CS 590T Model Based Software Testing

Fall 2005  Credits 3  T Th 4:30-5:45pm  Room: REC 227
Instructor: Aditya Mathur (apm@purdue.edu)

http://www.cs.purdue.edu/homes/apm/courses/cs590T-fall05

Target majors: Graduate or senior level standing in Computer Science or Engineering
Prerequisites: Proficiency in programming

Objective

Introduce practical test generation techniques, and their applications, based on formal mathematical models.

Topics

Testing preliminaries; Test generation using FSM, Statechart, Logic, Cominatorial, Z, and other models; Empirical studies; Applications in Safety, Security, Aerospace, Automotive, Nuclear. Please visit the course web site for details.

Notable Features

Term projects. Students work in teams of 2 or 3. A team may select a focus area, research it. Alternately, a team may select a software project (implementation and/or experimentation).

Focus on commercial applications of model based software testing via presentations by representatives from the industry.

Gain

Graduate student or Senior in Computer Science or Engineering?

Consider enrolling in this course!

- In depth knowledge of the state of the art and state of the practice testing techniques and tools.
- Preparation for research and the knowledge to impress interviewers from the high tech industry.