

Announcement of available position	Selection code: 350_CRI_SDMV
Type of position and number of positions vacant	<p>N. 2 (two) Fourth level Researcher (R4) in the following fields:</p> <ul style="list-style-type: none"> ● Project 1 in modelling and analysis of satellite/remote sensing data (P1); ● Project 2 in machine vision, image analysis and big data analytics (P2); <p>- Recruiting for the formation of a ranking for temporary employee contract.</p>
Organisational structure and manager for the position	Research and Innovation Centre – Unit of Digital Agriculture – Line Manager for the position: Pietro Franceschi, PhD.
Specific requirements	<ul style="list-style-type: none"> - Master degree (or equivalent ≥ 4 years degree) in Physics, Engineering, Computer Science, Geography or equivalent; - Knowledge of English (minimum level B2), evaluated during the interview.
General requirements	<ul style="list-style-type: none"> - Italian citizenship with the benefit of full civil and political rights within the State of Italy, whether belonging to the Republic, or not; <p>OR</p> <ul style="list-style-type: none"> - Citizens of European Union Member States or other States, provided they meet the following requirements: <ul style="list-style-type: none"> - benefit of full civil and political rights in the country of origin or nationality (or explanation of the reasons for non-benefit); - possession of all the same requirements as for citizens of the Republic, with the sole exception of Italian citizenship, as detailed below. - Not having been the subject of criminal convictions or applications of penalties at their own request (plea bargaining), which have been confirmed as enforceable convictions; - Not having been the subject of a conviction or any application of penalty at their own request (plea bargaining), which has not yet been confirmed as enforceable, for the offences referred to in Book 2, Title II, Chapter I of the Italian Criminal Code ("Offences committed by public officials against the public administration"); - Not having been dismissed or declared disqualified from employment for having obtained employment through the production of false documents or documents that are invalid and with no possibility of remedy, or for having carried out activities incompatible with employment relationships with the Public Administration, or with entities governed by private law but under public control; - Not having exercised authoritative or negotiating powers over the Edmund Mach Foundation (Article 53 paragraph 16 ter of Legislative decree 165/2001) during the previous three years; - Not having been dismissed for justified subjective reason nor just cause, nor having had their employment relationship terminated in application of Article 32 quinquies of the Italian Criminal Code, because of failure to pass the probationary period for an employment relationship of indefinite duration and requiring the same qualifications as for this current recruitment; - Being in compliance with any obligations for military service; - In the event of recruitment, being available to take service at Edmund Mach Foundation premises.
Physical suitability for the specific work	Edmund Mach Foundation will assess the specific risks connected to the work, and if necessary request a preventive medical examination, pursuant to art. 41 of Legislative Decree 81/2008, in order to ascertain the physical suitability of the employee and absence

	of contraindications to the work for which they are to be employed. In case of physical unsuitability or suitability with limitations, the Foundation reserves the right not to proceed with recruitment or to withdraw from the contract if it has already been entered into.
Exclusion from the recruitment process	The following may not participate in the recruitment process: temporary staff who have been employed for the Foundation in an equivalent role for 36 months.
Job description	<p>The resources will be assigned to the Digital Agriculture Unit under the supervision of Pietro Franceschi, head of the research unit.</p> <p><u>Position project 1:</u> The successful candidate will primarily work on the modelling (ML) and statistical analysis of large scale dataset of satellite images. The candidate will be expected to develop and apply models able to link remote sensing data with important physiological, agricultural and pedological traits with particular focus on water management, stress and availability. She/He will also handle tasks associated with innovative methods for processing large-scale datasets and time-series data. The main results derived from the research will be published in scientific journals and will contribute to the development of a systemic solution to foster efficiency and sustainability of the agri-food sector.</p> <p><u>Position project 2:</u> The successful candidate will primarily work on the digitalization of the experimental fish farming infrastructure available at FEM, with particular focus on the development of pipelines for the processing and the analysis of large scale imaging (video or photo) datasets. The data modelling activity will also extend to the statistical analysis and modelling of large scale dataset for the study of the association between fish growth, fish nutrition and water/environment parameters. The main research findings will be published in scientific journals. and will contribute to the development of a systemic solution to foster efficiency and sustainability of Alpine fish farming</p>
Duties	<p>Under the supervision of the PI, the selected researchers will deal with:</p> <p>Project 1:</p> <ul style="list-style-type: none"> ● Develop and implement efficient pipelines for the pre-processing of satellite/remote sensing images; ● Develop and implement data driven models (statistical, ML, Deep Learning) for the prediction of physiological, agricultural and pedological properties from satellite/remote-sensing data; ● Develop and maintain open-source data analysis pipelines; ● Contribute to the dissemination of the research findings through scientific publications and participation to national and international scientific meetings. <p>Project 2:</p> <ul style="list-style-type: none"> ● Develop and implement efficient pipelines for the pre-processing of real time imaging/video datasets; ● Develop and implement data driven models (statistical, ML, Deep Learning) for the analysis and interpretation of imaging datasets; ● Develop and maintain open-source data analysis pipelines; ● Develop and implement data driven models (statistical, ML, Deep Learning) for the modelling of large scale dataset for the study of the association between fish growth, fish nutrition and water/environment parameters; ● Contribute to the dissemination of the results through scientific publications and participation to national and international scientific meetings.

