

Course Manual DMC

Digital Motion Control

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– General information

Long name Digital Motion Control

Approving CModule [DMC MaET](#),
[DMC MaTIN](#)

Responsible Prof. Dr. Jens Onno
Krah
Professor Fakultät IME

Valid from summer semester 2021

Level Master

Semester in the year summer semester

Duration Semester

Hours in self-study 60

ECTS 5

Professors Prof. Dr. Jens Onno
Krah
Professor Fakultät IME

Requirements RT, DSS

Language German

Separate final exam Yes

Literature

Krah, Jens Onno, Vorlesungsskript MC

Krah, Jens Onno: Vorlesungsskript RT (Download)

Handbuch ServoStar 300: www.danahermotion.net

Schultz, G.: Regelungstechnik, Oldenbourg Verlag,
München-Wien

Lutz, Wendt: Taschenbuch der Regelungstechnik,
Verlag Harri Deutsch

Final exam

Details Written module
examination - similar to
the exercises

Minimum standard -

Exam Type EN Klausur

– Lecture / Exercises

Learning goals

Goal type	Description
Skills	Structure of servo motors Structure of servo inverters Digital control algorithms Process identification Design of drive systems

Special requirements

none

Accompanying material	Lecture script (pdf) Exercise collection (pdf)
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Separate exam	No
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Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	2
Exercises (shared course)	0
Tutorial (voluntary)	0

– Practical training

Learning goals

Goal type	Description
Skills	Direct Digital Control Quasi-continuous control Predictor / Observer Parameterization of a control system Evaluation of Bode diagrams Demonstrate action competence Commissioning of a servocontroller Minimization of following errors

Special requirements

none

Accompanying material	Internship Instructions (pdf)
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Separate exam	No
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Expenditure classroom teaching

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