

Research and development

Výzkumný Ústav Železniční, a.s. (The Railway Research Institute, VUZ) focuses a large part of its activities on cooperation in the field of research and development. The aim of VUZ is to be an equal partner in cooperation in science and technology on both the national and international levels, take part in joint European research projects and provide professional services to European and other prospect clients. By its involvement into the European and global research activities, VUZ intends to support the Czech railway industry and work as an intermediary link in implementation of maximum degree of innovation to the railway sector.

Thanks to its highly professional employees VUZ offers participation in scientific research projects, mainly in the field of applied research. We are ready to adapt to the market demands in the complex railway sector and determine direction of technological progress. Do not hesitate to contact us if you are interested in making VUZ a part of your project or, on the other hand, if you offer services and know-how, which could in your opinion become a part of our research projects.

The VUZ's biggest benefit in the field of science, research and innovation is a broad range of experts: testing laboratory experts, authorized person's office specialists and test ring and dynamic test bench engineers. The fact that VUZ has its own test rings available for the purpose of railway research testing is an indisputable advantage.

VUZ offers professional services and a test ring background:

Large test ring of the following parameters:

- > Total track length 13,276 km
- > Permissible axle load 22,5 t (25 t subject to approval)
- > Maximum permissible speed 200 km/h (230 km/h subject to approval)

Small test ring of the following parameters:

- > Total track length 3,951 km
- > Permissible axle load 22,5 t (25 t subject to approval)
- > Maximum permissible speed 80–115 km/h

In the field of research, VUZ offers:

- > Testing facilities and tests performed in real conditions by specialists in individual fields of expertise
- > Unique know-how in individual railway subsystems
- > Flexibility – flexible changes and reactions to research project demands
- > Experience in international projects

Contact:

Výzkumný Ústav Železniční, a.s.
Novodvorská 1698/138b, 142 00 Praha 4
+420 241 493 135
www.cdvuz.cz



VÝZKUMNÝ
ÚSTAV
ŽELEZNIČNÍ, a. s.



REFERENCES:

- > CARBODIN Car Body Shells, Doors and Interiors | a project focusing on research of implementation of composite materials in railways (in international project supported by Shift2Rail)
- > INNOWAG | Innovative Monitoring and Predictive Maintenance Solutions on Lightweight Wagon – a project focusing on research of noise and vibrations in railways (an international project supported by Shift2Rail)
- > Regional hydrogen-powered trains in Czech railways | the project is a part of TAČR KAPPA program – CZ RESEARCH program, EEA and Norway Funds 2014-2021
- > TrainLoc | A proposal and verification of conditions for implementation of GNSS-based fail-safe train locators in the Czech railway network – the project focuses on checking the railway environment's impact (technical aspect) on implementation of systems of fail-safe train localization using Global Navigation Satellite Systems (GNSS) (a project supported by the Technology Agency of the Czech Republic TAČR)