**In422: Final assignment**

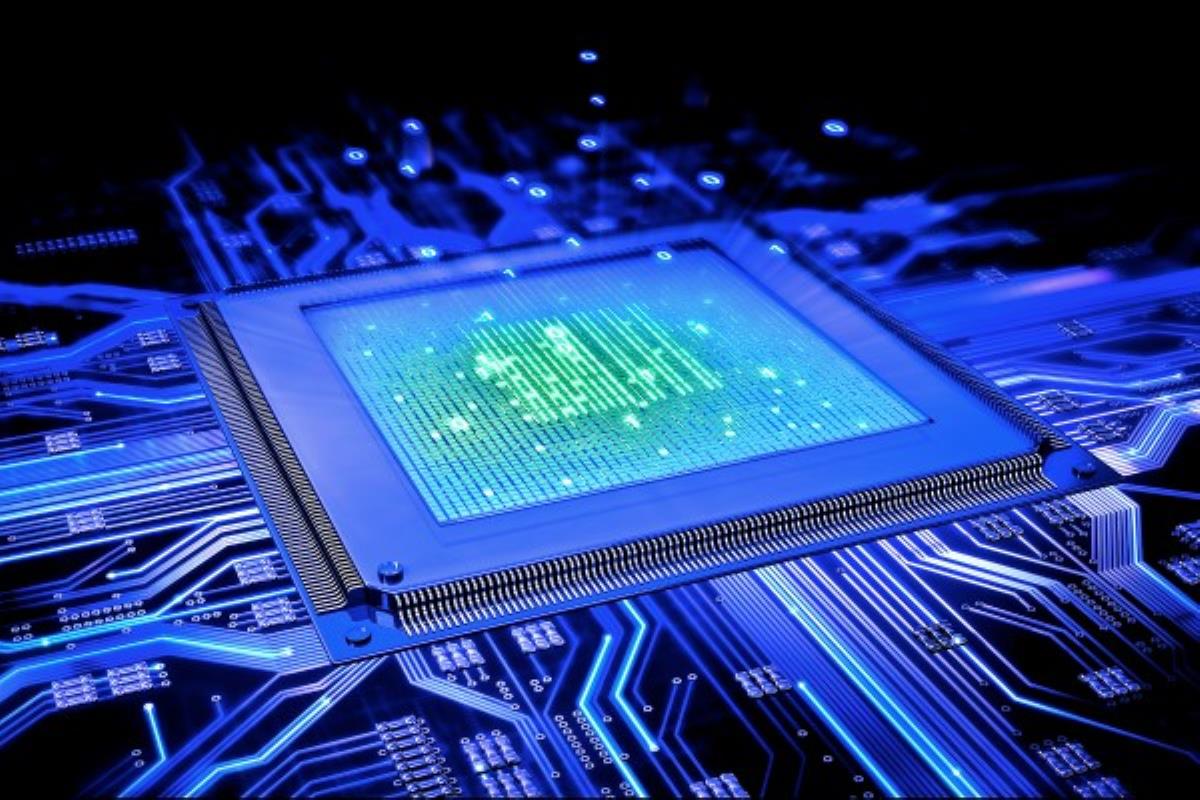


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4. **INTRODUCTION**

For this practical, we are going to schedual 4 different periodic tasks, with their priority, WCET and period. In order to do that, we will first analyse each task , verify the schedulability and implementat the code on FreeRTOS.

1. **METHOD**

The Task1 is just a print of a small string “Working”, this task may not use a lot of time of execution. We can fixe a WCET of 1ms and a period of 5ms.

The Task2 is also a print but with a small operation. The WCET can be 2ms (because the operation) and a period of 20ms.

The Task3 requires more time of execution so we can fix a WCET of 5ms and a period of 50ms (because the operation with 2 long int).

The Task4 is a binary search of a list of 50 elements (complexity O (log n)). The WCET will depend on the length of the list. But with 50 elements, we can fix a WCET of 10ms and a period of 50ms.

1. **RESULTS**

To verify the schedulability, we can calculate the Utilization:

U = 1/5 + 2/20 + 5/50 + 10/50 = 0.6 < 1 => Schedulable.

