For the Technology Division and the ALMA project, ESO is opening the position of

Mechanical Engineer for Cryogenic & Vacuum Systems

(Career Path V)

Purpose of the Job

The ALMA project is an international collaboration to construct and operate a large submillimeter - millimeter-wave interferometer array in the Atacama Desert of northern Chile. ESO leads and administers European participation in this project, consisting of over twenty-five European organisations (academic and research institutions as well as industrial companies). ALMA will be operated by the Joint ALMA Observatory (JAO). The ALMA observatory will consist of an array of 12m diameter antennas located on the Chajnantor Altiplano in the Atacama Desert of northern Chile.

Your role as a Mechanical Engineer will be to verify and accept deliverables from contractors linked to Cryogenic devices, as well as to support the on-site acceptance of the devices.

Responsibilities and working environment

You will be a member of the Mechanical Systems Department in the Technology Division and work for the ALMA project. You will be responsible for:

- System definition for the Cryo Infrastructure laboratories; and

- Specification, tendering, procurement, acceptance, integration and commissioning of cryo/vacuum systems.

You will organise the maintenance activities for the large number of systems to guarantee a smooth operation of the Front End Units.

Specific tasks will include:

- Technical and logistic organisation of the maintenance activities for the ALMA cryo and vacuum system;
- Supervision of the manufacture of cryo/vacuum system components;
- Performance and supervision of system testing;
- Integration and commissioning of cryo/vacuum systems in the different Antennas;
- Monitoring and reviewing the development of cryo/vacuum systems for ALMA by external consortia of scientific institutes;
- Support the follow up of the serial production concerning the ALMA vacuum recipient and related components; and
- Support the follow up of the serial production of the cryogenically cooled blank cartridges.

Qualifications

You must have completed a University degree in Mechanical Engineering or equivalent. You must be fluent in English both written and oral. Knowledge of Spanish would be an advantage.

Experience

You should have several years of practical experience, preferably with closed cycle cooler systems and manufacturing control of the related technologies, and a sound knowledge and understanding of the design and development of cryogenic and vacuum systems.

Additional knowledge of, and experience in instrument design and thermal analysis would be a great asset.

Competences

Work both on your own initiative and as part of a team, and build strong collaborative working relationships with people from different cultural backgrounds and disciplines.

Monitor progress of your work, deliver to agreed deadlines and standards, and be able to work under pressure.

Balance conflicting demands and priorities and respond quickly to changes in line with agreed overall objectives.

Provide clear, concise and timely oral and written communications, identifying key issues, examining options and proposing a way ahead.

Willingness to acquire new skills, keep up-to-date with the tools used in the daily work, adapt to new procedures and identify ways to optimize the workflow.

Duty Station: Garching near Munich, Germany. Frequent traveling to the ALMA sites at the OSF (2900 m. elevation) and occasionally at the Array Operations Site (5000m elevation), both near San Pedro de Atacama in Chile, is required.

Starting Date: As soon as possible.

Contract and Remuneration: 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 support in relocating your family and the possibility to place your child(ren) in day care up to the age of 3.

The initial contract will be for a period of three years with the possibility of a fixed-term or indefinite extension. The title or grade may be subject to change according to qualification and the number of years of experience.

Offers of employment are conditional and subject to you undergoing a medical examination by a medical practitioner, who will certify that you are physically fit to discharge the duties entrusted to you under high altitude working conditions (5000m above sea level).

Application: If you are interested in working in areas of frontline technology and in a stimulating international environment, you 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 15 July 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.