ANNEX A

SCIENTIFIC DISCIPLINARY AREA: MATHEMATICS AND INFORMATICS

RESEARCH PROGRAM N. 1

The assessment criteria for the qualifications and the interview will be affixed on **20.9.2017** at **8.00** 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 **20.9.2017** at **11.00** in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS) Via Dodecaneso 35, Genova.

The interview will be held on **20.9.2017** at **14.00** 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.ssa Annalisa Barla on the phone number +39 010 3536602 or via the email address: annalisa.barla@unige.it.

Scientific coordinator: Prof.ssa Annalisa BARLA

N. 1 research fellowship – Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Automated Frailty Index Estimation in Hospitalized Senior Patients.

Description: The objective of the project is the automatic estimation of a multi-dimensional frailty index that leverages tools derived from various disciplines (including machine learning, signal processing and computation). The research will include (i) data collection from various sensors installed at the protected discharge model (MoDiPro) housed at the Galliera Hospital; (ii) data processing to identify event detection methods and heterogeneous fusing methods appropriate for the available data; (iii) software development for the design of software modules estimating mobility and ADL parameters.

Scientific disciplinary sector: INF/01 INFORMATICS

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

Required degree:
Laurea Magistrale delle classi: LM-17 Fisica, LM-18 Informatica, LM-21 Ingegneria Biomedica, LM-32 Ingegneria Informatica, LM-40 Matematica.

Subjects of the interview:
Elements of machine learning, signal and image processing, computer vision.

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

RESEARCH PROGRAM N. 2

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **8.00** 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 **5.9.2017** at **11.30** in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS) Via Dodecaneso 35, Genova.

The interview will be held on **5.9.2017** at **12.00** 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. Stefano Rovetta via the email address: stefarovetta@unige.it.

Scientific coordinator: Prof. Stefano ROVETTA

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Unbounded data streams learning: unsupervised methods and their applications.

Description: The project addresses the problem of clustering unstructured, non-stationary data streams. Objectives: (1, methodological) Extension of the Graded Possibilistic Clustering method to data streams; (2, methodological) Extension of spectral clustering to streams with complexity control; (3, applicative) Applications to problems in urban traffic forecasting (smart cities), web session analysis, wearable sensors for health monitoring. Existing methods will be adapted to accept incremental updates, and learning will be controlled through appropriate objectives connecting model parameters to measures of fit and of model complexity to allow updates when needed and to the extent needed.

Scientific disciplinary sector: INF/01 INFORMATICS

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-40 Matematica, LM-82 Scienze Statistiche.

Subjects of the interview:
- Exposition of the most relevant scientific achievements of the candidate.
- Machine learning methodologies.
- Data clustering.
- Skills in computer science/tech and programming.

RESEARCH PROGRAM N. 3

The assessment criteria for the qualifications and the interview will be affixed on **6.9.2017** at **9.00** in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Viale Francesco Causa 13, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **6.9.2017** at **12.00** in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Viale Francesco Causa 13, Genova.

The interview will be held on **6.9.2017** at **16.00** in Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Viale Francesco Causa 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.

Scientific coordinator: Prof. Enrico PUPPO

N. 1 research fellowship - Duration: 2 years – Annual pre-tax amount: € 19.367,00

Title: Study, project and implementation of innovative methods aimed to promoting undergraduate teaching programs and to managing the interaction between professors and students.

Description: The goal is the study and the implementation of innovative methodologies to promote the teaching programs and support the students throughout their carreer. To this end, we will develop proper student-centered instruments and procedures to improve the interaction between students and professors, in order to mitigate dropout, and reduce the time-to-degree. The experimentation of novel techniques to collect and analyse data (e.g., direct or web-based interviews) is planned. The research will lead to a profile suitable for a "Student Relationship Office" that will cooperate with the departmental "Teaching Office" and with the B.Sc. and M.Sc. Teaching Boards of DIBRIS (as case-studies), through the collection and the analysis of data (e.g., monitoring students' carreers, exams, grades, etc.).

Scientific disciplinary sector: INF/01 INFORMATICS

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

Required degree:
Laurea Magistrale delle classi: LM-50 Programmazione e gestione dei servizi educativi, LM-57 Scienze dell'educazione degli adulti e della formazione continua, LM-85 Scienze pedagogiche, LM-93 Teorie e Metodologie dell'e-learning e della media education.

Subjects of the interview:
• Expertise in projecting, managing and assessing actions in education and teaching, with specifc attention to the methodological issues.
• Expertize in psychology and effective communication strategies.
• Knowledge of the techniques of collection and statistical analysis of data.

