**CPU Scheduling Simulator for Multiprocessor Designed as a Teaching Tool**

**Tasks:**

1. Codes (S&Z, W)

2. Algorithms:

1. P-EDF (S)
2. G-EDF (W)
3. RMS (Multiprocessor) (Z)
4. P-Fair (S)
5. LLF (Z)

3. Plug-in Interface Design (Diagram) (S, W, Z)

4. UI Design (S, W, Z)

**Deadline: 2014-6-21**

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**Asymmetric multiprocessing** – only one processor accesses the system data structures, alleviating the need for data sharing

**Symmetric multiprocessing** (SMP) – each processor is self-scheduling, all processes in common ready queue, or each has its own private queue of ready processes

LLF multiprocessor

Some of these algorithms are used for scheduling tasks on multiprocessor system either under the partitioning scheme or under the global scheduling scheme. The most common scheduling algorithms are: Earliest Deadline First (EDF) and Least Laxity First (LLF).

In LLF, tasks' priorities are dynamically assigned by their idle time. The idle time is shorter, the priority is higher. Idle time=deadline-task's remaining execution time.

RMS

Any given periodic task system will be successfully scheduled by Algorithm RM upon a given uniform multiprocessor platform. ---- Rate-Monotonic Scheduling on Uniform Multiprocessors