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Industrial planning and scheduling problems
Optimization of energy efficiency in industrial applications

Master Thesis (f/m) - Process and Production Optimization

Your tasks: As part of the process and production optimization group at the German Corporate Research Centre of ABB you will investigate mathematical optimization approaches and solutions for production planning and energy management in process and manufacturing plants. This implies industrial planning and scheduling problems as well as optimization of energy efficiency in industrial applications. You will implement and test developed models and algorithms.

Background: Advanced optimization solutions improve production throughput, energy and material efficiency. They are implemented using modern software architectures and software engineering processes. Moreover, industrial plants will increase to take an active role in smart grid applications based on volatile energy availability and pricing. Innovative solutions are required which enable plants to dynamically adapt their production based on energy pricing.

Your profile: You are in the final phase of your master degree education and interested in industrial planning and scheduling problems. You are well acquainted with mathematical optimization. Tools for optimization and implementation of optimization solutions are well-known for you. Knowledge in object oriented programming is of advantage.

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