<p>Keywords</p>	<p>Project 1: Data Science, Machine Learning, Remote Sensing, GIS. Project 2: Machine Vision, Image analysis, Data Science, Machine Learning.</p>
<p>Selection process</p>	<p>By qualifications as expressed in Annex A (maximum 35 points) and interview (maximum 65 points). The results of the selection are based on the sum of the points awarded for the two phases of the selection process. The candidates should indicate which project(s) they are applying to as they will be evaluated for inclusion in the relevant ranking(s) of these.</p>
<p>Subjects covered in the interview</p>	<p>During the interview, which will be conducted in English, the following knowledge will be verified (maximum 65 points):</p> <p>Project 1:</p> <ol style="list-style-type: none"> 1. Programming skills (either R or Python or equivalent) (maximum score 20); 2. Use of geographic information system (GIS), especially free and open source one (maximum score 20); 3. Data Analysis capabilities (statistical, ML, Deep Learning) with particular focus on spatio/temporal modelling of data (maximum score 20); 4. General organisation and activity of FEM, rights and duties of employees (maximum score 5). <p>Project 2:</p> <ol style="list-style-type: none"> 1. Programming skills (either R or Python or equivalent) (maximum score 20); 2. Machine vision and image analysis (maximum score 20); 3. Data Analysis capabilities (statistical, ML, Deep Learning) (maximum score 20); 4. General organisation and activity of FEM, rights and duties of employees (maximum score 5). <p>In the interview, the candidate must achieve a minimum score of 45/65 points.</p>
<p>Assessment of qualifications</p>	<p>On the basis of the information provided exclusively in the application (Annex A), FEM will select and admit to the interview the best 10 candidates for each position evaluated based on the following criteria (minimum score for admission to the interview 7 points, maximum 35 points):</p> <p>Project 1:</p> <ul style="list-style-type: none"> • Master thesis in the field of data science / remote sensing (maximum 5 points attributed according to the following criteria: 0 points=no match, 1.5=minimal match, 3=medium match, 5=perfect match); • PhD thesis in the field of data science / remote sensing (maximum 6 points attributed according to the relevance of the PhD thesis to the selection: 0 points=no match, 1.5=minimal match, 3=medium match, 5=perfect match); • Scientific publications in journals with impact factor in the field of data science / remote sensing (maximum 12 points attributed with the following criteria: 1 point per item. The score of the individual publications will be doubled if the candidate appears as first, last or corresponding author); • Work experience in the field of data science / remote sensing (maximum 12 points attributed with the following criteria: 1 point every three months). <p>Project 2:</p> <ul style="list-style-type: none"> • Master thesis in the field of machine vision / image analysis / data science (maximum 5 points attributed according to the following criteria: 0 points=no match, 1.5=minimal match, 3=medium match, 5=perfect match); • PhD thesis in the field of machine vision / image analysis / data science (maximum 6 points attributed according to the relevance of the PhD thesis to

