

BAŞKENT ÜNİVERSİTESİ
MÜHENDİSLİK FAKÜLTESİ
ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ
2004-2005 AKADEMİK YILI BAHAR YARIYILI DERS İÇERİK FORMU

DERSİN KODU/ ADI : EEM 322-01 Denetim Sistemleri

ÖĞRETİM ELEMANI : Prof. Dr. Alper Uraz (www.baskent.edu.tr/~auraz)

DERS SAATLERİ :P'tesi 14.30 - 16.10: Cuma 13.35 - 15.15

OFİS SAATLERİ :Çar. 10.50 – 11.35 : Cuma 9.55–10.40 Ofis: D424

DERS KİTABI : 1. Uraz,A.,”Control Systems”, H.Ü.,2003

YARDIMCI KİTAPLAR : 2.Ogata, K., “Modern Control Engineering”,
Prentice-Hall, 4-th Ed., 2002
: 3. Dorf, R.C., Bishop, R.H., ”Modern Control
Systems”, Prentice-Hall, 10-th Ed., 2005

NOTLANDIRMA

Katılım	Kısa Sınav	Ödev	Proje	Ara Sınav	Son Sınav	Toplam
5	15	5	-	35	40	100 %

ARASINAV

SINAV TARİHLERİ
11.04.2005

GÖZETMEN SAYISI
3

HAFTA	KONULAR
1	Introduction, electrical system components, mechanical system components
2	Fluid and thermal systems, servomotors
3	Block diagrams, signal flow graphs
4	State space description, state equations, state transition matrix, eigenvalues and eigenvectors
5	Transfer function decomposition, controllability and observability
6	Time response analysis, transient response
7	Steady-state error analysis
8	Midterm
9	Control system analysis, sensitivity, disturbance rejection, stability
10	Root locus plotting
11	Frequency response analysis, Bode plots, polar plots, gain-phase plots
12	Nyquist stability analysis,
13	Relative stability, gain / phase margins, Nichols chart
14	Review

Tarih : 10. 02.2005

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