2. From the CV and other documents enclosed the following data should result:</p> <p>a) University degree and the final note or qualification thereof;</p> <p>b) any other post-lauream degree (like, e.g., Master degrees);</p> <p>c) publications concerning the research topic of the present Curriculum, if any;</p> <p>d) research experiences and research and educational activities, if any.</p> <p>3. The research project must have a maximum length of 10000 characters, spaces and essential bibliographical references included, under penalty of exclusion. The research project must pertain to the research theme singled out in the box “Research Theme” below, under penalty of exclusion. The research project must contain, under penalty of exclusion, a clear statement of the topic, goals, and stages of the research activity, along with essential bibliographical references. The research project can be written, on the candidate’s choice, in Italian or English.</p> <p>4. Candidates may enclose publications and any other document they consider relevant to the purpose of the present competition.</p> |
| Exam Syllabus | Discussion of titles and research project submitted. |
| Research Theme | "Assessment and reporting of climate objectives: environmental reporting of ecosystem services for the energy, agri-food and natural areas". Building a concerted and continuous measure of changes in the state of the environment and its relationship with the economy and human activities is essential to ensure the integration of biodiversity and ecosystems into decision-making processes. The relevance of these tools for a successful transition towards climate goals is underlined by many European and international initiatives. Moreover, the diffusion and severity of the COVID-19 pandemic have dramatically highlighted the urgency of having data that is still missing on various relevant aspects and at the right geographical scale. The GREEN research project concerns the reframing of the theoretical structure of the Environment-Economic-Ecosystem Accounting System (SEEA EA) recently adopted by the United Nations Statistical Commission to support the monitoring of the SDGs and for the implementation of the European Green Deal in order to adapt it to strategic sectors for the purposes of climate objectives. these are in particular the agricultural sector, the energy sector, and the system of national parks. The project resumes in some way the recommendations of the UN to deepen the application of this type of accounting which is still very limited at the disaggregated level of the individual regions and/or to sectors relevant to the GREEN transition path. |
| Information on references | Candidates must provide up to three letters of reference (minimum one) 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 address: dottoratodiec@economia.unige.it . In their application form candidates must point out the name, the qualification, and the workplace of the persons that have written reference letters for them. |
| Foreign Languages | English |
| Further Information | During the three years of the Doctoral Program (and preferably during the second year) PhD candidates shall spend a minimum six-months period of study and research at a selected firm. For further information: Prof. Anna Bottasso (anna.bottasso@economy.unige.it) Prof. Barbara Cavalletti (barbara.cavalletti@unige.it) Secretariat: Erika Deodato (dottoratodiec@illuminazione.unige.it) |

Course in: PHYSICS AND NANOSCIENCES

Curriculum: PHYSICS (CODE 8913)

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| Coordinator: Riccardo Ferrando | |
| Department of Physics | |
| Places: 4 Grants: 4 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca If a candidate has been admitted to the interview but cannot reach in time the place of the exam, the option of a video conferencing interview is available. To request this option it is necessary to send an email to phd@fisica.unige.it . The details about the connection will be in the answer to the email request. |
| 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 | <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 1 scholarship on the topic: Measurement and modeling of the relationship between bioaerosol diffusion, air quality and weather-climatic conditions - 1 scholarship on the topic: Solar chimney for CO₂ sequestration - 1 scholarship on the topic: Superconducting detectors technologies for very high resolution spectroscopy for environmental analysis. - 1 scholarship on the topic: Study of low energy impact curved dipolar magnets for oncological hadrontherapy |
| 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 email 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 in: **CLINICAL AND EXPERIMENTAL IMMUNOLOGY (CODE 8914)**

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| Coordinator: Simona Sivori | |
| Department of Experimental Medicine (DIMES) | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assesment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Details will be provided to applicants via email following the closing of the registrations. To this end, the candidate must have a reliable internet connection, in order to allow the interview to take place. |
| 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 one of the two research themes offered - the <i>curriculum vitae et studiorum</i> including all the technical scientific studies/activities already done and pertinent to the doctoral program - list and pdf files of publications - certifications relating to periods spent in research laboratories - recommendation letters (maximum 3) from university professors or recognized experts in the field supporting the candidate. |
| Exam Syllabus | Presentation and discussion of the project proposal submitted, evaluation of the candidate's preparation on basic and clinical immunology topics. Evaluation of English language knowledge by reading, translating and understanding part of a scientific article. |
| Research Themes | The following research themes are proposed: 1. Green theme: New challenges of biomedical research aim to consolidate and refine previously unthinkable objectives, deriving from the most recent technological advances, such as, for example, precision medicine, which is based on the considerable progress achieved also in the field of basic and applied immunology, and on the development of highly specific biological drugs for cellular and molecular targets. Accelerating the development and large-scale production of these drugs, thus reducing their marketing costs and impact on the environment, is extremely important. For these reasons, the development of 3D cell models that can reproduce the human pathological condition in a very likely way, allow to study the stroma-tumor interactions and the characteristics of tumor cells and also represent an alternative, even more effective and more rapid, to animal experimentation, is of considerable importance to help fight against the oncological diseases, also reducing the suffering caused by them. This research theme aims at the development of 3D cellular models in bioreactors for the study of new immunotherapeutic drugs. 2. Innovation theme: The spread of antibiotic resistance among bacteria responsible for common respiratory infections has prompted calls for an improvement or a reduction of antibiotic usage. The use of antibiotics was significantly reduced thanks to the treatment with polyvalent mechanical bacterial lysate (PMBL), representing a valid immunization approach in fighting the spread of antibiotic resistance. Thanks to its administration route (sublingual), PMBL treatment can favor the activation of mucosal immune-surveillance, an important first line of defense. This research theme aims to improve the knowledge of the mechanisms of action of bacterial lysates or other molecules of microbial origin with immunoregulatory activity. |
| Information on references | The Candidates must choose 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 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: dottorato.immunologia@unige.it The name, status and current position of the referees chosen by the candidate must be stated in the application. |
| Foreign Languages | English |
| Further Information | Doctoral secretariat: Dr. Eva Baraldi - dottorato.immunologia@unige.it |

Course in: COMPUTER SCIENCE AND SYSTEMS ENGINEERING**Curriculum: COMPUTER SCIENCE (CODE 8915)**

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| Coordinator: Giorgio Delzanno | |
| Department of Information Technology, Bioengineering, Robotics and Systems Engineering– DIBRIS | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page 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 |
| 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, goals and relevance to the PON REACT-EU “Green” themes of the research proposal submitted with the application. |
| Research Themes | The research projects of interest concern Action IV.5 Doctorate Programs on Green themes of the new Axis IV of the PON Research and Innovation 2014-2020 "Education and research for recovery - REACT-EU" and, more specifically, the projects and the corresponding industrial collaborations indicated at the URL: http://phd.dibris.unige.it/csse/index.php/admission-procedure/open-positions . |
| 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 email: phd.compsci@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/reference-letter-template |
| Foreign Languages | English |

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| Coordinator: Giorgio Delzanno | |
| Department of Information Technology, Bioengineering, Robotics and Systems Engineering– DIBRIS | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page 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 |
| 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, goals, and relevance to the PON REACT-EU “Green” themes of the research proposal submitted with the application. |
| Research Themes | The research projects of interest concern Action IV.5 Doctorate Programs on Green themes of the new Axis IV of the PON Research and Innovation 2014-2020 "Education and research for recovery - REACT-EU" and, more specifically, the projects and the corresponding industrial collaborations indicated at the URL: http://phd.dibris.unige.it/csse/index.php/admission-procedure/open-positions . |
| 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 email: 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/reference-letter-template |
| Foreign Languages | English |

Course in: ENGINEERING OF MODELS, MACHINES AND SYSTEMS FOR ENERGY, ENVIRONMENT AND TRANSPORT

Curriculum: MACHINES AND SYSTEMS FOR ENERGY, ENVIRONMENT AND PROPULSION (CODE 8917)

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| Coordinator: Roberto Cianci | |
| Department of Mechanical, Management, Energy and Transportation Engineering - DIME | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS |
| Further information on how to present qualifications/publications | CV, educational qualifications, scientific publications |
| Research Themes | <p>Thermo-mechanical energy storage through innovative energy cycles</p> <p>In recent years, large installations of non-programmable renewable power generators have contributed to reduce emissions from fossil sources at the technical cost of reducing stability of electrical grids. In such a context, it is essential to investigate innovative energy storage systems at utility scale to maintain the high quality level of current electrical infrastructure and to guarantee spinning-reserve capability, thus ensuring grid stability. Closed-loop Brayton-type cycles based on rotating machinery with sensible high temperature thermal storage could be a solution to achieve such a goal, according to the power-to-heat-to-power paradigm. In such a framework, this PhD project has a twofold objective: (i) to assess and optimise the techno-economic features of innovative energy storage cycles employing CO₂, H₂O or organic fluids as working media, including off-design performance and the impact of transient operations; (ii) theoretical and experimental analysis of innovative solutions for high temperature (e.g. >400°C) sensible heat thermal storage. The envisioned systems will be sized around 10 MWe, both during charging as well as discharging phases, comparing their overall Round Trip Efficiency (RTE) and economic characteristics, such as Levelized Cost of Electricity, in typical industrial market scenarios.</p> |
| Information on references | Maximum three letters of reference |
| Foreign Languages | English |
| Further Information | Sponsor company: Nuovo Pignone Tecnologie S.r.l. a Baker & Hughes Company Via Felice Matteucci, 2, 50127 Firenze (Italy) |

