

Post-Doctoral Position

Experimental Quantum Coherent Communications

Télécom Paris is one of France's leading graduate engineering schools and is considered the leading school in the field of Information Technologies. Within the European Quantum Technology Flagship we participate to the project CIVIQ (<http://civiquantum.eu/>), and to the development of Continuous-Variable Quantum Key Distribution (CV-QKD) and its integration into modern networks.

The post-doctoral position will consist in demonstrating novel techniques for the joint operation of classical and quantum coherent communications over a shared optical fiber infrastructure. The successful candidate will be able to take advantage of the convergence between modern quantum and classical optical coherent communication systems. One central objective will be to leverage on system and protocol design, noise control and filtering procedures (beyond state of the art results demonstrated in our laboratory (NJP, 17(4), 043027, (2015)) but also on digital signal processing (DSP) techniques in order to progress towards highly versatile and integrated quantum communications systems.

The post-doctoral candidate shall benefit from an excellent working environment, with access to a state-of-the-art (up to 32-Gbaud) coherent optical communication experimental platform as well as regular interaction and collaboration with a team of professors (Romain Alléaume, Cédric Ware, Yves Jaouën), but also a research engineer and a PhD student, with combined expertise both in optical communications and in quantum cryptography. This post-doctoral work will moreover give regular opportunities for scientific interactions and collaborations with the European partners from the CIVIQ consortium.

Eligibility and Conditions:

- Candidates must hold an internationally recognized PhD- equivalent degree (or evidence of its completion in the nearest future), preferably in optical communications or in quantum communications.
- The candidate should have a proven track record of scientific research in experimental optics.
- Experiences in quantum physics and/or in digital communications is highly desired.
- No restrictions of citizenship apply to the post-doctoral contract.
- This post-doctoral position offer is for an 18-months contract, with possible extension to 3 years.
- Monthly salary of 2300 € (pre-tax) and up according to professional experience.

Application Procedure:

- Cover letter with a declaration of interest,
- Curriculum Vitae, including contact details,
- The contact e-mail of two potential references.
- Contacts: {romain.alleaume, yves.jaouen, cedric.ware}@telecom-paris.fr

Application deadline:

Applications will be considered upon reception, and no later than end of December 2019.