




Job description	Selection code: 330_CRI_I-NEST
Type and number of vacant positions	N. 2 (two) temporary positions as Fourth level researcher (R4) for up to 36 months* or to the end of the project in the field of: applied biology, agricultural sciences, environmental engineering, environmental sciences, digital agriculture, selection for the creation of a list of people for temporary positions.
Organisational structure and manager for the position	Research and Innovation Centre (CRI) coordinated by prof. Mario Pezzotti. * The duration of the contract is limited to the duration of the project itself. Therefore, the start date is negotiable, but the contracts cannot extend beyond the actual project end.
Minimum requirements for submitting an application	<ul style="list-style-type: none"> - Master's degree in: biology, agriculture, environmental sciences, environmental engineering, mechatronic / automation / electronic / computer engineering, computer science or equivalent. - Knowledge of English, minimum level B1, evaluated during the interview.
Exclusion from the recruitment process	There are no exclusions from the selection in relation to the variability of the duration of the contracts. Laws relating to the duration of a fixed-term contract at the same level with the same employer (with some exceptions provided for at the level of collective bargaining) require that a job offer will only be proposed to candidates who have seniority at FEM compatible with the duration of the proposed contract (ie. sum of previous to current fixed-term contracts at the same level of the current contract equal to or less than 36 months).
Background information and description of research projects	<p>The 2 positions are offered within the National Recovery and Resilience Plan (NRRP), Ecosystem for the Innovation I-NEST (topic Smart Agrifood) initiative which includes at FEM, 2 thematic projects specifically named:</p> <ul style="list-style-type: none"> - <u>Project 1</u>: Optimization of the biological processes for the energy and agronomic exploitation of organic biomasses and agro-environmental characterization of the products obtained (circular bioeconomy); - <u>Project 2</u>: Digitization and automation of agri-food processes. <p>The successful candidate will provide, under the supervision of the project PIs the following expertise:</p> <ul style="list-style-type: none"> - <u>Project 1</u>: The experimental activity will be addressed to the global evaluation (analytical, energetic, agronomic, economic and environmental) of organic feedstocks, of the treatment processes and of the products obtained, with particular attention to the territorial context and the recent strategies promoting the biocircular economy. Foreseen c - <u>Project 2</u>: The research activity is aimed at developing a digital and robotic technological architecture for the "Farm-2-Fork" supply chain with specific reference to regional strategic crops and related agri-food processes: vineyard, apple orchards and small fruits plantations. Specifically, the research activity will unfold along the following lines of action: A1) design of a reference technological infrastructure based on IoT technologies; A2) development of data-driven predictive models for decision support, quality control and traceability of the supply chain; A3) development of robotics mechanization applications of agricultural operations, food preservation and transformation processes.
Duties/Tasks	- <u>Project 1</u> . Under the supervision of the project PI the candidate will participate to the following activities:

	<ul style="list-style-type: none"> - elaboration of project proposals and development of experimental activities; - analysis and test trials in lab, greenhouse and open field; - data collection and elaboration; - consultancy on biological and thermochemical processes for the biomass exploitation; - training and information activity on the biomass treatment and on the quality of products obtained; - drafting of technical reports, scientific and technical papers. <p>- <u>Project 2</u>: Under the supervision of the project PI the candidate will participate to the following activities:</p> <ul style="list-style-type: none"> - design of data acquisition and collection systems on IoT technology; - development and validation of agro-meteorological models; - development and validation of machine learning algorithms; - programming of commercial robotic systems; - design and rapid prototyping of mechatronic systems; - analysis and test trials in lab, greenhouse and open field; - data collection and processing; - drafting of technical reports and scientific and technical publications.
Keywords	<p><u>Project 1</u>: Biomasses, biological and thermochemical processes, process monitoring, circular bioeconomy, organic fertilizers</p> <p><u>Project 2</u>: Internet of Things, agri-robotics, predictive models, artificial intelligence, mechatronics.</p>
Selection process	<p>A maximum of 30 points will be allocated for qualifications while the interview will be worth up to 70 points. The recruitment process will be based on the total points obtained through qualifications and performance at the interview, the results of which will be used to generate a short list for each subproject.</p> <p>The candidate should indicate which project(s) they are applying to as they will be evaluated for inclusion in the relevant ranking(s) of these. At the discretion of the Foundation, (see "<i>Procedura per la selezione delle risorse umane presso la Fondazione Edmund Mach</i>"), candidates may be drawn from one subproject short list for another short list if there are no suitable candidates or no suitable candidate accepts the job offer for that subproject.</p>
Subjects covered by the interview	<p>The interview, which will be held in English, will include a brief presentation of the candidate's education, work experiences, ambitions and knowledge in the following areas (maximum 70 points):</p> <ul style="list-style-type: none"> - <u>Project 1</u>: Optimization of the biological processes for the energy and agronomic exploitation of organic biomasses and agro-environmental characterization of the products obtained (circular bioeconomy); - <u>Project 2</u>: Digitization and automation of agri-food processes. <p><u>Evaluation criteria for the interview</u>:</p> <p>Scores will be assigned to candidates by the Commission according to the following criteria: up to a maximum of 20 points will be attributed to the presentation by the candidate of their personal research profile (0-5 points: vague and not very articulated; 5-15 points: informative, well-articulated and effective; 15-20 points: extremely effective presentation); up to 50 points will be attributed to the interview on the subproject(s) selected by the candidates by assessing the candidate's knowledge of the subjects</p>