Course in: ENGINEERING OF MODELS, MACHINES AND SYSTEMS FOR ENERGY, ENVIRONMENT AND TRANSPORT

Curriculum: MATHEMATICAL ENGINEERING AND SIMULATION (CODE 8918)

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| Coordinator: Roberto Cianci | |
| Department of Mechanical, Energetics, Management and Transport Engineering (DIME) | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will take place at the Department of Mechanical, Energetics, Management and Transport Engineering (DIME), Via All'Opera Pia 15- 16145 Genova. Upon a motivated request, the interview may also take place electronically (Skype video conference) by getting in touch in time with Prof. Patrizia Bagnerini (patrizia.bagnerini@unige.it) and/or Prof. Roberto Revetria (roberto.revetria@unige.it) |
| Further information on how to present qualifications/publications | Titles must be submitted in pdf format. |
| Exam Syllabus | The interview will consist of a discussion of the research project and the titles presented. |
| Research Themes | The research topics concerns: 1. applications in space and will be in collaboration with Space V, an innovative startup that was founded with the aim of designing solutions for situations of scarcity of resources - water, energy, volume - as encountered in space missions, but which may also have implications on Earth. In particular, the research concerns the study and development of a space adaptive greenhouse that can make optimal use of two of the most limited resources in space, the volume and energy available. The study, which may have an impact on vertical greenhouses on Earth, concerns several research topics, such as scheduling algorithms, optimization and control of available volume, thermo-hygrometric control, numerical simulations, etc. 2. the development of innovative applications related to Digital Transformation through the construction of Digital Twins connected with artificial intelligence systems. The research plans to study and deepen the potential of simulations and Digital Twin in aimed at developing new applications by integrating them with the flow of data coming from connected IoT systems and possibly powered by innovative energy sources (e.g. energy harvesting) that implement an integrated technology and highly innovative to support industrial automation and to support operators in the industrial sectors with a particular focus on the iron and steel industry and the process and service industry. |
| Information on references | Candidates must choose not less than one and not more than three referees to support the application. These referents must be university professors or experts in the subject. It will be up to the referents to send the reference letters, within the deadline of the call, to Prof. Patrizia Bagnerini (patrizia.bagnerini@unige.it) and/or Prof. Roberto Revetria (roberto.revetria@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 | For further information about the research topic it is possible to contact Prof. Patrizia Bagnerini (patrizia.bagnerini@unige.it) and/or Prof. Roberto Revetria (roberto.revetria@unige.it). |

Course in: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

Curriculum: TECHNICAL PHYSICS (CODE 8919)

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| Coordinator: Giovanni Berselli | |
| Department of Mechanical, Energetics, Management and Transport Engineering (DIME) | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| 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), 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.1 and FT.2). |
| Research Themes | The FT syllabus – Technical Physics – of the IMEG Doctoral Course resumes the historical course of the Doctoral Courses in Technical Physics (first year of activation 1992). It's objective is to train young researchers capable of developing theoretical experimental research in the thermodynamic, thermofluid dynamic and transmission of heat sectors; of dealing with research in the energy sector, by means of a suitable methodological approach to the thermodynamic issue; of analysing thermal, acoustic and lighting phenomena which concur in defining both the conditions of environmental well-being, of environmental impact and consequent control possibilities. The FT curriculum develops research within the following fields: 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. - Near Zero Energy Buildings 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 - Renewable Energies - Environmental impact of energy systems and greenhouse gas emission reduction - 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 thematics are developed according to the traditional approach of Industrial Technical Physics. |
| 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 persons for the curriculum FT, Prof. Corrado Schenone (corrado.schenone@unige.it) and Prof. Francesco Devia, (francesco.devia@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 Reference Person for FT Curriculum: Prof. Corrado Schenone |

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| Dime Dept. DIME via all'Opera Pia 15/A 16145 Genova (+39) 0103352577 corrado.schenone@unige.it Contact person for the FT curriculum: Prof. Francesco Devia DIME via all'Opera Pia 15/A 16145 Genova (+39) 0103352309 francesco.devia@unige.it |
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Course in: MECHANICAL, ENERGY AND MANAGEMENT ENGINEERING

Curriculum: ROBOTICS AND MECHATRONICS (CODE 8920)

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| Coordinator: Giovanni Berselli | |
| Department of Mechanical, Energetics, Management and Transport Engineering – DIME | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page 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 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 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 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 | 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 RM curriculum: Prof. Matteo Zoppi DIME/MEC via all'Opera Pia 15/A 16145 Genova (+39) 0103352964 matteo.zoppi@unige.it |

Course in: MATHEMATICS AND APPLICATIONS

Curriculum: MATHEMATICAL METHODS FOR DATA ANALYSIS (CODE 8921)

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| Coordinator: Stefano Vigni | |
| Department of Mathematics (DIMA) | |
| Places: 4 – Grants: 4 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Date, time and place of interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page 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: - in their curriculum their three year degree and 5 year degree marks should be indicated; - 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 | <p>Theme n. 1 (in partnership with 3Brain): Bio-digital twin for a sustainable neuropharmacological drug development. For details, see https://mida.dima.unige.it/phd-proposal/</p> <p>Theme n. 2 (in partnership with Fondazione CIMA): Supervised learning for MOS-based prediction systems. For details, see https://mida.dima.unige.it/phd-proposal/</p> <p>Theme n. 3 (in partnership with ALTEC): Machine learning for space weather. For details, see https://mida.dima.unige.it/phd-proposal/</p> <p>Theme n. 4 (in partnership with Novartis): Artificial Intelligence and biostatistics for an inclusive approach to clinical trials in Multiple Sclerosis. For details, see https://mida.dima.unige.it/phd-proposal/</p> <p>Theme n. 5 (in partnership with MindEarth): Understanding visual scenes for urban sustainability. For details, see https://mida.dima.unige.it/phd-proposal/</p> <p>Theme n. 6 (in partnership with BEES Srl): Bayesian approaches to uncertainty quantification for air quality monitoring. For details, see https://www.dima.unige.it/~sorrentino/News.html</p> <p>Theme n. 7 (in partnership with PM TEN Srl): Machine learning methods for air quality monitoring with low-cost sensor networks. For details, see https://www.dima.unige.it/~sorrentino/News.html</p> <p>Theme n. 8 (in partnership with ALA Srl): Reconstruction of atmospheric particulate from lidar data. For details, see https://www.dima.unige.it/~sorrentino/News.html</p> <p>Theme n. 9 (in partnership with Kellify): Deep learning for agricultural land use inventories from high resolution aerial and space images. For details, see https://www.dima.unige.it/~riccomag/</p> <p>Theme n. 10 (in partnership with algoWatt): Dynamic programming with learning for the optimal management of energy storage systems. For details, see https://imati.cnr.it/bandi.htm</p> <p>Theme n. 11 (in partnership with Gruppo SIGLA): Prediction, simulation and optimization of vehicular traffic flows for the reduction of traffic impacts on the environment and the promotion of sustainable development of urban areas. For details, see https://imati.cnr.it/bandi.htm</p> |

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| Information on references | Candidates must choose not less than one and not more than three referees to support their 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 the Coordinator of the Doctoral Course at the following address: Prof. Stefano Vigni Dipartimento di Matematica, Università di Genova via Dodecaneso 35, 16146 Genova Italy or, alternatively, to the email address stefano.vigni@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 Italy E-mail: stefano.vigni@unige.it |

