COURSE		
	Name	: Game Engine
	Code	: EE185650
	Credit(s)	: 2
	Semester	: (Elective Course)

Description of Course

This course learns game machine exploitation using unity and blender to build 3-dimension games by considering animation models, rendering, physical models and collision detection collisions.

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 concept of rendering, physical concepts, 3D dimensional concepts to be applied to 3D games.

Specific Skill

Able to build games using object-based game machines by applying mechanical and physical concepts.

General Skill

Able to apply the principles of 3D games by using a blender or unity game machine.

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. Game machine architecture 2. Physics: Detection of collisions, particle systems, rigid body motion 3. Animation and Modeling 4. Rendering 5. Gameplay: Game worlds, Object models, Scripting
Reference(s)
[1] Mathematics for 3D Game Programming & Computer Graphics. Eric Lengyel. ISBN 1-58450-277-0. [2] 3D Game Engine Architecture: Engineering Real-Time Applications with Wild Magic. David H. Eberly. ISBN 0-122290-64-X. 5. Large-Scale C++ Software Design. John Lakos. ISBN 0-201633-62-0.
Prerequisite(s)
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