RESEARCH PROGRAM N. 4

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **10.30** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **14.30** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The interview will be held on **6.9.2017** at **15.00** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, 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.ssa Mirca ZOTTI

N. 1 research fellowship - Duration: 2 years – Annual pre-tax amount: € 19.367.00

Title: Saprotrophic autochthonous mushrooms cultivation (ALCOTRA project 2014-2020 Italia-Francia, Finnover n°1198).

Description: This research aims to set up protocols about the cultivation of autochthonous saprotrophic mushrooms interesting for edible and/or pharmaceutical properties. Fungal strains will have to be characterized by polyphasic approach (morphological, physiological, molecular).

Scientific disciplinary sector: BIO/03 ENVIRONMENTAL AND APPLIED BOTANY

Place: Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV)

Required degree:
Dottorato di ricerca in Botanica applicata all'agricoltura e all'ambiente

Subjects of the interview:
- Isolation and characterization of autochthonous edible fungal strains (hypogeous included) by polyphasic approach.
- Saprotrophic mushrooms cultivation in controlled environment in different media.

RESEARCH PROGRAM N. 5

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **9.30** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **13.00** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The interview will be held on **6.9.2017** at **9.30** in Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Corso Europa 26, 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. Mauro MARIOTTI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: Relationships between ecosystem services and sustainable tourism in the Oltrepò Pavese, with special focus on flora, vegetation and habitats.

Description: Analysis of ecosystem services and selection of effective attractors in flora, vegetation and habitats in the context of environmental tourism (ecotourism, nature tourism and sustainable tourism) according to the WTO-OMT definitions. Development methods to plan and design display gardens for ecotourism in rural areas. Application of analyzes and evaluations to the Oltrepò Pavese area as part of the project Oltrepò (Bio)diverso, Azione "B2.3-Open Innovation Center-R&S-Ecoturismo" of the program "ATTIV-AREE. Nuova vita per le aree interne".

Scientific disciplinary sector: BIO/03 ENVIRONMENTAL AND APPLIED BOTANY

Place: Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV)

Required degree:
Dottorato di ricerca in Botanica applicata all'agricoltura e all'ambiente

Subjects of the interview:
- Botanical methodologies for the assessment and monitoring the ecosystem services function of flora, vegetation and habitats.
- The role of flora and vegetation in the sustainable tourism.
- Display gardens in rural context.

RESEARCH PROGRAM N. 6

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **12.00** in ex Istituto di Farmacologia, Viale Benedetto XV 2, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 6.9.2017 at **12.00** in ex Istituto di Farmacologia, Viale Benedetto XV 2, Genova.

The interview will be held on **7.9.2017** at **15.00** in ex Istituto di Farmacologia, Viale Benedetto XV 2, 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.ssa Antonietta MARTELLI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 23.250,00

Title: Support to clinical pharmacology activity: therapeutic monitoring and therapy revision.

Description: The job will be in the field of clinical pharmacology dealing with clinical drug monitoring, recognition and signaling of adverse drug reactions (ADR), particularly considering that recent studies indicate an increase in ADR, hospital recovery and mortality in patients exposed at five or more medicines simultaneously [1]. Moreover with age increasing a greater number of drugs is employed. Moreover in elderly subjects, during time, drug prescriptions often increase without a rational check of their real utility. This project is part of the new agreement from Galliera Hospital and the Pharmacological Unit of Di.M.I. in order to study strategies for limiting prescription of medicines and for studying potential drug interactions, increasing medical pharmacovigilance competence and signaling. It is also expected a technical and ethical evaluation and support of experimental protocols submitted to the regional Ethical Committee.
[1] Fulton MM, et al. J Am Acad Nurse Pract. 2005.

Scientific disciplinary sector: BIO/14 PHARMACOLOGY

Place: Dipartimento di Medicina Interna e specialità mediche (DIMI)

Required degree:
Specializzazione in Tossicologia medica con adeguata produzione scientifica derivante da attività di ricerca in ambito farmaco-tossicologico

Subjects of the interview:
- Drugs interactions and their clinical effects.
- Pharmacovigilance.

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

RESEARCH PROGRAM N. 7

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **9.00** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Viale Benedetto XV 6, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **12.00** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Viale Benedetto XV 6, Genova.

The interview will be held on **5.9.2017** at **14.00** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Viale Benedetto XV 6, 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. Giacomo GARIBOTTO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: Toll like receptors (TLRs), innate immunity and diabetic nephropathy.

Description: TLRs are a family of innate immunity receptors which mediate signal transduction pathways through the transcription factors that regulate the expression of proinflammatory molecules. TLRs are activated by endogenous signals of tissue injury and are involved in the pathogenesis of many inflammatory conditions, such as ischemia-reperfusion injury, atherogenesis, and immune-mediated diseases. TLRs are expressed on leukocytes and nonimmune cells, including native kidney cells. TLRs activate the NF-κB pathway and draw the production of proinflammatory molecules, and the upregulation of cell surface molecules. TLR4 is upregulated in vitro by high glucose in monocytes and increased TLR2 and TLR4 expression has been observed in monocytes from patients with type 2 diabetes.
This study is designed to investigate whether that innate immunity and TLRs play a role in its development and progression in diabetic nephropathy.

