

## **Project: *A two-dimensional bio-platform for self-sustainable microbiome - 2DMICRONET***

**Principal Investigator:** prof. Agnieszka Jastrzębska

**Position in the Project:** PhD student

**Institution:** Institute of Metrology and Biomedical Engineering, Faculty of Mechatronics, Warsaw University of Technology

### **Requirements:**

1. Master's degree in Engineering, Materials Science or Biomedical Engineering, plus PhD enrollment.
2. Knowledge in the field of materials chemistry and engineering, in particular in the field of characterization of two-dimensional (2D) materials.
3. Knowledge and experience in carrying out scientific research using MXene materials and MXene characterization with Raman spectroscopy technique will be an advantage.
4. Experience in preparing scientific publications and disseminating the results of the project at scientific conferences.
5. Participation in the implementation of research or research and development grants.
6. Fluent spoken and written English.
7. Strong motivation and passion for scientific work both independently and as part of a team in an interdisciplinary environment, with the ability to creatively propose solutions to problems at hand, pay close attention to detail and to meet deadlines.
8. Very good social skills.

### **General description of the project:**

Warsaw University of Technology, Faculty of Mechatronics is conducting research under the Opus 23 grant entitled "A two-dimensional bio-platform for self-sustainable microbiome - 2DMICRONET", financed by the National Science Centre. The scientific goal of the project is to carry out fundamental investigations on MXene-based micro-domain networks, refining the scalable methods for their synthesis and engineering, and understand the microbiome co-operation within MXene-based 2D micro-domains. As part of the research tasks under the NCN project, the holder of doctoral student scholarship position will be required to conduct scientific research, in particular, to prepare and widely characterize MXene materials, prepare solutions and characterize as well as follow the in situ Raman spectrometry protocol for the efficient validation of the MXene-based micro-domain networks. The recruited PhD student will also participate in the preparation of scientific publications and dissemination of project results at scientific conferences.

### **What we offer:**

1. Scholarship contract and competitive remuneration package.
2. Work in dynamic and competent scientific group with excellent research environment and international cooperation promoting publications in high impact journals.
3. Financial support for abroad scientific visits and attending conferences.
4. Encouragement and support in preparing grant applications and general career development.

**Type of NCN Project:** Opus 23 – ST.

**Application deadline:** 14.02.2025, 23:59.

**Results available on** 21.02.2025.

**Submit documents to:** [agnieszka.jastrzebska@pw.edu.pl](mailto:agnieszka.jastrzebska@pw.edu.pl)

### **Conditions of employment:**

PhD scholarship total: 192000 PLN gross (including taxes).

Preferred time of starting position: 1st March 2025.

### **Additional information:**

To apply, please send your application, including motivation letter, CV with the list of your publications and achievements, Master's degree thesis alongside with contact information to the scientific supervisor and other referees (if available) to the following e-mail address: [agnieszka.jastrzebska@pw.edu.pl](mailto:agnieszka.jastrzebska@pw.edu.pl) (deadline 14.02.2025). Incomplete applications will not be considered. We thank all applicants for their interest; however, only selected candidates may be invited for an interview. Applications will be accepted until the position is filled. If the winner of the competition resigns from signing the contract, we reserve the right to choose the next best person from the ranking list.

### **RODO statement:**

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, all candidates are requested to provide consent to the processing of his or her personal data by the institution which carries out the recruitment process. **Thus, please include in your application the following statement: "I hereby agree to the processing of my data included in the application documents by Warsaw University of Technology, Warsaw, Poland, to carry out the recruitment process."** Your personal data is processed on the basis of the Article 6 Part 1 Points (c) and (f) 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 (GDPR; Official Journal of the European Union L 119/1).