

## **Beneficiaries staff to be seconded to the NBTF & R&D project team in Garching/Germany**

### **Mechanical Engineer for Neutral Beam Ion Source**

#### **Job Description**

As a member of the Neutral Beam Injection (NBI) team at Max-Planck Institute for Plasma Physics (IPP) Garching, the job holder will participate in the development of the RF-driven negative ion source for ITER NBI. He/she will technically support the NBI test facilities BATMAN Upgrade and ELISE at IPP by implementing test bed upgrades, source modifications and diagnostic improvements. The work will be performed in Garching together with the IPP-NBI team.

#### **Functions/ Responsibilities**

- To take care of the technically reliable operation of the test facilities ELISE and BATMAN Upgrade with all subsystems, such as vacuum pumps, cooling plant, etc.
- To implement upgrades of the test beds, such as source modifications, diagnostic improvements or other test bed equipment, in particular:
- To design the required modifications including structural, thermal and fluid dynamics calculations;
- To take care of the procurement of components either by industry or by in house manufacturing;
- To supervise assembly and installation;
- To support commissioning of the components for these devices
- To write technical reports and to present them in meetings and conferences;
- To collaborate with other European partners working in the same field, in particular a close collaboration with NBTF;

#### **Qualifications and experience**

- Master degree (or equivalent) in mechanical engineering;
- Experience in engineering projects;

#### **Knowledge, skills and abilities**

- Good knowledge of applying FEM (ANSYS) for performing structural, thermal and fluid dynamics calculations;
- Good capability of using CAD software, in particular CATIA V5;
- Good knowledge of vacuum and cooling technology;
- Good knowledge of negative ion source physics and technology is beneficial;
- Experience in operating experiments and programming is an advantage;
- Good organizational, interpersonal and communication skills, high competence in team working

**Date of vacancy: as soon as possible as position opens since May 2024**

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