



CISTER - Research Center in Real-Time & Embedded Computing Systems

Week 1 - Assignment

CISTER Summer Internship 2017

Assignment

Consider the following task sets with implicit deadlines:

- $TS1 = \{(1,4), (2, 6), (3, 8)\}$
- $TS2 = \{(1, 4), (2, 6), (3, 10)\}$

- A task is defined as (C_i, T_i) .

- 1- Compute the utilization for each task set assuming preemptive RM and preemptive EDF scheduling policies. Are the task sets schedulable? Justify your answer.
- 2- Perform response time analysis assuming preemptive RM.
- 3- Draw the Gantt chart for each task set assuming preemptive RM and preemptive EDF. Relate the results obtained with the RTA obtained in 2.
- 4- Compare the results with the results obtained from the Linux kernel implementation.



Assignment Notes

- Each group is composed of 2 students
- On Friday 25/08/2017, a public presentation must be made for all elements in the lab
- It is expected that the students present the thought process and reasoning that was followed to solve the assignment problems
- The presentation must take at most 20 mins.
- Presentation time must be evenly divided for each element of the group
- Discussion is expected, so the students must be prepared

