Production planning, control and optimisation

Basic information

Code: FITech
Extent: 5–20 ECTS
Language: English
Organising university: Åbo Akademi
Methods and location: Contact learning in Turku or online
Teacher in charge: Henrik Saxén, Åbo Akademi (henrik.saxen@abo.fi)
Administrative contact: Mikko Helle, Åbo Akademi (mihelle@abo.fi)
Target group: Courses are suitable for master’s level engineering students. Students in business and mathematics could find courses Neural Networks, Evolutionary Algorithms and Optimization interesting.

Application process:
- This guideline applies to students who want to attend FITech studies in universities other than their home university.
- Instructions for applying (opens in a new tab)
- More info can be found on FITech’s website.

Quotas and restrictions: -
Prerequisites: -

Content and structure of the minor

The courses introduce the students to the basics in production planning, control and optimization which are important tools in the development of more material, energy and cost efficient processes.

Optimization (Optimering) introduces students to the basics in optimisation, including the different problem classifications and algorithms to solve the problems. Evolutionary algorithms offers knowledge in optimisation with stochastic methods. Process and production optimization (Process- och produktionsoptimering) provides knowledge on how to solve problems related to the production and cost efficiency and how to distribute tasks optimally. Control of discrete event systems gives basic knowledge in computer aided modeling and control of systems where discrete decisions are made and actions are taken. Neural networks presents an introduction to artificial neural networks and their use in problem solving in engineering.

More information: https://fitech.io/studies/production-planning-control-and-optimisation/

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<th>Code</th>
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<th>ECTS</th>
<th>Schedule</th>
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<tbody>
<tr>
<td>FITech</td>
<td>Control of discrete event systems</td>
<td>5</td>
<td>28.10.–20.12.2019</td>
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<tr>
<td>FITech</td>
<td>Optimization (Optimering)</td>
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<td>FITech</td>
<td>Evolutionary algorithms</td>
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<td>FITech</td>
<td>Process and production optimization</td>
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<td>(Process- och produktionsoptimering)</td>
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<td>FITech</td>
<td>Neural networks</td>
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