GUIDELINES FOR PROJECT REPORT PREPARATION

The goal of each project is to develop and validate an AI system for specific vision problems. Each project is divided into tasks that have been thoughtfully organized and distributed across various sessions. This task distribution can be found in the "Schedule's Sessions" section on the Virtual Campus (VC). Please refer to the "Materials in Virtual Campus" to access the tasks for each session. As you progress through the sessions and successfully complete the tasks, you will gain a more comprehensive understanding of the workflow inherent to this project. This project culminates with the submission of a "Project Report." In this context, several key aspects should be taken into consideration:

- **Submission Deadline**. The final submission deadline is before 23:55 hours of the day of the presentation. Please ensure that all necessary documentation and deliverables are prepared by this time. Only one student from each group is required to upload the report through the VC. Check the course presentation for the documents that you need to upload in a .zip file.
- **Total Number of Pages**. Between 12-15 pages in the format provided.
- **Report Sections**. The report should consist of the following sections:
  - **Front Cover** (1 page): Include the project name, a representative image, the full names of the students with its NIU, the working group and the date.
  - **Introduction**: Overview of the project, including the motivation, objectives, and main goals. Include also main technical challenges and SoA limitations that motivate the approach chosen to solve the challenge.
  - **Methodology**: Detail the methods and techniques employed, including data pre-processing and curation, method workflow (with figure and explanations) and the AI approaches used. This section should include the description of the main general workflow of the methodology and specific description for each stage of the methodology pipeline.
  - **Experimental Design**: Describe the dataset (including number of samples, and annotations), goals of the experiments, methods that are compared, hyperparameters of the methods and training configuration, partition in train and test, validation metrics and statistics used to assess performance.
  - **Results**: For each experiment, report the results obtained for the different methods. Report descriptive statistics of each metric considered in your experimental design. Report the p-values and CIs of the statistical tests used to detect significant differences across method's performance. Support Tables with descriptive plots (eg. Boxplots, histograms, ROC curves,…) for the comparison of the metrics. All Tables and plots must have a descriptive explanation in the Section.
  - **Discussion and Conclusions**. Analyse and interpret the results and their implications, addressing any noteworthy findings. Summarize the project's outcomes and suggest possible areas for improvement within the workflow.

As general guides, please consider the following:

- Use the template provided in the VC and follow the tips
- Describe briefly the dataset that was used in the project, including input data and ground truth (GT) for training and testing models.
- Explain the machine/deep learning methodologies.
- Explain the goal of the experiments conducted.
- Provide details of the training of methods, including hyper-parameters.
- Avoid implementation details in the method section, like the data types used, specific functions, file formats you used to save. Explanations should be generic independent of your particular implementation.

- Provide a detailed description of the experimental design, including data split, metrics, visualization, statistics and comparison across different approaches.
- Analyse the results that were obtained and engage in a meaningful discussion about their implications.
- Suggest potential improvements and specify where within the workflow they should be implemented.
- Don't forget to include references to the bibliography used in your report.
- Don't forget that all Figures and Tables must be referenced in the text and have descriptive explanations of the contents. Make sure that the size of the text in figures is large enough for reading it and that image quality is good without blurring or pixelized areas.
- Avoid screen-shots of the command line or terminal output.