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| Coordinator: Angelo Schenone | |
| Department of neurology, rehabilitation, ophthalmology, genetics, maternal and child health (DINOEMI) | |
| Places: 2 Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | Further information on how to present qualifications/publications (traduzione in inglese di Informazioni aggiuntive sulle modalità di presentazione di titoli) In the CV evaluation, the following items will be considered (according to relative importance): 1) Research project 2) Previous research work in the neuroscience field 3) Graduation score and degree thesis 4) Other academic qualifications 5) Publications in scientific journals with IF 6) Recommendation letters 7) Prizes |
| Exam Syllabus | Description and defense of the research project proposed by the candidate |
| Research Themes | This call is linked to the program “FSE REACT-EU Dottorati su tematiche dell’innovazione e green: nuove risorser dal PON Ricerca e Innovazione” (D.M. August 10, 2021 n.1061). Inside this framework, Phd candidates are required to attend for six months a private company that undertakes enterprise activities. Please note that the research projects presented by the candidates (and thus their PhD activities) need to be focused on one of the research themes below, which have been drafted based on the available industrial partnerships: a. “The Use of Innovative Technologies for the Assessment and Rehabilitation of Hand and Bite Motor Control” (contact information: prof. Marco Testa, marco.testa@unige.it) b. “Development of a Virtual Coaching System for the Measurement and Evaluation of the Sit-to-Stand Movement in Older Adults.” (contact information: prof. Marco Testa, marco.testa@unige.it) c. “The use of Wearable Sensors to Promote Physical Activities in the Smart City.” (contact information: prof. Marco Testa, marco.testa@unige.it) d. “The neuroglass project: a sensorized approach to telemonitoring of eye, head and body movements in neurodegenerative diseases and normotensive hydrocephalus” (contact information: prof. Angelo Schenone, aschenone@neurologia.unige.it, dr. Matteo Pardini, matteo.pardini@unige.it) e. New Drugs derived from creatine and innovative approaches to improve creatine and creatine-derivate delivery to the central nervous system (contact information: prof. Maurizio Balestrino, mbalestrino@neurologia.unige.it) |
| Information on references | Candidates should provide at least one and no more than 3 recommendation letters in support of their application. Letters should be provided by University Professors or Experts in Neuroscience. Letters should be sent to the coordinator of the “Clinical and experimental Neuroscience curriculum”: Prof. Tullio Florio Dipartimento di Medicina Interna e specialità mediche (DIMI) Viale Benedetto XV, 2 16132 Genova or, alternatively, to the following e-mail address: tullio.florio@unige.it; or to Dr. Maria Paola Fenu: neurologia@neurologia.unige.it Name and address of the scientists requested to send a recommendation letter should be clearly indicated in the admission request. |
| Foreign Languages | English |
| Further Information | Further information can be requested to the coordinator of the “Clinical and experimental Neuroscience curriculum”: Prof. Tullio Florio (tullio.florio@unige.it) or to Dr. Maria Paola Fenu (neurologia@neurologia.unige.it) |

Course in: MARINE SCIENCES AND TECHNOLOGIES**Curriculum: LOGISTICS AND TRANSPORTATION (CODE 8923)**

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| Coordinator: Claudio Ferrari | |
| Centro del Mare | |
| Places: –1 Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | relevant will be bachelor and master degrees thesis, information shall be focused on work experience |
| Exam Syllabus | <ul style="list-style-type: none"> - interview on candidate's qualification - interview on literature references and research topic - english reading test |
| Research Themes | urban green infrastructures, sustainability pillars |
| Information on references | letters of references are not required |
| Foreign Languages | english |
| Further Information | phd candidate will show work experiences in teambuilding |

Course in: MARINE SCIENCES AND TECHNOLOGIES

Curriculum: MARINE ECOSYSTEM SCIENCES (CODE 8924)

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| Coordinator: Claudio Ferrari | |
| Centro del Mare | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Department of Earth, Environmental and Life Sciences (DISTAV), Palazzo delle Scienze, Prof. Vezzulli's Office, 4th floor, Corso Europa 26, Genoa. The interview can take place on request also electronically (video conference via SKYPE) by contacting the Prof. Luigi Vezzulli at least a week before by e-mail (luigi.vezzulli@unige.it) |
| 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: REST-ART: RESToration of Marine Forests on ARTificial Reefs Theme 2: Spatial Decision Support System (SDSS) for sustainable development: ecosystem services of the coastal marine environment |
| Information on references | Letters of reference are not required |
| Foreign Languages | English |
| Further Information | Contact Prof. Luigi Vezzulli (luigi.vezzulli@unige.it) |

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| Coordinator: Claudio Ferrari | |
| Centro del Mare | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview can take place on request also electronically (video conference via MS Teams) by contacting Prof. Cesare M. Rizzo at least a week before the interview date by e-mail (cesare.rizzo@unige.it) |
| Further information on how to present qualifications/publications | Applicants will: 1) submit a research project (maximum 10 pages A4 format) regarding one of the proposed research themes, emphasizing the sustainability issues of the proposal; 2) an updated CV containing all relevant information for the selection; 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 | 1. Novel methods for the fatigue assessment of ships and offshore structures 2. Development of an intelligent algorithm-based system for sustainable and effective fabrication of dissimilar joints |
| Information on references | Reference letters are not required. |
| Foreign Languages | English |
| Further Information | Further details on the PhD topics may be required to Prof. Cesare M. Rizzo by e-mail |

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| Coordinator: Claudio Ferrari | |
| Centro del Mare | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will take place electronically (Teams, Skype or Zoom) by contacting the secretariat of the PhD (dottorato.dicca@unige.it) and Prof. Giovanni Besio (giovanni.besio@unige.it) at least 15 days before the evaluation. To this end, the candidate must have a reliable internet connection, so as to allow the conduct of the test. In case the pandemic situation and the regulatory framework allows it, it will be possible to have the interview in presence. |
| Further information on how to present qualifications/publications | The curriculum must be completed by a document from the university that is issued the degree (transcript of records) attesting to the courses and grades obtained throughout the candidate's university education (Bachelor and M.Sc.). 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 | “Enhancing resilience against climate change in coastal environments: civil, chemical and environmental engineering solutions” |
| 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 |

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| Coordinator: Claudio Ferrari | |
| Centro del Mare | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS |
| Further information on how to present qualifications/publications | CV, educational qualifications, scientific publications |
| Research Themes | <p>Feasibility study and configurations assessment of offshore hybrid vessels toward zero emission</p> <p>Abstract Electric and hybrid ship powering systems have a potential applicability in offshore vessels market, but until recently utilization of alternative fuels have been limited by the availability of compatible ICE or FC the batteries have been weighty, with limited capacity. As part of the global effort to turn green the overall mobility, several technologies have been implemented paving the way to a reduced carbon footprint also in offshore vessel market. Scope of the present doctorate is the exploitation of available technologies, strategies and overall vessel configurations to support the selection of the most suitable options for offshore vessels, with the identification of main design parameters and regulatory limits for auxiliary systems supporting the main powering systems, i.e. power generation and propulsion. The candidate will carry out both on design and off design new system performance, while in the second part of the research the investigation of green system dynamic performance and integration with apt control systems will be performed and validated through a cyber physical approach in collaborations with VARD engineers.</p> <p>Optimization and design of an innovative hydrogen system for marine applications</p> <p>Abstract: The aim of this work is the assessment of the hydrogen solution most suitable for naval applications and the definition of the role of hydrogen as an alternative fuel for navigation. The Phd plan of search is the continuation of the program of activity of search (from the industrial and academic side) that has carried to the construction of a joint laboratory between Fincantieri and the department DIME of the University of Genoa, the laboratory HI-SEA, dedicated to the study of Fuel Cell systems for marine applications. Based on past research and with the support of the sponsoring company, the candidate will explore issues related to the optimization and development of a control and diagnostic system that will make these technologies efficient and perfectly integrated with on-board systems</p> |
| Information on references | letters of reference are not required |
| Foreign Languages | English |
| Further Information | <p>Sponsor companies:</p> <p>VARD GROUP AS P.O. Box 76 NO-6001 Alesund Norway</p> <p>BLUENERGY REVOLUTION SOCIETÀ COOPERATIVA, Genova (GE) Viale Nazario Sauro 5/2A, (CAP 16145) TEL 0104558004 bluenergyrevolution@pec.it www.bluenergyrevolution.com Partita IVA: 02346250992</p> |

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| Coordinatore: Renata Riva | |
| Department of Chemistry and Industrial Chemistry (DCCI) | |
| Places: 3 – Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview may take place electronically (Skype, Teams etc.) for justified reasons. For the purpose of identification, the candidate has to show the original document (the same provided in the application). |
| Further information on how to present qualifications/publications | Evaluable qualifications: <ol style="list-style-type: none"> 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). <p>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 <i>sub condicione</i>, the presentation of the certificate is required with the marks obtained in the individual exams.</p> <p>Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University.</p> <p>In case of admission to the doctorate, the candidate will agree on the final project with the Coordinator of the doctorate.</p> |
| 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 interview the Committee will ascertain the candidate knowledge of English language. |
| Research themes | The research themes of the 3 scholarships have in common the design and optimization of new high-tech materials for various applications, paying attention to the Green Chemistry principles, to the sustainability and to the mitigation of environmental impact of pollutants in industrial and urban realities. Among the possible materials that will be topic of research we can find: a) new high efficiency eco-batteries, with the anode manufactured from graphite obtained by the treatment of waste from agricultural processing materials (i.e. corn and rice); b) new real-time sensors based on polymer photonic crystals for the fast determination of toxic, carcinogenic and greenhouse volatile organic compounds (VOCs); c) novel magnetorheological electrolytes (MREs) based on ionic liquids, endowed with well recognized eco-friendly properties, to be applied in microfabrication processes. |
| Information on recommendation letters | 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 email to: fabio.canepa@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 |
| Further information | Prof. Fabio Canepa (+39) 01035356093 fabio.canepa@unige.it Administrative contact person Mrs. Noemi Pretelli (+39) 01035358752 noemi@chimica.unige.it |

