COURSE	Name	:	Internet Engineering
	Code	:	EE185534
	Credit(s)	:	2
	Semester	:	(Elective Course)

Description of Course

This course provides an introduction to the basic concepts of Internet and web technology including architecture, protocols and applications. Course material includes: Introduction to internet history and Internet services, network basics, TCP / IP protocols (addressing, routing and transport), network programming, web programming, web services, web servers and Internet security. The evaluation consists of quizzes, assignments, midterms and final semester examinations.

Learning Outcomes

Knowledge

(P01) Mastering the concepts and principles of science in a comprehensive manner, and to develop procedures and strategies needed for the analysis and design of systems related to the field of power systems, control systems, multimedia telecommunications, electronics, intelligent multimedia network, or telematics as a preparation for further education or professional career.

Specific Skill

(KK01) Being able to formulate engineering problems with new ideas for the development of technology in power systems, control systems, multimedia telecommunications, electronics, intelligent multimedia network, or telematics.

General Skill

(KU11) Being able to implement information and communication technology in the context of execution of his/her work.

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

Mastering the basic concepts of network basics, TCP / IP protocols (addressing, routing and transport), network programming, web programming, web services, web servers and Internet security.

Specific Skill

Able to analyze the quality of services in the internet network and do trouble shooting if there are problems in the network.

General Skill

Able to use network administrator tools and software to manage networks including network security and bandwidth sharing.

Attitude

Demonstrating attitude of responsibility for work in his/her area of expertise independently.

Working together to be able to make the most of their potential.

Main Subjects

1. Internet concepts and history
2. Client server
3. Internet Architecture
4. Internet Protocol
5. Routing
6. Router Design
7. IP Switching
8. IPv6
9. Mobility

Reference(s)

[1] D. Comer, Internetworking With TCP/IP, Volume 1: Principles Protocols, and Architecture, 5th edition, 2006.
[2] D. Medhi and K. Ramasamy, Network Routing, Mogran Kaufmann, 2007.
[3] M. Hassan and R. Jain, High Performance TCP/IP Networking: Concepts, Issues, and
[4] Solutions, Prentice-Hall, 2003.
[5] G. Varghese, Network Algorithmics, Mogran Kaufmann, 2004.

Prerequisite(s)

Network Engineering