

Guidelines for the IEMS5730 Project

For the topic of your choice, prepare a presentation and a written report with critical analysis and comparison of the different solution approaches you found (from the literature) for the topic.

One suggestion is to start by giving an overview of the topic and identify the key problems related to the topic. You can then organize the list of papers you read for the topic (not limited to the ones I suggested to you) and show how they address (are related to) these key problems. Under this grouping/organization, you proceed to discuss, for each (or a selected subset of) paper (or solution) you read, its key ideas/innovations, assumptions, analytical/algorithmic techniques, major results, their significance and potential level of impact with justifications (i.e. why you think the findings of the paper is important and in what way can it help other researchers to advance the field further). You may also propose possible extensions of the paper, e.g. by examining carefully the assumptions of the paper and discuss how the problem/result will change if those assumptions change or get modified. Once you have discussed the individual papers, your presentation and write-up should compare and contrast the results/findings across those papers and be able to give a status of the state-of-the-art in the area, and key challenges (i.e. new problems/extensions) and opportunities waiting to be addressed.

In general, your presentation and write-up should not only discuss individual papers (solutions) as isolated objects but also show how those solutions compare with each other and/or how they complement each other. One possible approach is to assign individual members of your project to study different available solutions and then prepare the competitive analysis as a group by comparing notes across different group members. The ultimate goal is to provide a big picture on the state-of-the-art (industrial and/or research) landscape, available solutions and their competitive analysis associated with your topic. Original results will be a big plus but not required.

The time-allocated for the presentation will be around 10-15mins perperson depending on the size of your project group. As for the report, there will be no minimum-length requirement for your write-up, but it should NOT be longer than 10 double-column IEEE transactions-style pages. Each group only needs to submit one single written report but the contributor to individual sections within the report should be clearly stated.