

## Schedule WS 2024/2025 Power System Operation and Stability (PSOS)

**Lectures:** 8:30 – 10:00 a.m. on Tuesdays (BCI-ZE-15)  
8:30 – 10:00 a.m. on Wednesdays (BCI-ZE-02)  
Start: **Tuesday, 08.10.2024**

**Exercises:** 16:00 – 17:30 p.m. on Thursdays (BCI-ZE-02)

**Computer Exercises:** 8:00 – 11:00 a.m. on Wednesdays (Retina-Pool: P1-01-108a+b)

### **FYI: Computer Exercises**

The lecture will be accompanied by three computer exercises using MATLAB, DigSILENT PowerFactory and Typhoon HIL. An introduction to the simulation programs DigSILENT PowerFactory, MATLAB and Typhoon HIL will be given.

### **FYI: Blackouts and Presentations**

The lecture will be accompanied by multiple case studies on practical problems. Each group, consisting of approximately six students, will analyze the causes and effects of a real past blackout in the electric power transmission network. The results of all groups will be presented at the end of the semester.

### **Lectures:**

Prof. Dr. Christian Rehtanz  
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Martin-Schmeißer-Weg 12, Room 2.02

### **Lectures & (Computer) Exercises 1 - 3:**

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### **Lectures & (Computer) Exercises 4 - 6:**

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## Preliminary Plan

Lecture A: Power System Supervision, Operation and Protection

Lecture B: Power System Stability, Dynamics and Control

Tuesday		Wednesday		Thursday	
2024					
08.10.	Lecture A1+A2	09.10.	Lecture A2	10.10.	
15.10.	Lecture A3.1	16.10.	Lecture A3.2	17.10.	Exercise A1
22.10.	Lecture A3.3	23.10.	Computer exercise A1	24.10.	
29.10.	Lecture A4 *	30.10.	Computer exercise A2	31.10.	Exercise A2
05.11.	Guest lecture	06.11.	Computer exercise A2/3	07.11.	
12.11.	Lecture A5 *	13.11.	Computer exercise A3	14.11.	Exercise A3
19.11.	Lecture A5.2+6	20.11.	Lecture A6+7	21.11.	
26.11.	Lecture A7+8	27.11.	Lecture B1+B2	28.11.	
03.12.	Lecture B3	04.12.	Lecture B4	05.12.	
10.12.	Lecture B5 *	11.12.	Lecture B6 *	12.12.	
17.12.	Lecture B7	18.12.	Computer exercise B1	19.12.	Exercise B1
Semester Break					
07.01.	Lecture B8	08.01.	Computer exercise B2	09.01.	Exercise B2
14.01.	Lecture B9	15.01.	Computer exercise B3	16.01.	
21.01.	Wrap-Up	22.01.	Guest lecture	23.01.	Exercise B3
28.01.	Blackout presentation	29.01.	Blackout presentation	30.01.	

\*: ie3-research associates will give the lecture

**Please note: Dates might change on short notice!**