

Company profile:

As a result of a successful project application, the Institute of Technology at the Edutus College opened its laser lab in March 2014, which – besides educational purposes in the technical training programs – also fulfills the R&D tasks of the factories in the region.

Tools in the laboratory:

1. A most modern five-axis TRUMPF TRULASER CELL 7020 CNC machining center, with a 4kW TruDisk 4001 laser beam.
2. A combination of a SPI 400W fiber laser and a six-axis Kawasaki robot arm optimized for educational and R&D purposes.

The tool set is operated by researchers and engineers who have great experience in industry and development. The tools are suitable for high-quality, high-speed laser cutting, welding and other laser machining technologies (e.g. surface treatment and hardening).

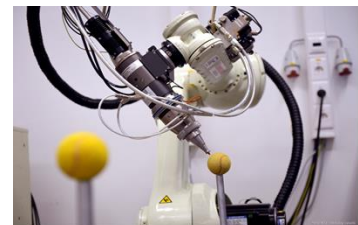
With the help of the other tools of the Institute of Technology, all processes – starting from planning the workpiece (CAD/CAE: AutoDesk, Solid Edge), through the computer planning of its laser machining technology (CAM: EdgeCAM, TrutopsCell) to the actual creation of it – can be implemented on the spot. Even the independent verification measuring of the pieces (CAMS/CMM: Mitutoyo Crysta-Apex S 7106 3D CNC coordinate-measuring tool) can be carried out.

With the support of an EU Operational Programme, the Institution made a comprehensive study of Laser Safety in Hungary, for the first time. This work is in accordance with the strategy of the Edutus College, i.e. the introduction of industrial laser technology in education. As a special yield of the programme, besides the newly elaborated curricula, a laboratory built of modular building-block was created to support the practical training of the future Laser Safety Officers (LSOs). The training material and method are supervised by Laser Zentrum Hannover, LZH Laser Akademie.

Our main reference works include: AUDI Motor Hungary, BorgWarner Hungary, DENSO Hungary, Grundfos Hungary.

Fields of cooperation:

- **2D/3D metal laser cutting, welding, and surface treatment**
- **Cutting aluminum and magnesium alloys and their fiber-reinforced composites**
- **Research of establishing polymer-metal bonding**
- **Training Laser Safety Officers in cooperation with the LZH Laser Akademie (Hannover, Germany)**

**Contact:**

E-mail: molnar.laszlo@edutus.hu

Web: www.edutus.hu