Faculty position
Assistant/Associate Professor in
Deep Learning for Computer Vision

PRESENTATION AND CONTEXT OF THE INSTITUTION
The Institut Polytechnique de Paris (IP Paris), legally created in May 2019, brings together five Grandes Ecoles: the École Polytechnique, ENSTA Paris, ENSAE Paris (a GENES school), Télécom Paris and Télécom SudParis (two IMT schools). This grouping of five institutions of excellence within the Institut Polytechnique de Paris deliberately places itself in an international approach to higher education and research. IP Paris' ambition is to train 10,000 students by 2022. It enables these Schools to combine their strengths, to amplify their existing cooperative actions and to gain in visibility, especially internationally, by capitalizing on their assets and by carrying out a transformation that will position the Institut Polytechnique de Paris according to international standards. Gathered on the same campus, these Schools have tremendous potential, enabling them to leverage their strengths to implement joint projects.

HI! PARIS (https://www.hi-paris.fr/). Jointly created by HEC Paris and the Institut Polytechnique de Paris (IP Paris), HI! Paris is a new interdisciplinary research and teaching center dedicated to AI and Data Sciences. HI! Paris, the first European interdisciplinary and interinstitutional center combining education, research and innovation, aims to become a world leader in the field within 5 years by addressing the main challenges of technological transformation and its impact on business and society. The Center will rely on the 300 researchers and the infrastructures of IP Paris and HEC Paris in these fields. It is a continuation of an intense dynamic collaboration between the two institutions, which already share a common doctoral school and master's degrees. It is entirely financed by corporate sponsors mobilized around the two academic institutions. A unique space for breakthroughs, training and innovation, technology development and transfer, HI! Paris will be active in key application areas such as energy and environment, defense and security, health, retail and luxury goods, telecoms, food, finance and insurance... By strengthening the collaboration between IP Paris and HEC Paris, and by capitalizing on their expertise covering a broad academic spectrum, HI! Paris will have a powerful impact on a European and global scale in terms of data-IA research and training (engineers, managers, young researchers, continuing education), resources that are today indispensable to companies and laboratories, both public and private.
**Telecom Paris** and **Hi! Paris** welcome applications for a position as Assistant Professor or Associate Professor (depending on the past experience) to begin in September 2021.

**GENERAL JOB DESCRIPTION**

Main Objectives: Research, Teaching, Excellence.

The position will be located at **Telecom Paris**, a CS/EE school of **Institut Polytechnique de Paris**. Telecom Paris is one of the best French schools for digital sciences and technologies. More precisely, the recruited assistant/associate professor will join the **Multimedia Team**, within the **Image, Data, Signal Department (IDS)**, and the **LTCI laboratory**.

The Multimedia team has a long activity in the domain of video and image coding and transmission. More recently, video analysis and deep learning activity have become more and more relevant for the team. The team has the target to expand its activity in this area, and several new and exciting research projects have just been launched, such as research programs in deep Learning for image and video generation, domain adaptation for computer vision tasks, and learning-based photographic quality evaluation. In this context, and to support the increasing activity of the team, a **position in Deep learning for computer vision** has been opened.

Applicants are expected to provide an outstanding academic research record and will be encouraged to advise PhD theses, supervise engineers and post-docs, while being actively involved in funded projects and in the activities of the Multimedia team. The teaching activities will take place in the engineer and master tracks at Telecom ParisTech and can be given in English.

**Research**

The applicant must have a PhD degree in one of the areas of computer vision, machine learning, signal processing, with solid skills in mathematics. International experience is welcome. The applicant should also have a strong publication record in top journals and conferences of the field.

The new assistant/associate professor will be invited to conduct research projects in the fields of computer vision and deep learning, taking benefit of the different research departments of Telecom Paris and, more generally, of Institut Polytechnique de Paris. The position includes a substantial recruitment package including salary, research budget, PhD grants. This package will offer the possibility to start a small research group of several PhD students.

**Teaching**

The applicant must be able to contribute to teaching activities of Telecom-ParisTech in general and of the Multimedia team in particular. This includes giving classes and conceiving new classes in the following areas: Computer Vision, Machine learning, Deep Learning. Nevertheless, the teaching load will remain limited to facilitate the development of the research activities. Note that it is not required for the candidate to teach in French.

The applicant will have opportunities to teach in joint graduate programs within Institut Polytechnique de Paris or with other Parisian universities.

**Required Skills**

The applicant’s scientific expertise is expected to be in one of more of these fields:

- Computer vision
● Deep learning for image or video analysis or processing

Besides outstanding research and teaching skills, applicants should also:

● Be a team player, have good social skills, be able to develop international academic and industrial partnerships.
● Be able to acquire grants and funding at national and European level.
● Be autonomous, self-motivated, able to build and conduct research projects on their own
● Have an experience in university (or equivalent) teaching activities;
● Be fluent in oral and written English (French is not required)

Additional skills (not mandatory)

● Probabilistic models, statistical image/video processing
● Generative models (variational autoencoder, adversarial networks, flow)
● Motion and tracking
● Representation learning
● 3D vision
● Domain adaptation
● Few-shot, weakly-supervised, semi-supervised or continual learning

Context

● Position start: summer or fall 2021.
● Position type: Assistant or Associate Professor (depending on past experience)
● Very competitive salary and conditions:
  o Salary significantly higher than similar positions in Telecom-Paris and other French universities
  o Substantial recruitment package including salary, research budget, PhD grant
  o Performance-based annual 0-12% variable allowance
  o Limited teaching duty
  o Advanced undergraduate/graduate students only with strict selection
  o Access to the funding systems (PhD, post-docs) of Telecom ParisTech and Institut Polytechnique de Paris

Application

Contact Prof. Marco Cagnazzo, responsible of the Multimedia team, for any further information

The selected applicants will be invited to come and give seminars to the laboratory before the job interview.

Important dates:

● Deadline for application: March 25th, 2021,
● Applicants’ selection for interview: April 15th, 2021,
● Invited seminars: first half of May, 2021
● Interviews: May, 2019 (exact date to be decided).
The application file should contain:

- a cover letter,
- a detailed curriculum vitae,
- a document summarizing the applicant experience in research and teaching, each of these activities being exposed with a thorough description of the different items (maximum length: 5 pages),
- a list of the main publications of the applicant,
- the names, addresses and electronic addresses of two highly qualified faculty members able to make recommendation on the applicant,
- a research and teaching project (maximum length: 3 pages).

Candidates can apply through a dedicated web site that will be soon available. In the meanwhile, please contact prof. Marco Cagnazzo marco.cagnazzo@telecom-paris.fr to manifest your interest and for any other information.