	<p>the selection: 0 points=no match, 1.5=minimal match, 3=medium match, 5=perfect match);</p> <ul style="list-style-type: none"> Scientific publications in journals with impact factor in the field of machine vision / image analysis / data science (maximum 12 points attributed with the following criteria: 1 point per item. The score of the individual publications will be doubled if the candidate appears as first, last or corresponding author); Work experience in the field of machine vision / image analysis / data science (maximum 12 points attributed with the following criteria: 1 point every three months).
<p>Knowledge level of languages, relative to the Common European Framework (CEFR), and method of verification</p>	<p>The interview will be in English. Knowledge of English will be verified (to be checked by an interview on a technical or scientific nature) at a minimum level corresponding to B2. <i>To understand the levels of knowledge required, consult the dedicated page on the EUROPASS website:</i> https://www.coe.int/en/web/common-european-framework-reference-languages Failure to possess a level of English corresponding to B2 will result in exclusion from the selection process.</p>
<p>Possession of requirements and recourse to clarification</p>	<p>The candidate must meet all the requirements and qualifications laid out, on the closing date for submitting applications as stated in the public announcement, as well as on the date of recruitment and placement. Candidates are in any case required to promptly inform the Foundation of any change in the data declared in the application for participation in the public notice.</p> <p>Failure to meet the specific and general requirements will result in exclusion from the selection process. The Foundation reserves the right to verify the above requirements and may at any time terminate the selection process for a candidate who does not meet them. Should the verification reveal inconsistencies, doubts or uncertainties, the Foundation also reserves the right to request further clarifications and/or documents to be produced, within the peremptory deadline indicated by the Foundation.</p> <p>The assessment of the possession of requirements and evaluation of qualifications is based exclusively on the information declared in the application form (Annex A).</p>
<p>Modality and deadlines for communication to candidates of the dates and locations of the interview</p>	<p>Candidates admitted to the interview phase will be informed of the date and location via e-mail (<u>not by certified email, a.k.a. PEC</u>), sent to the contact address used to send the curriculum and the application (Annex A), at least 10 days before the interview date. The interviews will be held at the Edmund Mach Foundation in San Michele all'Adige (Province of Trento) or in videoconference.</p> <p>Each admitted candidate must attend the interview, where they must present a valid photographic identification document, or if held in remote videoconferencing, the document must be presented in advance. Late arrival or failure to appear at the interview will result in exclusion from the selection process.</p>
<p>Gross annual remuneration</p>	<p>Provincial Collective Contract for Personnel of Research Foundations (https://trasparenza.fmach.it/Amministrazione-Trasparente/Personale/Contrattazione-collettiva/CCPL-Personale-Fondazioni-di-Ricerca), Fourth level Researcher, current gross remuneration of Euro 36.075,75, including 13th and 14th month's pay.</p>
<p>Deadline for presentation of applications and recruitment process end date.</p>	<p>Applications must arrive by and no later than 23:59 CET (the date and time of receipt shown in the electronic mail account of the Foundation shall be valid) on November 23, 2023.</p> <p>The recruitment procedure will terminate at the latest by May 23, 2024.</p>

How to present applications

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 (**350_CRI_SDMV – R4 temporary digital agriculture**) in the subject of the message and **must consist of:**

- **the application form (Annex A)**, as per the model available on the webpage announcement, which must be saved with the file name and extension: **Surname First Name _Application.pdf**. The application must be fully completed, without any reference to other attached documentation and/or information;
- the candidate's **curriculum vitae**, saved with the file name and extension as follows: **Surname First Name_CV.doc or .pdf**;
- **a copy of a valid identity document.**

Any person encountering difficulty in submitting the application due to disability is invited to contact +39 0461 615542.

In the application form (Annex A) the candidate must declare any marriage, cohabitation or family relationship up to the fourth degree with employees, ongoing consultants, directors, members of the supervisory bodies of the Foundation. This requirement ensures maximum transparency in the recruitment process and avoids situations of potential conflict, such as, for example, direct or indirect reporting in the same organisational structure between persons who have such relationships.

