**Competition for a research scholarship for a Master’s student**

**as part of the NCN project UMO 2021/43/I/ST5/02632.**

**Project title:** *Holographic Blue Phase Photonic Crystals: from microlasers to all-optical switching*” (*HoloBlue*)

**Project manager:** dr hab. inż. Eva Oton

**Name of the unit:** Military University of Technology

**Number of positions:** 2

**Duration of the scholarship:** 6 months with possibility of extension of another 6.

**Start of the scholarship:** 01/10/2023

**Salary of the scholarship:** The total cost of the scholarship: PLN 1,700 per month for one person (the amount may include public and legal charges in accordance with applicable regulations, e.g. ZUS)

The scholarship is awarded in accordance with the rules contained in the Regulations of NCN scholarships in research projects financed by the National Science Center introduced by the resolution of the Council of the National Science Center No. 25/2019 of 14 March 2019

**Task description:**

Research work will be carried out at the Military University of Technology, Faculty of New Technologies and Chemistry, as part of the NCN project "*Holographic Blue Phase Photonic Crystals: from microlasers to all-optical switching*" (acronym *HoloBlue*) as part of the NCN project 2021/43/I/ST5/02632

The project will be implemented by a consortium of the Military University of Technology (leader) and the University of Warsaw. The technological capabilities of the Military University of Technology and the experimental capabilities of the University of Warsaw perfectly complement each other, and several years of cooperation have already resulted in results published in excellent scientific journals.

The research work will be carried out jointly at the Institute of Applied Physics of the Military University of Technology and at the Faculty of Physics of the University of Warsaw.

The scholarship holder will conduct research on liquid crystal materials, preparing ordering layers for inducing organized liquid crystal periodic structures, which includes: preparation of liquid crystal mixtures, growth of blue phase crystals in glass cells, and study of technological methods for organized self-assembling structures. The scholarship holder will perform studies on optical properties of the prepared blue phase structures and perform full characterizations of the crystals and use of tunable liquid crystals embedded in an optical cavity for topological transmission or specific emission of light.

**Requirements**:

• experience in laboratory work in the field of organic chemistry, basic training in a chemistry laboratory, appropriate manipulation of chemicals, use of equipment to prepare chemical solutions, etc.

• experience in laboratory work in the field of optical spectroscopy: transmission, reflection, luminescence studies, etc.

• good knowledge of quantum mechanics and electrodynamics, ability to describe the propagation of light in waveguides and optical microcavities

• numerical modeling skills, knowledge of Mathematica or Matlab or Python software

• programming skills

• the ability to analyze and visualize data

• participation in the research of optical cavities will be an advantage

• the candidate should be a final year bachelor or master student at the Military University of Technology or at the Faculty of Physics of the University of Warsaw

**The application should include:**

- cover letter with information on the processing of personal data - information clause and consent clause - form attached to the advertisement. In the case of an e-mail application in PDF format, it should contain a scanned signature.

- curriculum vitae containing information on previous scientific activity, achievements and awards

- list of publications (also sent) and conference presentations

- copies of diplomas obtained

- copy of bachelor's or engineer's thesis (if the student is on master's studies)

- contact to a researcher who can confirm the declared experience in laboratory and/or theoretical work.

- a student can attach a copy of reports from student classes (workshops, projects, etc.) documenting the experience in laboratory or theoretical work.

**Deadline for submission of documents:** 31/07/2023

**Interview date:** 28/08 – 01/09/2023

Form of submitting offers: e-mail to the following address: Eva Oton - [eva.oton@wat.edu.pl](mailto:eva.oton@wat.edu.pl).

Selected candidates will be notified individually about the date of a possible interview.

In the event of resignation of the selected candidate, the right to indicate the next candidate from the ranking list is reserved.

**Information relating to personal data processing**

1. **Personal Data Controller**

Pursuant to Article 13 of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (hereinafter referred to as “GDPR”), the Controller of your personal data is the University of Warsaw, 26/28 Krakowskie Przedmieście, 00-927 Warsaw.

You may contact the Controller in one of the manners provided at: <https://www.uw.edu.pl/kontakt/>.

1. **Data Protection Officer (DPO)**

The Controller has appointed a Data Protection Officer (DPO who may be contacted  
about matters concerning your personal data via e-mail at: [iod@adm.uw.edu.pl](mailto:iod@adm.uw.edu.pl). You may contact the DPO in all the matters regarding the processing of your personal data by the University of Warsaw and executing your rights related to personal data processing.

However, the DPO’s duties shall not include other matters, such as current matters related to the concluded contract, receipt of documents related to the performance of the contract, etc.

1. **Objectives, legal basis and processing period**

Your personal data will be processed for the purposes of:

* conclusion and performance of the scholarship contract – for the term of the agreement (legal basis: Article 6(1)(b) of the GDPR);
* establishment, enforcement or defense of potential contractual claims – for a period of three years from the expiry of the contract (legal basis: Article 6(1)(f) of the GDPR);
* the performance of accounting and tax obligations – for the period of five years from the end of the calendar year (legal basis: Article 6(1)(c) of the GDPR).

For the purpose of performance of the concluded contract, your personal data shall be processed within the scope necessary to perform the concluded contract. All other personal data shall be processed if necessary for the purposes of exercising rights and duties resulting from a legal provision, and/or other applicable regulations.

All your other personal data shall be processed in specific cases after you have given your separate consent to its processing (Article 6(1)(a) of the GDPR), which you have the right to withdraw at any time. Please also be reminded that your withdrawal of consent shall not affect the lawfulness of processing based on your consent before its withdrawal (Article 7(3) of the GDPR).

1. **Data recipients**

Your personal data may also be shared with parties authorized pursuant to the provisions of law, .e.g. the National Science Center. Access to your personal data shall also be granted to authorized employees of the Controller who must process your personal data as part of their professional tasks and duties.

Other entities that the Controller commissioned to perform certain activities, e.g. providers of services of personal and property protection, postal and courier services, transport services etc., entailing the necessity to process personal data may be data recipients.

You professional data may also be provided to parties to the contracts concluded by the Controller, if it is necessary for the performance of these contracts and results from the contracts concluded.

1. **Data transfers outside of the European Economic Area (EEA)**

Your personal data may also be processed by Google, our G-Suite for education service provider at their data processing centers.[[1]](#footnote-1)

1. **Rights of data subjects**

According to the principles specified by the GDPR, you have the right to:

* access your data and receive its copy,
* rectify (correct) your personal data;
* restrict personal data processing;
* erase personal data (subject to Article 17(3) of the GDPR);
* object.

You also have the right to lodge a complaint with the President of the Personal Data Protection Office if you believe that the personal data processing violates the law.

1. **Information on the data provision requirement**

Provision of your personal data within the scope resulting from the legal and other regulations in order to allow the performance of tasks under the contract concluded is necessary to conclude a contract with you. Providing other personal data is voluntary.

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(Place and date) (Candidate’s signature)

1. https://www.google.com/about/datacenters/locations/index.html [↑](#footnote-ref-1)