**Policies**

**Plagiarism**

It is the student’s responsibility to familiarize himself or herself with and adhere to the standards set forth in the policies on cheating and plagiarism as defined in Units 2 of the Key to UB

<https://files.bridgeport.edu/public/StudentLife/KeytoUB/Key_to_UB.pdf>

or the appropriate graduate program handbook.

**Citation**

Pease be advised that you need to correctly cite material to use from other sources. You cannot copy material as it is from the Internet. Copying complete paragraphs and sentences is not allowed. If you would like to learn more about this, please take this quiz <https://www.indiana.edu/~tedfrick/plagiarism/item1.html>

**Similarity Scores**

It is expected that more than 70% of the term paper’s text is your own writing. Although you might reference your material in the correct way and use quotations to identify material from their direct sources, you still need to write most of your assignment in your own words. In preparing any assignment you need to follow this methodology:

(1) Search the topic

(2) Understand and comprehend the material you were able to locate from your search

(3) Write using your own words and keep direct quotations, tables, and figures that are copied from their original sources such that 70% at least of the paper is your own writing.

**Wepodia and Wikipedia**

Wepodia and Wikipedia are not scholarly references and should not be used as the only resources to write a technical paper.

**Project Description**

**Phase-I (Problem Identification): Due Date: 21 September 2022**

In this phase you are asked to choose a topic from the list provided by the instructor with respect to the research area where you are interested in. In addition, in this phase, your main goal is to find out the “**Research Problem**” in the chosen area (i.e.., you should choose topic only if you think you can find out the research problem in the selected area). Finally, in this phase you need to **Explicitly/clearly** describe the problem statement that you are going to solve in the second phase of your term paper.

The following are the deliverables for the paper you submit for this phase:

Abstract (one paragraph)

1. Introduction (3 paragraphs) sincerely

1.1 Problem Identification (2 paragraphs)

1. References

Please note that you need to exactly follow the IEEE format

<https://www.ieee.org/conferences/publishing/templates.html>

The maximum page length for this phase should not exceed to 2 pages (excluding figures and references).

**Topics list:**

* The generation of (pseudo)random numbers used for keys, IVs, and other cryptographic parameters.
* A cryptographic-based network security protocol or application, or extension thereof, such as SHTTP, SSL, WinPCT (compare with SSL), SSH, IPSEC, TLSP, NLSP, MSP, Netware, KryptoKnight, SNMP Security, Lotus Notes, DCE, NFS, NIS, RPC, Java, JavaSoft, ActiveX, iKP, SET, or Secure Courier.
* The development of public-key infrastructures, including efforts such as X.509, PKIX, SPKI, SDSI, or MISSI.
* The use of formal techniques (e.g., BAN logic) to analyze cryptographic protocols.

Phase II (Analytical Model): Due Date: **05 October 2022**

In this phase, your task is to create an **analytical model** for the research problem that you have already specified in the first phase of your term paper. That is, you need to clearly define that how you are going to solve the identified problem. Obviously, this requires a comprehensive reading of some of the related works that have already been done to resolve the identified problem. This comprehensive reading of the related work should lead you to either a solution of the problem or an improvement in the existing work. In other words, this is going to be the minimal criteria for evaluating your term paper (i.e.., either come up with some improvement in the existing work that have already been done to solve the problem or ideally come up with your own solution that is different from what others have already done in this regard). Finally, your hypothesis/theory should be clearly stated.

The following are the deliverables for the paper you submit for this phase:

- Abstract (one paragraph)

1. Introduction (1 page)
   1. A. Problem Identification (two or more paragraphs)
2. Related Work (three or more paragraphs)
3. Proposed Solution (technique/algorithm/method etc) (at least 1 page or more
4. References

Please note that you need to exactly follow the IEEE format

<https://www.ieee.org/conferences/publishing/templates.html>

The maximum page length for this phase should not exceed to 6 pages (excluding figures and references).

Phase III (Mathematical Model and Simulation or Numerical Results):

Due Date: **15 October 2022**

In this final phase, your goal is to create a mathematical model for your analytical model that you have already created in the second phase of your term paper. In other words, you need to formalize your proposed hypothesis for the problem statement (i.e., you need to give a mathematical proof of your proposed hypothesis). Generally, a mathematical proof requires few math equations that can be generalized for most of the critical parameters of your mathematical model. Once you have done with your mathematical model, the next step is to either perform a simulation for getting final results that can demonstrate the greatness/superiority of your proposed solution or just compute numerical results that should be based on your mathematical formulas. In either case, you need to compare your simulation or numerical results with the others to show the performance of your hypothesis. In your final term paper, the simulation results should be demonstrated by means of graph where as the numerical results should be described in a tabular form. For simulation, you are free to use any software/language/tool/etc such as MATLAB, OPNET, C/C++/Java, and Excel.

The following are the deliverables for the paper you submit for this phase:

* Abstract
* Introduction (three paragraphs)
* Problem Identification (two paragraphs)
* Related Work (three or more paragraphs)
* Proposed Solution and Mathematical Model
* Proposed Solution (technique/algorithm/method etc) (at least 2 pages).
* Mathematical Model (at least 1 page)
* Simulation Results or Numerical Results (2 pages)
* Conclusion (one or more paragraphs)
* References

Please note that you need to exactly follow the IEEE

<https://www.ieee.org/conferences/publishing/templates.html>

The maximum page length for this phase should not exceed to 6 pages (excluding figures and references)