PRODUCTION INFORMATION ENGINEERING

Production information engineering competence includes modelling, simulation, analysis, optimisation, scheduling, management and other IT support of discrete production systems and processes, as well as software support for solving related decision-making tasks. Theoretical and practical knowledge can be transformed into software with the combined application of human and artificial intelligence that can be used in industry to effectively solve specific problems of different production systems.

COMPETENCIES

- Modelling and simulation of production systems
- Analysis and optimisation of production processes
- Production planning, scheduling and programming
- Development of special production planning and scheduling software
- Design and development of manufacturing execution systems and additional components
- Control, coordination, scheduling and optimisation of secondary, auxiliary, maintenance and other processes related to the primary production processes
- Programming of CNC machines
- Programming of PLC devices
- Project scheduling

SERVICES

- Simulation, analysis and optimisation of production systems
- Development of special and additional software for ERP systems used in practice
- Replacement of manual and Excel-based production planning and scheduling with software solutions
- Developing and connecting digital twins with real production systems
- Development of manufacturing management software
- Design and implementation of control algorithms
- Creating CNC programs
- Creating PLC programs
- Development of multi-objective project scheduling software

TOOLS

- Own, custom-developed software

REFERENCES

- Development of a production scheduling model and solving algorithm: SanatMetál Kft. (Eger)
- Development of integrated production scheduling and inventory control software: Fehrer Kft. (Mór)
- Development of production fine-scheduling software: Electrolux Kft. (Jászberény)
- Production IT consulting: ToMeth Kft. (Bélapátfalva)
- Simulation-based analysis of production processes: Bosch Rexroth Kft. (Eger)