

Pre-doctoral project technician in advanced optical instrumentation

The **Center for the Development of Sensors, Instrumentation and Systems (CD6)** is a Research and Innovation Center of the Polytechnic University of Catalonia (UPC) that investigates and carries out innovation projects in Optical and Photonics Engineering.

CD6 has been recently awarded with a contract for the development of the Local Coherencer System of the European Extremely Large Telescope (E-ELT), currently being built in Chile by the European Southern Observatory consortium. The work includes the **design, construction and calibration of a series of functional interferometers** for high accuracy alignment of the mirror segments of the telescope. It involves both hardware construction and the development of the processing software. Final system will be installed in the telescope.

CD6 is currently selecting different contracts for the development of the project. This announcement calls for **1 Pre-doctoral Contract** of Project Development to directly work full-time in the E-ELT project. The duration of the employment contract will be initially 1-year, which may be extended up to 3 years depending on project progress, which normally will be developed into a PhD Thesis. The starting date of the contract will be between September 15th and October 1st, depending on administrative requirements.

We are looking for a candidate with an interest in research in optical engineering, including optical design, interferometry, and fringe processing. The tasks to be carried out include the development of software and hardware of the project. The candidate will join a multidisciplinary and experienced research team. Technical expertise in the field of **optical design and metrology**, in particular around **interferometry and in analysis of fringe patterns**, would be requirements of the ideal candidate

More information

- On the position: santiago.royo@upc.edu
carles.pizarro.bondia@upc.edu
- On CD6: <http://www.cd6.upc.edu>
- On E-ELT <https://www.eso.org/sci/facilities/eelt/>

Requirements	<p>MSc in Physics or Engineering</p> <p>Experience in optical design for interferometry, optical metrology, and/or fringe processing of interferograms.</p> <p>Fluent spoken and written English</p>
Position	<p>Full-time</p> <p>Location in Terrassa, Spain.</p> <p>Duration of one year, extendable to three</p> <p>Incorporation before October 2021</p>
Application	<p>Letter explaining motivation and experience related to the project</p> <p>Detailed Curriculum Vitae</p>
Send to	<p>Santiago Royo/Carles Pizarro</p> <p>Universitat Politècnica de Catalunya</p> <p>Rambla Sant Nebridi nº 10 08222 Terrassa</p> <p>fax: 93 739 89 23</p> <p>e-mail : santiago.royo@upc.edu</p> <p>carles.pizarro.bondia@upc.edu</p>
Also valued	<p>Advanced programming skills (C++, Python, Open GL)</p> <p>Knowledge of optical design software (Zemax OpticStudio) and mechanical CAD (Alibre, ProEngineer).</p> <p>Experience in lab work in optical engineering, optical design, and interferometry</p> <p>International experience in research in large infrastructures.</p> <p>Team worker, self motivated, initiative, leadership.</p>
Deadlines	<p>Reception of candidatures July 20th 2021</p> <p>Start of interviews July 23rd 2021</p>