Instructor: John Oommen
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Phone: 520-2600 (Ext. 4358)
Lecture Hall: 240 PA
Lecture Hours: Tuesday/Thursday 14:35 to 15:55 Hours
Office Hours: Tuesday/Thursday 13:00 to 14:00 Hours
Marking Scheme: Assignments (Four) 40
Projects (One) 20
Final Exam 40

Assignments:
1. Assignments must be handed in prior to the lecture.
2. NO LATE assignments will be accepted.
3. Retain all your assignments for a proof of your mark, just in case your mark is erroneously entered or lost.

Text Book
You do not need to purchase it. I have a few copies with me - they can be loaned out.

Course Contents
Goal: This course will introduce the students to computerized adaptive learning for random environments.
Background: First of all, we will review some mathematical tools such as Markov chains and difference equations.
Material: The heart of the course will involve deterministic and stochastic learning automata with fixed and variable structures. We will study their operation in random environments and the various norms of learning. The learning algorithms studied will be the linear and nonlinear learning schemes of the continuous and discretized families with ergodic and non-ergodic properties.
State of the Art: Recent (up to within the last few months) estimator algorithms will also be examined. We will also discuss machines which can rank actions.
Applications: Applications of learning automata in file allocation, game playing, path finding, optimization, solving knapsack problems and in decision making will be discussed.