

Director
of **IT4Innovations National Supercomputing Center**
VSB - Technical University of Ostrava
announces a selection procedure for a post of
Research Assistant
for Infrastructure research Laboratory

The position is suitable for both women and men.

IT4Innovations National Supercomputing Center is a leading research, development, and innovation centre active in the fields of High-Performance Computing (HPC), Data Analytics (HPDA), Artificial Intelligence (AI), and Quantum Computing (QC) and their applications. We have strong international links and employ more than 180 scientific, technical, and administrative staff. At present, IT4Innovations is running two supercomputers: Karolina (15.7 PFlop/s, installed in the summer of 2021), Barbora (849 TFlop/s, installed in the autumn of 2019), and is a member of the consortium operating LUMI, one of Europe's most powerful supercomputers. IT4Innovations also operates the first Czech quantum computer named VLQ. For more details, see www.it4i.eu.

Activity description:

- research and development of methods for acceleration of parallel applications in the High Performance Computing (HPC) environment,
- work in the international team focused on development and optimization of parallel codes under national and international projects,
- collaboration with application developers and domain experts on highly scalable parallel applications with focus on:
 - development and implementation of parallel applications,
 - GPU acceleration of applications,
 - application optimization (improving scalability, vectorization, implementation of hybrid parallelization using MPI+OpenMP),
 - application porting to modern hardware architectures,
- compilation of parallel applications and libraries from source code for HPC clusters,
- collaboration on publication activities of research outcomes.

Full time equivalent:	0,5 - 1,0
Type of job contract:	fixed-term employment
Expected start of employment:	1. 10. 2025 or as agreed

We require:

- university education in IT or a related field, min. required degree Bc. at the time of recruitment,
- practice min. 1 year,
- experience with Linux operating systems and work in bash or Python,
- experience with HPC applications including their installation, configuration and execution is an advantage,

- knowledge of application development in C/C++, knowledge of the Fortran language is an advantage,
- knowledge of parallel application development using either
 - MPI and OpenMP, or
 - CUDA, the advantage is OpenCL, OpenACC, or OpenMP for accelerators, is an advantage,
- active knowledge of the English language.

Candidate advantage:

- experience with scientific computing applications.

We offer:

- work in a promising organization,
- salary evaluation according to the project conditions and candidate's experience,
- modern laboratory and classroom facilities,
- opportunity to participate in excellent research team,
- possibility of further education,
- 6 weeks of holidays,
- flexible working hours,
- university kindergarten,
- contribution option to pension plan,
- company catering in the canteen,
- MultiSport card,
- other employee benefits according to the employer's offer.

Your personal data will be processed to the extent necessary for the implementation of the selection procedure in accordance with EU Regulation 2016/679.

<https://www.vsb.cz/export/sites/vsb/en/.content/files/Informace-pro-uchazece-o-zamestnani-AJ.pdf>

The application form substantiated with a letter of motivation and CV should be sent electronically to the email address: petra.brozova@vsb.cz **until 31. 8. 2025 (continuously open position)**

In the subject of the email, please state "Open Call for the position of Research Assistant for Infrastructure research Laboratory".