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| Coordinatore: Renata Riva | |
| Department of Chemistry and Industrial Chemistry (DCCI) | |
| Places: 3 – Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview may take place electronically (Skype, Teams etc.) for justified reasons. For the purpose of identification, the candidate has to show the original document (the same provided in the application). |
| Further information on how to present qualifications/publications | <p>Evaluable qualifications:</p> <ol style="list-style-type: none"> 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. <i>curriculum vitae et studiorum</i>; 6. additional qualifications (postgraduate qualifications, publications in scientific journals, congress presentations, patents, study or research awards). <p>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 <i>sub condicione</i>, the presentation of the certificate is required with the marks obtained in the individual exams.</p> <p>Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University.</p> <p>In case of admission to the doctorate, the candidate will agree on the final project with the Coordinator of the doctorate.</p> |
| 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 interview the Committee will ascertain the candidate knowledge of English language. |
| Research themes | <p>The research themes of the 3 scholarships have in common the study of new approaches to green, sustainable and environmentally friendly chemistry, where the role of the transition from linear to circular bioeconomy is of paramount importance.</p> <p>The themes range from the synthesis of new generation biodegradable bioplastics from non-edible renewable sources, to the development of efficient and sustainable processes for the industrial synthesis of active pharmaceutical ingredients (APIs), to the identification and optimization of new eco-friendly procedures for the efficient degradation of emerging pollutants in water with the aim of preserving and, possibly, increasing the availability of uncontaminated water resources.</p> <p>All these projects begin with a study at the laboratory level and then move to industrial scale development, thanks to a secondment in a company, which is an integral part of the training of the PhD student.</p> |
| Information on recommendation letters | <p>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 email to: marina.dicarro@unige.it (subject: PhD_letter).</p> <p>The name, status and place of employment of the authors of the recommendation letters must be stated in the application.</p> |
| Foreign Languages | English |
| Further information | <p>Prof. Marina Di Carro (+39) 01035356198 marina.dicarro@unige.it</p> <p>Administrative contact person Mrs. Noemi Pretelli (+39) 01035358752 noemi@chimica.unige.it</p> |

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| Coordinatore: Renata Riva | |
| Department of Chemistry and Industrial Chemistry (DCCI) | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview may take place electronically (Skype, Teams etc.) for justified reasons. For the purpose of identification, the candidate has to show the original document (the same provided in the application). |
| Further information on how to present qualifications/publications | <p>Evaluable qualifications:</p> <ol style="list-style-type: none"> 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. <i>curriculum vitae et studiorum</i>; 6. additional qualifications (postgraduate qualifications, publications in scientific journals, congress presentations, patents, study or research awards). <p>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 <i>sub condicione</i>, the presentation of the certificate is required with the marks obtained in the individual exams.</p> <p>Foreign applicants must also clearly report the number of years corresponding to each cycle of studies carried out before enrolling in the University.</p> <p>In case of admission to the doctorate, the candidate will agree on the final project with the Coordinator of the doctorate.</p> |
| 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 interview the Committee will ascertain the candidate knowledge of English language. |
| Research themes | The research theme concerns the extraction, purification and characterization of ellagitannins (ETs) as new nutraceutical ingredient, from plant material (i.e. berries and chestnuts), exploiting green technologies, such as ultrasound assisted extractions and GRAS (Generally Recognized As Safe) solvents. A very important issue of the project will be the stabilization of the aqueous extracts through an appropriate "coating material" prepared from waste material from fishery industry. |
| Information on recommendation letters | <p>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 email to: cichero@difar.unige.it (subject: PhD_letter).</p> <p>The name, status and place of employment of the authors of the recommendation letters must be stated in the application.</p> |
| Foreign Languages | English |
| Further information | <p>Prof. Elena Cichero (+39) 0103538350 cichero@difar.unige.it</p> <p>Administrative contact person Mrs. Noemi Pretelli (+39) 01035358752 noemi@chimica.unige.it</p> |

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| Coordinator: Marco Scambelluri | |
| Department of Earth, Environmental and Life Sciences (DISTAV) | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| 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) , with indication of the final mark of the master degree; b) a research project concerning <u>only one of the two research themes</u> published in this additional call of the National Operational Program (PON) of the XXXVII cycle of the Doctorate in Sciences and Technologies for the Environment and the Territory of the University of Genoa (curriculum Biology applied to 'agriculture and the environment) (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. 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 | Hereafter are listed the research topics on which the PhD position granted for the XXXVII STAT Doctoral Cycle (Earth Sciences curriculum) are addressed. All topics are related to the Green line of the PON program. Candidates must choose <u>only one research topic</u> and write a proposal of maximum 10 pages. More detailed descriptions of the topics are available on the STAT PhD website (http://www.distav.unige.it/phdstat/it - Research lines). 1) Evaluation of the cosmetic efficacy of polyunsaturated fatty acids extracted from plant and animal waste. 2) Characterization and application of microbial consortia for the reutilization of organic wastes from different origins. |
| Information on references | 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 wellknown 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 | English |
| Further Information | Further information can be requested to Prof. Mauro Mariotti, m.mariotti@unige |

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| Coordinator: Marco Scambelluri | |
| Department of Earth, Environmental and Life Sciences (DISTAV) | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca For information: Prof. Marco Scambelluri Dipartimento di Scienze della Terra dell'Ambiente e della Vita (DISTAV) (+39) 0103538307 marco.scambelluri@unige.it |
| Further information on how to present qualifications/publications | By titles are meant all information contained in the application form and in the documents attached to it. The application must be accompanied by: a) the candidate's curriculum vitae et studiorum (maximum ten pages), with indication of the degree mark b) a research project relating to one of the research topics published in the call for the XXXVII cycle of the Doctorate in Sciences and Technologies for the Earth and the Environment of the University of Genoa (Earth Sciences curriculum; maximum ten pages) c) a document containing the title and an abstract of the Master's degree thesis, together with the list of exams taken and their marks d) any additional documented qualification acquired during the candidate's career and relating to the proposed research project and to the research topics pertinent to the PhD Program (maximum ten pages) e) from minimum one to maximum three reference letters. Candidates can write their project and application forms either in Italian or in English |
| Exam Syllabus | The interview will deal with: 1 - the general knowledge of geological themes, processes and objects both of general culture and of interest to the proposed research 2 - an in-depth discussion of the activity carried out by the candidate during his/her studies and during his/her master's degree thesis. The interview will also test the candidate's knowledge of the basic topics, of the analytical and work tools and of the experimental methodologies pertinent to the research topic dealt with in the project presented 3 - the specific research topic that the candidate intends to develop during the research doctorate 4 - an evaluation of the candidate's knowledge of the English language |
| Research Themes | Hereafter are listed the research topics on which the PhD position granted for the XXXVII STAT Doctoral Cycle (Earth Sciences curriculum) are addressed. All topics are related to the Green line of the PON program. Candidates must choose only one research topic and write a proposal of maximum 10 pages. More detailed descriptions of the topics are available on the STAT PhD website (http://www.distav.unige.it/phdstat/it - Research lines). 1) Palaeoecology and resilience of planktonic and benthic communities through major Cenozoic climatic perturbations, as a proxy for future climatic changes. 2) Hydro-geomorphological research in Liguria applied to the multi-service network for integrated monitoring, management and mitigation of geo-hydrological hazards in context of climate change 3) innovative methods with low environmental impact in the conservation of cultural heritage 4) Increase the knowledge of natural systems through the evaluation of the uncertainty of environmental data: operational theory and application |
| Information on references | Candidates must choose minimum one and maximum three referents writing a reference letter in support of their PhD application. In the application form, candidates must indicate the name, qualification and institution of each referent, who must be university professors, qualified members of major research centers and institutions, and qualified experts in the subject. |
| Foreign Languages | English |
| Further Information | Further information can be requested to Prof. Marco Scambelluri marco.scambelluri@unige |

Course in: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY

Curriculum: ELECTRICAL ENGINEERING (CODE 8933)

