INSTRUCTOR	YEAR	SEMESTER	COURSE NUMBER	교과목명 (COURSE NAME)	SECTION
KIM,JAE-HO	2016	Fall	EB63552	Imaging Systems	001
Instructor's Infomation		jhkim@pusan.ac.kr / 010-4042-2450			
Office Hours		2:30~3:30 pm Monday			

1. Course Objectives & Description

1) Course Objectives

1. Understanding MRI, X-CT, PET principles.
2. Understanding Digital camera system.

2) Course Description

The principles of imaging system will be studied. And Digital Camera design and the related image processing will be discussed.

* 장애학생의 경우 장애학습지원센터와 강의 및 과제에 대한 사전 협의가 가능합니다.

2. Required TextBook

Mark A. Brown, Ph.D., BASIC PRINCIPLES AND APPLICATIONS, A JOHN WILEY & SONS, INC., PUBLICATION, 2008
Junichi Nakamura, IMAGE SENSORS and SIGNAL PROCESSING for DIGITAL STILL CAMERAS, Taylor & Fransic, 2006

3. Requirements & Grading

1. Text book Chapter presentation 40%
2. Article presentation 40%
3. Term Project 20%

* 장애학생의 경우 시험시간의 연장이 가능하며, 대필이나 컴퓨터를 활용하여 시험에 응할 수 있습니다.

4. Schedule

Week No	Topics and Activities	Assignments & Other Instructions
Week 1	[Orientation and Education on Academic Misbehavior(e.g. Cheating, Plagiarism) and Safety Education on Experiment and Practice] 1. Introduction to Imaging System	
Week 2	2.◦X-CT Imaging	
Week 3	3.◦Principles of MRI 1	
Week 4	4.◦Principles of MRI 2	
Week 5	5.◦MRI Imaging Sequence 1	
Week 6	6.◦MRI Imaging Sequence 2	
Week 7	7.◦MRI Imaging Sequence 3	
Week 8	8.◦Mid Term Exam	
Week 9	9.◦PET imaging 1	
Week10	10.◦PET imaging 2	
Week11	11.◦Digital Camera 1	
Week12	12.◦Digital Camera 2	
Week13	13.◦Term Project 1	
Week14	14.◦Term Project 2	
Week15	15.◦Term Project 3	

Week16	16.◦Final Exam	

5. 참고문헌 (References)

http://en.wikipedia.org/wiki/Image_sensor
https://en.wikipedia.org/wiki/Magnetic_resonance_imaging
http://ultra.sdk.free.fr/docs/DxO/Image%20Sensors%20and%20Signal%20Processing%20for%20Digital%20Still%20Cameras.pdf
◎ 첨부파일 : pdf2 MRI.pdf