



Marie Skłodowska-Curie Actions – Doctoral Network (MSCA DN)

UNVEIL – Unified Nondestructive Evaluation of Historical Artifacts

HORIZON-MSCA-2024-DN-01 • Grant Agreement No. 101226363

Project start: 1 March 2026 • Duration: 48 months

## N°1 Doctoral Candidate Position offer

### Job Information

**Recruiting Organisation/Company:** Profilocolore S.r.l.

*Country:* Italy; *City:* Rome, *Postal Code* 00141; *Street:* Via Val d'Aosta 24

*Research Field:* Spectral Imaging, Computer science, electrical engineering, physics, mathematics.

*Researcher Profile:* First Stage Researcher (R1) & PhD student

**Application Deadline: 15 June 2026 - 23:59 (Europe/Rome)**

*Type of Contract:* Temporary (3-years)

*Job Status:* Full-time

### Offer Description

This position is part of the UNVEIL Marie Skłodowska-Curie Doctoral Network, funded by the European Union under the Marie Skłodowska-Curie Actions (Doctoral Networks), Grant Agreement No. 101226363.

Within the UNVEIL project, PROFILOCOLORE S.r.l. (Roma), is recruiting for the following position:

#### **Doctoral Candidate DC9**

**Project Title:** Fusion of multi-spectral imaging with multi-source subsurface NDE imaging

**Project:** DC9@Profilocolore will focus on integrating complementary information obtained from various sensors, such as Hypercolorimetric Multispectral Imaging (HMI) and sub-surface NDE techniques, including terahertz imaging (THz), infrared thermography (IRT), and ultrasonic testing (UT). The main tasks will be to: (1) define feature-based image alignment methods for data acquired from different sensors, particularly between HMI and sub-surface techniques; (2) define hardware and software calibration procedures for integrating data from

sensors with different sensitivity curves and non-homogeneous sampling; (3) develop post-processing techniques (PCA, ICA, GA) to reduce redundancy in multi-sensor data and extract features characterizing detected anomalies through data merging; (4) compare results obtained from calibrated images and integrated using the proposed techniques; and (5) develop image fusion procedures combining HMI spectral signatures with THz attenuation, and HMI spectral absorbance with IRT data.

Recruitment will follow an open, transparent, merit-based, impartial and equitable procedure. See the UNVEIL recruitment page and collective advert for the other positions offered within UNVEIL: <https://unveil-dn.eu/contact/>

The weekly working hours are 40. The position is limited to three years.

We value and promote the diversity of our employees' skills and therefore welcome all applications – regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity. Severely disabled persons are given preference in the event of equal suitability. Our tasks are diverse and adaptable – for applicants with disabilities, we work together to find solutions that best promote their abilities.

**Duration:** 36 months, starting (planned for October 2026)

**Supervisor:** Marcello Melis (Profilocolore s.r.l.), Michele Scarpiniti (Sapienza University of Rome); Co-supervisor: D.S. Citrin (Georgia Tech-Europe);

**Planned Secondments:** Secondment periods are planned at CNRS–GeorgiaTech Europe (Metz, France) for training in THz imaging and fusion of HMI with THz data, and at NTNU (Trondheim, Norway) for training in hyperspectral imaging and comparison of spectral processing techniques. Short visits to CNRS-C2RMF (Paris, France) are also expected for fusion with other imaging techniques and material characterization.

**PhD School enrolment:** Sapienza University of Rome, Department of Information Engineering, Electronics and Telecommunications, [Phd in INFORMATION AND COMMUNICATION TECHNOLOGY \(ICT\)](#)

**Candidates must meet all admission requirements for the PhD programme. These requirements must be fulfilled at the start of the contract.**

## Requirements

### *Candidate profile*

- MSc (or equivalent) in computer science, electrical engineering, physics, mathematics or related field
- Experience or strong interest in image processing, registration, and multimodal data fusion
- Skills: Computer vision, image & signal processing, machine learning, preferred C++, Python
- Extra welcome skills: knowledge of GPU development environment, CUDA, OpenCL, Vulkan API (<https://www.vulkan.org/>)

## Specific Requirements

The selected candidate must meet the following requirements:

- Commit full-time to the research activity, unless authorization is granted by the European Commission for personal or family reasons.
- Carry out exclusively the research activities related to the specified research program, and refrain from undertaking any teaching activities at the university
- Refrain from receiving any additional income beyond what is specified in the call
- Agree to sign all necessary agreements concerning intellectual property rights
- Maintain confidentiality in accordance with the regulations of the European Project
- Good creative, technical, innovative and problem-solving skills

*Languages: ENGLISH Level: Good*

## Eligibility criteria

The position is open to candidates of any nationality, provided they strictly fulfil the **eligibility requirements** established for the enrollment through the Marie Skłodowska-Curie Action-Doctoral Network (MSCA-DN). Equal opportunities policy without distinction on the grounds of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation will be applied. Please, refer to the section “Recruited Researchers” (page 122 and following) of the Horizon Europe Work Programme 2023-2025 for MSCA-DN actions, available at the following link:

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf)

In particular, at the time of recruitment, applicants must comply with the following eligibility criteria:

- **Experience:** Applicants **must not be already in possession of a doctoral degree**. Applicants who have successfully defended their doctoral thesis, but who have not yet formally been awarded the doctoral degree, will not be considered eligible. Applicants must possess a five-years university degree (Master’s degree or equivalent).
- **Mobility rule:** Applicants must not have resided or carried out their main activity (work, studies, etc.) in the country where the research training activities will take place for more than 12 months in the 3 years immediately prior to the recruitment date.

## Selection process

### APPLICATION PROCEDURE

The applicant must send an email at: [unveil@profilocolore.it](mailto:unveil@profilocolore.it) within the deadline. Any other form of application will not be considered.

All applications will be checked for eligibility. Incomplete applications will be ignored. Applications will be in English.

### ASSESSMENT CRITERIA / EVALUATION CRITERIA

Supervisors will pre-select candidates for the position, based on the information included in the application procedure that will be evaluated against the following criteria:

- Educational record;
- scientific quality of the applicant's CV;
- previous experience in the subject of the UNVEIL research programme.

**Candidates will be notified via email about the pre-selection outcomes. Shortlisted candidates will be invited for interviews with multiple supervisors from the network (online or in-person). in the week 13-17 July 2026. More details will be provided by email.**

A good level of English proficiency (understood, spoken and written) will be considered.

**Please submit your application via the email [unveil@profilocolore.it](mailto:unveil@profilocolore.it) including:**

- **CV (mandatory),**
- **motivation letter (mandatory),**
- **copies of relevant diplomas/documents confirming your eligibility (mandatory)**
- **recommendation letter(s) (optional),**
- **copy of publications and/or master thesis (max 5) (optional)**

#### **Additional comments**

The start of the employment is foreseen at the latest on the 1st November 2026 but it could happen earlier based on agreement. The PhD programme starts on 1st November 2026.

Candidates of all nationalities and genders are welcome to apply.

In line with MSCA requirements, candidates must be willing to undertake international mobility during the fellowship, and may account for up to 30% of the contract duration.

Website for additional job details: <https://unveil-dn.eu/contact/>

#### **Benefits**

Each recruited Doctoral Candidate will be offered a temporary gross research fellowship. The salary of the doctoral candidates (DCs) will be paid in accordance with the MSCA rules. For details, please refer to the section "Applicable Unit Contributions" (page 118 and following) of the Horizon Europe Work Programme 2023-2025 for MSCA-DN actions, available at the following link:

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf)

Further information can also be found at the MSCA-DN dedicated webpage (<https://marie-sklodowska-curie-actions.ec.europa.eu/actions/doctoral-networks>).

#### **MSCA Doctoral Salary (monthly, gross)**

The salary consists of three components which are added together:

- Living Allowance – Approx. 3.821,53 € (base 4.010,00 € × 95,3% CCC; see Horizon Europe Work Programme 2023-2025 for MSCA-DN actions, page 156)
- Mobility Allowance – 710 €
- Family Allowance – 660 € (if applicable)
- Total gross monthly salary: with family allowance: 5.191,53 €, without family allowance: 4.531,53 €

**Note: Net salary depends on social contributions and local tax.**