	<p>indicated above for each project (0-10: poor knowledge of the relevant topics and limited ability to communicate orally; 10-20: limited knowledge of some topics with sufficient ability to communicate orally; 20-30: knowledge of most topics and moderate ability to communicate orally; 30-40: good overall knowledge of the topics and strong oral communication ability; 40-50: excellent knowledge of the topics with very strong oral communication ability).</p> <p>The evaluation will be expressed in points only and the candidate must reach a minimum evaluation at the interview of 40/70 points to be ranked in the shortlist.</p>
<p>Pre-selection criteria and evaluation of qualifications</p>	<p>The candidate must specify the project of interest (1 or 2). On the basis of the information contained in the application form (please use the form available on the web page of this announcement), integrated at the discretion of the Commission contained in the <i>curriculum vitae</i>, candidates with a minimum score of 10 out of 30 points will be admitted to the interview phase. The evaluation of qualifications will be as follows:</p> <ul style="list-style-type: none"> - Tertiary education in the topics covered by the subprojects as indicated in the boxes "Keywords" and "Description of the research work" (up to a total of 16 points, i.e.: up to 10 points for a Master's thesis with topic relating to those of the selected subproject(s); up to 6 points for a PhD in the topic(s) of the selected subproject(s); - Research experience (including years of doctoral work even if the PhD is not completed) in the topics covered by the subprojects as indicated in the boxes "Keywords" and "Description of the research work" (1 point, full year, 0.5 points per year fraction of experience, up to a maximum of 10 points); - Scientific publications (max 12 in the last 10 years) in the topics covered by the subprojects as indicated in the boxes "Keywords" and "Description of the research work" (0.5 points for each publication with IF / peer-reviewed, up to 6 points); - Oral communications at scientific conferences on the topics covered by the subprojects as indicated in the boxes "Keywords" and "Description of the research work" (0.5 points for each international conference; 0.25 points for all other types; up to a maximum of 2 points). - Involvement in national and international projects in topics covered by the subprojects as indicated in the boxes "Keywords" and "Description of the research work" (evaluation based on role: no project (0 point), hired within the project /1 point), co-investigator (2 points), principal investigator (3 points), up to 3 points).
<p>Language assessment according to the Common European Framework of Reference for Languages (CEFR): level of knowledge required</p>	<p>Knowledge of scientific English will be verified (to be checked by an interview on a technical or scientific nature) at a minimum level corresponding to B1. <i>To understand the levels of knowledge required consult the dedicated page at the EUROPASS site:</i> https://europass.cedefop.europa.eu/it/resources/european-language-levels-cefr In the event that it is ascertained that the candidate does not have knowledge of English corresponding with level B1, they will be excluded from the recruitment process.</p>
<p>Date of interview</p>	<p>Candidates admitted to the interview phase will be invited at the Fondazione E. Mach at San Michele all'Adige (TN) or via videoconference on October 10, 2022.</p>
<p>Gross annual remuneration</p>	<p>Contract type: CCPL Research Foundation Personnel (https://trasparenza.fmach.it/Amministrazione-Trasparente/Personale/Contrattazione-</p>

