IT 6823 Research Paper Guidelines

# General Instructions

In this assignment, students are expected work in a 3 or 4 team and write a survey paper. A list of suggested topics is included at the end of this document. You may choose your own topic. But it has to be related to information security and needs to be approved by the instructor.

1. **Submission and Grading**

There are 3 submissions. All submissions should be submitted to corresponding drop box in D2L course site. One submission per team.

1. Abstract (1 page). What is the problem or topic you wish to investigate? How will you approach this research? Why is this of interest to you and why should we be interested in this topic? What do you plan to do remaining part of the paper?

Grading: 10 points.

1. Final paper (5 - 10 pages). A complete paper satisfies the requirements listed in section Grading– 80 points. The grade will be based on the completeness and quality of the paper.
2. Presentation slides. Each team should prepare a slide and present their paper in class. The presentation is 15 minutes long and fellows a 5 minutes question and answer session.

Grading – 10 points. The grade will be based on the quality of the slides and oral presentation.

1. **Total:** 100 points.
2. **General Requirements**

*2.1. Overall requirement*

* At least 5 pages and no more than 10 pages in length. Single space, Time New Roman font, size 12 font for the body of paper;
* Professional formatted. The paper has appropriate title, sections and is free of grammar and spelling errors.
* Each team is expected to present their paper in class.
* Two sample papers are provided. You don’t have to follow the sample exactly. Just use them as references.

*2.2. Content requirement*

The research paper should include following content.

* + - Abstract: an outline and summary of your survey report;
    - Introduction: a basic introduction of the background information of your research area;
    - State-of-The-Art: in this section, you should summarize other people’s research results; do not try to copy/paste large portion of the text; instead, you should present a brief summary for each methodology;
    - Comparison: you should compare and summarize other people’s methodologies;
    - Future Research Challenges: this is the most important section; in this section, you need to discuss the open research issues and challenges; in this section, you should be very specific about what the open issues are; your future work will be based on this section;
    - Conclusion: this section concludes your report;
    - List of Reference: the references should be numbered; remember that in your report, when you cite the reference, you should also indicate the reference number;

*2.3. Reference Requirement*

* Minimum of 10 references should be included in the paper. Use the articles from academic resources when possible. Library for academic papers. ACM and IEEE library are free to use for on campus computer. For out of campus computers, use Institutional login/Your Net ID and Password.
  + ACM Digital library: <https://dl.acm.org/>
  + IEEE Xplore: <https://ieeexplore.ieee.org/Xplore/home.jsp>
  + Google scholar: <https://scholar.google.com/>
* Use APA reference style your paper.

<https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html>

* See “Library Resources Module” in D2L course site for more information on how to write a research paper.

*2.4. Guideline for writing a survey paper*

<https://www.d.umn.edu/~hrallis/guides/researching/litreview.html>

# Common Issues in Survey Paper Writing

* + **No structure**: the whole report is one single paragraph or a few paragraphs; the report is not divided into sections;
  + **Outline not followed**: the report does not have the necessary components listed in the outline;
  + **Fails to summarize** the essence of other people’s work; Just copy/paste some paragraphs from other people’s papers;
  + **No reference list**: the survey paper should have a list of references at the end. The reference should be cited in the body of the paper.

1. **Example Topics**

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| Network security | Cloud security |
| Smartphone security | Digital signature |
| Intrusion detection | Data privacy and security |
| Security Control in Cloud Computing | Electronic Voting |
| Information security policy compliance | Analysis of known/unknown modes of attack |
| Key management; | Detecting and mitigating insider threats |
| Mobile forensics | Medical information security |
| Multimedia information security; | Identity management |

Feel free to work on other topics which should be approved by the instructor.