

SCHOOL OF ELECTRICAL ENGINEERING
Signal Theory: EQ1220 / EQ1210

Reading Assignment: Optimal Filtering (4/5) 2015–09–16,

Notice: To be collected before Lecture 8 (2015-09-23).
The essay consists of three questions. If you successfully answer all questions, you obtain 1 bonus point for part A of the final exam. An essay with partially correct answers will give you 1/2 point.
For the answers you should not copy text from a textbook. Group work is also not allowed, but feel free to discuss with your fellows. The reports will be checked against plagiarism.
Be brief, i.e., at most 1 page.

Explain (in your own words) ...

1. ...how to estimate a mean value based on an observed sequence and how to analyze the quality of this estimation.
 2. ... the basic principles and properties of Fourier based methods to estimate the power spectrum of a process.
 3. ...linear MMSE estimation. Your short essay could for example answer the following questions: what is a MMSE estimator? why linear? is it optimal? how to find the MMSE estimator? ...
-