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| Coordinator: Mario Marchesoni | |
| Department of Marine, Electrical, Electronic and Telecommunications Engineering – DITEN | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 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; 2) an updated CV; 3) a short abstract of the master's thesis. |
| 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) Technical-economic evaluations for the energy market. Distributed generation. Quality of service. Optimization algorithms, distribution management systems, load forecasts and renewable energy resources, with methods based on artificial intelligence, data mining, big data and probabilistic evaluation of security. Modeling, control and management of microgrids. (B) Development of innovative algorithms and software tools for managing the energy flows of complex plant realities with the aim of optimizing their operation from a plant, electrical system and market perspective. (C) Electromagnetic compatibility between electrical, power electronic and communications systems. Modeling, simulation and measurement methods. Numerical modeling of lightning currents. |
| 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 the Coordinator of the Doctoral Course 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 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@dinav.unige.it tel: +39 0103532286; fax: + 39 0103532777 |

Course in: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY

Curriculum: COMPLEX SYSTEMS FOR MOBILITY (CODE 8934)

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| Coordinator: Mario Marchesoni | |
| Department of Marine, Electrical, Electronic and Telecommunications Engineering – DITEN | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 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; 2) an updated CV; 3) a short abstract of the master's thesis. |
| 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) Complex systems in electrical and naval engineering: electrical networks, naval systems, innovative automation systems. (B) Components and technological systems for means of transport that allow to reduce the external costs of transport and to raise safety levels: electric propulsion systems for hybrid vessel, management of the energy flows of such systems. (C) Modeling of complex systems: formulation / identification of mathematical models (starting from experimental data) and their analysis and numerical simulation for energy saving. The models will mainly refer to the electrical and maritime sector. (D) Modeling tool for evaluating energy performance and greenhouse reduction in operative ships. |
| 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 the contact person of the Complex Systems for Mobility Curriculum at the following address: federico.silvestro@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. Federico Silvestro University of Genova DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) via all'Opera Pia, 11a, I-16145 - Genova, Italy Email: federico.silvestro@unige.it Tel: +39-010-353-2723; fax: +39-010-353-2700; 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 |

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| Coordinator: Maurizio Valle | |
| Department of Marine, Electrical, Electronic and Telecommunications Engineering - DITEN | |
| Places: 3 – Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| 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: the publication list (e.g. in International Journals, International Conferences, Book Chapters), the achieved degree mark (or equivalent qualification), the work experience and the acquired skills. The following features of the submitted research project will be in particular assessed: relevance to the research themes that appear in this public call, 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 - State of the art - Objectives - Employed methods - Preliminary work plan - Expected outcomes - References |
| Exam Syllabus | The interview will aim to verify the candidate's competence in relation to the listed research themes and the methodological approach to deal with research projects. In addition, the interview will focus on the themes of the research project, submitted by the candidate, related to the listed research themes. The interviews may also take place electronically, e.g. Teams with video mode enabled to check the candidate's identity, upon request to the Coordinator of the Doctoral Course, Prof. Maurizio Valle, by email message addressed to maurizio.valle@unige.it , subject: Interview Ph.D. STIET XXXVII cycle. |
| Research Themes | <ul style="list-style-type: none"> • Green and Scalable 5G/6G Networks for e- Health services • Environmental sustainability of ICTs: assessment methodology, measurement issues and research tracks • Study on the use of low-cost low-power microwave technologies for the real-time detection of gravity-driven natural hazards |
| Information on references | Candidates MUST choose not less than one and not more than three referees to support their candidature. The referees must be university professors or experts in the topic of the Research Theme. It will be concern of referees to 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 , with subject: Ph.D. STIET XXXVII cycle Candidate reference letter. <u>The candidate MUST indicate in the application names, status and affiliation of the referees.</u> The referees MUST clearly indicate in the reference letters the supported candidate's aptitude to scientific research development. |
| Foreign Languages | English |
| Further Information | More detailed information on the specific themes at: http://www.phd-stiet.diten.unige.it for further information please contact: Prof. Maurizio Valle DITEN - Università di Genova Via Opera Pia 11A 16145, Genova, Italy maurizio.valle@unige.it |

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| Coordinator: Carlo Minetti | |
| Department of Neurology, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINO GMI) | |
| Places: 1 - Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Department of Neurology, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINO GMI), Aula Magna, G. Gaslini Institute, pavilion 16, 1st floor, via G. Gaslini 5, Genoa. The interview may take place, at the request of the interested party or if the health situation makes it necessary, also electronically. Candidates requesting the online procedure must contact Prof. Carlo Minetti (minettic@unige.it) and Ms Rosanna Rizzo (rosanna.rizzo@unige.it) at least 15 days before the interview. To this end, the candidate must have a reliable internet connection, in order to allow the test to take place |
| Further information on how to present qualifications/publications | All candidates are required to submit a research project proposal which they must be structured according to the following items: - research objectives - research methodology - innovation criteria with respect to the existing scientific disciplinary landscape - bibliography - evaluation of the impact of research (The project must be carried out in a maximum of 15,000 characters, including bibliography). This project will be evaluated by the Commission together with the qualifications and will be the subject of discussion during the oral exam. On the day of the interview, candidates can submit a portfolio relating to study / research experiences already undertaken |
| Exam Syllabus | Contents of the interview: - previous experience of research work, including that which concerned the degree thesis; - project ideas; - knowledge of basic methodologies for clinical and laboratory research; - knowledge of the English language. |
| Research Themes | In-depth study of new methodologies for the generation and morpho-functional studies of cellular models for the study of neurological genetic diseases, with particular reference to neuronal cultures derived from induced pluripotent stem cells and brain organoids. |
| Information on references | Candidates should 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 referents to send the reference letters, within the deadline of the call, to the Coordinator of the PhD course Prof. Carlo Minetti minettic@unige.it and for information: rosanna.rizzo@unige.it . In the admission application, candidates must indicate the name, qualification and place of employment of the contact persons chosen by them. |
| Foreign Languages | English |
| Further Information | Sig.ra Rosanna Rizzo 010-3538037 rosanna.rizzo@unige.it |

Course in: PAEDIATRIC SCIENCES

Curriculum: MUSCULAR, NEURODEGENERATIVE, METABOLIC DISEASES IN CHILDREN, ADOLESCENTS (CODE 8937)

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| Coordinator: Carlo Minetti | |
| Department of Neurology, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOEMI) | |
| Places: 1 - Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Department of Neurology, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOEMI), Aula Magna, G. Gaslini Institute, pavilion 16, 1st floor, via G. Gaslini 5, Genoa. The interview may take place, at the request of the interested party or if the health situation makes it necessary, also electronically. Candidates requesting the online procedure must contact Prof. Carlo Minetti (minettic@unige.it) and Ms Rosanna Rizzo (rosanna.rizzo@unige.it) at least 15 days before the interview. To this end, the candidate must have a reliable internet connection, in order to allow the test to take place |
| Further information on how to present qualifications/publications | All candidates are required to submit a research project proposal which they must be structured according to the following items: - research objectives - research methodology - innovation criteria with respect to the existing scientific disciplinary landscape - bibliography - evaluation of the impact of research (The project must be carried out in a maximum of 15,000 characters, including bibliography). This project will be evaluated by the Commission together with the qualifications and will be the subject of discussion during the oral exam. On the day of the interview, candidates can submit a portfolio relating to study / research experiences already undertaken |
| Exam Syllabus | Contents of the interview: - previous experience of research work, including that which concerned the degree thesis; - project ideas; - knowledge of basic methodologies for clinical research; - knowledge of the English language. |
| Research Themes | -Global warming as a chronic process punctuated by acute episodes of extreme weather events; -Climate-driven altered risks for seizures, epilepsy and epileptogenesis; -Underlying mechanisms at systems, cellular and molecular levels impacting climate change and epilepsy. |
| Information on references | Candidates should 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 referents to send the reference letters, within the deadline of the call, to the Coordinator of the PhD course Prof. Carlo Minetti minettic@unige.it and for information: rosanna.rizzo@unige.it . In the admission application, candidates must indicate the name, qualification and place of employment of the contact persons chosen by them. |
| Foreign Languages | English |
| Further Information | Sig.ra Rosanna Rizzo 010-3538037 rosanna.rizzo@unige.it |

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| Coordinator: Luca Andrighetto | |
| Department of Education - DISFOR | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will take place electronically, through Teams or Skype platform, or in presence according to the candidates' choice. |
| Further information on how to present qualifications/publications | The following titles will be evaluated: 1. Quality of the research project which will be presented by candidate 2. Research experiences and scientific publications 3. Master's or four-year degree thesis, which can be attached in PDF format 4. Academic curriculum and degree mark The Commission will reserve the possibility of setting a minimum score threshold obtained by the candidate in the titles' evaluation in order to access the interview. |
| Exam Syllabus | The research project presented must be inherent to the research topics of the Migration Curriculum listed below. The interview will focus on the discussion of the research project and the titles presented, also with attention to general aspects of research methodology in social sciences. The interview can be held in Italian or English/French/Spanish, according to candidates' choice. If the interview will take place in Italian, knowledge of the English, Spanish or French language will be assessed during the interview. |
| Research Themes | Climate change and forced migrations Environmental changes and forced migrations Social conflicts and forced migrations Infrastructures, extractivism and forced migrations. |
| Information on references | Reference letters are not required. In any case, reference letters received will not be taken into consideration for the purposes of the evaluation. |
| Foreign Languages | English, French, Spanish |
| Further Information | Website: https://scienze-sociali.dottorato.unige.it/ Curriculum coordinator: Prof.ssa Nadia Rania DISFOR, Corso Podestà 2, 16128 Genova 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 dottoratoscienze-sociali.disfor@unige.it |

