

Guideline for ITA25-Report-AY2024

To evaluate your study performance in ITA25 - "Biosignal Processing and Data Mining", please complete your report and submit to me via email no later than December 2, 2024.

Purposes:

- Understand signal decomposition and reconstruction using Wavelet transform
- Understand algorithmic principles for various preprocessing such as noise suppression, outlier removal and missing data interpolation, etc.
- Understand algorithmic principles for detecting characteristic points
- Understand evaluation of algorithmic performance using proper performance measures such as sensitivity, specificity, etc.
- Understand HRV parameters in time domain and frequency domain

Tasks:

1. Read some relevant papers and books recommended in this course.
2. Do the homeworks listed in each chapter.
3. Refer to "Template for ITA25-Report-AY2024.docx" and write your report by following the instruction below.
4. Submit your study report named as "AY2024_m5123456_ITA25_report.pdf" in PDF file before the deadline.

Contents:

- I. Introduction
 - General interest, methods and achievements in HRV analysis
 - What is the problem you are going to challenge?
- II. Method and Materials
 - Dataset information
 - Algorithms and flowcharts for signal processing and HRV analysis
- III. Results
 - Demonstrate your outcomes by tables and figures, and indicate your understanding
- IV. Discussion
 - Assess the meaning of your results, but watch for symptoms of megalomania
 - Explain both interesting and anomalous results
- V. Conclusions
 - Simply one paragraph to provide a sense of closure - that the interest or question "opened" by the introduction has now been "closed" by your study.
 - Connect to the introduction by answering questions raised in the beginning.
 - Make clear how or why this study is significant.

References