



Post-doc research assistant with PhD (F/M) – 1 of 2 job positions at Lodz University of Technology, Division of Dynamics

Lodz University of Technology is one of the finest universities of technology in Poland. Its tradition and experience in training professionals and conducting research date back more than 80 years. It is an attractive partner for business. It cooperates with the largest national and international corporations. It conducts research of a European standard, develops new technologies and creates innovation in collaboration with the leading research centres all over the world. One of the pillars of Lodz University of Technology management is equal treatment of staff regardless of their gender, age, race or other demographic and social characteristics. In 2016, LUT was the first technical university in Poland to receive the HR EXCELLENCE IN RESEARCH award certifying that the University adheres to the principles of *the European Charter for Researchers* and *the Code of Conduct for the Recruitment of Researchers*.

1. The requirements to be met by the candidate (detailed description of the knowledge, qualifications, skills, and professional experience).
- Education: PhD or equivalent degree in mechanical engineering, physics, or applied mathematics or related disciplines.
- Laboratory experience: mechanical and dynamical measurements, 3-D design and printing.
- Metamaterial design and analysis, preferably with strong expertise in COMSOL Multiphysics.
- Strong programming experience: C++, Matlab, Mathematica, Python.
- Publications: at least one paper in an SCI journal.
- Languages: English (Fluency in both written and spoken).

2. Specification of the terms and conditions of employment and authority associated with the position.

Zatrudnienie jako asystent naukowo-badawczy (doktor – post-doc) przy realizacji projektu OPUS Narodowego Centrum Nauki. Full-time job for 24 months.

3. Description of the expected responsibilities and duties.
- Design and development of unit cells for low frequency applications mentioned in the project.
- Design and development of metamaterial-based supports for the attenuation of vibrations of the single beam/coupled beam systems.
- Design and development of metabeams to attenuate vibrations under different loading conditions.
- Design and development of experimental setup for the analysis of effectiveness of metamaterial-based supports in attenuating vibrations of the single beam/coupled beam/metabeam systems.
- Development of the mathematical models of the single beam/coupled beam/metabeam systems under different loading conditions.
- Development of mathematical model of single beam/coupled beam system with metamaterial-based supports under different loading conditions.
- Design and development of experimental setup of single beam/coupled beam system with metamaterial-based supports under different loading conditions.
- Theoretical/numerical and experimental analysis of single beam/coupled beam system with metamaterial-based supports.
- Design and development of metamaterial-based supports based on the synchronization studies of coupled beam systems.
- Selection of metamaterial-based supports for a particular application using AI/ML techniques.



Politechnika Łódzka

- Analyzing the effectiveness of metamaterial-based supports in attenuating the vibrations of single beam/coupled beam systems.
- 4. List of the required documents:
 - 1) application for employment to the Rector of Lodz University of Technology;
 - 2) personal questionnaire for a person applying for employment at Lodz University of Technology, as provided in Annex no. 1.1 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
 - 3) Data Privacy Statement as provided in Annex no. 1.2 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
 - 4) Consent to the processing of personal data, as provided in Annex no. 1.3 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
 - 5) true copies/copies of diplomas;
 - 6) other documents proving the qualifications.
- 5. The place, manner, and deadline for submitting the documents (as well as information concerning their return); October 5, 2026; Division of Dynamics – 90-924 Łódź, Stefanowskiego 1/15, Poland;
- 6. Contact person and postal and e-mail addresses to which documents or scans thereof may be forwarded; Teodora Kopacka, w1k13@adm.p.lodz.pl;
- 7. The expected date of the announcement of the decision. October 15, 2026.

Furthermore, as regards academic staff:

- 8. It is recommended that the notice include the following information materials for the candidate:
 - 1) a description of the profile of the unit announcing the competition: Division of Dynamics is a leading unit in Lodz University of Technology working on mechanical engineering problems including nonlinear systems, new methods of their analysis, vibrations of synchronization oscillators.
 - 2) a description of the leading research undertaken in the unit:

The development of methods for controlling chaos without feedback, the identification and description of new types of bifurcations, the identification of the synchronization mechanism in coupled mechanical oscillators, and the explanation of the origin of randomness in a mechanical system are among his most important scientific discoveries. Synchronization of dynamical systems, chimeric states, stability and areas of attraction of solutions.
 - 3) other information that presents the unit in an appealing way and encourages the candidate to apply, as set out in the official form for employment opportunity advertisers provided as Annex no. 1.4 to OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT

Division of Dynamics is a multi-disciplinary research group focusing on application theory of dynamical systems to science and engineering. Main activities apart clearly scientific include the following:

 - realize interactions among applied mathematicians, scientists, and related researchers;
 - build interaction between the Lodz University of Technology and other universities, industry, and national laboratories;
 - establish international partnerships, collaborations and associations;
 - increasing the visibility of the group as a main point for academic excellence.
- 9. If documents are to be sent by post, please include the words 'Job Application' on the envelope.



Politechnika Łódzka

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



Politechnika Łódzka

Annex no. 1.1
to The OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT

**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)

.....
.....

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

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

.....
.....

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

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

.....
.....
.....

(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

.....
.....

.....
(place and date)

.....
(signature of the applicant)

Lodz University of Technology
90-924 Lodz, 116 Żeromskiego Street
phone (+48 42) 631 29 29, www.p.lodz.pl





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