Course in: SOCIAL SCIENCES

Curriculum: PSYCHOLOGY AND COGNITIVE SCIENCES (CODE 8939)

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| Coordinator: Luca Andrighetto | |
| Department of Education - DISFOR | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will take place electronically, through Teams or Skype platform. |
| Further information on how to present qualifications/publications | The following titles will be evaluated: 1. Quality of the research project which will be presented by candidate 2. Research experiences and scientific publications 3. Master's or four-year degree thesis, which can be attached in PDF format 4. Academic curriculum and degree mark The Commission will reserve the possibility of setting a minimum score threshold obtained by the candidate in the titles' evaluation in order to access the interview. |
| Exam Syllabus | The research project presented must be inherent to the research topics of the Psychology and Cognitive Sciences Curriculum listed below. The interview will focus on the discussion of the research project and the titles presented, also with attention to general aspects of research methodology in psychology and data analysis techniques in the specific disciplinary areas. The interview can be held in Italian or English, chosen by the candidate. If the interview will take place in Italian, knowledge of the English language will be assessed during the interview. |
| Research Themes | Assessment and interventions for neurodevelopmental disorders or special educational needs Neuropsychological assessment in childhood Psychological tele-assessment and tele-intervention with children Digital technologies for cognitive training and cognitive rehabilitation in childhood Cognitive training in children |
| Information on references | Reference letters are not required. In any case, reference letters received will not be taken into consideration for the purposes of the evaluation. |
| Foreign Languages | English |
| Further Information | Website: https://scienze-sociali.dottorato.unige.it/ Curriculum coordinator: Prof.ssa Cecilia Serena Pace DISFOR, Corso Podestà 2, 16128 Genova 010 20953728 cecilia.pace@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 dottoratoscienze-sociali.disfor@unige.it |

Course in: SOCIAL SCIENCES

Curriculum: POLITICAL SCIENCES (CODE 8940)

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| Coordinator: Luca Andrighetto | |
| Department of Education - DISFOR | |
| Places: 2 – Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will take place electronically, through Teams or Skype platform. |
| Further information on how to present qualifications/publications | The following titles will be evaluated: 1. Quality of the research project which will be presented by candidate 2. Research experiences and scientific publications 3. Master's or four-year degree thesis, which can be attached in PDF format 4. Academic curriculum and degree mark The Commission will reserve the possibility of setting a minimum score threshold obtained by the candidate in the titles' evaluation in order to access the interview. |
| Exam Syllabus | The research project presented must be inherent to the research topics of the Psychology and Cognitive Sciences Curriculum listed below. The interview will focus on the discussion of the research project and the titles presented, also with attention to general aspects of research methodology and data analysis techniques in the specific disciplinary areas. The interview can be held in Italian or English, chosen by the candidate. If the interview will take place in Italian, knowledge of the English language will be assessed during the interview. |
| Research Themes | Factual knowledge and experts' role Science, society and technology Citizen science Inclusive, safe, resilient and sustainable cities Legal studies, human rights and environment |
| Information on references | Reference letters are not required. In any case, reference letters received will not be taken into consideration for the purposes of the evaluation. |
| Foreign Languages | English |
| Further Information | Website: https://scienze-sociali.dottorato.unige.it/ Referente di Curriculum: Prof. Paolo Parra Saiani DISPO, Piazzale Emanuele Brignole 3a paolo.parra.saiani@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 dottoratoscienze-sociali.disfor@unige.it |

Course in: SECURITY, RISK AND VULNERABILITY

Curriculum: SECURITY AND LAW (CODE 8941)

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| Coordinator: Alessandro Armando | |
| Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Department of Law, meeting room of the former Private Law Section, 4th floor, (Stair B), via Balbi 22, Genova. Interview by Teams is possible as well: in this case it is required to send an e-mail to the curriculum Coordinator prof. Giorgio Afferni (giorgio.afferni@unige.it) at least 7 days before the interview. In order to make sure that the interviews of the candidates conducted by the Evaluation Commission are public and unique, each candidate will be considered absent if, due to problems that do not depend on the commissioners' instrumentation, they are unable to connect within the same session. In case of a high number of applications, it might be necessary to schedule the interviews in different days. |
| 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, its attachment and the research project 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, in accordance with the objectives pursued by the Call FSE REACT-EU Dottorati su tematiche dell'innovazione e green: nuove risorse dal PON Ricerca e Innovazione (ruled by the D.M. August, 10th 2021, n.1061). More specifically: • The RESEARCH PROJECT, in accordance with the abovementioned call as it is specified in the following section “Research Themes”, must fit into some of the research topics of the PhD programme. It must contain a clearly defined research problem, indicate basic methodological choices, list the main bibliography, and give 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. |
| 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. In accordance with the objectives pursued by the Call FSE REACT-EU Dottorati su tematiche dell'innovazione e green: nuove risorse dal PON Ricerca e Innovazione (ruled by the D.M. August, 10th 2021, n.1061), the RESEARCH PROJECT must illustrate a project coherent with the importance of the new technologies in the automation of both the public administration and administrative judgement with the aims of redesigning the public action. To this end, the research project must pay attention to the role of the artificial intelligence, as a tool used by the public administration in order to encourage sustainable development and ecological transition practices (such as, for example, the use of the new technologies in managing environmental, climate and hydrogeological risks, and organising the activities of the Civil protection). Information and advice on how to write the research project are available at the web page http://sicurezza.unige.it/dottorato . Candidates are invited to get in contact with the Curriculum Coordinator to obtain additional details about the research themes. |

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| Information on references | <p>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.</p> <p>The reference letter must be sent by the referees, within the deadline of the public notice, to the following email address: giorgio.afferni@unige.it.</p> <p>The name, status and current position of the referees chosen by the candidate must be stated in the application.</p> <p>Reference letters that are not presented as requested will not be taken into consideration.</p> |
| Foreign Languages | English |
| Further Information | <p>Curriculum Coordinator Prof. Giorgio Afferni DiGi, Università di Genova giorgio.afferni@unige.it</p> |

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| Coordinator: Alessandro Armando | |
| Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca Department of Economics and Business Studies, via Vivaldi, 5 – 16126 Genova. Interview can be held online as well (Teams): in this case it is required to send an e-mail to the curriculum Coordinator prof. Teresina Torre (teresina.torre@economia.unige.it) at least 7 days before the interview. To this aim a stable internet connection is required to allow the proper carrying out of the interview. In case of a high number of applications, it might be necessary to schedule the interviews in different days. |
| Further information on how to present qualifications/publications | Qualifications is the information contained in the application and in the curriculum vitae et studiorum, the research project, further qualifications. 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. The application form, its attachment and the research project can be written in Italian or English. |
| 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, in accordance with the objectives pursued by the Call FSE REACT-EU Dottorati su tematiche dell'innovazione e green: nuove risorse dal PON Ricerca e Innovazione (ruled by the D.M. August, 10th 2021, n.1061). More specifically: <ul style="list-style-type: none"> the research project, in accordance with the abovementioned call as it is specified in the following section "Research Themes" must contain a clearly defined research problem, indicate basic methodological choices, list the main bibliography, and give a rough outline of the argument(s) the candidate will use to address the problem. The interview will be aimed at discussing the candidate's educational background and its consistency with the Phd course, the research project presented by the candidate, the Curriculum Vitae et Studiorum and other qualifications. |
| Research Themes | The research themes that will be focused in the PhD program concern the implications of technological innovation for organizational change, work transformation, transformation of workplaces and people work life. Specific concern is devoted to the transition toward work contexts that are increasingly technological, as enabling technologies of digital transformation are adopted in work practices such as collaborative robots, artificial intelligence. This leads to change in work processes, competences, learning, motivation, communication schemes, coordination and safety. Specific research projects that are currently active at DIEC as part of joint collaboration with IIT concern the organizational implication of collaborative humanoid or non-humanoid robotics and artificial intelligence in the following fields: robotic-assisted rehabilitation; robotic surgery; social robotics; smart manufacturing. Candidates can develop an original research topic taking inspiration from these research fields. Candidates are invited to get in contact with the Curriculum Coordinator to obtain additional details about the research themes. |
| 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 following email address: teresina.torre@economia.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. Teresina Torre, DIEC University of Genoa teresina.torre@economia.unige.it |

