

Course	Name	: Internet Engineering and Web
	Code	: EE184936
	Credits	: 3
	Semester	: Elective

Description of Course

The course provides an introduction to the basic concepts of Internet and web technology including architecture, protocols and applications. Lecture 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.

Learning Outcomes

Knowledge

(P02) Mastering the concepts and principles of engineering, and implementing them in the form of procedures for analysis and design 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.

General Skill

(KU12) Able to implement information and communication technology (ICT) in the context of implementation 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 admin tools and software to manage networks including network security and bandwidth sharing.

Attitude

Demonstrate the attitude of being responsible for work in his area of expertise independently.
Working together to be able to make the most of their potential.

Main Subjects

1. Konsep dan sejarah internet
2. Client server
3. Arsitektur Internet
4. Protocol Internet
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*, Morgan Kaufmann, 2007.
- [3] M. Hassan and R. Jain, *High Performance TCP/IP Networking: Concepts, Issues, and Solutions*, Prentice-Hall, 2003.
- [4] G. Varghese, *Network Algorithmics*, Morgan Kaufmann, 2004.

Prerequisite(s)

EE184302 Introduction to Telecommunication Systems and Networks
EE184533 Networks and Traffic Engineering
EE184934 Services over Networks
