

Details on the Project In the Course 236862

General

The project in our course has great importance, due to several reasons:

- Our field is quite wide and there is no way we could cover all topics in class. The projects provide an opportunity to expose the course' participants to more material and other ideas.
- It is an important part of your education to be able to directly and independently approach material covered in scientific papers, critically evaluate their content, seek related work, get use to the language and tools described, and more.
- Through the projects you will be able to learn of the recent efforts and the very front of the knowledge in our field, familiarize yourself with the main players and their style.

I am providing you with a list of papers that I gathered, each could be the grounds for a project in our course. Please choose a paper from this list to serve as the grounds for your project. An alternative (and less desired!) option is for you to suggest a paper that interests you and which is well-within the scope of this course.

Project Guidelines

1. Go through the list of papers I have provided you and seek a paper that best fits your interests. The journal in which these papers appear is a rough indication for the style of the work – more theoretical work will be found in IEEE-TIT, more applicative work would be found in IEEE-TIP. IEEE-TSP and SIAM-IS are somewhere in the middle.
2. In unique cases, I will allow a paper outside the above list. In any case, please refrain from choosing papers that are directly related to your own MSc or PhD research or work in the industry. You are taking this course to expand your horizons, and I am not interested in becoming your hidden co-advisor or consultant.
3. Once you have chosen a paper, read it to see that it is indeed what you expected and that it fits your interest.
4. Once done, let me know of your choice of paper for the project (by email) and **get my approval**. I might refuse your choice if this paper has already

been chosen by another student, or, in a case where the paper is outside my list, if I find it inappropriate for a project.

5. Once approved, set a meeting with me to discuss the general extent of the work to be done.
6. Now the project starts – read the paper carefully and understand its content very well. It is not enough to read the specific paper alone – you have to open a "sphere or radius 1-2" of nearby papers, to understand the general context and the contribution of the chosen paper with relation to its surrounding. Use Google-Scholar or ISI to detect the relevant literature around. A project that discusses the single-chosen paper will be considered as partial. The above "radius" should grow if the paper is shallow and pose an easy challenge. In our meeting I will be able to tell you more on this matter per your choice.
7. Your project requires a summary of the chosen paper(s), a summary of the general context for the contributions served in the paper, discussing flaws or directions that were left unexplored, proposing improvements/modifications, adding simulations to reproduce the paper's work or further extend it, and more.
8. You are welcome to consult with me anytime regarding debates you may have with the choice of the paper(s) for the project, with the amount of work needed, etc..
9. The final submission of the project is a report (10-20 pages) along the above lines. If your work contains novelties that are worthy of publication (consult with me to judge this), you can submit a 'paper' draft instead of a report.
10. You are also required to prepare a 15 minutes power-point/PDF slide show to introduce your work. All projects will be presented, either in a mini-workshop after the end of the semester, or personally to me – I'll decide on this matter later on.

Sounds like a lot of work? It's not! Start and you will see for yourself.

One last thing: Do not be afraid, and do not be intimidated by the papers you read. Even if they appear as hard at the beginning, after several rounds of reading, everything typically becomes much clearer. If this is not the case, it is most likely that it is because of poor writing by the authors. Keep in mind that in most cases, the person who wrote the paper is not different or more capable compared to you.

Good Luck !!