Course in: SECURITY, RISK AND VULNERABILITY

Curriculum: RISK AND RESILIENCE ENGINEERING FOR THE NATURAL, INDUSTRIALIZED AND BUILT ENVIRONMENTS (CODE 8943)

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| Coordinator: Alessandro Armando | |
| Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità | |
| Places: 3 - Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will be at Baldacci Library of the Department of Civil, Chemical and Environmental Engineering (DICCA), Via Montallegro 1, 16145 Genova. Under request or because necessary due the COVID emergency, the interview may be held also in telematic way by sending an email to Prof. Serena Cattari (serena.cattari@unige.it) at least 7 days before the date scheduled. To this aim a stable internet connection is required to allow the proper carrying out of the interview. |
| Further information on how to present qualifications/publications | The research project (10 pages max) must include a short abstract, the State of the Art and relevant references and the aims of the research activity. The research project must develop one of the research topics already proposed on the website https://sicurezza.unige.net/admission/how-to-apply/themes-rrenib since they are consistent with the GREEN topics (Action IV.5) outlined by the ministerial decree 10/08/2021 no.1061. In the candidate's research project, the title of the chosen project has to be indicated together with the candidate's research motivations. 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 | The curriculum deals with risk analyses and resilience studies addressed to assess and tackle risks arising from natural hazards and anthropic activities and their impact on society, in terms of direct and indirect losses and their economic, social and environmental consequences. Within these goals and according to the GREEN topics (Action IV.5) outlined by the ministerial decree 10/08/2021 no.1061, the research topics of these grants will more specifically deal with: - the assessment and monitoring of the impacts of the climate change on weather phenomena and the design of control measures and mitigation policies for enhancing the sustainability and resilience of built and natural environments - the assessment of the impacts of new green technologies on process and personnel safety in industrial activities and the promotion of participatory processes with citizens to understand the new risk profile For a more detailed description of the proposed topics the interested candidates may refer to https://sicurezza.unige.net/admission/how-to-apply/themes-rrenib . The candidate must develop his research project according to one of these specific topics, no additional topics are allowed to be proposed. |
| 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 following email address: serena.cattari@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 |

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| Further Information | Curriculum Coordinator Prof. Serena Cattari DICCA – Via Montallegro 1 16145 Genova serena.cattari@unige.it |
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| Coordinator: Alessandro Armando | |
| Centro Strategico Interdipartimentale su Sicurezza, Rischio e Vulnerabilità | |
| Places: 3 - Grants: 3 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca The interview will be at Palazzina Marchi campus Universitario Savona, Via Magliotto 2, 17100 Savona. Under request or because necessary due the COVID emergency, the interview may be held also in telematic way by sending an email to Prof. Luca Ferraris (luca.ferraris@unige.it) at least 7 days before the date scheduled. To this aim a stable internet connection is required to allow the proper carrying out of the interview. |
| Further information on how to present qualifications/publications | The research project (10 pages max) must include a short abstract, the State of the Art and relevant references and the aims of the research activity. The research project must develop one of the research topics already proposed on the website https://sicurezza.unige.net/admission/how-to-apply/themes-rccsd since they are consistent with the GREEN topics (Action IV.5) outlined by the ministerial decree 10/08/2021 no.1061. In the candidate's research project, the title of the chosen project has to be indicated together with the candidate's research motivations. 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 | According to the GREEN topics (Action IV.5) outlined by the ministerial decree 10/08/2021 no.1061, the research topics of these grants will more specifically deal with: - Modelling impacts of climate change on mega-fauna habitat in the Mediterranean Sea - Environmental risks and climate change: migration and community resilience in the Eastern Sub-Saharan Africa – IGAD Region - Environmental risks and climate change: migration and community resilience in the Eastern Sub-Saharan Africa – IGAD Region - Integrated wildfire risk management: building wildfire resilient societies under climate change scenarios - Environmental risks and climate change: raising awareness and community resilience For a more detailed description of the proposed topics the interested candidates may refer to https://sicurezza.unige.net/admission/how-to-apply/themes-rccsd . The candidate must develop his research project according to one of these specific topics, no additional topics are allowed to be proposed. |
| 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 following email address: luca.ferraris@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 Ferraris DIBRIS – Campus Universitario - Via Magliotto 2 - 17100 Savona luca.ferraris@unige.it |

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| Coordinator: Francesco Cassata | |
| Department of Antiquities, Philosophy and History – DAFIST | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications:</p> <p>a) the four-year degree thesis, or specialist, or II level degree thesis (in pdf format) which will be evaluated;</p> <p>b) any publication (in pdf format), which will be evaluated;</p> <p>c) a brief description of the research project proposed by the candidate (maximum 30,000 strokes plus an annotated bibliography), which will be evaluated.</p> <p>The project must be organized according to the following points: 1) Objectives; 2) Sources and state of the art; 3) Importance for the advancement of knowledge; 4) Proposed methodology; 5) A developmental work plan.</p> <p>CVs, titles, theses, publications and research projects must be presented in pdf format, attached to the application.</p> <p>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 and include:</p> <p>1) Master's degree or four-year degree (old system) or qualification deemed equivalent; the thesis will be evaluated;</p> <p>2) Scientific publications, consistent with the themes of the doctorate:</p> <ul style="list-style-type: none"> - books; - essays in scientific journals (band A or B in the ANVUR classification); - essays in collective volumes; - short essays, historical-critical factsheets. <p>3) Others:</p> <ul style="list-style-type: none"> - Degrees obtained following the completion of specialization and / or specialization and / or advanced training courses, Masters in subjects related to the research courses of the PhD course; - PhD Diploma; - Second degree in subjects related to the research courses of the PhD course; - Scholarships, Awards, Fellowships; - Research activity carried out at scientific institutions; - Didactic activity carried out at university institutions; - Curricular study experiences abroad; - Internships, traineeships and professional experiences related to the research courses of the PhD course; - Expert of the subject or member of exam commissions in the university environment. |
| Exam Syllabus | <p>The interview will concern the presentation and discussion of the research project by the candidate and is aimed at verifying its aptitude for scientific research</p> <p>The evaluation will be based on the following criteria:</p> <ul style="list-style-type: none"> - 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 |
| Research Themes | <p>Environment as History: Environmental Issues in 20th Century Politics, Science and Cultural Imaginary</p> <p>Priority will be given to projects focused on the post-WW2 period, concerning:</p> <ul style="list-style-type: none"> - environmental movements in Italy and/or in the international context; - the development of ecology as scientific and disciplinary field; - environment and visual culture (art, photography, cinema, comics, etc.) |

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| | <ul style="list-style-type: none"> - environment and health; - environment, colonialism and post-colonialism. <p>Partner for the 6-months stage: Einaudi Foundation, Torino</p> |
| Information on references | Reference letters are not required. Reference letters eventually received will not be taken into consideration for the final evaluation |
| Foreign Languages | English, French, German and Spanish |
| Further Information | Contact: Prof. Francesco Cassata Email: francesco.cassata@unige.it |

Course in: HISTORY, ART HISTORY AND ARCHEOLOGY

Curriculum: ART HISTORY (CODE 8946)

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| Coordinator: Francesco Cassata | |
| Department of Antiquities, Philosophy and History – DAFIST | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications:</p> <p>a) the four-year degree thesis, or specialist, or II level degree thesis (in pdf format) which will be evaluated;</p> <p>b) any publication (in pdf format), which will be evaluated;</p> <p>c) a brief description of the research project proposed by the candidate (maximum 30,000 strokes plus an annotated bibliography), which will be evaluated.</p> <p>The project must be organized according to the following points: 1) Objectives; 2) Sources and state of the art; 3) Importance for the advancement of knowledge; 4) Proposed methodology; 5) A developmental work plan.</p> <p>CVs, titles, theses, publications and research projects must be presented in pdf format, attached to the application.</p> <p>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 and include:</p> <p>1) Master's degree or four-year degree (old system) or qualification deemed equivalent; the thesis will be evaluated;</p> <p>2) Scientific publications, consistent with the themes of the doctorate:</p> <ul style="list-style-type: none"> - books; - essays in scientific journals (band A or B in the ANVUR classification); - essays in collective volumes - short essays, historical-critical factsheets. <p>3) Others:</p> <ul style="list-style-type: none"> - Degrees obtained following the completion of specialization and / or specialization and / or advanced training courses, Masters in subjects related to the research courses of the PhD course; - PhD Diploma; - Second degree in subjects related to the research courses of the PhD course; - Scholarships, Awards, Fellowships; - Research activity carried out at scientific institutions; - Didactic activity carried out at university institutions; - Curricular study experiences abroad; - Internships, traineeships and professional experiences related to the research courses of the PhD course; - Expert of the subject or member of exam commissions in the university environment. |
| Exam Syllabus | <p>The interview will concern the presentation and discussion of the research project by the candidate and is aimed at verifying its aptitude for scientific research</p> <p>The evaluation will be based on the following criteria:</p> <ul style="list-style-type: none"> - 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 |
| Research Themes | <p>TITLE: Technical and scientific investigations as primary sources for innovative art criticism</p> <p>The research must incorporate the use of technical and scientific investigations (namely infrared reflectography) as primary sources for innovative art criticism.</p> <p>Possible research topics to be developed:</p> |

