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

**Wintersemester 2019/20**

| **Course** | **Practical Exercise Control Theory (1P)**<br><br>comprising three experiments:<br>• Control of the Inverted Pendulum (ip)<br>• Observer-based Control for a Torsional Oscillator (brt)<br>• Disturbance Estimation in Rotating Machines (de) |
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| **Attendance mandatory:** | Participants of the course Control Theory<br>(ISE Master Program, ME) |
| **URL of the course** | http://www.uni-due.de/srs/v-cth-an1-Praktikum.shtml |
| **Examiners** | Ph.D. students/scientific co-workers |
| **Coordination** | Dr.-Ing. Sandra Rothe, praktikum-srs@uni-due.de |
| **Attestation date** | **December, 20th during lecture time**<br>(Dates and seat numbers will be announced on our homepage a few days before the attestation). |
| **First lab dates** | January, 7th |
| **Last lab dates** | January 31st |
| **Place (labs)** | MB 323 (brt), MB 325 (de, ip) |
| **Lab days** | Daily |
| **Time** | Dates between 8.00 am - 05.00 pm |
| **Consulting hours** | Thursday, 10.00 am – 11.30 am, MB 326 |
| **Scripts** | Scripts for each experiment are located on the SRS homepage. Those have to be worked through until the attestation date as they are the basis for the attestation. |
| **Attestation** | You have to succeed one central attestation for all experiments in order to participate at the labs. **The attestation is only offered at the a.m. 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. |
| **Registration** | **Mandatory registration at the examination office in 5th and 6th week 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. |

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<tr><td>Realization of labs</td><td>The experiments are held in English language. The participants are grouped in teams of 6 students 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 (Control Theory (CTh) – Practical Exercise (WiSe 19/20)). The participants are allowed to switch their dates 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.</td></tr>
<tr><td>Grading / fail</td><td>Your performance will be graded:
<table>
<tr><th>Criteria</th><th>Grade</th></tr>
<tr><td>- Attestation passed and<br>- Active participation at the lab</td><td>1,0</td></tr>
<tr><td>- Attestation passed but<br>- No active participation at the lab</td><td>3,0</td></tr>
<tr><td>- Attestation failed, or<br>- Nonappearance/delay</td><td>5,0<br>(failed)</td></tr>
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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.<br>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.<br><br>The pass of the practical exercise is connected with:<br>1) Attestation: Each participant has to succeed one central written attestation for all experiments in order to participate at the labs.<br>2) Verification of identity: Participation at the attestation is only possible if your identity can be verified. For verification of your identity you have to show your Student-ID, or your passport, or your Aufenthaltstitel at the attestation date and in the beginning of the labs. If the ID cannot be accepted or is not correct, the student loses the right to participate.<br>3) Presence: The exercise starts exactly at the announced time. Participants who are not present until 5 minutes after start of the exercise will be graded as being “not present”, regardless of reasons. Nonappearance leads to the grading fail for all three experiments.<br>4) Active participation at the practical experiment.</td></tr>
<tr><td>Additional information</td><td>It is recommended to conduct the labs in the proposed order as failed attempts lead to worse grades or failed trials.</td></tr>
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