

# DESCRIPTION OF THE POSITION

## Post-Doctoral Position

### « Computational RF Imaging »



DESCRIPTION OF THE POSITION	
Duration	12 to 24 months, starting September 2026 (flexible)
Location	XLIM Research Institute, University of Limoges, France
Supervisors	Prof. Cyril Decroze and Prof. Moctar Mouhamadou
Deadline	31 May 2026
Salary	~3,450 EUR/month gross (approx. 2,750 EUR net)

#### Research context :

The position addresses RF computational imaging for **cybersecurity-driven applications** and share a **hardware-software co-design**. The main research direction concerns passive multistatic imaging using a custom receiver architecture that exploits signals from non-cooperative sources. Scene reconstruction is performed through advanced correlative processing, suited to the monitoring of environments governed by strict electromagnetic emission regulations.

#### Profile :

We are looking for a researcher active on RF imaging topics, with a strong background across three areas:

- signal processing and inversion - inverse problems, back-propagation, correlative methods, channel estimation, ...
- RF systems and instrumentation - hands-on experience building and operating measurement on digital communications chains
- Antennas & propagation - antenna design, propagation channel

#### Qualifications :

- PhD in electrical engineering or a related field (defended)
- Publications in international journals on topics relevant to the position
- Proficiency in written and spoken English

#### We offer :

- A stimulating research environment with strong publication opportunities, funded conference participation, and access to state-of-the-art RF measurement and simulation facilities
- Active collaboration with academic and industrial partners in the fields of computational imaging and electromagnetic security
- A pleasant living environment with among the lowest costs of living in France

<b>Technical skills</b>		
<b>Area</b>	<b>Details</b>	<b>Level</b>
<b>RF imaging algorithms</b>	Inverse problems, correlative methods,	<b>REQUIRED</b>
<b>RF measurement</b>	RF bench setup and automation (GPIB/SCPI/Python)	<b>REQUIRED</b>
<b>Scientific programming</b>	MATLAB and/or Python: signal processing, instrument control, digital communications	<b>REQUIRED</b>
<b>Multistatic / MIMO</b>	Array processing, spatial/frequency diversity, MIMO radar formalism	<b>VALUED</b>
<b>EM simulation</b>	CST — radiating structures, periodic arrays	<b>VALUED</b>

## Environment :

XLIM is a joint research unit of the CNRS (National Center for Scientific Research) and the University of Limoges, with expertise spanning electronics and microwaves, optics and photonics, computer-aided design, mathematics, computer science and image processing. Application domains include secured environments, biotechnology and health, and energy management. XLIM brings together more than 440 staff across faculty, CNRS researchers, engineers, technicians, postdoctoral researchers, PhD students and administrative personnel. **Our instrumentation platform** : <https://www.unilim.fr/platinom/?lang=en>

## Application :

Send a single PDF to both addresses below, including :

- CV with full publication list
- Cover letter outlining how your background aligns with the position
- Two academic reference letters or contact details for referees

**Deadline : 31 May 2026** : [cyril.decroze@xlim.fr](mailto:cyril.decroze@xlim.fr) / [moctar.mouhamadou@xlim.fr](mailto:moctar.mouhamadou@xlim.fr)