İçerik

Ders Kodu	Dersin Adı	Yarıyıl	Teori	Uygulama	Lab	Kredisi	AKTS
IND 621	Stokastik Süreçler	1	3	0	0	3	8

Ön Koşul	
Derse Kabul Koşulları	

Dersin Dili	İngilizce
Türü	Zorunlu
Dersin Düzeyi	Doktora
Dersin Amacı	Uncertainty exists in most real life problems, and for a better decision making, it is important to take into account the uncertainties. The use of stochastic variables is a common way to represent the uncertainty in quantities of interest such as customer demands, production lead times, product price, repair times, service times etc. that can be encountered in the decision problems in both service sector and industry. The primary aim of this course is to teach how to formulate and solve the stochastic decision problems using stochastic processes. The objectives of this course can be listed as follows. 1. To make the students be aware of the stochastic nature of most real life problems. 2. To provide students an insight of how to analyze the stochastic systems. 3. To make the students develop the necessary skills to identify, formulate and solve the stochastic problems.
İçerik	Weeks 1-2: Conditional probability, conditional expectation Weeks 3-5: Markov chains Weeks 6-8: Poisson processes Weeks 9-10: Markov processes Week 11: Midterm Weeks 12-14: Renewal processes
Kaynaklar	Erhan Çınlar, Introduction to Stochastic Processes Ross, S., Introduction to Probability Models

Teori Konu Başlıkları

Hafta	Konu Başlıkları
1	Conditional probability and conditional expectation
2	Markov chains
3	Poisson processes
4	Markov processes
5	Renewal processes
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