

Assignment 2: Blood Cell Object Detection

- ❖ In this task you are required to apply two different YOLO variants for the task on object detection on the Blood Cell Detection dataset from Lab 7.
- ❖ The code you use for YOLO variants does not have to be from scratch but **finetuning must be applied**. This means that you are not allowed to use pretrained weights directly for inference without any training.
- ❖ Data preparation and conversion from the provided dataset format to YOLO format should be clear in the submitted code.
- ❖ Divide the dataset into train/test splits using the ratio 80/20
- ❖ The code should be divided as either two .py files (for each variant) or two .ipynb files (for each variant)
- ❖ If you trained the YOLO models using a notebook, **you must deliver the notebook with the output cell saved displaying the training logs**. If you trained the model using IDE (i.e Pycharm). **You must deliver screenshots of the training process**.
- ❖ Deliver a report containing the training/testing performance metrics and some test samples visualization with the predicted detection boxes.
- ❖ The delivered .rar file should be named “StudentID.rar/zip” and should include the following:
 1. Two .py files or 2 .ipynb files
 2. PDF report
 3. Screenshots for training logs if trained using IDE (Otherwise logs must be saved in the delivered notebooks).

If any of these previous three points were not delivered within the .zip, there will be a heavy penalty.
- ❖ **The assignment is individual.**