



CAD/CAM DESIGN, MACHINING

The CAD/CAM competence at the Institute of Machine Tools and Mechatronics primarily covers the use of design systems and their application in the design of production equipment, special-purpose machines, machining equipment and machine units. In today's world, it is a basic requirement to be able to complete a design task as quickly and efficiently as possible. Computer-aided design has great significance in industrial practice when designing tools, equipment, and machining procedures.

COMPETENCIES

- CAD-based modelling and design of machining equipment
- Use of CAM machining systems
- Finite element simulations for industrial tasks



SERVICES

- CAD design of machining equipment, special-purpose machines, machine units
- Performing simulations for machining equipment
- CAM production planning, machining
- Reverse engineering



TOOLS

- Breuckmann Smart Scan 3D-HE 3D optical scanner
- Design Informatics Laboratory - industrial licensed UNIGRAPHICS NX engineering design system
- CNC laboratory - DMU 40 HEIDENHAIN iTNC530 5D CNC milling center and CTX Alpha 500 CNC turning center



REFERENCES

- Examination of UBBDA type plate rolling mill equipment, elaboration of development proposals – ANDRITZ Kft., Tiszakécske
- Preparation of an R&D study revealing the operating vibrations of the high-performance block milling machine operating in the Rolling Mill hall of Alcoa-Köfém Kft., Székesfehérvár
- Redesign of infra gas burners made by Ebner for Rolling Mill- Alcoa-Köfém Kft.
- Strength examination of a NEFF 1250 hydraulic press using analytical and numerical mechanical methods – Hajdú Autótechnika Ipari Zrt.
- Strength examination of a NEFF 800 hydraulic press using analytical and numerical mechanical methods – Hajdú Autótechnika Ipari Zrt.