



ESO

European Organization
for Astronomical
Research in the
Southern Hemisphere



ESO Engineering and Technology

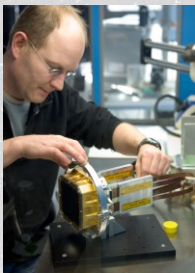
Research Fellowships, Studentships & Internships 2021

The European Organisation for Astronomical Research in the Southern Hemisphere has as primary mission to build and operate state-of-the-art facilities for the advancement of astronomical research. A strong Research & Development (R&D) programme is therefore at the core of ESO's activities.

What are we looking for?

Dynamic young individuals **ready to take an active part in the ESO R&D projects** with a good deal of team spirit, curiosity and eagerness to learn.

What are we offering?



- **An engineering post-doctoral fellowship** with an initial contract of one year followed by a two-year extension (**three years total**).
- **An engineering PhD Studentship of 1 to 3 years.**
- Several possibilities to make an **internship** of 5 to 6 months in the frame of the last year of your graduate studies (master 2 level) at ESO Garching in an engineering field.
- An **international, multi-disciplinary** environment, situated on the Garching science campus close to Munich, Germany, next to the best German universities and world-renowned research centres. Working in collaboration with ESO's partner institutes and **high-tech** industries in the ESO member states.
- Three observatories at the forefront of ground-based astronomy and of technology: **la Silla, Paranal** and **ALMA**. And one of the most challenging telescopes under construction: the **European Extremely Large Telescope**.
- An attractive remuneration package and support for relocating families.



Current ESO active R&D projects

- Advanced visible and infra-red detectors for astronomical instrumentation (modelling, testing, development of CMOS fast detectors, curved detectors...);
- Giga-hertz receivers, cryogenic first-stage amplifiers for ALMA (development & testing);
- Mechanics and cryogenics;



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- Adaptive optics and related components including laser guide stars, deformable mirrors, wavefront sensing, tomographic techniques, interactions with segmented mirrors...;
- System simulation and modelling including deformable mirrors, telescope seeing effects, exposure time calculators, instruments, model-based system engineering;
- Optical metrology and photonics for (sub-)micrometric large structure characterisation, interferometry;
- Real-time computing.

For more details, examples of research projects and list of PhD and Master thesis subjects:

<http://www.eso.org/sci/activities/engstudentfellow.html>

Applications

If you are interested in enhancing your early career through an ESO Fellowship, Studentship or Master thesis, then please apply by completing the web application form available at

<http://jobs.eso.org>

Include the following documents in your application (for all types of positions):

- a cover letter;
- a curriculum vitae with a list of publications, if any, and including an outline of your technical/practical experience;
- the names and contact details of three persons familiar with your research and/or engineering work and willing to provide a recommendation letter on request.

For the fellowship candidates, please include as well:

- your proposed research plan (maximum of two pages) including a timeline.

It is also recommended that you contact the EETRF programme coordinator, Françoise Delplancke-Ströbele, before the application closing date, to check the feasibility of your research plan within ESO infrastructure and possible support.

For the PhD studentship candidates, please include as well:

- an outline of why you wish to join one of the proposed subject projects (maximum one page);
- an outline of how you plan to develop the PhD project (maximum of two pages), with a timeline, the requested starting date and duration,
- a letter from the formal supervisor at your home institute agreeing with the project plan, guaranteeing financial support (salary, health insurance, travel money) for the part of the PhD done at the home institute (if the studentship is requested for less than 3 years) and/or indicating that you (will soon) fulfil the pre-requisites for a PhD programme in that institute.

For the internships, please include:

- an outline of why you wish to join one of the proposed subject projects (maximum one page).

The closing date for applications to the studentship and fellowship is November 29, 2020.

Fellowship and studentship are expected to begin in the first half of 2020.



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Further Information

<http://www.eso.org/sci/activities/engstudentfellow.html>

For any additional questions please contact:

Françoise Delplancke-Ströbele, Tel. +49 89 3200 65 10, email: fdelplan@eso.org.

No nationality is in principle excluded, however, recruitment preference will be given to nationals of Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom and Chile irrespective of gender, age, disability, sexual orientation, race or religion.

