REAL-TIME SYSTEMS

Monday 04

TAUGHT BY

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COURSE TOPICS

1. Real-time systems
   - introduction and concepts
   - modeling real-time systems
2. commonly used approaches to real-time scheduling
   - clock driven approach
   - weighted round robin approach
   - priority driven approach
   - dynamic & static systems
   - offline vs online scheduling
   - preemptive vs non-preemptive

3. clock driven scheduling

- scheduling aperiodic and sporadic jobs
- schedulability test

4. priority driven scheduling

- static priority
- rate monotonic and deadline monotonic algorithms.
- dynamic priority
- EDF algorithm
- schedulability tests

5. Scheduling aperiodic and sporadic jobs in priority driven systems

- deferrable server
- sporadic server
- constant utilization server
- total bandwidth server

- weighted fair queuing server

5. multiprocessor scheduling

6. resources and resource access control.

TEXT BOOKS

1. real-time systems ; liu.

2. hard real-time computing systems : predictable scheduling algorithms and applications; buttazo.

3. real time systems ; krishna .