

Call for Candidates

The University of Modena and Reggio Emilia announces selection procedures for the allocation of No. 3 fixed-term posts for university researchers *for research and teaching support* at the departments listed below for the following scientific disciplines:

MODENA SITE

"Enzo Ferrari" Department of Engineering

n. 1 university researcher fixed-term - art. 24, comma 3 – lettera a), legge 240/10	
GSD	08/CEAR-06 MECHANICS OF SOLIDS AND STRUCTURES
SSD	CEAR-06/A Mechanics of Solids and Structures - Code position 001
<p>Specific functions of the Researcher: The researcher will carry out his/her teaching, supplementary teaching, and student assistance activities within the teachings "CEAR-06/A: Structural Mechanics" foreseen in the bachelor's as well as in the master's Civil and Environmental Engineering Degree Courses. In defining the research areas, reference is made to the declarations in Annex A of DM 639/2024.</p>	
<p>Educational and scientific commitments The researcher will join the solid and structural mechanics research group at DIEF and he will carry out his main scientific activities in the framework of the research project FISA-2022 "EARTH-TECH" - Implementation of new Shot-Earth technology in the construction industry (Decreto di Concessione MUR n. 698 del 29-05-2024; cod. FISA-2022-00183; CUP: E93C24000250001). In particular, the researcher will perform the mechanical characterization of "green" cementitious composites through the processing of data obtained from experimental tests, also adopting non-standard test setups, by using high-precision instrumentation for data acquisition and data processing as well. In agreement with FISA-2022 "EARTH-TECH" project, the research will be aimed at analyzing the non-linear mechanical behavior of structural elements subjected to various stress conditions through the development of both analytical formulations and numerical techniques. The aim of the research activity is the identification of the main mechanical parameters allowing to properly identify the behavior of cement conglomerates based on excavated earth. The research is compliant with the scope of various sections of the 2021-2027 PNR, with particular reference to section 4 "Security and resilience for society and sustainable development", with obvious implications for the 2021-2027 strategic objectives of AT3.1. The researcher will also carry out teaching activities and support teaching activities in both the bachelor's degree course and in master's degree course in civil and environmental engineering, with particular reference to the teachings falling within SSD CEAR-06/A "Structural Mechanics". The researcher will carry out both frontal teaching and laboratory activities within the aforementioned teaching disciplines.</p>	
Foreign language	English
Maximum number of scientific publications:	12, including doctoral theses
Type of contract	Full-Time
Duration of contract	36 months

"Enzo Ferrari" Department of Engineering

n. 1 university researcher fixed-term - art. 24, comma 3 – lettera a), legge 240/10	
GSD	08/CEAR-06 MECHANICS OF SOLIDS AND STRUCTURES
SSD	CEAR-06/A Mechanics of Solids and Structures - Code position 002
<p>Specific functions of the Researcher: The researcher will carry out his/her teaching, supplementary teaching, and student assistance activities within the teachings "CEAR-06/A: Structural Mechanics" foreseen in the bachelor's as well as in the master's Civil and Environmental Engineering Degree Courses. In defining the research areas, reference is made to the declarations in Annex A of DM 639/2024.</p>	

Educational and scientific commitments	
<p>The researcher will join the solid and structural mechanics research group at Dief and he will carry out his main scientific activities in the framework of the research project FISA-2022 "EARTH-TECH" - Implementation of new Shot-Earth technology in the construction industry (Decreto di Concessione MUR n. 698 del 29-05-2024; cod. FISA-2022-00183; CUP: E93C24000250001).</p> <p>In more detail, the researcher will perform the design and implementation of experimental investigations aimed at characterizing both the physical and mechanical performances of structural elements made of eco-friendly cementitious composites based on the use of excavated earth as main aggregate in the mix design, with special reference to 2D structures subjected to large deformations.</p> <p>In agreement with FISA-2022 "EARTH-TECH" project, the research activities include the modeling of the mechanical behavior of "green" cementitious composites through the development of analytical methods and numerical algorithms as well, including also codes based on the use of the finite element method. The aim of the research is to develop tools for verification and design of structures and structural components realized with earth-based eco-saving technologies.</p> <p>The research is compliant with the scope of various sections of the 2021-2027 PNR, with particular reference to section 4 "Security and resilience for society and sustainable development", with obvious implications for the 2021-2027 strategic objectives of AT3.1.</p> <p>The researcher will also carry out teaching activities and support teaching activities in both the bachelor's degree course and in master's degree course in civil and environmental engineering, with particular reference to the teachings falling within SSD CEAR-06/A "Structural Mechanics". The researcher will carry out both frontal teaching and laboratory activities within the aforementioned teaching disciplines.</p>	
Foreign language	English
Maximum number of scientific publications:	12, including doctoral theses
Type of contract	Full-Time
Duration of contract	36 months

