

BAŞKENT ÜNİVERSİTESİ
MÜHENDİSLİK FAKÜLTESİ
ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ
2006-2007 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 : Per 09.00 - 10.50 : Cum 09.00 - 10.50

OFİS SAATLERİ : P'si. 10.00 –10.50 : Çar. 14.00–14.50 Ofis: D412

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. Ogata, K, “Solving Cont. Eng. Problems with
MATLAB”, Prentice-Hall, 1994
: 4. 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	10	5	5	35	40	100 %

ARASINAV

SINAV TARİHLERİ
09.04.2007

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 : 21. 02.2007

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