**Assistant Professor (Adiunkt) in the group of research and teaching staff**

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 75 years. It is an attractive partner for business. It cooperates with largest national and international corporations. It conducts research of a European standard, develops new technologies and creates innovation in collaboration with the leading research centers all over the world. One of the pillars of the 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.

The Institute of Turbomachinery is a unit of the Faculty of Mechanical Engineering of the Lodz University of Technology, recognizable both in Poland and abroad. The organizational structure of the Institute includes 6 Scientific Divisions (with specialized laboratories) and a mechanical workshop. Both research projects and cooperation with domestic and foreign industry concern:

* computational and design works of turbomachines and their components,
* analysis and evaluation of possibilities to improve the currently achieved operating parameters of turbomachines and their operation systems,
* technical expertise to determine the causes of failures and methods of removing their effects
* operational tests of turbomachines in industrial installations,
* advice and consultation in planning energy generation investments, in supervising their implementation and during the operation of turbomachines,
* specialized courses and trainings for technical personnel.

The Institute of Turbomachinery can boast the implementation of innovative technologies, including the implementation of the design and optimization of aircraft propellers for the X3 multitask hybrid helicopter developed by AIRBUS HELICOPTERS and the gold medal for the invention "Wind turbine with vertical axis of rotation and variable geometry of blades" awarded at the 2nd World Exhibition Technology Expo. The employees of the Institute are the authors of numerous patented solutions. The Institute of Turbomachinery is also the organizer of the cyclical International SYMPOSIUM ON COMPRESSOR & TURBINE FLOW SYSTEMS - THEORY & APPLICATION AREAS - SYMKOM, attended by representatives of the world of science and industry.

1. *Requirements for the candidate (description of detailed knowledge, qualifications, competences and professional experience)*

* a doctoral degree in technical sciences in the discipline of mechanical engineering, biomedical or related engineering,
* documented scientific achievements in the area of: biomedical imaging and numerical modeling of physiological flows,
* documented teaching achievements at a university in technical studies, including conducting classes in, for example, biomechanical engineering or cooperation in diploma theses, in Polish and English,
* participation in research projects, including experience in designing, planning and conducting experimental investigations,
* knowledge and ability to make models with incremental FDM (fused deposition modeling) or DLP (digital light processing) techniques,
* achievements in publishing, among others, 3 publications in a journal from the JCR list,
* the ability to use software to process signals and medical images,
* proficiency in the use of high-order object-oriented programming languages (creating interactive graphical interfaces and executables),
* fluent knowledge of English confirmed by a certificate at the C1 level or higher,
* documented scientific or industrial internships, scholarships (including foreign ones), awards and distinctions will be welcome.

1. *Determination of working conditions and rights related to the position.*

The job offer concerns the position of an assistant professor (adiunkt) in the group of research and teaching staff at the Institute of Turbomachinery at the Faculty of Mechanical Engineering, Lodz University of Technology. We are planning full-time employment for a specified period. The employment is planned to start in April 2022.

The Lodz University of Technology is expected to be his / her only place of employment at the time of employing the Candidate.

We offer:

* a possibility of raising qualifications and training as well as development of a scientific career,
* a possibility to participate in interesting teaching and research projects and to work for the socio-economic environment,
* trips abroad within European programs, e.g., Erasmus + or international conferences,
* favorable social conditions,
* location in the city center with easy access and an available parking site,
* work in a relaxed atmosphere*.*

*3. Description of the anticipated scope of tasks and responsibilities.*

A person employed as an assistant professor (adiunkt) in the group of research and teaching staff will be required to:

* plan and conduct/co-conduct scientific work including experimental investigations of the flow (including substances imitating blood or biocompatible bone cements) in physical phantoms of anatomical structures, the results of which will be published in journals from the Philadelphia list,
* prepare project applications and acquire research projects financed from domestic and foreign funds,
* conduct didactic classes for the first and second cycle studies in Polish and English,
* prepare scientific publications,
* perform organizational work related to the Institute day-to-day operations.

For the implementation of the above-mentioned scope of duties it is necessary to show:

* motivation and very good organization of work,
* independence in action with simultaneous readiness to teamwork,
* an ability to transfer knowledge and build relationships with students in the didactic process,
* an ability to present results and conduct ongoing reporting from the work carried out,
* openness to new challenges and changes,
* high personal culture and interpersonal skills,
* accuracy in performing assigned tasks and an ability to adapt to procedures.

*4.. List of required documents*:

1. A letter of application addressed to the Rector of TUL;
2. Personal questionnaire for a person applying for employment at the Lodz University of Technology, constituting Appendix 1.1 to the "OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT";
3. The clause on the protection of personal data, constituting Appendix No. 1.2 to the "OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT";
4. Consent to the processing of personal data, constituting Annex 1.3 to the "OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT"
5. copies / copies of diplomas;
6. other documents confirming the qualifications held.

*5. Place, form and deadline for submitting documents (with an indication of the possibility of their receipt).*

Application documents will be accepted until March 16, 2022 at the Secretary Office of the Institute of Turbomachinry, 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](mailto:w1i12@adm.p.lodz.pl)

In the case of sending documents by traditional mail, 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

*6. Contact person details as well as postal and electronic address to which documents and their scans can be sent*

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](mailto:w1i12@adm.p.lodz.pl)

*7. Estimated date of the contest adjudication*

March 2022.