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| | <ul style="list-style-type: none"> - Workshop practices of Genoese painters: collaborations, division of labour, standardisation and dissemination of workshop models (15th and 16th centuries) - From connoisseurship to technical art history: reconsidering questions of attribution and dating in Genoese painting (15th and 16th centuries) <p>Partner for the 6-months stage: GeoSpectras.r.l.</p> |
| Information on references | Reference letters are not required. Reference letters eventually received will not be taken into consideration for the final score. |
| Foreign Languages | English, French, German and Spanish |
| Further Information | Contact: Prof. Maria Clelia Galassi Email: mcgalassi@lettere.unige.it |

Course in: HISTORY, ART HISTORY AND ARCHEOLOGY

Curriculum: ARCHEOLOGY (CODE 8947)

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| Coordinator: Francesco Cassata | |
| Department of Antiquities, Philosophy and History – DAFIST | |
| Places: 1 – Grants: 1 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | QUALIFICATIONS/PUBLICATIONS AND INTERVIEW |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | <p>Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications:</p> <p>a) the four-year degree thesis, or specialist, or II level degree thesis (in pdf format) which will be evaluated;</p> <p>b) any publications (in pdf format), which will be evaluated;</p> <p>c) a brief description of the research project proposed by the candidate (maximum 30,000 strokes plus an annotated bibliography), which will be evaluated.</p> <p>The project must be organized according to the following points: 1) Objectives; 2) Sources and state of the art; 3) Importance for the advancement of knowledge; 4) Proposed methodology; 5) A developmental work plan.</p> <p>CVs, titles, theses, publications and research projects must be presented in pdf format, attached to the application.</p> <p>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 and include:</p> <p>1) Master's degree or four-year degree (old system) or qualification deemed equivalent; the thesis will be evaluated;</p> <p>2) Scientific publications, consistent with the themes of the doctorate:</p> <ul style="list-style-type: none"> - books; - essays in scientific journals (band A or B in the ANVUR classification); - essays in collective volumes - short essays, historical-critical factsheets. <p>3) Others:</p> <ul style="list-style-type: none"> - Degrees obtained following the completion of specialization and / or specialization and / or advanced training courses, Masters in subjects related to the research courses of the PhD course; - PhD Diploma; - Second degree in subjects related to the research courses of the PhD course; - Scholarships, Awards, Fellowships; - Research activity carried out at scientific institutions; - Didactic activity carried out at university institutions; - Curricular study experiences abroad; - Internships, traineeships and professional experiences related to the research courses of the PhD course; - Expert of the subject or member of exam commissions in the university environment. |
| Exam Syllabus | <p>The interview will concern the presentation and discussion of the research project by the candidate and is aimed at verifying its aptitude for scientific research</p> <p>The evaluation will be based on the following criteria:</p> <ul style="list-style-type: none"> - 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 |
| Research Themes | <p>Archaeological analysis of anthropogenic landscape modifications as consequences of settlements and mining activities, through the application of standardized methodologies and innovative diagnostics.</p> <p>The goal of the project is focused on the detection of the permanent anthropogenic modifications found on a given territory, which have been produced by existing or abandoned settlements and by ancient activities related to quarries and mines. These</p> |

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| | <p>modifications may have led to important changes to the morphology and hydrography of an area, with significant long-lasting impacts on the stability of the slopes, on possible erosional and colluvial phenomena, as well as on bottom valleys shaping. The study will essentially make use of archaeological sources with the aid of geomatic and LIDAR-Drone survey technologies, allowing the recognition of anomalies and evidence to be subsequently verified by field-works. The demanded chronological period must be comprised between recent Prehistory (4th millennium BC) and 16th century AD. The goal of the study will be to analyse the ancient anthropogenic behaviour having significant impacts and permanent effects on the territories and their ecosystems; this will allow the making of predictive models aimed at understanding the risk inherent in the environmental transformations following aggressive actions due to settlements and landscape modifications.</p> <p>The partner identified for the foreseen six months of the PhD stage is “LIDAR Italia”, based in Genoa.</p> |
| Information on references | Reference letters are not required. Reference letters eventually received will not be taken into consideration for the final score. |
| Foreign Languages | English, French, German and Spanish |
| Further Information | Contact: Prof. Fabrizio Benente Email: fabrizio.benente@unige.it |

Course in: STRATEGIC ENGINEERING (CODE 8948)

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| Coordinator: Anna Franca Sciomachen | |
| Department of Economics (DIEC) | |
| Places: 2 - Grants: 2 | |
| The annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15.343,28. A research period in company (minimum 6 months) in Italy or abroad is expected | |
| Comparative assessment procedure | Qualification and interview |
| Interview | Date, hour and how the interview will be carried out will be posted by 11.11.2021 on the web page https://unige.it/usg/it/dottorati-di-ricerca |
| Further information on how to present qualifications/publications | In the curriculum it is important to highlight, as they will be used as evaluation parameters, the following aspects: publications (e.g. International Journals, International Conferences, Chapters of books), grade of Bsc and Msc degree (or equivalent title), work experience and skills acquired. The research project should address GREEN issues to be approached with the Strategic Engineering approach as described in Research Themes. The research project, which should not exceed 10 pages, should identify the motivation, methodology, research objectives, and a preliminary state of the art. The proposed research project will constitute the research topic of the doctoral dissertation. Since the following aspects will be used as evaluation parameters, it is also important to highlight in the presentation of the research project: relevance to the research themes that appear in the call, Originality, Method of execution, Feasibility, Clarity of exposition. |
| Exam Syllabus | In the interview the committee will verify the competence of the candidate with reference to the research themes pertaining to the PhD in Strategic Engineering and the methodological ability to deal with research problems. The interview will also focus on the themes of the research project, related to the research topics listed below, presented by the candidate. |
| Research Themes | The research topics are closely related to the following themes: ecosystem conservation, biodiversity, impacts of climate change reduction, promoting sustainable development. These GREEN themes will be addressed through the Strategic Engineering approach. Strategic Engineering (SE) is a new field of research that focuses on how to effectively use the most up-to-date techniques in Simulation, Optimization, Data Processing and Artificial Intelligence in decision making with the aim of analyzing complex systems in view of the need to ensure environmental, social and economic sustainability. In the SE field there is a great ferment to respond to the demand to develop GREEN solutions that can be competitive on the market and effective. In this context there are multiple initiatives, from the classic approach of energy saving or waste and cost containment to a global vision that actually considers how to rethink production or logistics processes (among many others) in this perspective. To be successful in this field, it becomes critical to create advanced models that can consider not only the individual component of the system, but also the interaction between all internal subsystems and between them and the external environment and other related elements, in order to develop viable and robust solutions that are able to sustain themselves effectively. PhD students will develop models and experiments building systems employing Big Data analytics, Agent Based stochastic discrete events Simulators integrated with optimization systems employing Machine Learning, Fuzzy Logic & Genetic Algorithms, Crowdsourcing. The goal will be to change the way we think about, design, restructure and manage plants, processes, logistics and transportation for the green transition. PhD students will be able to develop research on GREEN issues in a network involving foreign universities consortium in the international PhD in SE. Moreover, PhD students will be in a close contact with companies having interests and skills in innovative sectors such as: zero impact manufacturing, energy sector, decision making and risk management in ports and strategic assets on the sea and coast, water management, waste treatment and circular economy. The goal is to enhance the human capital that will be employed in the PhD program, to encourage the spread of an approach towards innovation and GREEN and to strengthen the exchange between the world of research and the world of production by creating a synergy between research and partner companies. More details on the specific topics with the indication of the teacher of reference at the following address: www.simulationteam.com/strategos/phd . |

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| Information on references | Applicants should choose no less than one and no more than three referees to support the application. These referees must be university professors or experts in the field. The referees must send the letters of reference, by the date indicated for the evaluation of qualifications, to the Coordinator of the PhD course at: sciomach@economia.unige.it In the application form, candidates must indicate the name, position and place of employment of the reference persons they have chosen. The content of the letters of reference must clearly show the candidate's aptitude for scientific research. |
| Foreign Languages | English |
| Further Information | For further information please contact by email the Members of the PhD Program Committee: Agostino Bruzzone (agostino@itim.unige.it) Elvezia Cepolina (elvezia.maria.cepolina@unige.it) Anna Sciomachen (sciomach@economia.unige.it) |