



[AI Contents Design]

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SHORT COURSE DESCRIPTION

This course teaches the general AI algorithms and history, and study cases in the field of digital contents such as movies, animations, new media and games where various AI technologies are applied. In detail, this course teaches the history of artificial intelligence and the latest technological trends of artificial intelligence and case study where artificial intelligence is applied to. As final project, you are required to make a video or an interactive contents demo using DeepFake software based on face synthesizing algorithm.

READING MATERIALS

No reading materials are required.

COURSE REQUIREMENTS AND GRADING

The final project will be presented in last day. Make a team of 4 or 5 people. Using Deepfake technology, you can make a video in under 5 minutes for final presentation.

Your grading will be marked on following criteria.

- * Attendance:10%
- * Individual assignment 10%
- * mid-term assignment 30%
- * Final Assignment 50%

This course assumed that students are able to use video editing software in basic level. Any video editing software such as Adobe Premiere, Sony Vegas and etc. are acceptable. Even if you don't have experience on video editing, you can take this course. However, your performance on final project will be limited.

Hardware requirements.

This course requires at least one laptop or pc that based on MS Windows per team. I strongly recommend to prepare NVIDIA graphic card on your computer for better practice. If you don't have MS Windows based pc, please build a team with student who has the required pc.

COURSE SCHEDULE

– WEEK I –

Monday (27 June)

Course introduction
Introduce yourself

Tuesday (28 June)

AI definition and history
Types of artificial intelligence
Machine Learning, Deep Learning

Wednesday (29 June)

Introducing Deep Fake
Deep Fake use cases, etc. (latest advertisement)
Introduction of final project
Build a team of 4 people

Thursday (30 June)

Face Recognition Principles and Explore types of AI and Practices in Azure

– WEEK II –

Monday (4 July)

Practice of video making using deep fake technology

Team building deadline
(submit using either an email or i-campus)

Tuesday (5 July)

Practice of video making using deep fake technology 2

Install various libraries and set up an environment on your computer for FaceSwap and FaceLib
(no submission required)

Wednesday (6 July)

Introduction to GAN, etc. –
Image Processing
Deep Dream, etc.
Style transition

Thursday (7 July)

Presentation of project plans by team

– WEEK III –

Monday (11 July)

Cases of applying artificial intelligence to video games

Tuesday (12 July)

Voice synthesis

Wednesday (13 July)

Practice of Unity3d
Reinforcement learning

Thursday (14 July)

Practice of Unity3d
Reinforcement learning 2

Friday (15 July)

AI ART Cases
Artificial Intelligence Film

– WEEK IV –

Monday (18 July)

Ethics, copyright, portrait rights, jobs,
Big Brother

Tuesday (19 July)

Presentation of final project