

# FACULTY OF INFORMATION TECHNOLOGY SCHOOL YEAR: 2023 – 2024 SEMESTER II INTRODUCTION TO INFORMATION SECURITY

# **TOPIC LIST**

#### Topic 1-4: Biometric <u>recognition</u> systems

- (1.1) Iris
- (1.2) Fingerprint
- (1.3) Handwritten signature
- (1.4) Face authentication for the we
- Topic 5: SQL injections and XSS injections and countermeasures.
- Topic 6: Digital signature and its applications.
- Topic 7: Detect Phishing Websites Using Machine Learning.
- Topic 8: Ransomware: how does it work and how to stay protected against ransomware.
- Topic 9: Security in Client-Server Android applications.
- Topic 10: Visual cryptography and its applications (against phishing attack using vss).
- Topic 11: Watermarking for copyright protection.
- Topic 12: Keylogging: what is that, how to do and how to detect?
- Topic 13: What is a Remote Access VPN? What does a VPN do? (Main security features of VPN)

#### **Requirements:**

#### Midterm presentation:

- Research the theoretical background of the topic;
- Select a few contexts to apply proposed security scenarios (system setup, algorithms, solutions, etc.) and write a demo for the proposed scenario



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### INTRODUCTION TO INFORMATION SECURITY

- Prepare a midterm presentation slide to earn 20% of the grade, each group presenting for 15 minutes (note: Overview, applications, contexts and security scenarios, reference materials,...);

Final examination: Complete report with accompanying demo of security scenario (50%).

#### **Guidelines for finding reference materials**

Papers (Bài báo)

https://scholar.google.com.vn/

https://www.webofknowledge.com/ (dung mang của trường)

Books:

https://www.worldcat.org/

Wishing you all success in completing the project;