



Development of adapting dynamic models for large-scale heat pump systems



Motivation

- Increasing share of renewables and district heating
- Large-scale heat pumps are key components
- Updated models required for monitoring, optimization and fault detection



Conditions

- Master's project (Possible to adjust to Bachelor's)
- Experienced supervisors at DTI
- Involvement in cutting-edge R&D projects
- Collaboration with manufacturers and customers possible



Objectives

- Dynamic model for large-scale HP system
- Automated fitting of model parameters
- Demonstration of tools at operating plant



Methods

- Dynamic modelling
- Numerical optimization
- Demonstration at operating plant