



IPIC PhD Studentships - Communications Theme

PMO-20 IPIC PhD Studentships - Communications Theme

Contract: Full Time/Fixed Term

We have 2 prestigious PhD Studentships available that will commence in September 2020. Students will join the Science Foundation Ireland (SFI) Irish Photonics Integration Centre (IPIC), Ireland's centre of excellence for research and innovation in photonics, as it undergoes a rapid expansion programme to grow to 220 researchers, to become one of Europe's top photonic integration research centres.

Each studentship will offer the opportunity for you to:

- Complete a cutting edge research project in one of the areas listed below
- Collaborate with our 17 Principal Investigators and their research teams
- Access Tyndall's world-class research facilities
- Publish in leading journals and present at top international conferences
- Complete advanced training courses, e.g. semiconductor fabrication
- Develop translational skills, e.g. project management, communication & dissemination and entrepreneurial skills
- Connect with our global network of 30 industry and more than 100 academic partners
- Join a diverse community of young researchers from across the world and participate in one of our vibrant student chapters

Our core Platform Research Programme is composed of four Themes, each tasked to develop game changing technologies that will be deployed across multiple applications, from optical communications to medical devices, and each with an investment of about €3M. We are entering a very exciting time for photonics, with the use of light addressing many critical issues for today's society. The key enabling advance is the integration of photonic components into circuits and advanced systems, the approach that has revolutionised electronics over the last 50 years. We are at the start of a similar journey for photonics with novel integration technologies opening new opportunities for exciting new system applications. The IPIC Communications Theme will address two areas of optical fibre communication systems in particular; namely, ultralow cost coherent transmission technology and coherent fixed-mobile converged access networks incorporating dynamic wavelength routing.

Our research in the Communications Theme, led by [IPIC Director Paul Townsend](#), will span from devices and integration (in collaboration with other IPIC themes), to physical layer systems and application demonstrations including software-defined network control schemes.

We are now seeking 2 highly motivated PhD students who will work together with PhD students at our partner institutions and in other IPIC Themes as a team to tackle these scientific challenges and to help us achieve our goals in the following areas:

- Software controlled transceivers (Supervisor: Dr Fatima Gunning, position COM-5)
- Coherent passive optical network (PON) design and test (Supervisors: Prof Paul Townsend)

and Dr Giuseppe Talli, position COM-1)

The successful candidates for these positions will receive an annual student stipend of €18,500. Registration fees are also funded by IPIC.

Both of the studentships will be based at Tyndall National Institute, University College Cork.

If you are interested in helping us achieve our ambition, complete and submit an application form and motivation letter, highlighting your preferred project.

Application Instructions

Step 1 - Click [here](#) to download and complete the Application form and indicate the Job Reference PMO-20

Step 2 – Return the completed Application form, together with your CV and motivation letter to careers@tyndall.ie.

Postgraduate applicants whose first language is not English must provide evidence of English language proficiency as per UCC regulations

(<https://www.ucc.ie/en/study/comparison/english/postgraduate/>). Certificates should be valid (usually less than 2 years old) and should be uploaded with their application. In special circumstances the panel may consider a prior degree in English (e.g. Master thesis written in English) as evidence of English language proficiency.

Please note that Garda vetting and/or an international police clearance check may form part of the selection process.

The University, at its discretion, may undertake to make an additional appointment(s) from this competition following the conclusion of the process.

Please note that an appointment to posts advertised will be dependent on University approval, together with the terms of the employment control framework for the higher education sector.

At this time, Tyndall National Institute does not require the assistance of recruitment agencies.

Tyndall National Institute at University College, Cork is an Equal Opportunities Employer