COSC 7384 Advanced Real-Time Systems - Spring 2014

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Synopsis

Advanced study of the state-of-the-art theory and techniques for the design and development of fault-tolerant and intelligent, distributed real-time/embedded systems and cyber-physical systems; topics include advanced scheduling, functional reactive systems, 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!