

Call for application

Post-doctoral Research Fellow in Physics (F/H)

Localisation:	Télécom SudParis, 19 Place Marguerite Perey, Palaiseau 91120, FRANCE (near Paris)
Entity/Service:	Télécom SudParis / Electronics and Physics Department (EPH)
Position of supervisor:	Head of EPH department
Contract type	One-year fixed-term contract (renewable)

1. CONTEXT

1.1 IMT Presentation

Institut Mines-Télécom is a public institution dedicated to higher education and research for innovation in the fields of engineering and digital technology. Always tuned in to the economic world, it combines high academic and scientific legitimacy with a concrete presence alongside companies and a unique focus on the major transformations of the 21st century: digital technologies, the environment and energy, industry and education. Its training and research for innovation are conducted in the Mines and Télécom Graduate Schools under the supervision of the Minister for Industry and Electronic Communications, in two subsidiaries and in institutions that are associate partners or under contract. Institut Mines-Télécom is a founding member of the Industry of the Future Alliance. It has two Carnot labels for the quality of its research partnerships. Every year, around seventy startup companies leave its incubators.

1.2 School Presentation

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 École 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 centre, an international campus shared with Institut Mines-Telecom Business School and over 60 student societies and clubs.

2. MISSIONS AND ACTIVITIES

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.

3. TRAINING AND SKILLS

3.1 Training

PhD in physics

3.2 Skills

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.

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

4. OTHER INFORMATION AND HOW TO APPLY

Website: <https://www.telecom-sudparis.eu/>

Candidature deadline: April 17th, 2020

Contact persons:

Pr. Badr-Eddine BENKELFAT

badr-eddine.benkelfat@telecom-sudparis.eu

Pr. Yaneck GOTTESMAN

yaneck.gottesman@telecom-sudparis.eu

To apply:

Motivation Letter

Detailed CV

Summary of PhD thesis

PhD viva voce report

Copy of PhD degree

Full addresses and positions of two referees

To send to:

recrutements@imtbs-tsp.eu

or

Télécom SudParis

HRD

9 Rue Charles Fourier

91000 Evry - FRANCE

Information of the candidate on the processing of personal data: <https://bit.ly/2QeOZhl>