

**Nazwa jednostki:** Bydgoszcz University of Science and Technology, Poland,  
**Nazwa stanowiska:** PhD student

**Wymagania:**

Eligibility criteria:

1. Master in civil, mechanic or mechatronic engineering.
2. Knowledge of written and spoken English.
3. High motivation for scientific work and a strong commitment to research work.

A PhD student in the project "Design and optimization of smart wind turbines to vibration control and structural monitoring - SWinT" funded by the Polish National Science Center (NCN), Grant Agreement No. UMO-2022/45/P/ST8/02123 is being searched.

A PhD student will join to the SWinT project team of Dr. Marcela Machado and Dr. Maciej Dutkiewicz. The team focuses on the broadband vibration mitigation of wind turbines aiming to develop the application of metamaterial and smart metamaterial to wind turbines:

- metamaterial to broadband suppress vibration in one or multiple frequency ranges simultaneously,
- design of programmable metamaterial to smart meta-turbine (smart metastructure),
- design of rainbow programmable metamaterial to smart meta-turbine,
- monitor response of wind turbines in real time and machine learning.

The project is realized at the Bydgoszcz University of Science and Technology, Poland, Faculty of Civil, Environmental Engineering and Architecture, <https://pbs.edu.pl/pl/>

**Opis zadań**

**Tasks:**

1. Numerical research related to design of the broadband vibration mitigation of wind turbines.
2. Research on application of metamaterial to broadband suppress vibration in one or multiple frequency ranges simultaneously.
3. design of programmable metamaterial to smart meta-turbine, to record and analyze the signal processing.
4. Development of algorithms for signal processing and damage detection.
5. Preparation of reports and journal papers based on results analysis.
6. Communication and discussion of results within the research team.

**Typ konkursu NCN:** POLONEZ - BIS

**Termin składania ofert:** 20 kwietnia 2023, 00:00

**Forma składania ofert:** email

**Warunki zatrudnienia:**

Conditions of employment:

A full time position funded with a PhD scholarship (3625 zł/month) is offered for 12 months. The scholarship starts in June 2023.

### **Dodatkowe informacje:**

#### Additional information

1. Selection process is in accordance to National Science Centre regulations.
2. Submission of applications: **20 April, 2023**.
3. Applications in English to be sent by email to [Maciej.Dutkiewicz@pbs.edu.pl](mailto:Maciej.Dutkiewicz@pbs.edu.pl) with a subject "PhD student in Polonez - bis project".
4. Candidates interested in applying for the positions should submit the following documents:
  - a. cover letter
  - b. CV
  - c. copy of the certificate of Master degree
  - d. the list of scientific achievements (publications, participation in research projects, participation in conferences, awards, scientific stays, etc.)
  - e. letter(s) of recommendation obtained from people (e.g. supervisors, former managers) directly cooperating with the candidate.
  - f. the application must contain information about the educational background and work experience. Please, attach the requested documents in the PDF format.
  - g. a title and an abstract of the applicant's master's thesis
5. During the recruitment process the selected candidates may be invited for an interview (in person or via internet).
6. The result of the recruitment procedure will be sent to the candidates via email.
7. Please include in the application the following statement: "I hereby authorize to process my personal data included in my application for the needs of the recruitment process (in accordance with the Act of 08.20.1997 r. on personal data protection - Dz. U. No 133, item 883) ".If needed, selected Candidates may be invited for an interview (in person or via videoconference on Internet).
8. Additional questions could be sent by email to [Maciej.Dutkiewicz@pbs.edu.pl](mailto:Maciej.Dutkiewicz@pbs.edu.pl)

**Data dodania ogłoszenia:** **2023-04-06**