In the application form (Annex A) the candidate must declare, under their own personal responsibility, **the possession of the specific requirements, general requirements and any qualifications as indicated in the relative boxes of this Recruitment Announcement**, pursuant to Articles 46 and 47 of Presidential decree no. 445 of 28 December 2000, indicating awareness of the forfeiture of any benefits obtained and the criminal sanctions provided for respectively in Articles 75 and 76 of the aforementioned decree, in the case of untrue declarations, creation or use of false documents.

By submitting an application for selection, the candidate assumes responsibility for the truthfulness of all the information provided in the application and in any attached documents, as well as for the conformity to the original of the copies of any documents produced, all this in accordance with Presidential decree 445/2000.

The Edmund Mach Foundation reserves the right to carry out checks and if these reveal that the candidate's declarations contain any untrue content, the declarant will forfeit any benefits deriving from any provision issued on the basis of the untruthful declaration; moreover, such a declaration, as a "mendacious statement", will be punished in accordance with the Italian Criminal Code and the special laws on the subject.




Candidates who make untruthful declarations concerning the possession of the fundamental requirements for participation in the selection process will be removed from the ranking list and the employment relationship, if already established, will be terminated.

The Foundation shall not accept any responsibility for the loss of communications due to the incorrect indication of the address by the candidate or to a missed or late communication of the change of the address indicated in their application, or due to any postal or telecommunications defects or in any case due to third parties, unforeseeable circumstances or force majeure.

Proof of documentation in the event of hiring and relative deadlines

Within 10 days prior to hiring, the candidate must provide, under penalty of forfeiture from hiring, the attestations or certifications demonstrating possession of the requisites of admission and qualifications declared in the application form.

<p>Results of the selection</p>	<p>The results of the selection will be communicated by:</p> <ul style="list-style-type: none"> - publication of the suitable candidate ranking on the webpage dedicated to the present recruiting announcement, with the details of ranking order, surname and name; the publication of the candidate's name in the list of suitable candidates shall not be subject to the right of confidentiality, therefore the candidate may not request that their name be removed from the said list; - at the end of the procedure, communication to all candidates, whether included in the ranking of suitable candidates or not, by individual email (<u>not certified email, a.k.a. PEC</u>) to the contact address used to send the curriculum vitae and the application.
<p>Hiring conditions and categories covered by Law 170/2010 or Law 68/99</p>	<p>The Edmund Mach Foundation operates in compliance with the legislation in force concerning fixed-term contracts.</p> <p>Candidates are invited to state whether they belong to the categories referred to in Law No. 170 of 8 October 2010 (people with specific learning disorders (SLD)) or in Law No. 68/99 (persons with disabilities or categories referred to in Article 18), and to indicate this in the application form.</p>
<p>Company welfare and benefits at current date</p>	<ol style="list-style-type: none"> 1. Family Audit certified company, with flexible working time and human resources management policy, for the wellbeing of the employees and their families; 2. Gender Equality Plan (GEP) that promotes gender equality through a process of structural change; 3. In-house dining hall in San Michele all'Adige, as well as a payment card for meals taken in registered non-company facilities, with the value of Euro 6.00 per meal; 4. Bike-sharing facility and free car park within the San Michele all'Adige campus and at the peripheral locations; 5. Free "Education Roaming (Eduroam)" WiFi on the San Michele all'Adige campus (90% coverage) and in facilities of other entities affiliated with GARR for the Wi-Fi service; 6. Employee discount for the purchase of products from the Edmund Mach Winery sales point; 7. Staff sports club, with discount for members and promotions of sport-recreational activities (on-campus gym); 8. Internal market of agri-food products prepared by the Foundation 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 the Regulation, the Edmund Mach Foundation provides information on the processing of personal data at the webpage "Privacy Policy".</p> <p>The candidate takes full responsibility for all the information included in their application form and curriculum vitae. The Foundation reserves the right to require that the candidate considered suitable for the post shall offer documentary proof of the qualifications they have listed.</p>

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This Recruiting Announcement is issued in compliance with equal opportunities between men and women for access to employment, pursuant to Legislative decree no. 198 of 11 April 2006 "Code of equal opportunities between men and women, pursuant to Article 6 of Law no. 246 of 28 November 2005". The candidate identifies their gender prior to the tests and/or interview.

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

Original signed by
Eng. Mario Del Grosso Destreri
Director General
Edmund Mach Foundation