IE 643 Project Allocations

Dear All,

1. The list of topics is provided in this link along with links to the papers and codes.
2. Please have a quick read of the papers and choose three topics (only from the list provided in the document) of your choice in the order of preference.

3. Now visit the following google form link: https://forms.gle/P6zGRrCk8tVPguqK9

   (Note: Use your IITB email ID and sso to login to Google). In the form, choose your team name and fill in your three preferences and provide appropriate reasons for your choices.

4. Please fill the form on or before 27th August 2023 (11:59 PM Indian Standard Time).

5. If the same project is bid (chosen) by multiple teams, the decisions of allocations will be made on the reasons for project choice provided by the teams. Hence please choose or write the reasons carefully.

6. There is no guarantee that a team will eventually be allocated one of the three choices. In such a case, we will consider a second round of bidding.

Please also note that proper project completion is an important criterion for all crediting participants.

Getting started with the project:
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Pointers to background materials for starting the project will be provided by the TAs for each team. The teams must prepare a presentation on their understanding of the background materials by 15th September 2023. Detailed instructions on preparing the video presentation will be provided subsequently.

The mid-term review of projects will be held during the first or second week of October 2023. Some expectations from your project mid-term review are outlined below.

Expectations during mid-term project review:
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1. Each member of a team must be fully conversant with the paper "P" allocated to their team (in terms of neural network architectures, techniques, algorithms, data sets used in the paper, experiments and major results of the paper). The team members should discuss with the Instructor/TAs to clarify some technical details in the paper and to clarify their doubts.

2. Each member of a team must have knowledge of at least three previous works which have inspired the paper "P".

3. All members of each team are expected to read at least two or three more papers which have followed up on the topic related to paper "P", and the major future directions inspired by the paper "P".

4. If code is available for the paper, the team members must have at least read and understood the code. Initial experiments and insights will generally elevate the team's relative performance; hence it is advisable for the teams to try some initial experiments.

5. If code is unavailable for the paper, the team members must have to implement a simple version of the algorithm presented in the paper (clarifications will be provided by the TAs/Instructor on request). The progress of coding will be an important indicator of the team's relative performance. A working code with initial results would strongly elevate the team's relative performance.

6. Pytorch is the preferred python programming framework for coding. Keras/Tensorflow is the second preferred framework.

7. For specific projects, the teams can expect some particular inputs from the Instructor or TAs before the mid-term review which would need to be taken care of during the mid-term presentation.

8. The mid-term project review will thus include a description of the problem being tackled by the paper, the approach and methodologies used in the paper, the neural network architectures, algorithms, data sets, experiments presented in the paper. Finally, important results from the paper should be highlighted as well. The teams are free to critique the paper based on some of the inefficiencies or other possible issues in the paper. The teams can also present the results obtained from their own initial experiments.

9. Most importantly, every team is expected to propose at least one simple extension to the work done in paper "P", which the team would take up and complete for the final review.

10. During the mid-term project review, the teams will also receive inputs from the instructor, TAs and possibly from the audience. Important comments on improvement must be taken care of for the final review.

11. Other instructions regarding mid-term review will be posted later.