The European Organisation for Astronomical Research in the Southern Hemisphere (ESO) is the foremost intergovernmental astronomy organisation in Europe and the world’s most productive ground-based astronomical observatory. ESO carries out an ambitious programme focused on the design, construction and operation of powerful ground-based observing facilities enabling astronomers to make important scientific discoveries.

ESO operates three unique world-class observing sites in northern Chile: La Silla, Paranal and Chajnantor (home to ALMA and APEX), and the ESO Headquarters are located in Garching, near Munich, Germany.

At Paranal, ESO operates the Very Large Telescope, the world’s most advanced visible-light astronomical observatory. ESO is a major partner in ALMA, the largest astronomical project in existence. And on Cerro Armazones, ESO is building the 39-metre Extremely Large Telescope (ELT), which will become “the world’s biggest eye on the sky” and whose operations will be fully integrated into the Paranal Observatory.

Due to the need for additional resources associated with the ELT programme, for its Control Software and Engineering Department (CSE), within the Directorate of Engineering (DoE) at its Headquarters in Garching, near Munich, Germany, ESO is advertising the position of a

**Software Engineer**

We are looking for a software engineer to join the team which is implementing control software for the ELT and its instruments. The CSE department comprises a team of almost 50 engineers organised in 5 groups and is responsible for the definition, design and implementation of complex control systems for ESO’s telescopes and instruments. The main effort in CSE is spent for the ELT programme but CSE is also supporting the other ESO programmes using a matrix organisation.

**Main Duties and Responsibilities:**

- Contribute to the design and implementation of ESO framework products.
- Develop instrument control software for VLT and ELT projects.
- Follow-up and provide support to external consortia developing instruments for the ESO telescopes.

**Reports to:**

The Head of the Instrument Control Software Group (CINS).

**Key Competences and Experience:**

**Essential:**

- Minimum of three years of experience in software development.
- Experience developing software with C++11 or above.
- Experience in Python.
- Knowledge of standard software development processes, preferred agile or iterative.
- Knowledge of software engineering principles and tools for configuration management, bug reporting etc.
- Experience in working in a team.
- Curiosity and eagerness to learn.
- Ability to work in a matrix structure for different projects and with different teams, also in parallel.
- Flexibility to adapt quickly to new ways of working or new responsibilities.
Desirable:
- Experience in working in international/multicultural teams.
- Experience with real-time distributed control systems using field-buses.
- PLC Programming (IEC 61131-3) and OPC UA.
- Sound knowledge of motion control and low level control of hardware devices.
- Experience with TwinCAT and Beckhoff PLCs.
- Experience implementing graphical user interface with Qt.

Qualifications:
University degree in computer science or equivalent.

Language Skills:
Excellent command of the English language is essential; a working knowledge of German or Spanish would be an advantage.

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

The contract is for a fixed term duration of three years, and is subject to successful completion of the probation period. There is a possibility of extension(s) subject to individual performance and organisational requirements, and as defined in the applicable policies and staff rules and regulations. For any further information, please visit ESO’s conditions of employment.

Duty Station:
Garching near Munich, Germany with regular duty travels to all ESO sites in Chile.

Career Path: V

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

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

Deadline for applications is 06.01.2020.

Interviews are expected to start soon after this date.
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.