Scientific disciplinary sector: MED/14 NEPHROLOGY

Place: Dipartimento di Medicina Interna e specialità mediche (DIMI)

Required degree:
Laurea Magistrale della classe LM-9 Biotecnologie mediche, veterinarie e farmaceutiche.

Subjects of the interview: Innate immunity and the kidney, cell senescence and apoptosis, diabetic nephropathy, physiology of glucose reabsorption in the proximal tubule, implications of inhibition of glucose reabsorption in the proximal tubule in diabetic nephropathy.

RESEARCH PROGRAM N. 8

The assessment criteria for the qualifications and the interview will be affixed on **4.9.2017** at **9.30** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Direzione/Amministrazione, 1° piano, Viale Benedetto XV 6, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **4.9.2017** at **12.30** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Direzione/Amministrazione, 1° piano, Viale Benedetto XV 6, Genova.

The interview will be held on **4.9.2017** at **15.00** in Dipartimento di Medicina Interna e specialità mediche (DIMI), Aula Multimediale, 1° piano, avancorpo, Viale Benedetto XV 6, 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. Michele CEA

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: SIRT6: a novel therapeutic target in acute myeloid leukemia.

Description: Acute myeloid leukemia (AML) is an aggressive form of cancer with an estimated incidence in Europe of three to five cases per 100.000 people. Despite the recent advances in the treatment of AML, as much as 70% of patients aged 65 or older will die of their disease within 1 year of diagnosis. Compelling preliminary data from our group show that SIRT6, a NAD+-dependent histone deacetylase involved in genome maintenance, is upregulated in AML cases with genomic instability, contributing to DNA repair and conferring adverse prognosis. Consistent with this function, we plan to investigate the biological role played by SIRT6 in AML. Overall, we predict a major medical impact as well as a high relevance from the National Health System perspective for this project for the possibility that it will lead to a new and effective approach to treat AML.

Scientific disciplinary sector: MED/15 BLOOD DISEASES

Place: Dipartimento di Medicina Interna e specialità mediche (DIMI)

Required degree:
Laurea Magistrale della classe LM-6 Biologia.

Subjects of the interview:
Genomic landscape and biology of Acute Myeloid leukemia Knowledge of basic molecular biology techniques such as DNA sequencing, mRNA extraction, reverse transcription to cDNA, Real-Time Quantitative PCR (RTQ-PCR) and other laboratory techniques.

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

RESEARCH PROGRAM N. 9

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **9.00** in Clinica Malattie Infettive, Dipartimento di Scienze della Salute (DISSAL), Ospedale Policlinico San Martino, Padiglione di Patologie Complesse, piano meno uno, Largo R. Benzi 10, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **12.00** in Clinica Malattie Infettive, Dipartimento di Scienze della Salute (DISSAL), Ospedale Policlinico San Martino, Padiglione di Patologie Complesse, piano meno uno, Largo R. Benzi 10, Genova.

The interview will be held on **5.9.2017** at **13.00** in Clinica Malattie Infettive, Dipartimento di Scienze della Salute (DISSAL), Ospedale Policlinico San Martino, Padiglione di Patologie Complesse, piano meno uno, Largo R. Benzi 10, 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. Claudio VISCOLI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: Outcome of new treatment strategies and pharacovigilance of adverse events in patients with hepatitis C: informatic support and data management.

Description: After the arrival of boceprevir and telaprevir, several direct active agents (DAA) active against HCV have become available: sofosbuvir, sofosbuvir/ledipasvir, ombitasvir/paritaprevir/ritonavir, dasabuvir and daclatasvir. Other DAA's single tablet regimens like grazoprevir/elbasvir and sofosbuvir/velpatasvir are just arrived in Italy.
AIFA decided to reimburse treatment to patients at high risk for complication of HCV infection first. Since a few months, DAAs are also reimbursed for people with mild HCV disease. The aim of the project is to evaluate the efficacy and safety profile of DAA in a real-life cohort. All the activities will be ruled out at the Infectious Diseases Clinic of the Department of Health Sciences (DISSAL), University of Genoa and IRCCS San Martino-IST.
Project activities include imputing data and data management using a dedicated on line platform approved by the Ethic Committee.

Scientific disciplinary sector: MED/17 INFECTIOUS DISEASES

Place: Dipartimento di Scienze della Salute (DISSAL)

Required degree:
Laurea Magistrale delle classi: LM-6 Biologia, LM-9 Biotecnologie mediche, veterinarie e farmaceutiche, LM-13 Farmacia e farmacia industriale, LM-61 Scienze della nutrizione umana, LM-82 Scienze statistiche.

