JOB OFFER

Laser & Optronics Lab Engineer (M/F/X)

Department CISS – Research Unit Laser&Optronics

Project SACITAS

Publication: [22 July 2025]

CONTEXT

In the framework of the studies SACITAS and QuantumSight, we are looking for a **full-time lab engineer in the domain of laser and optronics** with a Master degree in Physics, Applied Sciences, or (Industrial) Engineering Science.

The Royal Military Academy is fully recognized as a university, fulfilling the same criteria as civilian universities. The RMA is also conducting scientific research at university level for projects funded by the Belgian Defense department or external sources.

We value diversity and equal opportunities. Whether you are a man, a woman or X, or come from any background, we firmly believe that diversity enriches our community, and we encourage all qualified candidates to apply.

PROJECT

You will work within the CISS department of (Communication, Information, Systems, and Sensors) of the Polytechnics Faculty of the Royal Military Academy, more specifically in the research unit Laser & Optronics (https://optro.rma.ac.be). You conduct research activities at university level on following Belgian projects: SACITAS and QuantumSight.

SACITAS consists of bringing together a significant part of the Belgian Industrial and Academic actors involved in laser and optronics research and ammunition development, to provide necessary R&T activities to further elaborate a compact, low-power seeker and laser designator that is using high repetition rate pulses as a targeting system. The consortium is composed of Thales Belgium, OIP, Lambda-X, ANSDEV, and Royal Military Academy. RMA is responsible for the definition and execution of the successive validation tests, tailored to the proposed use case scenario's.

QuantumSight addresses the need for augmented vision realized by miniaturized image sensors that can be integrated in air defense systems. The focus is on developing a proof-of-concept infrared image sensor to address the short-wave infrared (SWIR) wavelength spectrum. The consortium is well balanced with complementary expertise to realize a viable technology demonstrator: QustomDot, Imec, Xenics, Centre Spatial de Liège, and Royal Military Academy. RMA is responsible for benchmarking the functionality of the new sensor as well in the lab as outdoors.

ROLE OVERVIEW

As a Lab Engineer, you will play a critical role in the design and implementation of different test configurations, as well in the lab as outdoors, involving cameras in the SWIR domain, lasers, and related photonic devices. You will be responsible for ensuring the successful execution of experimental work, data analysis, and troubleshooting to optimize performance. You will collaborate with cross-functional teams to deliver high-quality results in a fast-paced environment.

MAIN TASKS:

- Conduct hands-on testing of a targeting laser and different types of SWIR cameras.
- Design, assemble, and optimize setups for various experiments in the lab and outdoors.
- Troubleshoot and resolve issues in the test setup.
- Perform detailed measurements and data analysis to support research and development efforts.
- Collaborate with engineers and scientists to develop new solutions and improve existing measurement and validation procedures.
- Maintain detailed records of experimental results and ensure accurate documentation.
- Write high quality test reports.
- Follow-up the state-of-the-art in the relevant application domains of SWIR cameras and laser targeting systems and report on this literature review.
- Ensure compliance with safety protocols in the lab.

SKILLS AND EXPERIENCE:

Degree(s) required: Master degree in Physics, Applied Sciences, Industrial Engineering, or Engineering.
This position is open for **experienced profiles (ideally 3 years of experience minimum).** However, young graduates are also encouraged to apply.

"MUST HAVE" skills:

- Hands-on experience in a laboratory environment.
- Knowledge on lasers, cameras, optical systems, and/or optronic instrumentation.
- Familiarity with optical testing equipment such as spectrometers, power meters, and oscilloscopes.
- Proficiency in data analysis tools and software (e.g., MATLAB, LabVIEW, Python).

"NICE TO HAVE" skills:

- Training or experience with SWIR cameras.
- Training or experience with laser systems.
- Familiarity with laser safety.

Personal skills:

- You have a problem-solving mindset with attention to detail and the ability to work in a fast-paced environment.
- You communicate your results in a clear, concise and precise manner.
- You are honest, loyal towards the institution and respectful towards your coworkers.
- You are flexible for change and adapt yourself.
- You will be working very closely together with industrial partners and will get insight in their proprietary intellectual property. Confidentiality is therefore an absolute must.

Other skills:

- The applicant shall have good knowledge of English (oral / written).
- Minimum knowledge of French or Dutch is an added value for collaboration with coworkers.

SPECIFIC REQUIREMENTS

- The lab engineer may be exposed to classified information and will therefore have to obtain the required security clearance. The candidate must consent with the background check required to obtain this clearance, which will be executed by Belgian Defense.
- **Only applicants with a nationality of a country that is part of the EU will be eligible.**
- Working for the Patrimony requires living in Belgium for the duration of the study.

APPLICATION

Please send by email:

- a CV
- a scan of your ID card (both sides)

to Mrs Marijke Vandewal (marijke.vandewal@mil.be) and to erm-deao-rswo@mil.be

Please mention clearly the reference of the project: "SACITAS".

Application deadline: 22 August 2025.

The interviews will take place at the Royal Military Academy, Hobbemastraat 8, 1000 Brussels. If needed, on-line interviews can be organized. The date and time of the interview will be communicated to the preselected candidates.

CONTRACT

- Probable date of recruitment: **As soon as possible**, in consultation with the applicant.
- Status: **Full-time employment (38 hours / week)** based on an **open-ended contract** with the Patrimony of the Royal Military Academy (you will not be a civil servant).
  - Please note that your contract will be open-ended, but the financing of the contract will be tied to the funding project, which is guaranteed for 30 months. The financing of your contract beyond that period is therefore not 100% guaranteed. However, the Patrimony has a policy to keep the good elements on board and the focus of this job offer fits within our core research activities, so there is a high chance that we will be able to offer you follow-up projects beyond that date if you decide to stay.
- Wage scale: class A1 (holder of a Master's degree in Science or equivalent), class A2 (holder of an Ir degree or equivalent Master's in Engineering Sciences). RMA-Patrimony applies a merit-based research career track, allowing researchers to advance in wage scale based upon annual evaluations.
- Holiday pay.

EXTRA LEGAL BENEFITS

- Possibility to benefit from a bilingualism allowance (Dutch/French) following a SELOR test;
- End-of-year bonus;
- Free DKV hospitalization insurance. Possibility of additional affiliation for one or more persons living under the same roof: spouse, child(ren) (50% of the price per additional member);
- Bike allowance / Free public transport (home-work commute);

- Meal vouchers (6€ / day);
- Digital allowance (15€ / month);
- Free access to campus sports facilities outside working hours;
- On-campus restaurant and cafeteria with democratic prices (discount on the daily menu);
- Flexible working hours within the 38-hour week;
- Teleworking possible with allowance (2 days / week max);
- Holidays:
    - 29 days holiday / year from the 1st year of contract (then from 45 years: +1 day holiday every 5 years)
    - 1 week OFF every year between Christmas and New year's Eve (independent of the annual balance of holidays).
- Advantages and interesting offers thanks to the Benefits@work card (discounts, vouchers...);
- Entitlement to services offered by the 'Office Central d'Action Sociale et Culturelle de la Défense' (OCASC): among others holiday centres, discount on travel organised by the tour operator...;
- Possibility to benefit from the nursery funded by Belgian Defence (subject to availability).

WORKPLACE

Royal Military Academy, Avenue de la Renaissance 30, 1000 Brussels with occasional travels abroad for measurement campaigns, conferences, etc.