Course	Name	:	Wireless Communication Networks
	Code	:	EE184634
	Credits	:	3
	Semester	:	VI

Description of Course

The course discusses the principles of wireless communication systems, technology standards and the architecture of wireless communication systems. Next is the discussion of performance analysis and planning and performance of wireless communication networks.

Learning Outcomes

Knowledge

(P05) Mastering the factual knowledge about information and communication technology, and the latest technlogy and its applications in power systems, control systems, multimedia telecommunications, or electronics.

Specific Skill

(KK01) Able to formulate engineering problems in power systems, control systems, multimedia telecommunications, or electronics.

(KK05) Able to utilize analytical and engineering design tools based on appropriate information and computation technology to perform engineering activities in power systems, control systems, multimedia telecommunications, or electronics

General Skill

(KU01) Able to apply logical, critical, systematic and innovative thinking in the context of development or implementation of science and technology that concerns and implements the value of humanities in accordance with their area of expertise.

Attitude

(S09) Demonstrating attitude of responsibility on work in his/her field of expertise independently.

(S12) Working together to be able to make the most of his/her potential.

Course Learning Outcomes

Knowledge

Students are aware of the development of wireless communication systems and network technologies, and understand the planning and performance of wireless communication networks.

Specific Skill

Able to explain wireless communication system technology

Able to explain the techniques and engineering of wireless communication systems

Able to explain wireless communication network planning

Able to explain the performance of wireless communication systems understands the propagation and transmission aspects of wireless communication systems

Able to explain the performance evaluation of wireless communication networks

General Skill

Able to explain the concept of wireless communication technology

Able to explain the characteristics of mobile communication channel media.

Attitude

Demonstrating attitude of responsibility on work in his/her field of expertise independently.

Main Subjects

1. Wireless communication system
2. The concept of mobile cellular communication
3. Technology and Wireless Communication Standards
4. Planning wireless communication networks
5. Wireless Communication Network Performance

Reference(s)

[1] K Daniel Wong, Fundamentals of Wireless Communication Engineering Technologies, John Willey & Sons, 2012
[2] R. Prasad, A. Milhovska, New Horizons in Mobile and Wireless communications, Artech House, 2009
[3] Yan Zhang, WiMAX Network Planning and Optimization-CRC Press, 2009
[4] Farooq Khan, LTE for 4G Mobile Broadband Air Interface Technologies and Performance, Cambridge UP, 2009
[5] Harri Holma, Antti Toskala, HSDPA/HSUPA for UMTS, John Willey & Sons, 2006

Prerequisite(s)

EE184531 Communication Systems 1
EE184533 Networks and Traffic Engineering