

Main goals of the department:

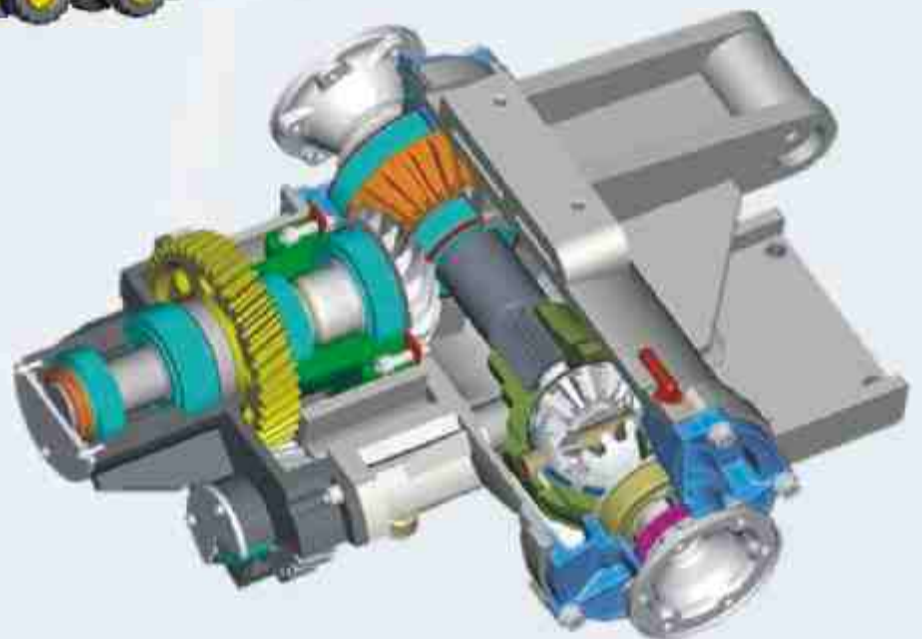
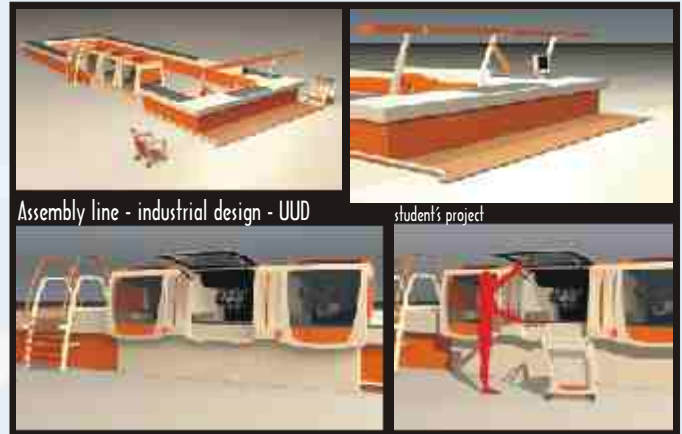
To nurture young specialists in the fields of manufacturing machinery design and transport technologies. The research foundation creates a theoretical and experimental background for manufacturers in the field.

The department's offers:

- ✓ Project studies, evaluations
- ✓ Design of tools, jigs and machines
- ✓ Optimization of machines and equipment design
- ✓ Applications of modern materials in machine design
- ✓ Drive solutions including transmission analysis
- ✓ Design of special connections
- ✓ Complete development of shape and implementation of supporting structures of machines using FEM
- ✓ Analysis of mechanical and thermal properties of machines using FEM
- ✓ Consultation and literature search in the fields of design and analysis of machines
- ✓ Magnetic bearings- consultation, design
- ✓ Simulation of hydraulic and pneumatic mechanisms
- ✓ Simulation of mechanisms with rigid and flexible parts
- ✓ Training in the fields of machine design, analysis and FEM

Main directions of research:

- ✓ Product design based on the theory of technical systems using new materials
- ✓ Development of virtual prototyping for manufacturing machines using CAD and FEM
- ✓ Research into applications of non-conventional materials in manufacturing machines
- ✓ Reverse engineering, mechatronics, testing and diagnostics of machines



References :

- Naretec s.r.o
- HP Pelzer, s.r.o
- INTOS, spol. s r.o.
- Škoda Machine Tool, s.r.o
- ROTAS STROJÍRNÝ spol. s r.o.
- Institut průmyslového managementu, spol. s r.o.
- Buzuluk Komárov, nástupnická, a.s.