## Introduction to Data and Cyber-Security (DCS3101) - Assignment 3

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## 1 Organization and Information

- 1. This is the third assignment of the total 4 assignments for this course.
- 2. The assignment is mandatory and must be passed to attend the final exam.
- 3. Group work is tolerated but submissions are individual.
- 4. Each submission will be graded independently.
- 5. Deadline for submission of assignment is 13 Nov, 2020.
- 6. The extra credit point (Q6) can be used carried to assignments 4 in case you obtain lower points.
- 7. Assignments are to be submitted via Canvas.

## 2 Assignment

Q1 What are the advantages of firewalls?.

[2 Point]

- Q2 Comment if the following is true or false in the context of TLS "The algorithms used inside a session are negotiated between client and server." Justify your answer with an associated protocol diagram.

  [2 Points]
- Q3 It was discussed in the class about one particular attack on TLS. Discuss this attack and identify another attack that can impact TLS. Discuss briefly about the attack you have chosen for your answer.

  [2 Points]
- Q4 What are the differences between IDS and IPS? Discuss on classification/taxonomy of IDS and IPS?

  [2 Points]

- Q5 Biometrics What are the key factors for choosing a biometric modality (eg., face, fingerprint, iris, etc)? [2 Points]
- Q6 What kind of attacks are possible on face biometric system? [2 Points]