

**SCIENTIFIC DISCIPLINARY AREA: INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE**

**RESEARCH PROGRAM NO. 54**

**The assessment criteria for the qualifications and the interview will be affixed on 7.1.2019 at 8.30** 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 7.1.2019 at 11.30** in Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti (DIME), Via Montallegro 1, Genova.

**The interview will be held on 7.1.2019 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. Alberto TRAVERSO on the phone number +39 0103352455 or via the email address: [alberto.traverso@unige.it](mailto:alberto.traverso@unige.it).*

**Scientific coordinator:** Prof. Alberto TRAVERSO

**NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00**

**Title:** Innovative solutions for flexibility of energy networks.

**Description:** The European targets for increasing non-programmable renewable sources require an increase in flexibility of all energy networks, such as electrical, thermal and natural gas grids. In the future, these energy networks will be increasingly interconnected through innovative technologies that allow them to exchange energy, and to use them for energy storage. The present research activity will focus on the study, analysis and optimization of technological solutions that allow to increase the flexibility of energy networks and the possibility of interchange between them. The activity includes both theoretical studies using specific simulation software, and the development and monitoring of pilot plants that demonstrate the actual performance achievable by innovative technologies. The research activity will also have to define suitable performance indexes to compare different technologies with each other for optimising the thermo-economic performance of the investment, in reference scenarios.

**Scientific disciplinary sector:** ING-IND/09 SISTEMI PER L'ENERGIA E L'AMBIENTE

**Place:** Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti (DIME)

**Required degree:**

Laurea V.O in: Ingegneria Meccanica, o Ingegneria Nucleare.

Laurea specialistica delle classi: 33/S Ingegneria energetica e nucleare, o 36/S Ingegneria meccanica.

Laurea magistrale delle classi: LM-30 Ingegneria energetica e nucleare, o LM-33 Ingegneria meccanica.

**Subjects of the interview:**

Energy systems, power plants, energy networks, Energy system performance optimisation, ambient condition impact on performance.

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