

SCIENTIFIC DISCIPLINARY AREA MATHEMATICS AND INFORMATIONS
--

RESEARCH PROGRAM NO. 1

The assessment criteria for the qualifications and the interview will be affixed on 11.11.2019 at 8:00 in Polo Valle Puggia del Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 11.11.2019 at 11:30 in Polo Valle Puggia del Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The interview will be held on 11.11.2019 at 12:00 in Polo Valle Puggia del Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Stefano Rovetta via the email address: stefano.rovetta@unige.it

Scientific coordinator: Prof. Stefano Rovetta

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 40,000.00 net of all charges borne by the University (two-year gross cost of € 49,130.00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: Machine learning for prognostic maintenance

Description: The activity will consist in studying, designing, and implementing a class of predictive maintenance methods of the prognostic type, based on machine learning. The final goal is to integrate, in an existing Computer Managed Maintenance Systems (CMMS), a novel predictive maintenance model that will complement the existing –and less efficient– scheduled and condition-based maintenance methods. The activity will be carried on in collaboration with TAM Software, developer of the CMMS. Locations: at DIBRIS, Genova, and at TAM Software, La Spezia.

Scientific disciplinary sector: INF/01 – INFORMATICA

Place: Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)

Required degree:

Laurea Magistrale delle classi LM-17 Fisica, LM-18 Informatica, LM-25 Ingegneria dell'automazione, LM-27 Ingegneria delle telecomunicazioni, LM-29 Ingegneria elettronica, LM-32 Ingegneria informatica, LM-33 Ingegneria meccanica, LM-40 Matematica, LM-82 Scienze statistiche.

Subjects of the interview:

Competences in Machine learning and Coding. Discussion on the candidate's CV.

RESEARCH PROGRAM NO. 2

The assessment criteria for the qualifications and the interview will be affixed on 11.11.2019 at 9:30 in Campus Universitario di Savona, Palazzina Oliva, Piano I, Via Magliotto 2, Savona.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 11.11.2019 at 12:30 in Campus Universitario di Savona, Palazzina Oliva, Piano I, Via Magliotto 2, Savona.

The interview will be held on 11.11.2019 at 14:00 in Campus Universitario di Savona, Palazzina Oliva, Piano I, Via Magliotto 2, Savona.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Marco Testa

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 38.734,00 net of all charges borne by the University (two-year gross cost of € 47.574,00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: Clinical validation of a System for Measuring and Training the Strength of Hand and Mouth

Description: Clinical validation of a System for Measuring and Training the Strength of Hand and Mouth (MAMBO) which integrates the use of sensors for measuring force in an IT platform capable of managing the signal coming from sensors in real time. The system therefore has the ability to measure the maximum force that can be delivered by the user, its precision, described with different indexes of motor control, and muscular endurance. The simultaneous recording of the signal coming from two load cells allows the generation of right-left motor coordination indices, useful for evaluating the central coordination mechanisms between cerebral hemispheres. The part of the device dedicated to the hand allows to investigate spinal mechanisms of motor control, while the part dedicated to the mouth allows us to take information on trigeminal control motor mechanisms.

Scientific disciplinary sector: MED/48 SCIENZE INFERMIERISTICHE E TECNICHE NEURO-PSICHIATRICHE E RIABILITATIVE

Place: Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOEMI)

Required degree:

Laurea Magistrale delle classi LM-17 Fisica, LM-18, LM-21 Ingegneria Biomedica Informatica, LM-29 Ingegneria Elettronica, LM-32 Ingegneria Informatica, LM/SNT2 Scienze riabilitative delle professioni sanitarie, LM-67 Scienze e Tecniche delle Attività Motorie Preventive e Adattative

Subjects of the interview:

Motor control of force delivery in masticatory muscles, force measurement systems, signal analysis, programming elements in Matlab, C ++, Phyton, C Sharp

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 3

The assessment criteria for the qualifications and the interview will be affixed on 12.11.2019 at 9:00 in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME) Via Montallego,1 16145 Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 12.11.2019 at 12:00 in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME) Via Montallego,1 16145 Genova

