

UNIT V

EMBEDDED SYSTEM APPLICATION DEVELOPMENT

5.3 Task Service Functions

- Service functions mean the functions of multi tasking service (task create , suspend or resume), time setting and time retrieving (getting) functions.

OS Task Create

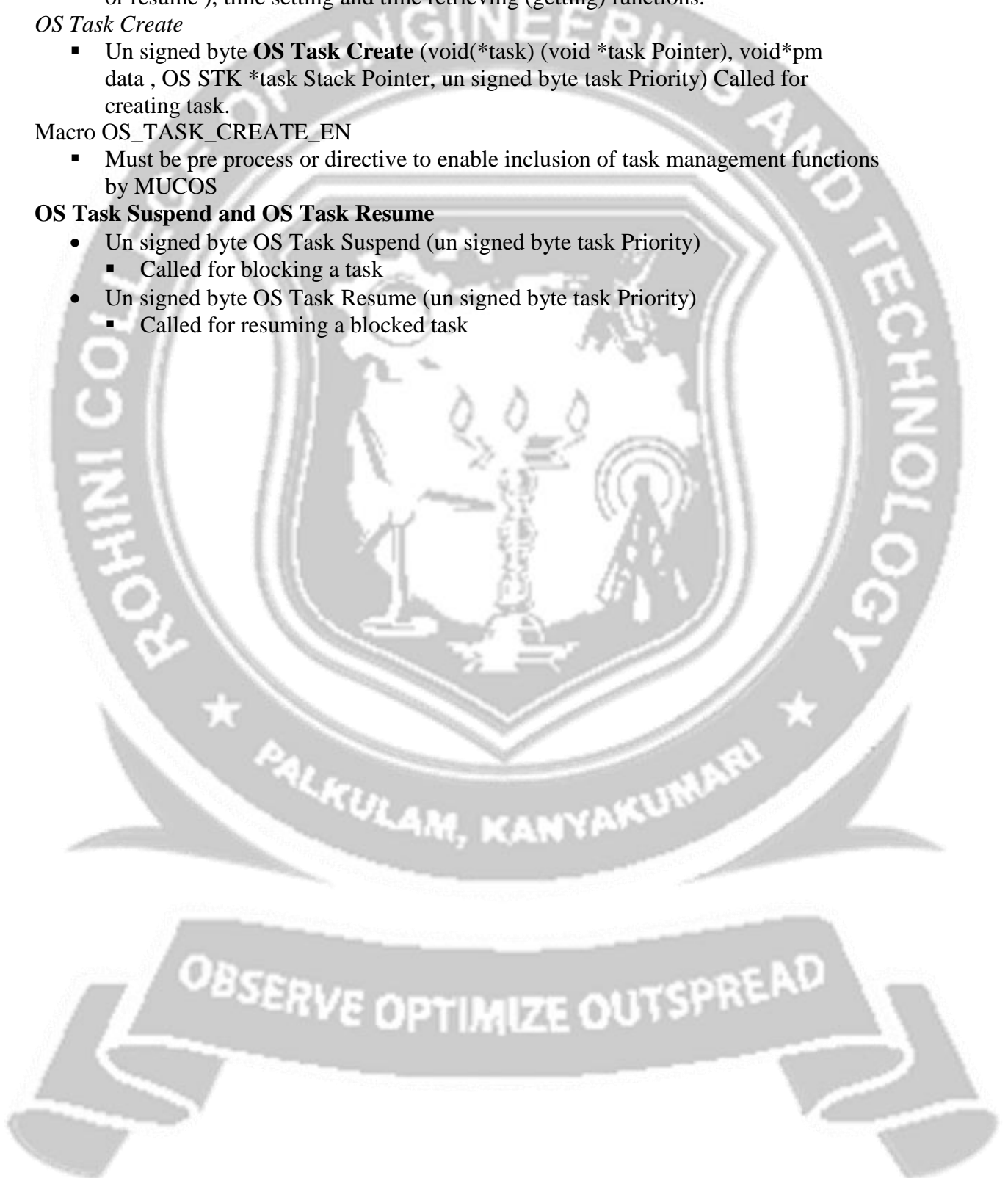
- Un signed byte **OS Task Create** (void(*task) (void *task Pointer), void*pm data , OS STK *task Stack Pointer, un signed byte task Priority) Called for creating task.

Macro OS_TASK_CREATE_EN

- Must be pre process or directive to enable inclusion of task management functions by MUCOS

OS Task Suspend and OS Task Resume

- Un signed byte OS Task Suspend (un signed byte task Priority)
 - Called for blocking a task
- Un signed byte OS Task Resume (un signed byte task Priority)
 - Called for resuming a blocked task



System Time and Time Delay Functions

- Void OS Time Set (un signed int *counts*)

Used when system time is to be set by *counts*

OS Time Get () and OS Time Delay (delay Count)

- Un signed int OS Time Get (void)
To find present *counts* when system time is read.
- Void OS Time Delay(un signed short delay Count)

To delay a task by period of count-inputs equal to delay Count-1

OS Time Delay HMSM

Void OS Time Delay HMSM (un signed byte hr, un signed byte un signed byte sec ,un signed short ms)

OS Time Delay Resume

- Un signed byte OS Time Delay Resume (un signed byte task Priority)

When a task of priority=task Priority is to resume before the preset delay which was by a value defined either by delay Count or (hr , mn and ms) and which is in blocked state now.

Macros to find status after execution of OS Time Delay Functions

- OS_NO_ERR when our arguments are valid and resumption after delay succeeds.
- OS_TIME_INVALID_HOURS,
- OS_TIME_INVALID_MINUTES,
- OS_TIME_INVALID_SECONDS and
- OS_TIME_INVALID_MILLI , returns true
- OS_TIME_ZERO_DLY returns true fall the arguments passed are 0.
- OS_NO_ERR returns true if all the arguments passed or when resumption after delay succeeds.
- OS_TASK_NOT_EXIST returns true, if task was not created earlier.
- OS_TIME_NOT_DLY returns true, if the task was not delayed.
- (vi) OS_PRIO_INVALID returns true , when task Priority parameter that was passed is more than the OS_PRIO_LOWEST (23)when maximum number of user tasks = 8