



Research Assistant – Doctoral Candidate (F/M) in the Research and Scientific Staff Group, Department of Machine Dynamics, Lodz University of Technology

Lodz University of Technology is one of the leading technical universities in Poland. It has more than 80 years of tradition and experience in educating highly qualified personnel and conducting scientific research. It is an attractive partner for business and cooperates with major companies in Poland and abroad. The University conducts research at a European level and develops new technologies and patents in cooperation with leading research centres worldwide. One of the pillars of the management of Lodz University of Technology is the equal treatment of employees regardless of their gender, age, race or other demographic and social characteristics. In 2016, Lodz University of Technology became the first technical university in Poland to receive the HR Excellence in Research logo, confirming that the University applies the principles of the "European Charter for Researchers" and the "Code of Conduct for the Recruitment of Researchers".

OPEN CALL FOR APPLICATIONS FOR PARTICIPATION IN THE IMPLEMENTATION OF THE PROJECT
Control of Vibrations in Euler–Bernoulli Beams Using Metamaterial Supports: Toward Turbomachinery
Blade Vibration Attenuation funded under the OPUS programme of the National Science Centre (NCN),
grant no. UMO-2025/59/B/ST8/0078

1. Requirements for candidates:

- Higher education in mechanical engineering, applied mathematics, or a related field.
- Good knowledge of and research interests in mechanics and mathematics, particularly machine design or a related specialisation, nonlinear vibrations, and MATLAB simulations.
- Ability to work in a team, strong motivation and enthusiasm for conducting scientific research and further academic development, creativity, and independence in planning and conducting experiments.
- Programming skills: C++, MATLAB, Python.
- Languages: English (good command, both spoken and written).

Desirable competencies:

- Interest in vibration control, structural modelling using modern computer software, and basic knowledge of laboratory equipment used in mechanical measurements.
- Design and development of metamaterial supports for vibration damping in single-beam/coupled-beam systems.
- Design and development of meta-beams for vibration damping under various loading conditions.
- Knowledge and experience in 3D design and printing will be an additional advantage.

2. Employment conditions:

- Employment as a Research Assistant (doctoral candidate) within the framework of the OPUS project of the National Science Centre, grant no. 2025/59/B/ST8/00789.
- Full-time employment for a period of 36 months commencing on 1 October 2026.
- Opportunities: development of an academic career, including pursuing a doctoral degree; participation in national and international conferences; and publication of scientific articles in journals with a high citation impact.



3. Anticipated scope of tasks and responsibilities:

- Participation in the development of a mathematical model of single-beam/coupled-beam systems with metamaterial supports under various loading conditions.
- Participation in the design and development of an experimental setup for beam systems with metamaterial supports under various loading conditions.
- Conducting theoretical, numerical and experimental analyses of single-beam/coupled-beam systems with metamaterial supports.
- Participation in the design and development of metamaterial supports based on studies of synchronisation in coupled-beam systems.
- Conducting and documenting research activities and participating in the dissemination of research results.

4. Required documents:

- Application for employment addressed to the Rector of Lodz University of Technology.
- Cover letter presenting the candidate's interest in the offered position and the research topic.
- CV (maximum 2 pages) containing information on previous scientific achievements and distinctions resulting from research conducted to date, including, in particular, publications in scientific journals, conference presentations, participation in research projects, internships, training courses, and other distinctions related to research and scientific activity.
- Declaration of readiness to commence project tasks no later than 1 November 2026.
- Reference/opinion from the candidate's current academic supervisor.
- Copies or certified copies of higher-education diplomas.
- Personal questionnaire for a person applying for employment at Lodz University of Technology, constituting Annex No. 1.1 to the "OTM-R POLICY – OPEN, TRANSPARENT AND MERIT-BASED RECRUITMENT PROCESS".
- Information clause on the protection of personal data, constituting Annex No. 1.2 to the "OTM-R POLICY – OPEN, TRANSPARENT AND MERIT-BASED RECRUITMENT PROCESS".
- Consent to the processing of personal data, constituting Annex No. 1.3 to the "OTM-R POLICY – OPEN, TRANSPARENT AND MERIT-BASED RECRUITMENT PROCESS".
- Copies/certified copies of diplomas.
- Other documents confirming the qualifications held.
- Copy of the diploma thesis or other achievements relevant to the subject matter of the project.

5. Place, form and deadline for submission of documents:

Documents should be submitted electronically to the e-mail address of the Secretariat of the Division of Dynamics, Lodz University of Technology: w1k13@adm.p.lodz.pl, or by post to: Division of Dynamics, Lodz University of Technology, 90-924 Łódź, ul. Stefanowskiego 1/15, by 5 October 2026. The date on which the documents are received by the Division of Dynamics, Lodz University of Technology, shall be decisive. Candidates may collect the documents submitted by them in connection with the competition within 30 days from the date on which the competition concludes.

6. Contact person and postal and electronic address to which documents and their scans may be submitted:

Teodora Kopacka — w1k13@adm.p.lodz.pl



Politechnika Łódzka

7. Anticipated date of completion of the recruitment process:
15 October 2026.

ADDITIONAL INFORMATION:

The assessment process will consist of two stages. The first stage will involve an analysis of the submitted documents. In the second stage, shortlisted candidates will be invited to a 20-minute interview conducted via Microsoft Teams/Zoom.