The interview will be held on 12.11.2019 at 12:15 in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME) Via Montallego,1 16145 Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Carlo Cravero

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 38.734,00 net of all charges borne by the University (two-year gross cost of € 47.574,00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: Development of a simulation platform for the aerodynamics of ships

Description: The research project is aimed at the development of a simulation platform for the external flows to ships and their interaction with structures in order to improve the passengers comfort or to minimize the interaction of hot exhaust gases with critical components of the deckhouse. Crucial issues are: geometrical complexity and model dimensions, large recirculating unsteady turbulent flow structures and wakes typical from bluff bodies, uncertainty in boundary condition values and input data. These aspects need a special focus in order to set up a simulation platform sufficiently accurate and to be efficiently used in the industrial design routine. The platform will be applied to reference industrial cases to be calibrated and tested before its implementation into the industrial design environment.

Scientific disciplinary sector: ING-IND/08 MACCHINE A FLUIDO

Place: Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME)

Required degree:

Laurea V.O. in Ingegneria Meccanica, Ingegneria Navale, Fisica, Ingegneria per l'ambiente e il territorio, Laurea Specialistica delle classi 36/S Ingegneria Meccanica, 37/S Ingegneria Navale, 38/S Ingegneria per l'Ambiente ed il Territorio, 20/S Fisica, Laurea Magistrale delle classi LM-33 Ingegneria Meccanica, LM-34 Ingegneria Navale, LM-35 Ingegneria per l'Ambiente e il Territorio, LM-17 Fisica.

Subjects of the interview:

CFD techniques, aerodynamics

RESEARCH PROGRAM NO. 4

The assessment criteria for the qualifications and the interview will be affixed on 11.11.2019 at 13:30 in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), via all'Opera Pia 11, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 11.11.2019 at 17:00 in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), via all'Opera Pia 11, Genova

The interview will be held on 11.11.2019 18:00 in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), via all'Opera Pia 11, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. ssa Silvana Dellepiane phone no. +39 0103352754 , by the email address: silvana.dellepiane@unige.it

Scientific coordinator: Prof. ssa Silvana Dellepiane

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 38.734,00 net of all charges borne by the University (two-year gross cost of € 47.574,00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: Development of AI algorithms on IoT platform for home rehabilitation.

Description: The proposal, named REHAB.AI, is drafted by the NUMIP laboratory of the Department of Naval, Electrical, Electronics and Telecommunications Engineering (DITEN) of the Faculty of Engineering of the University of Genoa in collaboration with Knowhedge S.r.l. within the topics and areas of specialization related to life sciences, accessibility, active aging in a smart city / smart society context.

The REHAB.AI project involves the study of innovative methodologies for the implementation of an active aging support system based on technologies such as IoT, AI and machine-learning applied to the patient home assistant and monitoring of his health status, of daily activities and specific therapeutic plans (eg rehabilitation) through implementations on the hardware platform at the patient's home to be rehabilitated with AI algorithms operating locally (edge computing).

Scientific disciplinary sector: ING-INF/03 TELECOMUNICAZIONI

Place: Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN)

Required degree:

Laurea V.O. in Informatica, Ingegneria Biomedica, Ingegneria della Telecomunicazioni, Ingegneria Elettronica, Ingegneria Informatica, Matematica, Fisica, Laurea Specialistica delle classi 23/S Informatica, 26/S Ingegneria Biomedica, 30/S Ingegneria delle Telecomunicazioni, 32/S Ingegneria Elettronica, 35/S Ingegneria Informatica, 45/S Matematica, 20/S Fisica, 50/S Modellistica Matematico-Fisica per l'Ingegneria, 100/S Tecniche e Metodi per la Società dell'Informazione Laurea Magistrale delle classi LM-17 Fisica, LM-18 Informatica, LM-21 Ingegneria Biomedica, LM-27 Ingegneria delle Telecomunicazioni, LM-29 Ingegneria Elettronica, LM-32 Ingegneria Informatica, LM-40 Matematica, LM-44 Modellistica Matematico-Fisica per l'Ingegneria, LM-66 Sicurezza Informatica, LM-91 Tecniche e Metodi per la Società dell'Informazione

Subjects of the interview:

Machine-learning techniques, serious-games for rehabilitation/health, signal processing, software development.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 5

The assessment criteria for the qualifications and the interview will be affixed on 15.11.2019 at 8:30 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Opera Pia 13, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 15.11.2019 at 12:00 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Opera Pia 13, Genova.

