Dongseo University

Division of Computer Engineering

Security Project

Instructor(s): HoonJae LEE/SangGon LEE	Classroom: -
Office:	Class Time: 3 hour/week
Phone: -	Office Hours: 9:00am - 8:00pm
Email: -	

Course Description:

This course involves specialized Network Security Projects as follows: The theorem of Cryptography and Network Security, Stream Cipher (eCRYPT, eSTREAM), Block Cipher(DES, AES, SEED, ARIA, CAMELIA), Public-Key Cryptosystems (RSA, ECC, ElGamal), Hash function (SHA-1, SHA-2, HAS-160), Digital Signature(DSS, KC-DSA), Cryptographic services (authentication, identification), etc.

Course Goals & Objectives:

At the conclusion of this course, the successful (passing) students will be able to program to classical ciphers and modern cryptography including stream cipher, block cipher, PKC(Public-Key Cryptosystem) and Hash codes & MAC codes.

Course Outline:

- Week 1 Overview of the Information Security & Network Security
- Week 2 Hardware Implementation for Fast Encryptions
- Week 3 Network Security IPsec, VPN (1)
- Week 4 Network Security IPsec, VPN (2)
- Week 5 PKI(Public-Key Infrastructure)
- Week 6 Digital Signature(DSS, KC-DSA),
- Week 7 Hash Function(SHA-1, SHA-256, HAS-160
- Week 8 Security programming by team based (1)
- Week 9 Security programming by team based (2)
- Week 10 Security programming by team based (3)
- Week 11 Network Security Laboratory by team based (1)
- Week 12 Network Security Laboratory by team based (2)
- Week 13 Network Security Laboratory by team based (3)
- Week 14 Network Security Laboratory by team based (4)
- Week 15 Final Week

Textbook(s)

- Required: "Crytpography and Network Security(by William Stalling)
- Recommended: PPT slides(uploaded to eclass.dongseo.ac.kr)

Class Website: e-Class

Course Assignments & Grading:

- *Assignments*: 30% (Team based Programming)
- *Bonus Credit*: None
- *Grading*: A/B/C/D/E/F

Grading Policies:

- Exams: Final 40%
- *Quizzes*: 10% *Course Projects*: None
- Attendance: 20%

Course Policies:

- Attendance: 20%
- Academic Misconduct Policy: