Boston University
College of Liberal Arts

Computer Science Department
111 Cummington Street, MCS 138
Boston, Massachusetts 02215
Tel: (617) 353-8919 / Fax: (617) 353-6457

GRS CS-835 (B1)
Real-Time Systems
Spring 1996

Overview:

This seminar will cover recent advances in Real-Time Systems research. The emphasis of the course will be on exposing students to current research issues, and on identifying potential PhD research topics in Real-Time Computing and Communication. Students will be expected to participate in class discussion and to present summaries of their independent readings/projects to the class.

Meeting Place: MCS 135

Meeting Time: Thu (2:00pm – 05:00pm)

Instructor: Azer Bestavros

- ⋄ **Office:** MCS 276
- ⋄ **Office Hours:** Tue 2:00 – 3:30pm
- ⋄ **Email:** bes@cs.bu.edu
- ⋄ **Phone:** 353-9726

References:

- ⋄ [**HRS**] *Hard Real-Time Systems* edited by John Stankovick and Krithi Ramamrithan, IEEE Computer Society Press, 1988.
- ⋄ [**ARS**] *Advances in Real-Time Systems* edited by John Stankovick and Krithi Ramamrithan, IEEE Computer Society Press, 1993.
- ⋄ [**RTS**] *Real-Time Systems: Abstractions, languages, and design methodologies* edited by Krishna Kavi, IEEE Computer Society Press, 1992.
- ⋄ [**RCS**] *Responsive Computer Systems: Steps Towards Fault-Tolerant Real-Time Systems* edited by Donald Fussell and Miroslav Malek, Kluwer Academic Publishers, 1995.
- ⋄ [**FSM**] *Foundations of Real-time Computing: Formal Specifications and Methods* edited by André van Tilborg and Gary M. Koob, Kluwer Academic Publishers, 1991.
- ⋄ [**SRM**] *Foundations of Real-time Computing: Scheduling and Resource Management* edited by André van Tilborg and Gary M. Koob, Kluwer Academic Publishers, 1991.
- ⋄ [**CPS**] *Constructing predictable real-time systems* Wolfgang Halang and Alexander Stoyenko, Kluwer Academic Publishers, 1991.
- ⋄ [**RTS**] *Real-Time systems and their programming languages* Alan Burns and Andy Wellings, Addison Wesley, 1991.
- ⋄ [**WEB**] *On-line Readings in Real-Time Systems.* (will grow as the class progresses). Available on the WWW from URL `http://cs-www.bu.edu/faculty/crs/cs835/readings.html`.
- ⋄ [**???**] *A collection of papers from various journals and conference proceedings, as well as other theses, books, and (maybe) manuals.*

Plan:

- ⋄ I will spend the first few lectures presenting different areas of research in real-time. Later in the course, I *may* present some of my own research work.
- ⋄ By the end of the introductory lectures, it is expected that students enrolled in the class will take turns in presenting papers describing various research areas. A classified list of suggested papers will be handed out in due time and should be considered as a starting point. Everybody is welcome to suggest other possibilities. Everybody is expected to have read the papers presented in any given day.
- ⋄ In addition to the paper presentation, a written summary and critique of the presented work will be required. These will be compiled and distributed by the end of the course.
- ⋄ I will try to arrange for guest speakers to talk about their research. Details will be announced in due time.
- ⋄ Each student is expected to volunteer (in a round robin fashion) to be the scribe for a given presentation given by somebody else. The end result of this is a group class notes/technical report.
- ⋄ A final comprehensive term paper/project (project is prefered) is expected of every student taking the course for credit. Group projects (not papers) will be allowed but must be "scaled up".
- ⋄ There will be no problem sets, quizes, or exams.