IoT Network Course Intro.

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HALLYM UNIVERSITY **CiC** Convergence Information & Communications

Lecturer Intro.

- Lecturer: Prof. Eui-Jik Kim (김의직)
  - E-mail: ejkim32@hallym.ac.kr
  - Office: Engineering Building 1203
  - Office hours: Mon ~ Fri 1-4 (Tentative)

- Prof. Career
  - Korea Univ. (B.S., M.S., and Ph.D.)
  - Intel Corp./ Samsung Electronics / KT Corp.
  - Hallym Univ.

- Teaching assistant: Sang-Woo Lee (이상우)
  - E-mail: glutton.leesw@gmail.com
  - CIC Lab. : 공학관 1163-2

- Lecture material & notices
  - Refer to **Hallym SmartLEAD**
    - https://smartlead.hallym.ac.kr/

Lecture Purpose

- (1) Introduction to Internet of Things (IoT)
- (2) Understand IoT network
    - Concept and structure of IoT network
    - CoAP & MQTT protocols
- (3) Learn and conduct CoAP & MQTT projects
    - Use open-source project (jCoAP, Eclipse Paho, Eclipse Mosquitto)

CoAP
RFC 7252 Constrained Application Protocol

MQTT.ORG

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Lecture Plan (Weekly)

Week	Theory		Practice	
1	3/2	Course Intro	3/4	IoT 네트워크 개발환경
2	3/9	IoT 개요	3/11	CoAP 클라이언트 GUI
3	3/16	IoT 네트워크 개념	3/18	CoAP 오픈소스
4	3/23	CoAP 메세징 모델	3/25	CoAP 메소드
5	3/30	CoAP 메시지 전송	4/1	CoAP 서버/클라이언트
6	4/6	CoAP 확장 프로토콜 (1)	4/8	다중 CoAP 서버
7	4/13	CoAP 확장 프로토콜 (2)	4/15	CoAP block-wise transfer
8	중간고사[4/20(화) ~ 26(월)]			
9	4/27	MQTT 개요	4/29	MQTT 개발환경
10	5/4	MQTT Fixed header	5/6	MQTT 오픈소스
11	5/11	비봉축전	5/13	비봉축전
12	5/18	MQTT Variable header & Payload	5/20	MQTT read
13	5/25	MQTT Message flow	5/27	MQTT write
14	6/1	MQTT publish	6/3	MQTT 소켓통신
보충	6/10(목)	*11주 보충: MQTT subscribe	6/14(월)	*11주 보충: MQTT 클라이언트 어플리케이션
15	기말고사[6/15(화) ~ 21(월)]			

Your Grade

- Assessment rate is tentative

Midterm Exam: 30%

Final Exam: 30%

Quiz / Projects: 30%

Attendance: 10%