Course	Name	: Services over Networks
	Code	: EE184934
	Credits	: 3
	Semester	: Elective

Description of Course

The Service over Network course discusses the provision of network-based services, types and characteristics of services, internet-based service provider architecture, service quality and network engineering.

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.

(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.

General Skill

(KU12) Able to implement information and communicatin 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

Knowing the development of wireless communication system and network technology, and understanding the planning and performance of wireless communication networks.

Specific Skill

1. Able to explain the provision of services in the network, including the types and characteristics of services.
2. Able to explain the system architecture of service providers on the internet
3. Able to implement service provider infrastructure architecture on a small scale.
4. Able to explain service quality and network engineering.
5. Able to measure and evaluate the quality of services in the internet network.

General Skill

Able to explain the concept of service in the internet network and the quality of services in the internet network.

Attitude

Be able to show an attitude of responsibility for work in his area of expertise independently.

Main Subjects

1. Provision of network-based services, including types and characteristics of services.
2. Internet-based service provider system architecture
3. Implementation of the infrastructure architecture of service providers on a small scale.
4. Service performance and quality in the network.
5. Measurement and evaluation of service quality in the internet network.

Reference(s)

[1] Oliver Heckman, the Competitive Internet Service Provider, John Willey & Sons, 2006
[2] Floris van den Broek, Management of Internasional Networks, CRC Press, 2000
[3] K. Sharon Evans, Telecommunications Network Modelling, Planning and Design, The Institution of Engineering and Technology, 2004
[4] Ramin Sadre, Scalability of Neworks and Services, Springer, 2009.
[5] Aileen Cater-Steel, Information Technology Governance and Service Management: Framework and Adaptations, Information Science Reference, 2009
[6] Tim Szigeti et al, End to End QoS Network Design, Cisco Press, 2014

Prerequisite(s)

EE184531 Communication Systems 1
EE184533 Networks and Traffic Engineering