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.

Our team is a dynamic and agile group of about 30 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.

For this unique and innovative group we are currently searching for an experienced:

Electronics Engineer (Embedded Systems) 1,0 FTE
who is positive, creative and highly motivated, we'd love to hear from you!

This vacancy is a temporary position for one year based on project funding. Future related work is foreseen but depends on developments around Einstein Telescope and the next generation AO and High Contrast Imaging technology for astronomy applications in ELT (Extremely Large Telescope) and HWO (Habitable Worlds Observatory).

You'll develop and deliver an experimental setup for pre-conditioning the light in gravitational wave cavities in the framework of the MEROPE project. You collaborate with a small team of (astro-)physicists, technicians and optical designers and you also play a key role in developing and documenting the required hardware and software algorithms. Together with our partners including TNO and Nikhef, we are developing new technologies that could be used for the future Einstein telescope gravitational wave detector.

Your main tasks include:

- Design, build and test an experimental breadboard setup and control algorithms for an experimental adaptive optical (AO) setup consisting of deformable mirrors and wavefront sensors
- Simulate and analyze light absorption and thermal effects using tools like COMSOL or Zemax
- Use the simulations together with the setup to compensate for thermal

deformations in gravitational wave cavities and double the light energy in the cavity
- Transfer and install the breadboard setup at Nikhef (Amsterdam). Integrate the setup into a 1064nm laser cavity and optimize it for gravitational wave detection.
- Document results and report findings to the project team.

We’re looking for someone with:

- A master’s degree in electronics, embedded software engineering or experimental physics
- Over 5 years of experience in developing electronics for optical measurement systems and/or for scientific instruments
- Experience with adaptive optics is an advantage
- Excellent reporting skills
- Good English and Dutch communication skills

Competencies 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:

- A contract for one year (40 hours per week), with the potential for an extension depending on project funding and good performance
- A gross monthly salary on a full-time basis in the range of € 3.630,- to € 5.758,- euro (scale 10 CAO OI), depending on relevant experience
- 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

The advertised title “Electronics Engineer” corresponds to the official job profile “ Instrument Engineer”

Your primary workplace will be in Dwingeloo within the NOVA OIR group. Other project activities will take place at NikHef in Amsterdam and at TNO in Delft.

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.