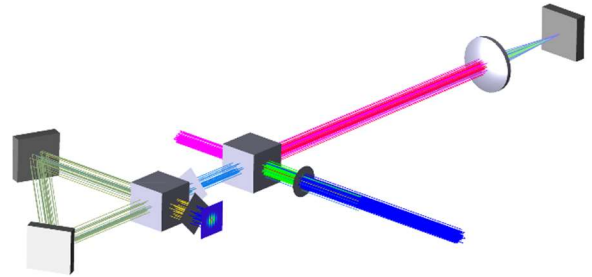




Assignment title Interferometric focus sensor
Company NTS Optel (part of NTS group)
Transistorweg 8, Nijmegen
Contact info jelmer.cuppers@nts-group.nl
Educational level Master student



Introduction:

At NTS Optel we design, develop and test special and custom-made optics in the field of illumination, imaging, sensing, laser beam delivery and integrated nanostructure metrology solutions. Our specialistic and highly-appreciated knowledge is used to develop and produce modules and complete systems for our high-tech customers in the semiconductor, analytical and health markets. Our teams consists of 15 highly-educated people who are working on challenging optical assignments to accelerate the development of our customer's products. We are continuously looking for new technologies to improve our added value to our customer. One of these new technologies is described in this assignment.

Assignment:

For microscopic systems it is important that the observed objects are within focus. If you want to automate this process, there are in principle various techniques possible. In this assignment we want to further explore an interferometric solution.

We already have a working lab setup (functional model), but this is still far from a usable solution.

The assignment is to further develop the design and test the performance of the system.

The assignment consists of the following components:

- Literature study
- Performance analysis of the current lab setup and compare to alternative methods.
- Come up with and verify possible improvements
- Redesign of the system, so it could work outside the lab

If time permits :

- Build a prototype
- Experimentally verify the performance

Requirements:

- Master Student (Applied Physics)
- Affinity with optics
- A driven and enthusiastic attitude



Additional information:

You will work at our location in Nijmegen. You will be coached by one of our experienced optical engineers. You will receive an allowance of € 500,- per month.

Interested? Please contact:

Jelmer Cuppers

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