

Experienced Optical System Engineer (Reference JP2005)

COMPANY PROFILE

Based near Zürich, Switzerland, [Micos Engineering GmbH](#) is a privately owned and an independent system engineering SME that focuses on optical instrumentation for the European space market. Micos serves its Customers with design, engineering and AIT (Assembly, Integration and Testing) of ground support equipment and flight hardware.

Micos facilities dedicated to integration and testing account for ISO5, ISO6 and ISO7 cleanroom areas equipped with quality and metrology instrumentation to support opto-mechanical integration and verification; TVAC facility, and an optical lab equipped with instrumentation operating in the range between VIS to LWIR range for breadboarding activities; thermometry calibration and vibration monitoring equipment are also in-house. Micos is an ISO 9001 certified organization.

Micos' facilities are embedded in the premises of the Swiss Federal Laboratories for Materials Science and Technology (www.empa.ch) which notably augments the quality and range of our services to customers and partners.

Our multi-disciplinary team runs projects with a professional network of industrial and institutional partners. Micos key competences are:

- Optical, Opto-Mechanical Design and AIT
- Characterization & Calibration Systems and GSEs
- Optical fiber based Metrology Systems
- Spectroscopic and Interferometric Systems
- Prototype Processing and Algorithms
- Project and Subcontractor Management, Product Assurance

Micos offers for intrinsically motivated persons a dynamic, exciting and challenging environment on a daily basis. Contractually, labour conditions to work with Micos team are kept at favourable level, including home office allowance for added flexibility. Part-time work at the level of 80% and more can be considered on a case by case basis, although for the current position 100% would be preferred.

The position described thereafter is available as of now.

JOB DESCRIPTION

Micos is looking forward to expanding its multidisciplinary team by the addition of a versatile Optical System Engineer.

By joining us, you would have the opportunity to undertake the following challenges:

- System level responsibility of opto-mechanical subsystems
- Leadership of a small team of engineers (mechanical, AIT ...)
- Detailed design of optical subsystems, deriving optical components specifications
- Straylight analysis driving coating/baffles choices
- Data analysis following test campaigns
- Technical interface with customers (for the projects you would be assigned to)
- Involvement in business development (contributions to proposals & finding new partners)

PROFILE AND ASSETS

Following indicators regarding candidate profile and assets are of interest to Micos:

- Education/Experience
 - (Mandatory) 5+ years of experience in the industry (Space/Defence are preferred)
 - (Mandatory) Master level in optical engineering or related
 - (Asset) A PhD would be appreciated if relevant to the job description. In that case, the PhD time would be accounted as years of experience
 - (Asset) Experience in leading a design or AIT team
- Optical design & analyses
 - (Mandatory) Zemax sequential at proficient level
 - (Asset) Zemax non-sequential or FRED
 - (Mandatory) Ability to design optical systems starting from high level requirements
 - (Asset) Ability to derive component level specifications based on total system tolerancing and a performance budget approach
 - (Asset) Comprehensive knowledge of radiometry in the range between VIS to LWIR
- System mindset
 - (Mandatory) Ability to trade-off technical, schedule and financial requirements
 - (Asset) Ability to organize, design & take part in the execution of an optical/opto-mechanical test plan, including the necessary equipment and infrastructure
 - (Asset) Ability to critically assess test results
 - (Asset) Ability to support and complement the team in AIT related issues
 - (Asset) Knowledge of lens & mirrors opto-mechanics best practices
 - (Asset) Understanding of thermo-mechanical & mechanical stress effects, as well as mitigation methods
- Experimental work
 - (Mandatory) Hands-on experience in aligning optical systems
 - (Asset) Hands-on contribution to complex system test campaign as part of an AIT team
- Data processing
 - (Mandatory) Python (preferred), Matlab or equivalent at proficient level for scientific computations. Proficiency in Excel may not be seen as sufficient
 - (Asset) Ability to automate data processing tasks and deploy custom tools
- Soft skills
 - (Mandatory) English, written & spoken to level C1 or better
 - (Asset) Any Swiss official language (German, French, Italian or Romansh)
 - (Asset) Demonstrated fast learner. Willingness to learn new interfaces/software
 - (Asset) Initiative-driven behaviour
 - (Asset) Entrepreneurial mindset

INTERESTED?

Please send your Curriculum Vitae with subject reference JP2005 to the following email address:
micos4u@micos.ch