	collettivo/CCPL-Personale-Fondazioni-di-Ricerca): for a fourth level Researcher, the current gross annual remuneration is Euro 34,563.94.
Deadline for presentation of applications and deadline for the conclusion of the recruitment procedure	Applications must be received no later than 11:59 pm (the date and time of receipt indicated in the Foundation's e-mail account will be taken as proof) on September 22, 2022 . The recruitment procedure will be completed by March 22, 2023 at the latest.
How to submit an application	Applications to participate in the selection must be sent in electronic format to the email address (not certified email address, a.k.a. PEC) curricula@fmach.it , indicating the recruitment code (330_CRI_I-NEST – R4) in the subject of the message and must consist of : <ul style="list-style-type: none"> - the application form (Annex A), using the form available on the webpage announcement: this should be saved with the file name and extension: Surname First Name _Application.pdf. The application must be completed in full, with no references to other attached documentation and/or information; - the candidate's curriculum vitae, saved with the file name and extension: Surname First Name_CV.doc or .pdf; - a copy of a valid identity document with photograph. Any person encountering difficulty in submitting the application due to disability is invited to contact +39 0461 615542.
Proof of documentation required for hiring and relative deadlines	At least 10 days before the start date of the non-permanent contract, the candidate must provide the following original document, or the offer will be cancelled: <ul style="list-style-type: none"> • Master of Science (or equivalent) certificate.
Results of the selection process	The results of the selection will be communicated by: <ul style="list-style-type: none"> - publication of the shortlist of suitable candidates on the webpage dedicated to the present recruiting announcement, with the details of rank, surname and name; the publication of the candidate's name in the list of suitable candidates is not subject to confidentiality regulations; therefore, the candidate can not request that their name be removed from this list; - at the end of the selection procedure, all candidates will be notified by individual email (<u>not certified email, a.k.a. PEC</u>) as to whether they are included in the shortlist of suitable candidates or not; this email will be sent to the contact address used by the candidate to send their curriculum vitae and the application.
Hiring conditions and categories covered by Law 68/99	The Fondazione E. Mach operates in compliance with current legislation concerning fixed-term contracts. Candidates are invited to state whether they belong to the categories referred to in Law 68/99, and to indicate this in the curriculum vita sent in application for recruitment.
Company welfare and benefits at current date	<ol style="list-style-type: none"> 1. <u>Family Audit</u> certified company, with flexible working time and human resources management policy, for the wellbeing of the employees and their families; 2. In-house dining hall and coffee shop in San Michele all'Adige, as well as a <u>payment card for meals taken in registered non-company facilities</u>, with the value of Euro 6.00 per meal; 3. <u>Bike-sharing</u> facilities and free car park within the San Michele all'Adige campus and at peripheral locations; 4. Free "<u>Education Roaming (Eduroam)</u>" WiFi on the San Michele all'Adige campus (90% coverage) and in facilities of other entities affiliated with GARR for the Wi-Fi service;

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	<ol style="list-style-type: none"> 5. Employee discount for the purchase of products from the <u>Edmund Mach Winery</u> sales point; 6. <u>Staff sports club</u>, with discount for members and promotions of sport-recreational activities (on-campus gym); 7. Internal market of agri-food products prepared by the FEM high school students.
<p>Privacy policy</p>	<p>In accordance with Article 13 of the EU General Data Protection Regulation 2016/679 ("GDPR" or "Regulation"), and in general with the principle of transparency set out in this Regulation, the Fondazione E. Mach provides information on the processing of personal data on the webpage "Privacy Policy".</p> <p>The Foundation reserves the right to request documentary proof of the qualifications listed by the candidate considered suitable for the post offered.</p> <p>The candidate takes full responsibility for all information included in the application form and in their curriculum vitae. The Foundation reserves the right to require that the candidate considered suitable for the post provides documentary proof of the qualifications they have listed.</p>

This Recruiting Announcement is issued in compliance with equal opportunities between men and women for access to employment, under Law no. 198 of 11 April 2006 "Code of equal opportunities between men and women, under Article 6 of Law no. 246 of 28 November 2005".

The candidate may identify their gender prior to the tests and/or interview.

For any matters not covered by this Recruitment Announcement, reference should be made to "[Procedure for the recruitment of human resources at the Fondazione Edmund Mach](#)".

Original signed by
Ing. Mario Del Grosso Destreri
Director General
Fondazione E. Mach