Subjects of the interview:
Informatic knowledge: operative systems useful for collecting data (Microsoft Windows XP and others), data analysis tools like Microsoft Word, Excel and Power Point; medical research through Pubmed and other search engines; ability to manage data; experience in data management and participation to study protocols.

RESEARCH PROGRAM N. 10

The assessment criteria for the qualifications and the interview will be affixed on **1.9.2017** at **9.00** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Paolo Daneo 3, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **1.9.2017** at **12.00** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Paolo Daneo 3, Genova.

The interview will be held on **1.9.2017** at **13.00** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Paolo Daneo 3, 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. Giovanni Luigi MANCARDI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 23.250,00

Title: Neural correlates of proprioception at the lower limbs in patients with Multiple Sclerosis.

Description: Global assessment of proprioception at the lower limbs in patients with Multiple Sclerosis, by means of behavioral measures of the position sense, vibratory sensation, balance and by means of Magnetic Resonance to investigate the neural correlates and the functional or structural plasticity related to disability.

Scientific disciplinary sector: MED/26 NEUROLOGY

Place: Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI)

Required degree:
Specializzazione in Neurologia con adeguata produzione scientifica derivante da lavori scientifici pubblicati su riviste indicizzate sulla Sclerosi Multipla, la propriocezione e la Risonanza Magnetica funzionale.

Subjects of the interview:
Proprioception, functional-MRI, Multiple Sclerosis.

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

RESEARCH PROGRAM N. 11

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **9.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **12.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, Genova.

The interview will be held on **5.9.2017** at **14.00** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, 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. Mohamad MAGHNIE

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 27.133,00

Title: Neuropsychological and Functional Profiles in Children and Adolescents with Silver Russell Syndrome (SRS), Turner Syndrome (TS) and Congenital Hypothyroidism (IC). Correlations with fMRI - 3T.

Description: The aim of the research is to assess children and adolescents with Silver Russell Syndrome (SRS), Turner Syndrome (TS) and Congenital Hypothyroidism (CH) to test and outline a neuropsychological and Functional profile, it includes the analysis High Cognitive Functions (Attention, Memory, Learning Skills, Executive Function) and a description of average IQ's profile.
The patients included in the study will be also subjected a neuroradiological study using Functional magnetic resonance imaging 3 TESLA (fMRI-3T) for cortical activation studies, DTI (diffusion tensor study) and non-invasive brain perfusion study (ASL-arterial spin labeling) to correlate psychodynamic data with the neuroradiological phenotype.

Scientific disciplinary sector: MED/38 GENERAL AND SUBSPECIALTY PAEDIATRICS

Place: Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI)

Required degree:
Laurea Magistrale della classe LM-51 Psicologia.

Subjects of the interview:
Clinical trait of the Silver Russell Syndrome (SRS), Turner Syndrome (TS) and Congenital Hypothyroidism (HC); Expected functional profile and determined functional profile; Instrumental procedures used for diagnostic and assessment studies; Instruments used; achieved results.

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

RESEARCH PROGRAM N. 12

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **10.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **13.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, Genova.

The interview will be held on **5.9.2017** at **14.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI), Largo Gaslini 5, 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. Mohamad MAGHNIE

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: Bone mineral density and body composition at 2, 5 and 7 years from off therapy in survivors of brain tumors treated in childhood.

Description: Patients with brain tumor history in pediatric age could develop morbidities including reduced bone mineralization and hypothalamic obesity. There are only cross-sectional and few longitudinal studies in childhood brain cancer survivors targeting either bone health or body composition.
The aim of the project is:
1. to evaluate bone mineral density and body composition by using double X-ray densitometry (DXA, gold standard for such evaluations) and to evaluate metabolic risk factors following 2 and/or 5 and/or 7 years from off therapy;
2. to perform longitudinal analysis of bone and metabolic changes in patients with 2 or more evaluations.

Scientific disciplinary sector: MED/38 GENERAL AND SUBSPECIALTY PAEDIATRICS

Place: Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-infantili (DINOGMI)

Required degree:
Specializzazione in Pediatria con adeguata produzione scientifica derivante da lavori scientifici pubblicati su riviste indicizzate sugli argomenti relativi al progetto di ricerca (mineralizzazione ossea e composizione corporea in pregressi tumori cerebrali in età pediatrica).

Subjects of the interview:
Project discussion about bone mineral density and body composition in survivors of brain tumors treated in childhood.

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

RESEARCH PROGRAM N. 13

The assessment criteria for the qualifications and the interview will be affixed on **4.9.2017** at **9.00** in Istituto Giannina Gaslini, Via G. Gaslini 5, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 4.9.2017 at **12.00** in Istituto Giannina Gaslini, Via G. Gaslini 5, Genova.

