**Guidelines for IE 643 Course Project Intensive Assessment**

**(Please check carefully!)**

The IE 643 course project intensive assessment will be done in two stages. The first stage will involve submission of a report, slides, videos of code walkthrough and demo (details below). The second stage will include an in-person presentation. Please follow the Instructions below for the IE 643 course project intensive assessment. Please note that there will be penalties for the submissions not complying with the instructions provided.

**Stage 1:**

**Deadline: 2nd November 2024, 11.59 PM (IST)**

The presentation and video created must be stored in a folder named **YourTeamName\_IE643\_CourseProject\_IntensiveAssessment** in Google Drive (please access google drive using your IITB email id and SSO). Then the folder should be shared and the link needs to be provided to the Instructor and all TAs. You need to provide details of the folder in the google form which will be floated shortly.

**PLEASE NOTE: MAKE YOUR FOLDER ACCESSIBLE FOR ANYONE WITH THE LINK.**

If the TAs/Instructor are unable to access the shared folder, your submissions will not be considered.

**The google form for getting submission links will be shared a few days before the deadline.**

The main submissions required for the stage 1 of the intensive assessment are:

1. Project Report (**only** **pdf** format allowed)
2. Project Presentations slides (Google slides preferred, Other formats allowed: pdf, ppt, pptx,etc)
3. Video of Code Walkthrough (can **only** be any of the following formats: .mp4, .wmv, .mkv, .avi, .mov)
4. Video of the Demonstration of the experiments (can **only** be any of the following formats: .mp4, .wmv, .mkv, .avi, .mov)

Instructions for Presentation Slides, Report, Code- Walkthrough and Demo video are given below. Please make sure that your submissions comply with the Instructions.

**Instructions for Project Report**

A template for the report will be made available. Please use the template for preparing your report. **Other formats will incur heavy penalties (e.g. zero score for the report).**   
The following are generic guidelines useful for writing the report, but you are free to make your report perfect by suitable amendments.

A good report generally contains the following contents:

1. An **Abstract** containing a short description of the task/problem under consideration and the approach taken to solve the task/problem. A crisp summary of significant results obtained in the project should be highlighted in the abstract.
2. An **Introduction** section describing the overall perspective of the task/problem, the relevance of the task/problem in the current scenario, its importance and significance, and how (and why) deep learning techniques can be used to solve the task/problem.
3. A **Workflow** section with bullet points on how the team has progressed for the completion of the allotted task.
4. A **Related work** section which contains a ***comprehensive*** survey of at least two or three related papers.
5. A **Methods and Approaches** section which details all methods and approaches tried during the project. Distinguish the work done before the prep-presentation review and that done after prep-presentation. Include all essential details which explain the work done before and after the prep-presentation review. All details must be included about the methods tried. The deep learning architectures and their components, the importance of each component of the deep learning architecture, the reasons for choosing the deep learning architecture and its suitability for the problem under consideration should be explained.
6. A **Data** section containing details on the data sets used for the project. Description of data size and attributes, nature and type of data (image/audio/text/video etc.), data collection, data creation, data pre-processing techniques used should be illustrated. Other relevant details on data procurement (the website from where the data is obtained), and how the data is used in experiments should be described.
7. An **Experiments** section which contains details on all experiments performed during the project, the training procedure and algorithm, the settings used for optimization algorithm and other relevant algorithmic details need to be included. Details on the hardware configuration should also be described. The team should upload their code and related components in a github link and the link to github code should be provided explicitly in the report. Links to other github repositories should also be included in the report in the references or in the report text.
8. A **Results** section containing suitable plots and tables describing the results obtained during the project. Comparative results should be included if new ideas are tried. Description of the results and the inferences made using the results should be described. Include all qualitative results as well as quantitative results with appropriate descriptions.
9. A **Plan for Novelty Assessment** section with details on future plan for **Novelty Assessment**.
10. A final **Conclusion** section summarizing the problem, the methods used, and the significance of results obtained.
11. A **References** section where you cite all relevant papers and websites in your report. References should be in proper format as specified in the template provided.

References should be in proper format as specified below.

For including the references about a research paper, the reference should be of the following format:

<< authorname\_1, authorname\_2, … and authorname\_n >>. <<Paper\_title>>, <<Journal or conference name>>, <<year>>. <<paper\_url>>

e.g. Steven Raskinov, Bob Dietterich and Rita Barnard. SVMs for Multi-label anomaly detection, Journal of Machine Learning, 2013. <https://arxiv.org/1303.1231223>

For including references to the website, the reference should be of the following format:

<<authorname\_1, authorname\_2, …, and authorname\_n>>. <<url for website>>, <<access\_time>>.

e.g. Chris Bisred. <https://blog.com/samplewebsite>. Accessed on: 7th March, 2024.

