Technology
Arts Sciences
TH Köln

Course
RST - Recipe Control

Version: 1 | Last Change: 29.09.2019 10:19 | Draft: 0 | Status: vom verantwortlichen Dozent freigegeben

General information

Long name	Recipe Control
Approving CModule	RST_BaET
Responsible	Prof. Dr. Norbert Große Professor Fakultät IME
Level	Bachelor
Semester in the year	winter semester
Duration	Semester
Hours in self-study	78
ECTS	5
Professors	Prof. Dr. Norbert Große Professor Fakultät IME
Requirements	Process Control Engineering, Planning Process Control Engineering, Systems
Language	German
Separate final exam	Yes

Final exam

Details

Exam with programming exercises, comprehension questions, pictures of production plants and controls

Minimum standard

Achieve half of the possible score

Exam Type

Exam with programming exercises, comprehension questions, pictures of production plants and controls

Lecture / Exercises

Learning goals

Knowledge

Present control processes with GRAFCET

Mapping production processes to recipes

Mapping production processes to production plants

Process Control Tasks (PFK.4)
Describe structuring of process engineering processes (PKF.1)
Describe structuring of process plants (PFK.1)
Understand Production Methods and Plant Concepts (PFK.1)
Defining Requirements for Process Control Engineering (PFK.1)

Capture concepts of recipe control according to DIN EN 61512-1 (PFK.1)

Describe recipe characteristics and structures (PFK.1)

Describe control components (PFK.1)

Represent basic and control recipes (PFK.1)

Capture procedure function diagrams according to DIN EN 61512-2 (PFK.1)

Skills

Create procedure function plans (PFK.1)

Display control processes with GRAFCET (PFK.1)

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	1

Exercises (shared course)	0
Tutorial (voluntary)	0

Separate exam

Exam Type

solving exercises within limited functional / methodical scope under examination conditions

Details

Exam with tasks to control technology, which are graphically represent, comprehension questions.

Minimum standard

Achieving half of the possible points

Practical training

Learning goals

Skills

Handling program package CODESYS as vendor-neutral programming of controllers
Programming of control function elements, of control functions, of unit control systems; configuration of recipe control systems
Programming of basic automation
Presentation of basic and control recipes; procedure function plans

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	1
Tutorial (voluntary)	0

Separate exam

Exam Type

working on practical scenarion (e.g. in a lab)

Details

Presence exercises and self-learning exercises

Minimum standard

Attendance in the internship, achieve the required tasks