The interview will be held on **6.9.2017** at **15.00** in Istituto Giannina Gaslini, Via G. Gaslini 5, 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. Angelo RAVELLI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367.00

Title: Development and validation of the systemic JADAS (sJADAS)

Description: The JADAS is a composite disease activity index that is made up by pooling four individual measures: 1) physician's global assessment of disease activity; 2) parent's/patient's assessment of child's well-being; 3) count of joints with active arthritis; 4) erythrocyte sedimentation rate. The purpose of the present project is to develop and validate a JADAS version for use in systemic JIA. It is proposed to name this new tool "systemic JADAS" (sJADAS). The design of the study is cross-sectional and prospective. Participating centers are asked to enroll all consecutive patients seen after the study start who have new-onset "definite" systemic JIA (i.e. a disease that meets the ILAR criteria for systemic JIA) or "probable"/"possible" systemic JIA (i.e. a febrile disease that presents with the classical extra-articular features of systemic JIA, but lacks overt arthritis).

Scientific disciplinary sector: MED/38 GENERAL AND SUBSPECIALTY PAEDIATRICS

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

Required degree:
Specializzazione in Pediatria, con adeguata produzione scientifica derivante da studio della valutazione clinica standardizzata e dell'approccio terapeutico nelle malattie reumatiche.

Subjects of the interview: Diagnosis and therapy of systemic juvenile idiopathic arthritis.

SCIENTIFIC DISCIPLINARY AREA: CIVIL ENGINEERING AND ARCHITECTURE

RESEARCH PROGRAM N. 14

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **8.30** in Campus di Savona, Palazzina Marchi, 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 **5.9.2017** at **12.30** in Campus di Savona, Palazzina Marchi, Via Magliotto 2, Savona.

The interview will be held on **5.9.2017** at **15.00** in Campus di Savona, Palazzina Marchi, 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.

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. Giorgio Boni on the phone number +39 019 230271 or via the email address: info@cimafoundation.org.

Scientific coordinator: Prof. Giorgio BONI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Development of advanced tools for operational floods forecasting in the Alpine environment with particular attention to the contribution of the snow cover and the assimilation of remote data.

Description: The goal of this project is to obtain an efficient and reliable algorithm that allows to better understand the SWE dynamics in an alpine region and guarantees to achieve its best possible estimate. This algorithm should be able to merge together all sources of information about the snowpack: dynamic models, ground measurements and satellite data. In the framework of this research, the operational use of the algorithm for flood forecasting in the Alpine environment and the validation of satellite data should be thoroughly investigated, especially in the H-SAF project.

Scientific disciplinary sector: ICAR/02 HYDRAULIC AND MARINE CONTRUCTIONS AND HYDROLOGY

Place: Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS) / Centro Internazionale in Monitoraggio Ambientale Fondazione CIMA

Required degree:
Laurea Magistrale delle classi: LM-35 Ingegneria per l'ambiente e il territorio.

Subjects of the interview:
Hydrology, hydro-meteorology, snowpack hydrology, distributed hydrological modelling, data assimilation in hydrological models, flood forecasting.

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

RESEARCH PROGRAM N. 15

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **8.45** in Campus di Savona, Palazzina Marchi, 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 **5.9.2017** at **12.45** in Campus di Savona, Palazzina Marchi, Via Magliotto 2, Savona.

The interview will be held on **5.9.2017** at **16.15** in Campus di Savona, Palazzina Marchi, 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.

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. Giorgio Boni on the phone number +39 019 230271 or via the email address: info@cimafoundation.org.

Scientific coordinator: Prof. Giorgio BONI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Risk scenarios definition and characterization in a multi-scale and multi-hazard framework.

Description: The goal of this research fellow is the definition and characterization of the elements exposed to different natural hazards, with a specific focus on sensible infrastructures. The topic will be investigated: (i) in a multi-hazard perspective, to find a characterization compliant to different hazards, (ii) considering different geographic scales (local, sub-national, national), (iii) considering the different phases of the Disaster Management Cycle (prevention, preparedness, response, recovery). This characterization plays a key role in the definition of National and Sub-National multi-hazard impact scenarios, where hazard interactions are able to generate impacts which are higher than the sum of the single impacts.

Scientific disciplinary sector: ICAR/02 HYDRAULIC AND MARINE CONTRUCTIONS AND HYDROLOGY

Place: Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS) / Centro Internazionale in Monitoraggio Ambientale Fondazione CIMA

Required degree:
Laurea Magistrale delle classi: LM-35 Ingegneria per l'ambiente e il territorio.

Subjects of the interview:
~~Hydrology, hydro-meteorology, snowpack hydrology, distributed hydrological modelling, data assimilation in hydrological models, flood forecasting.~~
Event and risk scenario scenarios, vulnerability models, flood impact assessment and damage curves*.

