

<b>COURSE</b>	Name : Analysis and System Reliability
	Code : EE185567
	Credit(s) : 2
	Semester : (Elective Course)

### Description of Course

This course material consists of basic principle and implementation of design system and its analysis techniques. The subjects will include: system definition, aspects in the system, hierarchy in system, functional system, prototyping, modeling, performance of a system and performance analysis of a system and adaptive system including Structured System, Object-Oriented system and Agile system or intelligent system.

### Learning Outcomes

#### Knowledge

(P02) Mastering engineering concepts and principles to develop the necessary procedures and strategies for systems analysis and design in the areas of power systems, control systems, multimedia telecommunications, electronics, intelligent multimedia network, or telematics.

#### 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 principle and implementation of design system and its analysis techniques, including system definition, aspects in the system, hierarchy in system, functional system, prototyping, modeling, performance of a system and performance analysis of a system and adaptive system including Structured System, Object-Oriented system and Agile system or intelligent system.

#### Skill

Able to explain the basic principle and implementation of A system and its analysis techniques, hierarchy of A system, functional system, prototyping, modeling, performance of a system and performance analysis of a system and adaptive system including Structured System, Object-Oriented system and Agile system or intelligent system.

### Main Subjects

1. Basic principle of System
2. Design system
3. Organization of A system
4. Hierarchy of system
5. Functional system
6. Prototyping technique
7. Modeling A System
8. Performance of A system
9. Performance analysis of a system
10. Type of System: Structured System, Object-Oriented system and Agile system or intelligent system.

### Reference(s)

- [1] System Analysis and Design, 9th Edition, Gary B Shelly, Harry J Rosenblat., 2012.
- [2] Systems Engineering Fundamentals, Supplementary Text Prepared by the Defense Acquisition University Press Fort Belvoir, Virginia 22060-5565, 2001.
- [3] Systems, Analysis and Design 5th edition., Dennis, Wixom, Roth., 2012.

### Prerequisite(s)

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