COURSE	Name	: Artificial Intelligent for Game
	Code	: EE185654
	Credit(s)	: 2
	Semester	: (Elective Course)

Description of Course

This course studies artificial intelligence in games that include path finding, path planning, rule-based systems and implementation of tactics in the game using artificial intelligence against a non playable character.

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

Able to identify artificial intelligence techniques that are appropriate for a type of game to control non playable characters.

Specific Skill

Able to design and implement powerful artificial intelligence algorithms in a game related to NPC movements.

General Skill

Able to build an artificial intelligence based game engine for a game.

Attitude

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

Main Subjects

1. Introduction to Artificial Intelligence
2. Movement and Steering Behavior Algorithm.
3. NPC Motion and Coordination
4. Pathfnding.
5. Decision Making and Uncertainty
6. Scripting Tools and Action Execution
7. Learning mechanism.

Reference(s)

[1] Ian Millington. Articial Intelligence for Computer Games, econd edition. Morgan Ko□man, 2009.
[2] Brian Schwab. AI Game Engine Programming. Charles River Media, 2004.

Prerequisite(s)

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