2018년도 1학기 자동제어 수업계획서

교과목명 Course Title	(국문) 자동제어	(영문) Automatic Control

담당교수(소속) Lecturer	이학성 (전자정보통신공학과)	학수번호/구분/학점 (Course No. /)	004475/전공선택/3학점
전화(연구실/HP) Contact No.		강의시간/강의실 (Class Hour/Venue)	
선수과목 (Course Prerequisite)		수강대상 (Target Student)	junior in Electronics Engineering
E-mail (E-mail Address)		연구실/Office Hour (Office/Office Hour)	Room 920 (Choong Moo Building) Wed/Fri 13:00 ~ 15:00

교과목표 (Objectives)	This class is an introduction to feedback control using linear transfer function system models. Topics include input/output model of linear system, transfer function, time domain specification, stability, root locus design method, frequency response and bode plot.
이번 강의의 개선을 위한 개선계획 CQI (Continuous Quality Improvement Plan)	
교 재 참고도서 (Text book & References)	Main Text : Feedback Control of Dynamic Systems 6th ed., Gene F. Franklin et. al. Reference : Automatic Control System 9th ed., Benjamin C. Kuo and F. Golnaraghi Control System Engineering 3rd ed., Norman S. Nise
과제도서 (Assignment book)	
수업방법 (Lecture Methods)	traditional with OHP (not "class in English")
과제물 (Assignment)	
독서물 (Reading Materials)	
학업성취 평가방법 (Course Grading)	[상대평가] 중간고사(%) : 30, 기말고사(%) : 40, 수시평가및과제(%) : 20, 출석(%) : 10, midterm exam : 30%, final exam : 40%, homework : 20%, participation : 10%
기 타 (Etc.)	

주별 교과내용 (교과목명 : 자동제어)

주 (Week)	교 수 내 용 (Course Contents)	수업형태 및 활용기자재 (Etc.)	비 고
1	Introduction to Automatic Control		
2	Dynamics of Electrical Circuit Dynamics of Mechanical Systems		
3	Review of Laplace Transform		
4	Transfer Function System Modeling Diagrams		
5	Response versus Pole Location		
6	Time Domain Specification		
7	Stability		
8	Midterm Exam		

주별 교과내용 (교과목명 : 자동제어)

주 (Week)	교 수 내 용 (Course Contents)	수업형태 및 활용기자재 (Etc.)	비 고
9	A Case Study of Speed Control		
10	Steady state Tracking and System Type		
11	PID Control		
12	Root Locus Design Method		
13	A Design Example		
14	Frequency Response Neutral Stability		
15	Stability Margin Bode s Gain Phase Relationship		
16	Final Exam		

추 가 안내사항1 (Additional Guide1)	특별한 지원이 필요한 경우(장애학생 등) 학기 첫 주에 담당교수와의 면담을 통해 출석, 강의, 과제 및 시험 등에 관한 교수학습지원 사항을 요청할 수 있음 Students who require special assistance (including special needs students) may contact their professors during the first week of the semester to discuss issues related to attendance, lectures, assignments and exams and request learning assistance.
추 가 안내사항2 (Additional Guide2)	