The interview will be held on 15.11.2019 at 16:00 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Opera Pia 13, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Fulvio Mastrogiovanni on the phone number +39 3934411179 the email address: fulvio.mastrogiovanni@unige.it

Scientific coordinator: Prof. Fulvio Mastrogiovanni

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 38.734,00 net of all charges borne by the University (two-year gross cost of € 47.574,00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: Development of an innovative smart assistant for professionals based on IoT, AI on chip and blockchain technologies

Description: The work aims at introducing a new-generation smart assistant to support professional activities in various sectors. The research to carry out will be focused on the design and development of an HW/SW solution aimed at been deployed in business environments and based on: (i) the acquisition and organisation of data relevant for carrying out a specific activity (first computational level); (ii) an HW platform equipped with an AI-enabled chipset, intelligent and personalised algorithms integrated in an operational activity model at different levels (second computational level); (iii) a trusted/secure environment for the exchange and management of information/data and algorithms; (iv) the integration in an environment based on distributed and decentralized networks (using blockchain technologies) to enable a proper security level associated with transactions of algorithms and critical data among the involved professionals.

Scientific disciplinary sector: ING-INF/05 SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI

Place: Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)

Required degree:

Laurea Magistrale della classe LM 32 Ingegneria Informatica.

Subjects of the interview:

Distributed and decentralised architectures, machine learning, knowledge representation systems.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 6

The assessment criteria for the qualifications and the interview will be affixed on 14.11.2019 at 10:30 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova. .

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 14.11.2019 at 18:00 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The interview will be held on 15.11.2019 at 11:00 in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Via Dodecaneso 35, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Alessio Merlo on the phone number +39 366 6060 815 or via the email address: alessio.merlo@unige.it

Scientific coordinator: Prof. Alessio Merlo

NO. 1 research fellowship - Duration 2 years – Two-year gross amount: € 38.734,00 net of all charges borne by the University (two-year gross cost of € 47.574,00)

Exclusive destination of the research fellowship to candidates who are 29th years old or below that age at the date of 15.6.2018 (publication notice of public date n. 422 of 13.6.2018 of Regione Liguria)

Title: HealthChain

Description: The project aims to apply innovative and advanced technologies of Information and Communication Technology in the health field. In particular, a system based on Blockchain technology will be implemented for the management and storage through a distributed system of oncological information between different hospital entities. This technology guarantees scalability of the system and greater security of the data managed, as the data will be managed access, and in addition the data will be encrypted to manage the privacy of patients, but also simplifies the sharing of information, with the possibility of access to data also in off-line mode for the various bodies involved.

Scientific disciplinary sector: ING-INF/05 SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI

Place: Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS)

Required degree:

Laurea V.O. in Informatica, Ingegneria Informatica, Ingegneria Elettronica, Ingegneria delle Telecomunicazioni, Ingegneria Biomedica, Laurea Specialistica delle classi 23/S Informatica, 35/S Ingegneria Informatica, 30/S Ingegneria delle Telecomunicazioni, 32/S Ingegneria elettronica, 26/S Ingegneria Biomedica. Laurea Magistrale delle classi LM-18 Informatica, LM-32 Ingegneria Informatica, LM-29 Ingegneria Elettronica, LM-27 Ingegneria delle Telecomunicazioni, LM-21 Ingegneria Biomedica.

Subjects of the interview:

- Computer Science
- Blockchain Technologies

The candidate will need to prove his/her knowledge of the English language.