**IMPORTANT: A report which is simply a copy-paste of the content from multiple papers will be awarded zero score.**

**Instruction for Project Presentation Slides**

The presentation can have a maximum of 20 slides (excluding references). The presentation should be laid out in the following tentative manner: \* The presentation must be titled with the appropriate task which is allotted to the team and it must be indicated in the title that this work is done as part of IE 643 course project. The name of the team, the names and Roll numbers of all team members should also be provided in the first slide. \* The presentation must contain an Outline slide where a broad overview of the contents of the presentation need to be provided.   
\* A short description of the task/problem statement (1 slide)  
\* A workflow slide, which addresses from problem statement to task completion, how the team has progressed. (A diagram will be appreciated) (1 slide)  
\* Summary of work done before the prep presentation project review (max 2 slides)  
\* Description of work done after prep presentation review using bullet points. (max 1 or 2 slides)  
\* Proposed approach or approaches. Explain each component (networks, algorithm etc.) used in the approach.  (max 3 slides)  
\* Dataset and Data Preprocessing (1 or 2 slides)  
\* Experimental Setup and Details (1 or 2 slides)  
\* Experimental Results (Qualitative and Quantitative) (3-4 Slides)  
\* Conclusions (1 slide)  
\* Plan for Novelty Assessment (1 slide)   
\* References (papers, websites, code repositories, etc.) consulted for the project (1-2 slides). References for research papers must contain names of authors, title of paper, venue of publication or arxiv link, year of publication. References for code links and websites should list the authors who wrote the codes or webpages, the year when the code or webpage was published, and the time you accessed the code link or webpage. In short, you need to follow the protocol of references discussed in the instructions for the report.

**Instructions for Video of Code Walkthrough**

The team must prepare a video recording of the code walkthrough. Some guidelines for preparing video of code walkthrough are given below:

\* The code walkthrough video can be for a maximum of 10 minutes. There will be penalty for longer videos.

\* The code walkthrough must introduce major code components and modules related to dataset collection, preprocessing, training/test/validation data splits, neural network structures that have been considered in the project, training process, evaluation metrics, validation process etc. Any other components which you think have taken significant coding efforts, can also be included.

\*The details of implementation/formulation of loss function need to be described in the walkthrough along with pointers to optimization algorithm used, learning rate used, learning rate schedule etc.

\*All other related details of code crucial to the methodology should be described.

For recording the code walkthrough, the teams can use appropriate screen recording software (e.g. OBS/MS Teams,etc.). There will be a penalty if code walkthrough video is not submitted.

\*All team members should be involved in creating the video. The faces of team members should be visible in the video. Before uploading the video, the team should make sure that the content on display is clearly visible and the audio of the presenter is loud and clean enough to get heard properly. The video will not be evaluated if the content is not visible clearly or if the voice is not clear.

**Instructions for Video of Demo**

The team must prepare a 5 minute video recording of the demonstration. The demonstration should highlight the aspects that have been implemented. You can decide on the type of demo and the way of the demo presentation. Make your demo amenable to be tested real-time based on user (or reviewer) inputs during the viva.

**Tips for Preparing Videos**

For recording the code-walkthrough and demo videos, the teams can use appropriate software. One possibility is to use Open Broadcaster Software (OBS). Please use <https://obsproject.com/wiki/install-instructions> to install OBS. Then you can use OBS and your presentation slides to create a recording (you can watch e.g. <https://www.youtube.com/watch?v=9AKhr8wrXvY> on how to prepare a recording). Using a face cam during the presentation is preferable. Another option is to use a MS Teams meeting and record it.

**Stage 2:**

**Instructions for In-person Project Presentation**

1. Please note that a lucid (clear and concise) presentation will be far better than boring presentations. Please work on making your presentations lively and interesting.
2. All team members should be present for the in-person presentation. Please note that being absent for the in-person presentation will imply a Fail grade for the course. The contribution of each team member must be clearly described. **NOTE: Grading will be done individually (even for a 2-member team). Hence it is important that the responsibilities of each team member are described clearly in case of a 2-member team.**
3. The quantum of work will definitely be taken into consideration. Teams who have not put a good amount of effort into the project will receive a relatively low score. Projects with no reasonable outputs, erroneous or incomplete tasks will receive very low absolute scores, hence make sure that you have got a completely working code for the task provided in problem statement.
4. Teams where one or both team members do not show much enthusiasm towards the project (this can be gauged by the way of execution of the project, overall contribution of each team member, enthusiasm shown in presentation, etc.) will also be graded lower than other teams.
5. Teams who have completed the task and gone ahead with a new idea (even if the idea is simple) will be considered relatively superior to other projects, which aim to only replicate existing code and existing papers.
6. Finally, please make sure that yours is a well-executed project and is excellently presented. Also, please make sure that all the tasks provided in problem statement have been addressed and completed.
7. DEMO DURING PRESENTATION: Additionally, ensure you have a **Test interface** prepared so the trained network can be actively demonstrated during the live demo by passing some test data. Your interface needs to be designed as per the description provided in your task deliverables explained in moodle task description posted during project allotment.The duration of the presentation will be **15 minutes** and there will be a Q&A Session for **3 minutes**.

**Dates for Presentation: 4th to 8th November, 2024.** Time slots for each team will be announced later.