

Date 09/12/2024:

The Institute of Electronics, Computer and Telecommunication Engineering (IEIIT) of CNR (Consiglio Nazionale delle Ricerche) is offering a PhD position with a focus on cutting-edge research areas in radio-frequency (RF) sensing, multi-target localization and vision. The position is funded by the prestigious Horizon Europe Marie Skłodowska-Curie Doctoral Networks 2024 initiative (SMARTTEST project <https://dn-smarttest.eu/>)

You will pioneer the integration of distributed learning frameworks, such as Federated Learning (FL), over dense wireless network targeting RF human sensing applications. You'll develop novel breakthrough technologies that combine machine learning tools with sensing and dense communication networks to enhance remote healthcare technologies and patient monitoring. You will explore the integration of distributed learning tools into innovative integrated sensing and communication systems leveraging:

- 1) physics-driven [generative AI](#) techniques
- 2) Bayesian and [EM models](#)
- 3) emerging [Federated Learning](#) tools

The SMARTTEST project aims to foster a new generation of researchers with a strong foundation in AI for intelligent sensing and communication technologies for resilient remote healthcare.

Key details:

- Position Title: Early Stage Researcher (PhD Student)
- Host Institution: Institute of Electronics Computer and Telecommunication (IEIIT) of CNR, Milano, Italy
- Laboratory: WaveLab lab (<https://www.wavelab.polimi.it/>).
- Application Deadline: 01/02/2025
- Expected Start Date: 01/09/2025

Our offer

- DC will be enrolled in the Politecnico di Milano (POLIMI) doctorate course on Data Analytics and Decision Science (DADS). The DC will be also appointed to a full-time position at CNR for 3 years, within a very stimulating scientific environment;
- CNR offers a dynamic and extremely multidisciplinary ecosystem with enthusiastic colleagues working in the field of wireless communications, AI in healthcare networks, signal processing distributed machine learning;
- You will receive a gross monthly salary of 3311,6 euro per month for three years. This gross salary is subject to taxes and all compulsory deductions under national Italian legislation, including any employer contributions;
- The flexibility to work (partially) from home;
- Access to both CNR and POLIMI online facilities;
- We encourage a high degree of responsibility and independence, while collaborating with close colleagues, researchers and other staff.

Are you interested in this position?

Please send your application via the 'Apply now'

<https://dn-smarttest.eu/recruitment/DC04/>

before 01/02/2025 and include:

- A cover letter (maximum 2 pages A4), emphasizing your specific interest, qualifications, motivations to apply for this position.
- A Curriculum Vitae, including a list of all courses attended and grades obtained, and, if applicable, a list of publications and references.

For more information regarding this position, you are welcome to contact
Stefano Savazzi, stefano.savazzi@cnr.it (supervisor)
Sanaz Kianoush, sanaz.kianoush@cnr.it (co-supervisor)



Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni