EEE945 – Introdução aos Processos Estocásticos

1º Semestre de 2014
terças e quintas 14:55-16:35

Course Overview:

	Date	Subject:	Activity
1	10-Apr	Introduction to Markov chains and processes. Graph representation.	
2	22-Apr	Transition matrix. Simulation.	Problem set 1
3	29-Apr	Hidden Markov Models.	
4	6-May	Stationary probabilities. Irreducibility. Ergodicity.	Problem set 2
5	8-May	Periodicity. Recurrence and Transience.	
6	13-May	Markov Processes on Finite Spaces.	Problem set 3
7	15-May	Simulation. Stochastic Differential Equations.	
8	20-May	Markov Chains on Countable Spaces.	Problem set 4
9	22-May	Martingales.	
10	27-May	Problem Solving.	Problem set 5
11	29-May	Final Exam	
12	3-Jun	Final Project Presentations	
13	5-Jun	Final Project Presentations	

Suggested Reading

- G. F. Lawler (2006), Introduction to Stochastic Processes, Chapman and Hall, New York.
- B. Hajek, (2012) An Exploration of Random Processes for Engineers. Available at: http://www.ifp.illinois.edu/~hajek/Papers/randomprocDec11.pdf
- S.P. Meyn and R.L. Tweedie (1993), Markov chains and stochastic stability. Springer-Verlag, London. Available at: http://www.meyn.ece.ufl.edu/archive/spm_files/book.html