Karlsruher Institut für Technologie

Elektrotechnisches Institut (ETI)
Hybridelektrische Fahrzeuge
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Elektrotechnisches Institut

Electric Drives for E-Mobility (EDEM)

Lecture Plan SS 2025

Lectures and exercises on **Wednesday 09:45 - 11:15** (Mathe Gebäude 20.30, Seminarraum 0.016) and **Thursday 09:45 - 11:15** (Mathe Gebäude 20.30, Seminarraum 0.014)

-	KW 17	23.04.	-
-		24.04.	-
L1	KW 18	30.04.	Introduction + Overview: Electric Drives in Hybrid and Electric Vehicles
-		01.05.	- (First of May)
L2	KW 19	07.05.	Overview: Electric Drives in Hybrid and Electric Vehicles
-		08.05.	-
-	KW 20	14.05.	-
-		15.05.	-
L3	KW 21	21.05.	Fundamentals of Rotary Field Machines I
-		22.05.	-
L4	KW 22	28.05.	Fundamentals of Rotary Field Machines II
-		29.05.	- (Ascension Day)
L5	KW 23	04.06.	Fundamentals of Rotary Field Machines III
L6		05.06.	Fundamentals of Rotary Field Machines IV
-	KW 24	11.06.	- (Whitsun Week)
-		12.06.	- (Whitsun Week)
E1	KW 25	18.06.	Exercise: Rotary Field Machines
-		19.06.	- (Corpus Christi)
L7	KW 26	25.06.	Fundamentals of Power Electronics I
L8		26.06.	Fundamentals of Power Electronics II
E2	KW 27	02.07.	Exercise: Magnetic Circuit
L9		03.07.	Synchronous Machines
L10	KW 28	09.07.	Other Electric Machines I
E3		10.07.	Exercise: Loss Mechanisms
L11	KW 29	16.07.	Other Electric Machines II
E4		17.07.	Exercise: Analysis of Operation Areas
L12	KW 30	23.07.	Inverter related winding failures
E5		24.07.	Exercise: Power Electronics
L13	KW31	30.07.	Noise, Vibration and Harshness (NVH)
E6		31.7.	Exercise: Control of Three Phase Machines