



ESO

European Organization
for Astronomical
Research in the
Southern Hemisphere



For its Infrared Detector Department within the Instrumentation Division at its Headquarters in Garching near Munich, Germany, ESO is opening the position of a

Detector Engineer

Career Path: V

Purpose of the Job

To contribute to the development and optimization of the best possible infrared detector systems for instruments at ESO's observatories.

Responsibilities and Working Environment

The assignment will be in the Infrared Detector Department which contains two physicists, two electronic engineers, one software engineer and one technician. This department is dedicated to equipping ESO instruments with state-of-the-art infrared detector systems and playing a leading role in the development of infrared focal plane technology. Very large mosaics of high performance infrared arrays are needed for instruments at the Very Large Telescope (VLT) in Chile and the European Extremely Large Telescope (E-ELT), a 42 meter telescope currently under study. Members of this department must collaborate closely with ESO's Optical Detector Department and with both internal and external instrument teams formed by consortia of European institutes.

The main duties and responsibilities include:

- Developing, building and testing infrared detector systems optimized for the specific needs of instruments which are still under development.
- Creatively designing and developing new detector concepts.

- Evaluating and optimizing the performance of detectors and reporting results.
- Adapting, upgrading and developing boards for ESO's new advanced NGC data acquisition electronics to meet special requirements of new detectors.
- Showing initiative to improve detector test facilities in the infrared detector labs.

Qualifications

University degree in Electrical Engineering, Electronics, Physics, or equivalent

Experience

At least 3 years of professional experience in the development of scientific detector systems and detector readout control electronics.

Familiarity with cryogenic and vacuum systems and experience in the design and layout of electronic boards is expected.

Experience with FPGA, programming in VHDL as well as the use of Protel and Orcad and experience with mid infrared array technology would be assets.

Excellent communication skills and a very good knowledge of English are essential.

Key Competences

- Balancing conflicting demands and responding quickly to changes in priorities in-line with agreed overall objectives.
- Readily accepting responsibility for own and delegated work.



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- Sharing information, learning and ideas with others.
- Building and managing collaborative working relationships with customers and stakeholders.

Duty Station: Garching near Munich, Germany. Occasional trips to the observatories in Chile may be required.

Starting Date: As soon as possible.

Remuneration and Contract:

We offer an attractive remuneration package including a competitive salary (tax free), comprehensive pension scheme as well as medical, educational, and other social benefits, financial support in relocating your family, the possibility to place your child/children in day care up to the age of 3.

The initial contract is for a period of three years with the possibility of a fixed-term or indefinite extension based on scientific, technical and managerial

achievements. The title or grade may be subject to change according to qualification and the number of years of experience.

Application: If you are interested in working in areas of frontline technology and in a stimulating international environment, please visit (<http://www.eso.org>) for further details.

Applicants are invited to apply online at <https://jobs.eso.org/>. Applications must be completed in English and should include a motivation letter and CV.

Closing date for applications is 13 March 2009.

Although recruitment preference will be given to nationals of ESO Member States (members are: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland and United Kingdom) no nationality is in principle excluded.

The post is equally open to suitably qualified male and female applicants.