UNIVERSITÄT DUISBURG-ESSEN
Lehrstuhl Steuerung, Regelung
und Systemdynamik
Univ.-Prof. Dr.-Ing. Dirk Söffker

Wintersemester 2025/26

Course	**Practical Exercise Control Theory (1P)** comprising three experiments: • Control of the Inverted Pendulum (ip) • Observer-based Control for a Torsional Oscillator (brt) • Disturbance Estimation in Rotating Machines (de)
Attendance mandatory:	Participants of the course Control Theory (ISE Master Program, ME)
URL of the course	https://lehre.moodle.uni-due.de/course/view.php?id=1521
Examiners	Ph.D. students/scientific co-workers
Coordination	Mazen Zeno, M.Sc., praktikum-srs@uni-due.de
Attestation	In WiSe 25/26, the attestation will be realized by an online test in the **Moodle course at the university (in presence)**, no exceptions possible. Be aware of the related room announcements. The realization will take place via: - An assignment to the group of admitted participants (prerequisite: registration at the examination office) - Temporally limited execution of the Moodle attestation You have to succeed the central attestation for all experiments in order to participate at the labs. **The attestation is only offered at the mentioned date. There is no (!) possibility to change the attestation date or to repeat the attestation in the same term.** Resit of this attestation is in the first semester week of the following term. Participation at the labs without a successfully passed attestation is not possible.
Attestation date	**Resits:** October 13th, 2025 at 04:00 pm in SG135 **Regular:** December, 12th at 3:00 pm
Execution of the labs	All experiments are realized at the **university in presence** and are held in English language. The participants are grouped and assigned to fixed lab dates. A central date exchange service by the chair will not be provided, but a **change-of-dates-forum is arranged in moodle**. The participants are allowed to switch their appointments with another accepted student on their own risk. If the switching party does not participate, the original advised student loses the right to participate. The doctoral candidate conducting the lab has to be informed at the beginning of the experiment about a date's switch. All participants will be checked if their participation is accepted. Not accepted students are not allowed to take part.

Material	Moodle: Practical Exercise Control Theory – P-CTH (https://lehre.moodle.uni-due.de/course/view.php?id=1521) The password can be requested via the e-mail address srs-pw@uni-due.de. The subject must contain only the word **PrC**.
Lab dates	**Resits:** First and second week of October 2025, check announcements **Regular:** January 7th – 31st, 2026
Place (labs)	brt: MB 323 ip, de: MB 325
Lab days	Daily
Time	Dates between 8.00 am - 05.00 pm
Consulting hours	Wednesday, 8.00 am - 9.30 am, Registration via Moodle, MB 326
Registration	**Mandatory registration at the examination office of the semester (same procedure as for examinations).** ONLY registered participants are allowed to take part in the attestation. A deregistration is only possible via email to praktikum-srs@uni-due.de latest 1 week (full 7 days) before the attestation date. Nonappearance leads to the grading fail for all three experiments. A deregistration after participation at the attestation is not possible.
Grading / fail	Your performance will be graded: **Criteria** / **Grade** - Attestation passed **and** - Active participation at the lab / 1,0 - Attestation passed **but** - Passive participation at the lab / 3,0 - Attestation failed, **or** - Nonappearance/delay / 5,0 (failed) Grading with 5,0 (failed), all experiments and the attestation have to be repeated. Grades will be reported to the examination office like other examination results. The experiments have to be completed within one semester (including the repetition period of the directly following semester). Grades are 1,0 or 3,0, or the experiments have to be repeated completely. The pass of the practical exercise is connected with: 1) Attestation: Each participant has to succeed the attestation for all experiments in order to participate at the labs. 2) For each student it is checked whether the requirements for participation in the attestation are fulfilled. The Moodle

	attestation can only be opened, if all requirements are fulfilled. 3) Presence: The labs start exactly at the announced time. Participants who are not present until 5 minutes after start of the lab will be graded as being "not present", regardless of reasons. Nonappearance leads to the grading fail for all three experiments. 4) For verification of your identity you have to show your Student-ID, or your passport, or your Aufenthaltstitel in the beginning of the labs. If the ID cannot be accepted or is not correct, the student loses the right to participate. 5) Active participation at the practical experiment.
Additional information	It is recommended to conduct the labs in the proposed order as failed attempts lead to worse grades or failed trials.