Advanced Digital Communications

Time and location:
- Mondays, 13–15, ELA 1 (lecture)
- Tuesdays, 13–15, ELA 2 (lecture)
- Tuesdays, 15–17, ELA 2 (exercise)

Instructor:
- Emre Telatar (INR 117, 37693, emre.telatar@epfl.ch)
- Office hours: by appointment.

Teaching assistants:
- Mine Alsan (INR 036, mine.alsan@epfl.ch)
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Administrative assistant:
- Yvonne Huskie, (INR 133, 37694, yvonne.huskie@epfl.ch)

Prerequisite:
- Probability and Statistics (I and II) or
- Stochastic processes for communications

Web page: http://ipg.epfl.ch/

Textbook:

Course mechanics:
- Weekly assignments, (two of the weeks will be graded; 10%)
- Midterm quiz (40%),
- Final exam during finals period (50%).

Approximate Outline:
- Properties of information measures (4–5 lectures)
- Source coding (7–8 lectures)
- Capacity and the channel coding theorem (5–6 lectures)
- Coding techniques for reliable communication (4–5)
- Multi-user channels (4–5 lectures)
- Additional topics (1–2 lectures)

Reference Material: