COSC 7384 Advanced Real-Time Systems - Spring 2012

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Office: PGH 534, Office hours: M W 4:00p-5:00p and by appointment

Synopsis

Advanced study of the state-of-the-art theory and techniques for the design and development of intelligent and highly fault-tolerant, distributed real-time/embedded systems and cyber-physical systems; topics include advanced scheduling, verification, power/temperature management, knowledge-based systems, stabilizing systems, and sensor networks.

Reading materials

Papers from www.rtss.org, www.rtas.org, www.rtcsa.org, Journal of Real-Time Systems, IEEE Transactions on Computers, IEEE Transactions on Software Engineering, IEEE Transactions on Knowledge and Data Engineering, and others.

Reference textbook: Real-Time Systems: Scheduling, Analysis, and Verification (2nd printing, Wiley 2005) by Prof. Albert M. K. Cheng.

Notes on prerequisite

No need to have taken COSC 6384. May take COSC 6384 concurrently.

Course requirements and grading

One research project report and 2-3 presentations (one on your own chosen project and the others on papers of your choice from the Reading Materials above). There are no exams and no homeworks!