

Electromagnetic Compatibility

Spring 2025

Prof. F. Rachidi

Farhad.Rachidi@epfl.ch

Tentative Programme

Date	Programme
20.02	Introduction to EMC, Coupling Modes
21.02	Electromagnetic Coupling 1
27.02	Electromagnetic Coupling 2
28.02	Problem Set 1
06.03	Frequency domain solutions
07.03	Time domain solutions
13.03	Problem Set 2
14.03	Two-port representation of TLs
20.03	Lab 1: Characterization of TLs using s-parameters (MED2 2419)
21.03	Electromagnetic crosstalk: 3-conductor lines
27.03	Electromagnetic crosstalk: Inductive and capacitive coupling
28.03	Solutions for multiconductor lines
03.04	Problem Set 3
04.04	Lab 2: EM coupling and crosstalk (MED2 2419)
10.04	Low Frequency Coupling Mitigation (shielded cables, twisted pairs)
11.04	Coupling to shielded cables
17.04	Problem Set 4
01.05	Lab 3: Coupling mitigation (MED2 2419)
02.05	EM shielding
08.05	Grounding, Filtering and Balancing
09.05	Problem Set 5
15.05	Lightning phenomenon
16.05	Lightning protection on power lines
22.05	EMC in digital circuits
23.05	Problem Set 6
30.05	Final Test

Electromagnetic Compatibility Laboratory

<http://emc.epfl.ch>

The logo for EPFL (École Polytechnique Fédérale de Lausanne) is displayed in a bold, red, sans-serif font.

Version 11.02.25/FR