



Simulation and Optimisation for Building Environment 7.5cr

Simulation and Optimisation for Building Environment 7,5hp

Set by Faculty of Engineering and Sustainable Development

Version	Set at	Valid from
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Level	A1F
Education level	Second cycle
Course identifier	ME549D
Credits	7.5cr
Main field of study	Energy Systems
Subject group	Energy Technology
Disciplinary domain	Technology 100.0%

Learning outcomes The aim of the course is to understand and use simulation tools for building energy systems and indoor environment. Environmental and economical impacts of the analysed building energy systems will be covered.

After completion of the course the student shall be able to

1. use a general proposed simulation and optimisation programme and models for building energy systems analysis
2. state the principal details in the used computer programs
3. state limitations and prerequisites when using the programs
4. analyse the result from the programs results- and sensitivity analyses
5. design resource-efficient building energy systems.

Course content Simulation and optimization programs for building energy system analysis
Building energy analysis
Identification of possible changes in the energy system
Calculation of the appropriate measures and suggestions for what should be implemented

Teaching	The course is given in the form of lectures, tutorials and seminars.		
Prerequisites	Environmental Assessment of Buildings 7.5cr, Building Energy Systems D 7.5cr and Sustainable Energy Systems C 7.5cr or equivalent documented thereof.		
Examination	Projects		
Grade	A, B, C, D, E, Fx, F		
Other regulations	-		
Sustainable environment	The majority of the course content deals with sustainable development..		
Module	0010 Project	7.5cr	Grade: AF