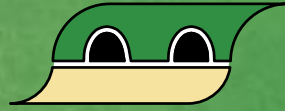




Czech Technical University in Prague, Faculty of Civil Engineering



The Josef Drift

**Connecting teaching and research with Commerce
and Industry**



Varied geological conditions

**Large complex of underground
areas**

**Link between academic and
commercial interests**

**Mutually beneficial
partnerships**



The Josef Gallery – past and present

Underground Exploration Workings for the Mining of Gold

- Gold exploitation commenced in the area in the Middle Ages – the peak of production was reached in the 14th century
- Interest in the area's gold deposits was renewed in the 1980s
- The excavation of the Josef Gallery commenced in 1981
- Exploration ceased in the mid 1980s

Josef UEF – an Underground Educational Facility

- The Josef UEF project commenced in 2005
- In 2006-2007 Metrostav Ltd renovated 600 metres of tunnels and galleries at their own expense
- In 2007 regular teaching and work on the first research projects commenced

How to find us



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Tento projekt je spolufinancován evropským sociálním fondem, státním rozpočtem České republiky a rozpočtem hlavního města Prahy

CTU in Prague, Faculty of Civil Engineering
UEF JOSEF
Underground Educational Facility

www.uef-josef.eu
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Teaching and Research

Innovation of Teaching in Real Conditions

- Applied geotechnics
- Specialised surveying and mine surveying
- Materials engineering
- Safety and reliability of underground constructions and technologies
- Ecology of underground structures



Research and Development

Large underground areas and varied geological conditions enable:

- The study and verification of the properties of new construction materials
- Research into the interactions between the geological environment and construction materials
- The development of new underground construction technologies
- Tests on the long-term stability of materials and constructions in real environments and to scale
- The demonstration of new technologies for the scientific community



Our Current and Potential Partners:

- Universities and technical colleges from the Czech Republic and abroad
- Czech and foreign research institutions

Cooperation with Commerce and Industry

Practical Training

- Underground construction technologies
- The construction of temporary and permanent supports
- Safety risk and non-standard situations encountered during the construction of underground structures
- Accidents in underground structures
- The readiness of rescue teams



Demonstration of Technologies

- New underground construction technologies
- Innovative materials and demonstrations of their use
- Progressive construction components

Potential Partners

- engineering and industrial companies involved with underground structures and construction materials
- research institutions from both the Czech Republic and abroad

Technical data

Length of the main drift (the Josef Gallery)	1 835 m, profile 14–16 m ²
Total length of the other drifts (not inc. the Josef Gallery)	6 018 m, profile 9 m ²
Height of the overlying strata	90–110 m

Geological location

The Josef Gallery is situated in a belt of metamorphosed volcanic and volcano-sedimentary rocks (basalts, rhyolites, andesites, tuffs, tuffites) that were later intruded by younger rock types (granodiorites and albitic granites). The locality is characterised by rich veining and a complicated tectonic structure. Most of the underground areas are not lined.