

Internship:



Background information

Key performance parameters of ASML scanners are - amongst others- the focus and the overlay of consecutive lithographic layers of our customer's products. In the performance and integration department, we develop solutions to ensure that our scanners fulfill these requirements during customer's production process. Our goal is to drive the scanner roadmap and understand the scanner performance.

Your assignment

To qualify scanner performance a series of extensive tests of the first systems of each new platform has been designed to understand machine to machine variation. This assignment is aimed at two different performance parameter sets (overlay and focus). The goal is to have a model to estimate the machine to machine variation in various aspects of overlay and focus performance. This is not an easy task since there are very many sources of variation that need to be taken into account and the measurement system is based on destructive (non-repeatable) measurements.

Your profile

We are looking for a master student in mathematics with a strong background in statistics and interest in variation analysis and modeling/simulations in general, and mixed linear models, specifically. For this assignment experience with MatLab or Python is useful but not mandatory. You would be working together with engineers from both the overlay and focus group to make the translation from physics to a mathematical model.

This is a graduation internship for 4 days a week with a duration of a minimum 6 months.

Please note that we can only consider students who are enrolled at a school for the entire duration of the internship.

Change the world – one nanometer at a time

Become an intern at a Dutch company that's a global industry leader. You'll gain valuable experience in a highly innovative environment – one that sparks your imagination and creativity. In addition to a monthly internship allowance of maximum €500 (plus a possible housing or travel allowance), you'll get practical guidance from experts in the field and the chance to work in and experience a dynamic team environment.

ASML: be part of progress

ASML is a high-tech company headquartered in the Netherlands. We manufacture the complex lithography machines that chipmakers use to produce integrated circuits, or computer chips. What we do is at the heart of all the electronic devices that keep us informed, entertained and connected. Every day, you use electronics that simply wouldn't exist without our machines.

Behind ASML's innovations are engineers who think ahead. The people who work at our company include some of the most creative minds in physics, electrical engineering, mathematics, chemistry, mechatronics, optics, mechanical engineering, and computer science and software engineering.

We believe we can always do better. We believe the winning idea can come from anyone. We love what we do – not because it's easy, but because it's hard.

Students: getting ready for real-world R&D

We're a global team of 25,000 people of 118 different nationalities and counting. Headquartered in Europe's top tech hub, the Brainport Eindhoven region in the Netherlands, our operations are spread across Europe, Asia and the US.

In such an environment, your colleagues may be sitting next door, or they could be thousands of kilometers away in a different country – or even working for a different company.

An internship at ASML is the opportunity to get to know not only the world of industrial-strength R&D, but yourself – you'll discover just what excites you most. Will you design a part of the machine, or make sure it gets built to the tightest possible specifications? Will you write software that drives the system to its best performance, or work side-by-side with the engineers of our customers in a fab, optimizing a system to the requirements of the customer?

How will you be part of progress?

Field: Performance and integration

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