Candidates who successfully pass the recruitment process will be notified of their progression to the second stage exclusively by e-mail. If a candidate who successfully passes the recruitment process does not accept the position, it will be offered to the next person on the recruitment list. The validity of the results of the competition is subject to the approval of the Rector of Lodz University of Technology. Lodz University of Technology has an internal procedure for reporting violations of law and taking follow-up actions.

For academic/research staff:

8. Information materials for candidates:

- Description of the profile of the unit announcing the competition: The Division of Dynamics at Lodz University of Technology is a leading unit of the University dealing with problems in mechanical engineering, including nonlinear systems, new methods of their analysis, extreme-value problems, and synchronisation problems.
- Description of the leading research conducted by the unit: The development of methods for controlling chaos without feedback, identification and description of new types of bifurcations, identification of the mechanism of synchronisation in coupled mechanical oscillators, and explanation of the origin of randomness in a mechanical system are among its most important scientific discoveries. Other research areas include synchronisation of dynamical systems, chimera states, stability, and basins of attraction of solutions.
- Other information, in accordance with the official form for job advertisements, constituting Annex No. 1 to these Regulations, Annex 1.4 to the OTM-R POLICY – OPEN, TRANSPARENT AND MERIT-BASED RECRUITMENT PROCESS.

The Department of Machine Dynamics is a multidisciplinary research group focused on applications of dynamical systems theory in science and engineering. Its principal activities beyond purely scientific work include:

- Building interactions among applied mathematicians, scientists and researchers from related fields.
- Building relationships between Lodz University of Technology and other universities, industry and national laboratories.
- Creating international partnerships, collaborations and associations.
- Increasing the visibility of the group as a leading centre of academic excellence.

9. If documents are submitted by post, the envelope should be marked "candidate's job application".

10. Additional information: *Lodz University of Technology has an internal procedure for reporting violations of law and undertaking follow-up actions.*



PERSONAL INFORMATION FORM FOR APPLICANTS FOR EMPLOYMENT AT LODZ UNIVERSITY OF TECHNOLOGY

1. First name(s) and family name
2. Date of birth
3. Contact details
4. Education (where required for specific duties or jobs)

(name of school and graduation date)

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(occupation, specialisation, degree, professional title, academic title)

5. Professional qualifications (where required for specific duties or jobs)

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(courses, postgraduate education, other forms of further development of knowledge and skills)

6. Employment history (where required for specific duties or jobs)

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(employment periods and jobs held at previous employers')

7. Additional personal information, where the right or the duty to disclose it exists under specific regulations

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(place and date)

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(signature of the applicant)



Information clause for employment candidates

In accordance with Article 13(1) and (2) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals 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) OJ L 119, p. please be informed that:

1. The controller of the data is Lodz University of Technology with its seat in Łódź, at. ul. Żeromskiego 116, Tax Identification Number (NIP): 727-002-18-95, tel. +48 42 631 29 29 represented by the Rector.
2. The Data Protection Officer has been appointed at TUL (contact details: e-mail: iod@adm.p.lodz.pl, phone number: 42 631 20 39).
3. Your personal data to the extent indicated in the employment legislation will be processed for the purpose of the current recruitment procedure (Art. 6(1)(b) GDPR), while other data, including contact data, will be processed on the basis of consent (Art. 6(1)(a) GDPR), which can be revoked at any time.
4. Lodz University of Technology will process your personal data, also in subsequent staff recruitment, if you give your consent (Art. 6(1)(a) GDPR), which can be revoked at any time.
5. If the documents contain the data referred to in Article 9(1) of the GDPR, your consent to their processing will be required (Article 9(2)(a) of the GDPR), which can be revoked at any time. Labour law provisions: Article 22 of the Polish Labour Code and §1 of the Regulation of the Minister of Family, Labour and Social Policy of 10 December 2018 on employee records.
6. Personal data will be disclosed to persons acting under the authority of the controller and having access to personal data, processing them only on the controller's instructions, unless required by European Union or Member State law.
7. Data retention period: Your data collected in the current recruitment process will be stored until the end of the recruitment process. If you have given your consent to the use of your personal data for future recruitment, your data will be used until the end of the calendar year in which the recruitment process for which your application was submitted has ended.
8. You are the holder of the following entitlements:
 - 1) the right to access your data and to receive a copy of it
 - 2) the right to rectify (amend) your personal data;
 - 3) the right to restrict the processing of your personal data;
 - 4) the right to erasure of your personal data;
 - 5) the right to lodge a complaint with the President of the Office for Personal Data Protection (to the address of the Office for Personal Data Protection, ul. Stawki 2, 00 - 193 Warsaw)
9. Information on the requirement to provide data: Your provision of personal data in the scope resulting from Article 22¹ of the Polish Labour Code is necessary to participate in the recruitment procedure. Your provision of other data is voluntary.

.....
(signature of candidate for employment)



Candidate's consent to personal data processing under Article 7 GDPR

I consent to the processing of my personal data for the purpose and to the extent necessary to carry out the recruitment for the job in accordance with 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), publ. Official Journal of the EU L No. 119, p. 1. Consent is voluntary. Failure to give consent entails the inability to participate in the recruitment process. Consent may be withdrawn at any time, but without affecting the legality of the processing of personal data carried out on the basis of consent before its withdrawal.

I would like to inform you that I have been/I haven't been* presented with the salary range for the position mentioned in the advertisement.

.....
(date and signature of applicant)

* delete as appropriate