Class Project Proposal (5% of grade)

Due: 4/14 Friday (week 2) midnight

Guidelines:
(1) Form a team of 2-3 people. EVERY TEAM SHOULD SUBMIT JUST ONE COPY OF PROPOSAL.

(2) Your project proposal is a description in one page on what you want to do. Make sure you write all your names clearly.

(3) You can work on anything you like that is related to computer and network security.

Content:
What you need at this stage is to first identify a specific security problem that your team would like to work on. Describe what the problem is, why it is interesting, what is the current solution if there is one (or more), and what is not adequate with the existing approaches.

You may have some thoughts how you plan to solve the problem, but you are not expected to have a solution already. You could discuss the challenges or requirements for a good solution without knowing what the solution is. You may also have some thoughts on how to evaluate a solution and show it works. Clearly, albeit not required at this stage, all such thoughts can be helpful to solicit input and steer the direction of your project.

You should further include an action plan, a time line, and a list of clearly defined deliverables at the end of the term. The action plan should include a tentative collaboration plan and the ROLES of each team member. The deliverables must include your complete project report, the final version of the poster, and the final version of the project presentation slides after incorporating the feedback from the project presentation; code (only in very rare cases in which code is not developed) and associated manuals; demonstrations (cool to have and can promote your project but not always required); etc. Some who are ambitious in the past even submitted their class project work to a research workshop or conference. You could elaborate these items a bit more specifically so you can define better what to eventually deliver.

You can also include anything else you think relevant in your 1-page proposal.

Submission:

You must form your team first before submission. Then every group needs to only submit one copy of the project proposal on canvas.

Misc.

In the Wednesday class on week 2, every team will do an elevator pitch to present your project idea in 2-3 minutes, and your presentation can focus on what problem you'd like to work on.

Project Midterm Report (10% of grade)

Due: 5/12 Friday (week 6) midnight

You need to submit a class project midterm report to describe and reflect where you are. It offers an opportunity for the instructor and yourself to discover issues (if any) to fix before it's too late, or provide constructive feedback to make the project more interesting and rewarding. Some content from the midterm report, if appropriate, can also go to the final class project report, so you do not have to begin your final class project report from scratch.

The report needs to be at least two full pages (11-pt font, single space, 1" margin all around), and should include the following:

(0) Project title and team members

(1) Introduction: Motivation of the project, project objectives, deliverables, project plan and time line.

The deliverables are particularly important. You define what your project will deliver, not your instructor. Typical examples include the software you will deliver, the capability or capabilities the software has, the description on its usage and limitations, the demo of your software, methodology to evaluate your project, results on evaluation, and analysis. Try not be too vague about them.

From this point on usually you will not change your deliverables.

(2) related work

(3) What you have done and obtained so far (details please);

(4) Lessons learned so far;

(5) Your action plan and time line for the rest of the term; and

(6) References (if any).

Project Poster (5% of grade)

Due: 5/30 Tuesday (week 9) midnight

Every team is required to submit a poster under this assignment.

** Poster format requirements:

Your poster needs to be one big slide at size 24x36 inches, either horizontally or vertically. It cannot be multiple slides placed next to each other. Fonts and graphs/pictures must be clearly visible (say even from 5 feet away). Pictures are highly recommended to illustrate the motivation or project work. The poster must follow a clear logical flow. Try to be artistic as well. Use the big O logo rather than the old traditional one.

Project Presentation (10% of grade)

Every class project team must present your project in class using slides.

The presentation days are **5/31 (Wednesday) in Week 9 and 6/5 (Monday) in Week 10**.

The last slide needs to be the poster from your poster assignment.

Every team should plan to use **10 minutes** for your presentation, including 1-2 minutes for Q&A at the end or throughout the presentation.

Project Report (10% of grade)

Due: 6/9 Friday (week 10) midnight

Every team must submit the following:

- Class project report

- Code and manual (if you do not have code, explain)

- Demo (optional)

- Others. Anything you would like to include to advocate your project.

Your class project report should meet the following requirements:

- It follows a typical conference paper format. It includes the following sections: title, abstract, keywords, intro, related work, main body of the work (design, algorithm, implementation), results and analysis, discussion of various issues complicated or unresolved, conclusions, lessons learned and references.

- The above contents should be 8-10 pages. Use 11-pt Times New Roman font. **US letter paper with 1" margin, single-spaced.**

- The report should include an appendix (not part of the page limit above) to concisely describe software you developed or used.

Submit:

(1) PDF of the report;

(2) Tar ball of the code (README recommended) and manual;

(3) A video (dictation not required) or screenshots showing how the code runs;

(4) Demo(s) of your project; and

(5) Others.

Note:

Using other's code without clear indication may be regarded as plagiarism. If you used open-source code, or any code from others, you must clearly indicate so, including which lines of code are not your and which code are yours.