NTNU – Trondheim
Norwegian University of
Science and Technology

Estimation, Detection and Classification

Lecture 19

Project Assignment

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Projects

- Project 1 – Estimation_MLE
  - Availability: 12 groups
- Project 2 – Estimation_BLUE
  - Availability: 12 groups
- Project 3 – Detection
  - Availability: 22 groups
- Project 4 – Classification_Image
  - Availability: 12 groups
- Project 5 – Classification_Speech
  - Availability: 12 groups

2

Project Selection

- Blackboard Open for Project Selection:
  Friday 13.03.2020 at 12:00
- Assignment Criterion:
  First Come, First Serve

3

Time and Place for Supervision

- Frontal Lectures
  - Tuesdays 12:00-14:00 in S4
  - Thursdays 12:00-14:00 in R9
- Exercitation Days are not active
- On appointment (contact lecturer and teaching assistants)
- Email and Skype Meeting are also valid options

According to safety measures against spreading of Coronavirus, students must work from home and use Email/Skype (or equivalent online alternatives) for project supervision. Lecturer and Teaching Assistants will be available during lecture times. Emails should be sent to (always include all):

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4

Project Delivery

- Deadline: 30.04.2020
- Technical Report
  - Usually 5–10 pages (excluding appendices – if any)
  - No need to add printed code in appendix
  - Some suggestion on report writing is provided with the file Report_Structure.pdf by M. H. Johnsen
- Code
  - MATLAB or Python
  - Readable (well structured and well documented)
  - Simple to run (e.g. play button)

5

Support Material

- Compendium from previous years
- S.M. Kay, *Fundamentals of Statistical Signal Processing, Vol. 1 Estimation Theory*, Prentice Hall
- S.M. Kay, *Fundamentals of Statistical Signal Processing, Vol. 2 Detection Theory*, Prentice Hall
- H. Van Trees, K.L. Bell, Z. Thian, *Detection, Estimation, and Modulation Theory: Part I – Detection, Estimation and Filtering Theory*, Wiley
- R.O. Duda, P.E. Hart, D.G. Stork, *Pattern Classification*, Wiley
- C.M. Bishop, *Pattern Recognition and Machine Learning*, Springer
- S. Theodoridis, K. Koutroumbas, *Pattern Recognition*, Academic Press

6