

Thesis topics

Dr. Sándor Bodzás

- 1. Designing of manufacturing technologies for selected workpieces:** technological analysis of the technical drawing, selection of working machines, tool selection from standard catalogues, technological process designing, determination of the technological parameters, computer aided manufacturing (CAM), CNC program writing, sample production
- 2. Designing of workpieces or tools clamping devices:** the fixation of the freedom degrees, designing of the device elements, assembly process planning, computer aided designing (CAD), creation of the technical drawings, accuracy analysis, finite element method analysis (FEM),
- 3. Designing of cutting tools:** designing of form tool or circular form tool for various workpieces, computer aided designing (CAD), creation of the technical drawing, analysis of the tool's edge geometries, finite element method analysis (FEM)
- 4. Designing and modelling of toothed drive pairs:** designing of toothed gears (straight or helical), bevel gears (straight or helical), computer aided designing (CAD), tooth connection analysis (TCA) by finite element software (FEM), designing and analysis of manufacturing technologies
- 5. Designing of assembly technologies:** computer aided modelling of built parts (CAD), creation of assembly operation process plan, designing of assembly trees, computer aided assembly designing (CAD), the designing of assembly dimension chains, tolerances' determination, assembly simulations