Information Security (COSE354)

Class Introduction

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Course Overview

- **Level : 3rd year CSE undergrad students**

- **Course Topics**
  - **Information security technology and principles**

- **Course Objectives**
  - **Learn concepts and knowledge of information security (from theory to application)**
  - **Learn information security topics in computer and network systems**
  - **Learn practical implication and implementation of applied cryptography**

Class Information

- **Lecture Time & Place**
  - **Mon. 1 & Wed. 1**
  - **Science Library Bldg. Room 410**

- **On-site class by default**

Class Information

- **Textbook**
  - **W. Stallings, "Cryptography and Network Security – Principles and Practice" (5th Edition (or newer), Pearson)**

- **Supplementary material**
  - **J. Katz, Y. Lindell, "Introduction to Modern Cryptography", Chapman & Hall/CRC**
  - **W. Stalling, L. Brown, "Computer Security", Pearson**
  - **Recent research papers, articles**

Class Roadmap

- **Cryptographic algorithms**
  - **Symmetric ciphers**
  - **Asymmetric ciphers**
  - **Data integrity algorithms**

- **Information security applications**
  - **Computer HW/SW Security**
  - **Network Security**
  - **Blockchain & Cryptocurrency**

Class Website

- **Class information such as lecture notes are accessible through Blackboard (https://kulms.korea.ac.kr/)**

- **We will also use Blackboard for homework submission**

Evaluation

- **Midterm Exam: 30%**

- **Final Exam: 30%**

- **Homework & Project: 30%**

- **Attendance & attitude: 10%**

Homework

- **Read research papers (approximately 1~2 papers per each chapter)**
  - **Not mandatory**

- **Project**
  1. **Implementing cryptographic algorithm**
  2. **Breaking cryptographic algorithm**

Q & A

- **Questions**
  - **In-class questions (best)**
  - **'Discussion Board' in Blackboard**
  - **Email to Instructor or T.A.**

- **Answers**
  - **Respond through the same way as your questions**

Contact Information

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