Politechnika Łódzka

Assistant Professor (Adiunkt) in the research and teaching staff group (applications from candidates of all genders are welcome), Institute of Turbomachinery

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, TUL 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. Expectations:

- A doctoral degree in the field of engineering and technology, in the discipline of mechanical engineering, or an equivalent doctoral degree, awarded no earlier than seven years before the date of the competition announcement;
- At least three years of documented cooperation with or professional activity at a Polish public university, including a doctoral degree awarded by a Polish academic institution;
- A documented research track record in the field of flow in turbomachinery, particularly flow instabilities in centrifugal compressors at low flow rates, including inlet recirculation, rotating stall, and surge;
- Advanced proficiency in conducting Computational Fluid Dynamics (CFD) simulations of turbomachinery using ANSYS software, including Fluent, CFX, and TurboGrid, as evidenced by scientific publications;
- Documented participation in research projects, including experience in designing, planning, conducting, and validating experimental investigations on compressor test rigs;
- A documented ability to integrate numerical and experimental research, including validating numerical models against the available experimental data;
- A publication record comprising at least six articles published in journals indexed in Scopus or Web of Science (WoS), including at least four articles as the first author;
- Practical knowledge of the Polish research funding and evaluation system, including NCN, NCBR, NAWA, publication slots, and the index of scientific journals by the Polish Ministry of Science and Higher Education (MNiSW);
- Demonstrated ability to independently obtain research projects and funding from internal or external sources;
- Willingness to conduct assigned teaching activities, including laboratory or project-based classes in fluid mechanics, turbomachinery, or numerical methods, in English;
- Proficiency in English at level C1 or higher;
- A basic command of Polish sufficient for everyday communication;
- Strong motivation and excellent organizational skills;
- The ability to work independently while also being willing to collaborate as part of a team;
- The ability to communicate knowledge effectively and build constructive relationships with students in the teaching process;
- The ability to present results and provide regular progress reports on ongoing work;
- Openness to new challenges and adaptability to change;
- High standards of professional conduct, interpersonal skills, and personal integrity.
- Accuracy and attention to detail in carrying out assigned tasks, as well as the ability to comply with established procedures and regulations.

The following qualifications and experience would be considered additional assets:

- Postdoctoral research experience at a foreign research institution;
- Familiarity with open-source CFD software, particularly OpenFOAM;
- Proficiency in advanced processing and analysis of signal and large experimental datasets using MATLAB or Python, including instability detection methods;
- CAD modelling skills and a basic knowledge of finite element analysis (FEA) sufficient to perform coupled fluid–structure interaction (FSI) analyses;
- Documented active participation in international conferences or industry events, such as ASME Turbo Expo, ETC, or GPPS;
- Documented collaboration with an industrial partner in the compressor or turbocharger sector;
- Co-authorship of scientific publications with researchers from at least two foreign research institutions;
- Experience in supervision of undergraduate and/or graduate student projects, including projects involving international students.

2. Employment Conditions

- Employment as an Assistant Professof (female/male) in the research and teaching staff group at the Institute of Turbomachinery, Faculty of Mechanical Engineering, Lodz University of Technology.
- Full-time employment under a fixed-term contract from 1 March 2027 to 28 February 2030.
- Monthly gross salary ranging from PLN 7,045.00 to PLN 7,500.00. The final salary will be determined based on the candidate's professional experience, length of service, and qualifications.
- It is expected that, upon employment, Lodz University of Technology will be the Candidate's sole place of employment.
- Opportunities for professional development, further training, and academic career advancement;
- Opportunities to participate in engaging teaching and research projects, as well as projects undertaken in cooperation with industry and the wider community;
- Opportunities for international mobility through European programmes, such as Erasmus+, and participation in international conferences;
- Opportunities to publish research articles in journals with a high Impact Factor.

3. Responsibilities:

- Plan and conduct or co-conduct research, the results of which will be published in journals indexed in the Web of Science Core Collection;
- Prepare research grant applications and actively seek external funding by acquiring national and international research projects;
- Conduct theoretical and practical classes, including lectures, laboratory classes, and tutorials for undergraduate and graduate students in English;
- Prepare and publish scientific publications;
- Perform organizational and administrative duties related to the Institute's ongoing activities.

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) a copy of the doctoral degree certificate,
6) abstract including scientific, teaching and organizational activities,
7) list of publications in accordance with current list of periodicals given by Ministry of Science and Higher Education.

5. Application Procedure

Application documents will be accepted until December 5, 2026 at the Secretary Office of the Institute of Turbomachinery, 217/221 Wólczańska Street, 93-005 Łódź, Poland, (building no. B-13, 2nd floor, room no. 208) and at the e-mail address: w1i12@adm.p.lodz.pl

In the case of sending documents by post, the envelope should bear the annotation "job candidate's offer" and be sent to the correspondence address: Lodz University of Technology, Institute of Turbomachinery, 116 Żeromskiego Street, 90-924 Łódź, Poland.

In matters related to the competition, please contact the Secretary Office of the Institute of Turbomachinery, phone: 42 631-23-64, e-mail: w1i12@adm.p.lodz.pl

6. The expected date of the announcement of the decision: December 2026.

7. About the Institute of Turbomachinery

The Institute of Turbomachinery, a unit of the Faculty of Mechanical Engineering at Lodz University of Technology, is recognized for its activities both in Poland and internationally. It comprises five scientific divisions, supported by specialized laboratories, as well as a mechanical workshop. The Institute conducts research and collaborates with domestic and international industry in the following areas:

- computational analysis and design of turbomachinery, fluid-flow equipment, and their components;
- analysis and assessment of opportunities to improve the performance and expand the operating range of existing turbomachinery and fluid-flow equipment;
- preparation of technical expert reports identifying the causes of failures and recommending appropriate remedial measures;
- operational testing of turbomachinery and fluid-flow equipment in industrial installations;
- advisory and consulting services related to the planning and implementation of energy-sector investments, supervision of their implementation, and the operation of turbomachinery and fluid-flow equipment;
- specialized courses and training for technical personnel.

The Institute of Turbomachinery has successfully implemented a range of innovative technologies. Its achievements include the design and optimization of aircraft propellers for the X3 multipurpose hybrid helicopter developed by Airbus Helicopters, as well as a gold medal awarded at the 2nd World Technology Expo for the invention "Vertical-Axis Wind Turbine with Variable Blade Geometry." The Institute's staff are the creators of numerous patented solutions. The Institute also organizes the International Symposium on Compressor and Turbine Flow Systems: Theory and Application Areas (SYMKOM), which regularly brings together representatives from academia and industry.

8. Additional Information

Lodz University of Technology has an internal procedure for reporting violations of law and taking 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

Łódzkie Partnerstwo Akademickie im. Jana Karskiego

ECIU university

HR EXCELLENCE IN RESEARCH

Politechnika Łódzka

Annex 1.2
to the 'OTM-R POLICY - OPEN TRANSPARENT SUBSTANTIVE RECRUITMENT PROCESS'.

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 22^1 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)

Politechnika Łódzka

Annex 1.3
to the 'OTM-R POLICY - OPEN TRANSPARENT SUBSTANTIVE RECRUITMENT PROCESS'

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