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## **Assignment 6 - Frequency-Domain Analysis of Heart Sounds**

**Visible:** 02 Dec 2024 8:00 AM EET | **Due:** 13 Dec 2024 11:45 PM EET

Submissions Per Problem: Unlimited

## **Assignment Description**

**Learning outcomes** After this assignment, student can • use spectrogram representation when doing frequency produce an averaged Power Spectral Density (PSD) of segments of a PCG signal

Required reading Read chapter 6 from course book.

Assignment description You will study the power spectral density of heart sounds.

**References** [1] Zhang, W., Han, J., & Deng, S. (2017). Heart sound classification based on scaled spectrogram Control, 32, 20-28. URL: http://www.sciencedirect.com/science/article/pii/S1746809416301616 (http://www.sciencedirect.com/science/article/pii/S1746809416301616 (http://www.sciencedirect.com/sciencedire

This lab exercise is based on the material provided in http://people.ucalgary.ca/~ranga/enel563/ (http://people.u

## **Problems**

Spectrograms and Power Spectral Densities (/courses/157000-521273s-biosignal-processing-i-online-labs-autumn-2024/assignments/449070-assignment-6-frequency-domain-analysis-of-heart-sounds/problems/1664240-spectrograms-and-power-spectral-densities)