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

* Subjects of the interview modified with Chancellor Decree n. 2795 dated 31/7/2017

RESEARCH PROGRAM N. 16

The assessment criteria for the qualifications and the interview will be affixed on **8.9.2017** at **9.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), ex Area Trasporti, Via Montallegro 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **8.9.2017** at **12.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), ex Area Trasporti, Via Montallegro 1, Genova.

The interview will be held on **8.9.2017** at **14.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), ex Area Trasporti, Via Montallegro 1, 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. Nicola SACCO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Realization of a model for the optimal planning of railway assets "risk-based" maintenance.

Description: The research aims at developing a methodology for optimal planning of railway asset maintenance that includes risk analysis. In particular, in the first part, the asset degradation will be modelled as a random process from which obtain inputs for planning methodology. The research will include both the definition of the methodology and the development of ad-hoc algorithms for the optimization problems.

Scientific disciplinary sector: ICAR/05 TRANSPORTATION

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

Required degree:
Laurea Magistrale della classe LM-26 Ingegneria della sicurezza.

Subjects of the interview:
- Railway maintenance planning methods and models;
- Mathematical programming;
- Railway transport.

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

RESEARCH PROGRAM N. 17

The assessment criteria for the qualifications and the interview will be affixed on **29.9.2017** at **17.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.10.2017** at **12.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova.

The interview will be held on **2.10.2017** at **15.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, 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. Giuseppe PICCARDO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: GBT Analysis of linear and nonlinear beams.

Description: Generalized Beam Theory (GBT) is a very powerful tool for the analysis of Thin-Walled Members (TWMs), which is becoming increasingly competitive compared to 3-D finite-element calculations. In the framework of the GBT-D approach, the research project provides advances in both linear and nonlinear formulations including: displacement-based GBT formulation for the analysis of TWMs with perforations and localized stiffeners; dynamic cross-section analysis with refined shape functions; consistent geometrically nonlinear GBT approach for the linear elastic buckling and post-buckling analysis of TWMs; advanced GBT approach for the linear and nonlinear analysis of built-up TWMs including contact between cross-section components.

Scientific disciplinary sector: ICAR/08 STRUCTURAL MECHANICS

Place: Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA).

Required degree:
Laurea Magistrale delle classi: LM-23 Ingegneria civile, LM-24 Ingegneria dei sistemi edilizi, LM-26 Ingegneria della sicurezza.

Subjects of the interview:
Thin-walled beams, Buckling and post-buckling analysis of TWMs, GBT formulation, the dynamic approach to the GTB cross-section analysis

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

RESEARCH PROGRAM N. 18

The assessment criteria for the qualifications and the interview will be affixed on **20.9.2017** at **14.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **21.9.2017** at **14.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova.

The interview will be held on **21.9.2017** at **17.00** in Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, 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. Alessandro Bottaro on the phone number +39 010 3532540 or via the email address: alessandro.bottaro@unige.it.

Scientific coordinator: Prof. Alessandro BOTTARO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Study of "LIS" for skin friction drag reduction.

Description: Reducing skin friction drag by the LIS technique consists in microstructuring a low surface energy material so as to render the surface porous, and in impregnating the porous matrix with a lubricant oil. When immersed in water and put into a motion parallel to its plane, such a surface experiences a smaller skin friction when compared to a smooth surface. The objective of the present research program is to model a lubricant-infused surface from the microscopic point of view (via a boundary element approach to solve for the two-phase Stokes flow) to obtain the components of the Navier slip tensor to be used in effective boundary conditions for successive direct numerical simulations of turbulence.

Scientific disciplinary sector: ING-IND/06 FLUID DYNAMICS

Place: Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA)

Required degree:
Laurea V.O. in Ingegneria Meccanica o Ingegneria Industriale
Laurea Specialistica della classe 36/S Ingegneria Meccanica
Laurea Magistrale della classe LM-33 Ingegneria Meccanica

Subjects of the interview:
Fluid dynamics, computational fluid dynamics, drag reduction techniques

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

RESEARCH PROGRAM N. 19

The assessment criteria for the qualifications and the interview will be affixed on **15.9.2017** at **8.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), sez. MASET, Via Montallegro 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **15.9.2017** at **11.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), sez. MASET, Via Montallegro 1, Genova.

The interview will be held on **15.9.2017** at **12.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), sez. MASET, Via Montallegro 1, 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. Alessandro Sorce on the phone number +39 380 4355212 or via the email address: alessandro.sorce@unige.it.

Scientific coordinator: Prof. Alessandro SORCE

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Development of an expert system for Combined Cycle diagnostic pattern classification.

