

At **The NOVA Optical Infrared instrumentation Group** at ASTRON in Dwingeloo, we develop world-leading optical and infrared instruments for some of the most prestigious international observatories. We work closely with astronomers from the NOVA universities of Amsterdam, Groningen, Leiden and Nijmegen, and our extensive network of industrial partners. Our primary goal is to develop instruments for the Extremely Large Telescope (ELT, see the website of the European Southern Observatory: elt.eso.org) and other observatories, building on our rich history with the Very Large Telescope and the James Webb Space Telescope.

The group is dynamic and agile consisting of some 30 highly skilled professionals, covering all phases of instrument development —from feasibility, through design, to manufacturing, testing and commissioning. We work across various disciplines, including optical, mechanical, thermal, electronics & software. The group is a world leader in the design and manufacturing of opto-mechanical parts with extremely small tolerances. NOVA parts are highly specialized single pieces and small series of advanced milled parts and optics of different sizes (specials) that are made mostly of aluminum.

For this unique and innovative group we are on the lookout for a passionate and detail-oriented:

**Senior Mechanical Designer
(Instrument Engineer) 0,8 - 1,0 FTE**

In this position you will lead the mechanical design of the Visible Spectrograph of MOSAIC. MOSAIC is the multi-object spectrograph instrument for the ELT that is being developed by a consortium of international partners led by CNRS-INSU in France. Your first objective is to successfully complete the current preliminary design phase by making detailed models and drawings of all the mechanical components of the Visible Spectrograph subsystem. After approval all parts will be manufactured, integrated and verified together with the project team. The second objective is to successfully pass the performance verification tests and deliver a complete documentation package, including Non Compliance Reports and as-built drawings.

Besides working on MOSAIC you can also contribute to other NOVA projects, including projects that focus on cryogenic opto-mechanical subsystems and on introducing new manufacturing technologies. In these projects you collaborate with our system engineers, optical and mechanical designers, PA/QA, and project managers, and you also play a key role in enhancing our design and production processes and in knowledge transfer.

Your main tasks include:

Your duties and responsibilities consist of, but are not necessarily limited to:

- Technically leading the opto-mechanical design of sub-systems and mechanisms including having a design philosophy and making design choices
- Constructing detailed designs of opto-mechanical systems and its components
- Coordinating with external partners and suppliers on design activities
- Contributing to documentation for design and analysis reports
- Providing 3D models and 2D drawings for manufacturing and as-built drawings and contributing to manufacturability assessments for parts and assemblies

We're looking for someone with:

- A bachelor or equivalent degree in mechanical engineering or equivalent experience
- At least 10 years relevant experience in opto-mechanical design and engineering or related space/precision engineering
- At least 5 years of experience in leading the opto-mechanical design of precision opto-mechanical instruments in an international context
- Experienced in 3D CAD design using Siemens NX and FEA using ANSYS
- Experienced in Geometric Dimensioning and Tolerancing
- Affinity with Manufacturing Technologies and Manufacturing Engineering
- Excellent oral, written and interpersonal communications skills in both Dutch and English
- Experience with infrared instruments and cryogenics is a plus

Competences and skills we value:

- Team spirit with strong communication skills
- Accurate and results-driven mindset
- Innovative thinking and a hands-on approach

Here's what we offer:

- An initial contract for two years (32-40 hours per week), with the potential to become indefinite depending on good performance and sufficient funding.
- A gross monthly salary, on a full-time basis, in the range of € 4.885,- to € 6.722,- depending on relevant experience.
- Opportunities and encouragement to grow and develop yourself and your career.

- A pleasant and stimulating work environment in a beautiful office in the heart of one of Drenthe's National Parks.
- A comprehensive benefits package including a pension scheme, insurance discounts, travel allowances, and flexible work conditions

Your primary workplace will be in Dwingeloo within the NOVA OIR group. Periodically you will travel to international partners (mainly within Europe) as well as to other NOVA locations.

We embrace diversity and strongly encourage applications from women and underrepresented groups. Discover what it's like to work at ASTRON by clicking: [this link](#)

Information:

For information about this vacancy, please contact Michiel Kregel (Group Lead, kregel@astron.nl). If you have any questions about the procedure, please contact HRM via hrm@astron.nl

Comments:

If you have come this far reading this vacancy and are interested in this exciting opportunity, we would like to invite you to apply for this vacancy, even if not all the requirements are met! Leave your CV & motivation letter on our website <http://www.jobsatastron.nl>.