EE5903 LIST OF CA TOPICS

Strict Note:

- If you have taken EE5902 in Sem 1, then you must declare the papers you had used in the declaration form explicitly which will be verified. These papers will **NOT** be allowed in any of the CA components for anyone enrolled in this module.

Some probable topics for survey!

- Handling RT processes in Shared memory systems
- RT issues and solutions for Linux thread handling
- RT scheduling - application specific
- Fault-tolerant strategies for RT scheduling
- Embedded RTS – Scheduling, Power management in RT
- Problems solvable in Asynchronous systems
- RT Optimization – Handling Linear programs
- RT Image Processing – application specific
- Handling large-scale workloads in RT on networked compute systems
- Databases – RT Issues on data accessibility, scheduling, fault-tolerance, buffer management problems in RT DBs
- Software reliability issues in RTS
- Hard RTS – reliability models (Perkins et. al is the basic article available on internet)
- Reliability and Fault-tolerance in RT Distributed systems
- Energy and power management in RT Embedded Systems - identify RT issues and formulation must take into account of RT requirements
- Security issues in RTOS – models, algorithms, solutions
- RT Wireless communications - Scheduling issues
- RT Cryptography
- Imprecise Computation Scheduling – RT issues;
- Imprecise scheduling on hardware (FPGA/SoCs/NoCs)
- Real Time Divisible Load Scheduling (Distributed RTS)
- RT Divisible Load Scheduling on FPGA

Note: You can choose your own preferred topic of interest and declare in the CA1 form.