Lab03: **Image processing**

**90 minutes**

**Learning Outcomes:**

Upon completion of this workshop, you will have demonstrated the abilities to understand the frequency domain

**Requirements:**

In this exercise, students are asked to write a simple image processing program that has the following basic functions:

**Q1**: Increase brightness of the figure im\_01

**Q2**: Use an available tool (such as chatgpt, fusion, etc.) to remove the noise in the image.

**Q3:** Explain the key idea of Fourier transform.

**Q4**: Use Fourier transform to denoise the figure im\_02.

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**SUBMISSION:**

* A zipped file: Group\_number.rar or Group\_number.zip (Ex: Group\_1.rar or Group\_3.zip), holding:
  + Group.docx: containing all members (with particular contributions)
  + Report.docx: containing the final answers for Q1 to Q4 (for group)
  + Code: a folder containing all members’ code (named studentID.py or studentID.ipy(nb)
* Submit the zipped file to LMS

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**Report**

**Q1**: Increase brightness of the figure im\_01

Code:

Input image:

Output image: