

JOB SPECIFICATION FOR CALL FOR APPLICATIONS

Date of update: February 2020

Job title: Post-doctoral Research Fellow - *Physics*

Localisation : Palaiseau - France

Entity / Service: Télécom SudParis / Electronics and Physics Department (EPH)

Position of supervisor: Head of EPH department

Categories or professions of agents who can apply: II - R / T

Category and job occupation in IMT: II - P

Category in the public service: A

One year contract renewable

ABOUT TELECOM SUDPARIS

Telecom SudParis is a public graduate school for engineering, which has been recognized on the highest level in the domain of digital technology. The quality of its courses is founded on the scientific excellence of its faculty and on teaching techniques that emphasize project management, innovation and intercultural understanding. Telecom SudParis is part of the Institut Mines-Telecom, the number one group of engineering schools in France, under the supervision of the Minister for Industry. Telecom SudParis with Ecole Polytechnique, ENSTA Paris, ENSAE Paris and Telecom Paris are co-founders of the Institut Polytechnique de Paris, an institute of Science and Technology with an international vocation.

Its assets include: a personalized course, varied opportunities, the no.3 incubator in France, an ICT research center, an international campus shared with Institut Mines-Telecom Business School and over 60 student societies and clubs.

CONTEXT AND ASSIGNMENTS :

Télécom SudParis recruits a post-doctoral fellow whose activities will focus on *unconventional optical imaging techniques, digital reconstruction and the exploitation of heterogeneous multimodal data*. The candidate will carry out his/her research in the context of the PLENIMAGE platform dedicated to optical microscopy and optical coherence tomography. He/She will contribute to the development of novel approaches to imaging, signal exploitation and data mining (e.g. automated digital marking of samples) for medical diagnostics applications.

He/She will be involved in collaborative research projects (ANR, European, ...) and will participate in the supervision of students and PhD students.

The work will be carried out within the Optics and Photonics Group of the department, whose activities are also related to the fields of information transport, sensors and data processing.

CANDIDATE PROFILE :

The candidate has a first experience in *inverse problem solving* (and/or time reversal) with strong fundamentals in *physical optics*, and ideally, has already worked on the exploitation of optical tomography signals, or non-conventional imagers. He/She also has an understanding of the use of data analysis techniques.

TRAINING & SKILLS :

Level of training required :

- PhD in *physics*

Required skills and knowledge :

- Strong background in physical optics with expertise in any of the following areas :
inverse problem solving, digital holography, unconventional imaging
- Skills in physical signals exploitation and analysis
- Proficiency in English and french languages

Skills and abilities :

- Human qualities
- Ability to work in a tightly multidisciplinary context
- Ability to carry out activities with autonomy
- Ability to work in teams

TO APPLY:

Please send :

- a motivation letter
- a detailed CV
- summary of PhD thesis
- PhD viva voce report
- copy of PhD degree
- full addresses and positions of two referees

- recrutements@imtbs-tsp.eu

Or

- Télécom SudParis - HRD - 9 rue Charles Fourier - 91000 EVRY - FRANCE

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