Principles of Digital Communications

Time and location:
Wednesdays, 13h15–16h, ME B3 31
Fridays, 13h15–16h, ME B3 31

Instructor:
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Prerequisites:
Signal processing for communications
Stochastic processes for communications

Web page:
https://moodle.epfl.ch/course/view.php?id=15897
https://go.epfl.ch/PDC-2024

Textbook:
B. Rimoldi, Principles of Digital Communication: A Top-Down Approach,

Course mechanics:
Midterm (35%, tentatively mid April),
Project (20%, tentatively late April – early May),
Final exam during finals period (45%).

Approximate Outline:
Hypothesis testing and discrete-time receiver design (3 weeks)
Continuous-time receiver design (3 weeks)
Signal constellation design (3 weeks)
Waveform design, coded transmission (3–4 weeks)
Additional topics (1–2 weeks)