"Enzo Ferrari" Department of Engineering

n. 1 university researcher fixed-term - art. 24, comma 3 - lettera a), legge 240/10	
GSD	08/CEAR-07 STRUCTURAL ANALYSIS AND DESIGN
SSD	CEAR-07/A Structural Analysis and Design
Specific functions of the Researcher:	
<p>The researcher will have to carry out his/her duties in the areas envisaged by the sector CEAR-07/A - TECNICA DELLE COSTRUZIONI; macro sector 08/B3 - TECNICA DELLE COSTRUZIONI of the Department of Engineering "Enzo Ferrari". In defining the research areas, reference is made to the declarations referred to in Annex A of Ministerial Decree 639/2024.</p>	
Educational and scientific commitments	
<p>The researcher will join the structural engineering research group at Dief and he will carry out his main scientific activities in the framework of the research project FISA-2022 "EARTH-TECH" - Implementation of new Shot-Earth technology in the construction industry (Decreto di Concessione MUR n. 698 del 29-05-2024; cod. FISA-2022-00183; CUP: E93C24000250001). The research activity will mainly concern the monitoring of structures and infrastructures and the calibration of numerical models mainly with reference to structural elements made of eco-friendly cementitious composites based on the use of excavated earth as main aggregate in the mix design. The research foresees both numerical and experimental activities.</p> <p>The research is compliant with the scope of various sections of the 2021-2027 PNR, with particular reference to section 4 "Security and resilience for society and sustainable development", with obvious implications for the 2021-2027 strategic objectives of AT3.1.</p> <p>The didactic commitment will be dedicated to the topics of the SSD CEAR-07/A in the context of the Degree and Master's Degree Courses in Civil and Environmental Engineering of the Dief and in particular for the courses of "Design of Structures" and "Earthquake Engineering".</p> <p>Specific scientific experience is required in the field of dynamic monitoring of structures and/or infrastructures as well as in the Finite Element model updating by means of optimization algorithms for structural monitoring.</p>	
Foreign language	English
Maximum number of scientific publications:	12, including doctoral theses
Type of contract	Full-Time
Duration of contract	36 months

Admission requirements

Candidates in possession of the following title will be admitted to the selection procedure: **Research doctorate (or equivalent if obtained abroad) or Diploma of Medical Specialisation;**

Candidates must be in possession of above mentioned requirements at the application deadline in order to gain admission to the selection process.

The Administration guarantees fairness and equal opportunities for men and women in terms of work access and contractual conditions.

How to apply and deadline

The application must be filled in and submitted only electronically by PICA – Piattaforma Integrata Concorsi Atenei, available at the following link: <https://pica.cineca.it/unimore/> penalty of exclusion within 30 days from publication of the present announcement

The Office will be closed on 31 January 2025. On closing days it will still be possible to submit an application for participation via the PICA IT application.

The guideline to submission is on line at <https://pica.cineca.it/unimore/>

Before the deadline it is possible to save the application in draft form. The date of submission is certified by the electronic system, that will send a receipt by mail. After the deadline, it will be no more possible to edit and submit the electronic form. To each application will be assigned an ID number, which has to be used for following communications together with the competition code.

The date and the time of submission is certified and proven by the electronic system, that will automatically send a receipt to the applicant's mail, after the submission of the application. In case the applicant will not receive the message, he has to contact the PICA online support. Any further information on the submission of the application can be required by email (ufficio.concorsidocenti@unimore.it) or telephone (+39 059 205 7077-6451-7056) to Ufficio Reclutamento Personale Docente, Ricercatore e Atipici

Candidates in possession of the necessary titles must also attach the following to the application:

- 1) a curriculum vitae of the candidate's scientific and teaching activities (in Italian language);**
- 2) titles and documents believed useful for purposes of comparative evaluation and relative list of such documents;**
- 3) scientific publications and relative list, presenting copies, or authenticated copies/photocopies. In the latter case, the candidate will have to present a statement substituting the affidavit as defined in attachment B. This declaration will have to be signed and presented together with a photocopy of a form of ID belonging to the signer.**

The failure to comply with the maximum number of publications limit, will imply the exclusion of the candidate.

Documents and titles attached must correspond to the requisites as described in art. 3 of the original Italian text to which candidates should refer.

Participation in the selection process requires the payment of a non-refundable contribution of 30 (thirty) Euros, as a forfeit coverage of the selection process expenses.

Payment must be made Only via PagoPA

Evaluation Procedure

The comparative evaluation provides a preliminary assessment of the candidates with analytical judgment motivated securities, CV and scientific output, including the thesis, according to the criteria and parameters which are also recognized in the international area of research, in the manner determined by the DM No 243 of May 25, 2011.

The timetable of the aptitude interviews and/or seminar talks will be publicised via a notice on the website of the Human Resources Office at the following address: www.unimore.it/bandi at least 15 days before the candidates will be required to take them.

This notice will serve as notification for all those who take part in the selection process, who may be admitted “with reserve” and thus required to be present on the day and at the time and place stated, without any further communication.

The absence of the candidate will lead to his/her automatic exclusion from the selection process.

Candidates must come to the interview with a valid form of ID.

For application form and further information please refer to the original version of the call for candidacies in Italian (<https://titulus-unimore.cineca.it/albo/>).