Syllabus

1. Information 2019-1st

Title	Advanced Blockchain	**Course**	General Graduate school	**Department**	Computer Engineering
Complete units	3	**Course Code**	-	**Course hours**	Tues (2-4)
Professor	Jong Hyuk Park	**Tel**	02-970-6702	**Homepage**	www.parkjonghyuk.net

2. Abstract

This lecture discusses that how we can to meet the growing needs and requirements of the IoT application using blockchain technology. In this lecture, we explain how we address the current issues, challenges, and limitations of the IoT network by using the blockchain. In addition, we will also learn how to build our own blockchain using the Etherum platform. By the end of the course, participants will learn many key points and gain technical skills to enhance their careers throughout in blockchain and IoT applications.

3. Class format

· Presentation / Discussion

4. Evaluation

Attendance	Presentation	Middle term	Final term	Total
10%	20%	30%	40%	100%

5. Material

① Paper and magazine

· IEEE, Elsevier, Springer, etc.

② Major Publisher Material

· Internet & Communication (wired / wireless)

6. Book and References

① Text book ·

Blockchain Enabled Applications: Understand the Blockchain Ecosystem and How to Make it Work for You, Vikram Dhillon, David Metcalf, Max Hooper, APress.

② References

· IITA-ITFIND, http://www.itfind.or.kr

· KETI, http://www.eic.re.kr

· KISA, http://kisa.or.kr

· IEEE Digital library, http://ieeexplore.com

· Elsevier, http://www.elsevier.com

· Springer, http://springer.com

7. Schedule

Detail lecture for week	
Weeks	**Chapter**
1st	Orientation CHAPTER 01 Introduction to Blockchain Technology
2nd	CHAPTER 02 Blockchain Systems
3rd	CHAPTER 03 Foundations of Blockchain CHAPTER 03 Transaction Workflow
4th	CHAPTER 04 Blockchain Field Studies
5th	CHAPTER 05 Blockchain as a Fintech 1 CHAPTER 06 Blockchain as a Fintech 2
6th	CHAPTER 08 Overview of Ethereum CHAPTER 08 Ethereum Virtual Machine
7th	CHAPTER 09 Decentralized Organizations CHAPTER 09 Blockchain in Applications
8th	**Middle Term**
9th	Discussion for recent research issues – paper 1
10th	Discussion for recent research issues – paper 2
11th	Discussion for recent research issues – paper 3
12th	Discussion for recent research issues – paper 4
13th	Discussion for recent research issues – paper 5
14th	Discussion for recent research issues – paper 6
15th	**Final Term**