**REPORT**

Zajęcia: Analog and digital electronic circuits

Teacher: prof. dr hab. Vasyl Martsenyuk

**Lab 7 and 8**

17.02.2025

**Topic:**

7. Sampling and Reconstruction of Signals: Analysis of Aliasing Effects and Proper Signal Reconstruction.

8. Coding and Decoding Digital Signals

**Variant 15**

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# 1. Problem statement:

The aim of the first task is to reconstruct of a sine wave.

The aim of the second task is to compare signal distortion and compression ratio for specified thresholds in DCT compression for the given signal

# 2. Input data:

Task one data

* f = 8 Hz – signal frequency
* fs = 16 Hz, sampled frequency

Task two data

* signal = [3,6,9,12, 15, 18]
* thresholds = [4,8,12]

# 3. Commands used (or GUI):

## a) source code

## b) screenshots

## c) Link to remote repositorium

<https://github.com/TobiaszWojnar/DSP>

# 4. Outcomes:

Results from console, screenshots etc.

# 5. Conclusions

For the reasons given, we conclude that ????????????