

Research Projects

Some Possible Projects

Here is a list of possible research projects and the topics you could include in your research (and you definitely can go beyond these topics).

1. Real time operating systems:
 - How they work.
 - Features designed for embedded operation.
 - How they are different from regular operating system.
 - Use a commercial system as example; demonstrate some of its functions.
2. Reconfigurable microcontroller design:
 - Concept.
 - How they are implemented.
 - How they are different from regular microcontroller.
 - Use a commercial design as example; show its design.
3. Peripheral extension for general purpose or special purpose micro-controllers
 - What they are.
 - How they work & typical applications.
 - The hardware / software implementation related to the peripherals.
4. A survey of state-of-the-art embedded media processors

Project Presentation

An oral presentation of your project is required. These are tentatively scheduled for the last week of the semester. This should be viewed as an opportunity for presenting research results to your "peers" -- an important part of the research process.

Final Report

Reports should be structured like a research paper, and may consist of an abstract, body, and optional appendices. The length of the body should be no more than the equivalent of 15 pages at double-spaced 10-point. Additional supporting material can be put in appendices. The tentative due time for the report is the last Friday of the semester.