COURSE DETAIL

CRYPTOGRAPHY AND NETWORK SECURITY
Country Taiwan
Host Institution National Taiwan University
Program(s) National Taiwan University
UCEAP Course Level Graduate
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 208
UCEAP Course Suffix
UCEAP Official Title CRYPTOGRAPHY AND NETWORK SECURITY
UCEAP Transcript Title CRYPTGRPH NTWRK SEC
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This is a research-oriented course for cybersecurity, a broad, fast, evolving discipline. The course covers important concepts but it not meant to be comprehensive. The following topics will be covered:

- The applied aspects of cryptographic primitives (randomness, hash, MAC, encryption, digital signatures)
- Cryptographic protocols (key exchange, authentication, anonymous communication, privacy-enhancing technologies)
- Network security (TCP/IP, DNS, BGP, TLS, DDoS, wireless, email, MLS)
- Advanced topics: _ security (IoT, SDN, blockchain, web, software, systems,...)

Course prerequisites: Basic knowledge in discrete mathematics, programming, and networking is strongly recommended. Class participants are also expected to comprehend research papers and conduct a research project.

Language(s) of Instruction
English

Host Institution Course Number
CSIE7190

Host Institution Course Title
CRYPTOGRAPHY AND NETWORK SECURITY

Host Institution Course Details

Host Institution Campus

Host Institution Faculty
College of Electrical Engineering and Computer Science

Host Institution Degree

Host Institution Department

Graduate Institute of Computer Science and Information Engineering

Course Last Reviewed
2024-2025

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