Senior Optical Engineer
ASML
Wilton, CT

INTRODUCTION
ASML in Wilton CT is seeking an Optical Engineer / Physicist in the Optical Modules Development Group US to work with a multi-discipline engineering team to define and develop optical / photonic sensor systems and/or test equipment used within ASML’s photolithography and/or metrology equipment. These systems typically include light sources, detectors, optical / electro-optical components, fiber optics, electronics and signal processing SW. Understanding the components in their relation to the sensor system function and understanding the interaction with the rest of the metrology or lithography system is of fundamental importance.

JOB DESCRIPTION
Using optical engineering / physics knowledge and an understanding of the lithography / metrology equipment, this person’s responsibility may include:

• Leading the design team (responsible for product or test equipment development) to find solutions to difficult technical problems in an efficient manner;
• Decomposition of top-level system requirements into lower level module, sub-module, or component level design specifications for product or test equipment towards the engineering team;
• Deriving specifications for module, sub-module, or test equipment consistent with our manufacturing practices;
• Development of alignment methods for complex optical sensors and systems;
• Development of tooling and test equipment to support optical sensor alignment methods;
• Preparation of leading system engineer documentation (Element Performance Specifications, Element Design Specifications, Test Performance Specification; Test Analysis Reports) through review, release and change control;
• Prepare or support the preparation of design reviews for the development team;
• Support the integrating of our newly designed sensor systems into ASML’s platforms;
• Supporting systems in the factory and in the field, by being able to relate observed sensor anomalies to potential system defects;
• Clearly communicating progress and status of ongoing technical activities to senior management;
• Understanding how the performance of the sensor system affects the performance of ASMLs equipment;

Some travel (~ 15%) to Europe, Asia, and within the US can be expected.

EDUCATION
Minimum MS in Optical Engineering, or Physics with an emphasis on optical system design and analysis is required.
EXPERIENCE
Five to 10 years of industry experience in optical module development:
- Candidate should have direct experience in the design, integration and test of optical systems or test equipment used to produce optical systems (i.e. hands on).
- Candidate will work with designers from supporting engineering disciplines in order to converge on an optimal design solution
- **Entry level candidates OK! Please feel free to apply**

PERSONAL SKILLS
Candidate must:
- Have the capability to lead a small team or to work independently solve complex problems;
- Be able to think systematically – must have the ability to identify primary technical needs from complex issues and derive solutions;
- Have strong written and oral communicative skills and a commitment to achieving results on time;
- Demonstrated “team player” with a quality orientation and interpersonal skills;
- Have competencies in: optical design theory, lasers, polarization, detectors and electro-optical devices. A working knowledge of an optical design SW such as Code V or Zemax is beneficial;
- Be able to lead a multidisciplinary group of engineers and work effectively in a team and be willing to take on responsibility, follow through and keep multiple simultaneous assignments on schedule;
- Be able to quickly acquire technical knowledge from documentation and on-the-job training and be capable of thoroughly investigating technical issues (analytically and hands-on in a lab);
- Be willing to own the integrated systems performance, and support the entire product life-cycle (development through sustaining engineering), strive to deliver the right design solution for the right cost at the right time.

CONTEXT of the POSITION
The Optical Modules Development Group in Wilton CT is seeking a well-rounded engineer with direct experience in optical engineering. The optical modules developed for ASML’s products will include sources, detectors, geometric/diffractive optics and electro-optic components. This position will require skills in optical systems engineering: specific to the optical lithography or semiconductor industry.

To apply please contact Matthew McDonald at matt.mcdonald@monster.com