Description: In large power plants, especially for combined cycles, software for performance monitoring and detection of deviations from the expected values are often employed. Measures relating systems (Data Driven) have been widely used to define numerical comparison models (Neural Network, Support Vector Machine, etc.). The diagnostic phase itself (fault detection and identification), which analyses such deviations, is mainly based on the threshold and rules usage (rule based). This activity aims to develop an advanced methodology (expert system) for analysing operational deviations, the diagnostic phase, by introducing supervised pattern classification techniques that combine the available experimental data and the previous fault recognition experience accrued by industry experts.

Scientific disciplinary sector: ING-IND/09 ENERGY SYSTEMS AND POWER GENERATION

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

Required degree:
Laurea Magistrale della classe LM-35 Ingegneria per l'ambiente e il territorio

Subjects of the interview:
Gas Turbine Combined Cycle power plant, Data Driven Diagnostic, Pattern Classification.

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

RESEARCH PROGRAM N. 20

The assessment criteria for the qualifications and the interview will be affixed on **4.9.2017** at **8.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **4.9.2017** at **11.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, Genova.

The interview will be held on **4.9.2017** at **12.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, 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. Aristide Massardo on the phone number +39 010 3532400 or via the email address: massardo@unige.it.

Scientific coordinator: Prof. Aristide MASSARDO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Innovative control systems for polygenerative energy hubs.

Description: Distributed power generation systems require new contol system concepts for an efficient coordination of energy generation devices and energy storage systems to comply with user demands and non-dispatchable renewable power generation. Such control systems need to feature robustness, interoperability as well as optimisation/prediction capability, to maximise the exploitation of energy storage. The work consists of developing, verifying and implementing in the real field an innovative control approach to cope with an energy-hub. Such an energy-hub is composed of microturbines, thermal energy storage, thermal energy harvesting technology. The control system will have the objective of minimising the fuel consumption but retaining dispatchability and quality in power and heat delivery. The experimentation will be carried out in the DIME laboratories.

Scientific disciplinary sector: ING-IND/09 ENERGY SYSTEMS AND POWER GENERATION

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

Required degree:
Laurea V.O. in Ingegneria Informatica
Laurea Specialistica della classe 35/S Ingegneria Informatica
Laurea Magistrale della classe LM-32 Ingegneria Informatica

Subjects of the interview:
Dynamics and control of energy systems, advanced energy systems, measurements and data acquisition in energy plants.

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

RESEARCH PROGRAM N. 21

The assessment criteria for the qualifications and the interview will be affixed on **4.9.2017** at **8.30** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Opera Pia 15A, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **4.9.2017** at **14.30** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Opera Pia 15A, Genova.

The interview will be held on **4.9.2017** at **15.00** in Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Opera Pia 15A, 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. Matteo Zoppi on the phone number +39 010 3532837 or via the email address: matteo.zoppi@unige.it.

Scientific coordinator: Prof. Matteo ZOPPI

N. 1 research fellowship - Duration: 2 years – Annual pre-tax amount: € 19.367,00

Title: Flexible automation with swarm fixtures: development of applications on the SwarmItFIX demonstrator.

Description: Development of control strategies and experimental validation on flexible automation tasks using a flexible reconfigurable multi-agent system with agents operating as a robotic swarm.

Scientific disciplinary sector: ING-IND/13 APPLIED MECHANICS

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

Required degree:
Laurea Magistrale delle classi: LM-17 Fisica, LM-25 Ingegneria dell'automazione, LM-26 Ingegneria della sicurezza, LM-28 Ingegneria elettrica, LM-29 Ingegneria elettronica, LM-32 Ingegneria informatica, LM-33 Ingegneria meccanica, LM-44 Modellistica matematico-fisica per l'ingegneria, LM-58 Scienze dell'universo.

Subjects of the interview:
Robotics, swarm robotic systems, control of multi-agent systems, flexible automation.

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

RESEARCH PROGRAM N. 22

Scientific coordinator: Prof. Federico SILVESTRO

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Study and development of probabilistic models for the sizing of generation on ship.

Description: The topic of the research activity concerns definition and development - from the technical-functional description of the generation systems on board, of their sizing on the basis of a probabilistic approach to EPLA (Electric Power Load Analysis). Stochastic models will be analyzed and proposed to represent the behavior of onboard electrical consumption and a tool will be developed in the Matlab environment for analysis and sizing of the electric generation.

Scientific disciplinary sector: ING-IND/33 ELECTRICAL POWER SYSTEMS

Place: Dipartimento di ingegneria navale, elettrica, elettronica e delle telecomunicazioni (DITEN)

Required degree:
Laurea Magistrale delle classi: LM-28 Ingegneria elettrica, LM-34 Ingegneria navale.

Subjects of the interview:
- Methodological aspects for the modeling of marine processes;
- SW tools for modeling and multivariable optimization algorithms;
- EPLA (Electric Power Load Analysis);
- Modeling of generation systems for on board electric systems;
- Modeling of stochastic processes.

