

Mahadevan Gomathisankaran

Teaching Statement

I believe that research and teaching go hand in hand. One can achieve better understanding of any subject by asking questions and finding answers for them. By stimulating the students it is possible to bring out new ideas and new explanations. I have been fortunate enough to get teachers of this kind both in my undergraduate and graduate level of studies. I want to show the same enthusiasm and interest towards my students that should make them pursue further in that field of study.

I was a Teaching Assistant for two semesters for “Introduction to Micro-controllers” (CPRE211) course. My responsibilities included coordinating the labs and grading. I enjoyed the experience of interacting with students during these lab sessions. This was a real motivating factor for my choice of academic career.

I would be interested to teach introductory as well as graduate level courses in Computer Architecture, Digital VLSI Design, and Reconfigurable Computing Systems. In the Computer Architecture course I plan to teach various design principles and introduce the students to the recent research areas. Students will be made to use the SimpleScalar toolset and the lab component will involve VHDL/Verilog programming. For the graduate version of this course I plan to have a research project component. Digital VLSI design course will introduce the students to digital logic design and familiarize them with various Design and Synthesis tools. I plan to use Cadence tool set to design the labs for this course.

Reconfigurable Computing systems course will deal with domain of FPGA based systems. I will use Xilinx based systems to design the labs. In addition to these courses I am interested in offering a Graduate Level course that discusses the developments in “Secure Architecture” design. This course will be mostly research papers based and will involve a research project component. I believe in the principle of feedback. In all my courses I will be constantly getting the feedback from students that will allow me to

- improve the course contents
- judge the background of the students
- estimate students' understanding of the course

In short, I am looking forward to the opportunity of teaching both graduate and undergraduate students, and believe that it will be an enriching experience for my students as well as myself.