3D Modelling and Animation

Syllabus Number 3D330
Special Subjects
Elective 2 credit

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1. Course Description

This course introduces the basic skills of making 3D computer graphics (3DCG) models and animations which are used in 3DCG application and multimedia contents. At the end of the course, participants are expected to explain how to make the rigged character 3D models and set skeletal animations.
This course is related to diploma policy 4.

2. Course Objectives

By the end of the course, students should be able to do the following:
- make 3DCG models using 3DCG software.
- set the surface materials for 3D models.
- set bones/skeletons in 3D models
- set skeletal animations

3. Grading Policy

Grading will be decided based on short reports (20%) and final works and reports (80%).
Feedbacks on reports and examinations will be given on LMS.

4. Textbook and Reference

Textbook
The Learning materials are published on the LMS.

5. Requirements(Assignments)

The students are expected to read lecture materials and fill blanks on "main point notes" as preparation. It takes approximately one hour to finish this work.

6. Note

7. Schedule

[1] Basic usage of 3DCG software (Blender)
[2] 3D modeling (1) polygon modeling
[3] 3D modeling (2) various shapes
[4] 3D modeling (3) setting colors on surface
[5] 3D modeling (4) texture mapping
[6] 3D modeling (5) adjustment of models and materials
[7] Bone setting (1) adding bones
[8] Bone setting (2) setting weights
[9] Bone setting (3) adjustment of movements
[10] Animation (1) setting animations
[11] Animation (2) morphing
[12] Animation (3) correction and finish
[13] Applications / contents production using 3D models (1) import models
[14] Applications / contents production using 3D models (2) making scenes
[15] Applications / contents production using 3D models (3) writing scripts