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

RESEARCH PROGRAM N. 23

The assessment criteria for the qualifications and the interview will be affixed on **4.9.2017** at **9.00** 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 **4.9.2017** at **12.30** in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Opera Pia 13, Genova.

The interview will be held on **4.9.2017** at **14.30** 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.

Scientific coordinator: Prof. Enrico SIMETTI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 27.133,00

Title: Control architecture design and real-time implementation for an underwater vehicle for mining exploration and underwater plant maintenance.

Description: The ISME inter-university center is currently involved in two European H2020 projects: ROBUST (Robotic subsea exploration technologies) and DexROV (Dexterous ROV: effective dexterous ROV operations in presence of communication latencies). Both projects involve the use of underwater robots: the first one for mining survey on the seafloor, and the second one for the control and maintenance of submersed systems through "intelligent" teleoperation. The operations must both be carried out semi- or completely autonomously. The purpose of the research project will be to develop a control architecture that gives the robot such autonomy in executing the various tasks required (functional to both projects), and to carry out the related experimental tests.

Scientific disciplinary sector: ING-INF/04 SYSTEMS AND CONTROL ENGINEERING

Place: Centro interuniversitario di ricerca di Sistemi integrati per l'ambiente marino (ISME)

Required degree:
Laurea Magistrale delle classi: LM-25 Ingegneria dell'automazione, LM-32 Ingegneria informatica.

Subjects of the interview:
Excellent knowledge of C/C++ programming languages, soft and hard real-time operating systems, concurrent process programming and networked systems. Good knowledge of Matlab/Simulink.
Basic knowledge of robotics, cooperative robotics, guidance & navigation & control schemes, localization schemes, task priority based control techniques.

RESEARCH PROGRAM N. 24

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **9.30** in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Opera Pia 11a, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **13.00** in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Opera Pia 11a, Genova.

The interview will be held on **5.9.2017** at **13.30** in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Opera Pia 11a, 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. Davide ANGUITA

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Study and application of knowledge extraction techniques from railway asset data in the context of the EC H2020 IN2DREAMS project.

Description: The objective of the research is the study and application of knowledge extraction techniques, based on Big Data Analytics and Data Mining methods, from railway asset data in the context of the EC-H2020 IN2DREAMS project.
In particular, the objective will be to define application scenarios and approaches for data exchange between stakeholders and users of a rail transport network. Starting from the identified scenarios, the research will address the development of knowledge extraction techniques, with particular reference to descriptive, diagnostic and predictive models, and the identification of methodologies for model assessment.

Scientific disciplinary sector: ING-INF/05 INFORMATION PROCESSING SYSTEMS

Place: Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea V.O. in Ingegneria Meccanica o Ingegneria Industriale
Laurea Specialistica delle classi: 32/S Ingegneria elettronica, 35/S Ingegneria informatica
Laurea Magistrale delle classi: LM-29 Ingegneria elettronica, LM-32 Ingegneria Informatica

Subjects of the interview:
- Computing and storage architectures for data analysis: Hadoop/Spark, NoSQL.
- Languages and techniques for data analysis: MLlib, R, Scala.

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

RESEARCH PROGRAM N. 25

The assessment criteria for the qualifications and the interview will be affixed on **5.9.2017** at **11:00** in Dipartimento di Economia (DIEC), Via Vivaldi 5, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **5.9.2017** at **14:00** in Dipartimento di Economia (DIEC), Via Vivaldi 5, Genova.

The interview will be held on **5.9.2017** at **16:30** in Dipartimento di Economia (DIEC), Via Vivaldi 5, 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. Alberto QUAGLI

N. 1 research fellowship - Duration: 1 years – Annual pre-tax amount: € 19.367,00

Title: Business model and financial reporting – definitions and applications in empirical research.

Description: The accounting standard IFRS 9, effective in Europe from 1/1/2018, requires entities to classify and evaluate financial assets based on the business model. This requirement represents a step toward a reporting system through the eyes of management. However, the standard setter has not defined the concept of business model yet, leaving therefore room to preparers' judgement on the effective application on this concept for classification and valuation purposes. Additionally, accounting literature on this topic is still in its infancy. The current project aims at investigating the business model issue in the accounting field; it aims particularly to understand how it is possible to identify entities' business model based on financial information issued and whether there is an association between the business model and the accounting behaviour of European entities. Findings of this project may have implications for preparers and policy makers.

Scientific disciplinary sector: SECS-P/07 BUSINESS ADMINISTRATION AND MANAGEMENT

Place: Dipartimento di Economia (DIEC)

Required degree: Dottorato di ricerca in Economia Aziendale e Management.

Subjects of the interview:
Relevance of the topic, methodological issues, prior experience in this field of research.