

### CPU Load For ECU1:

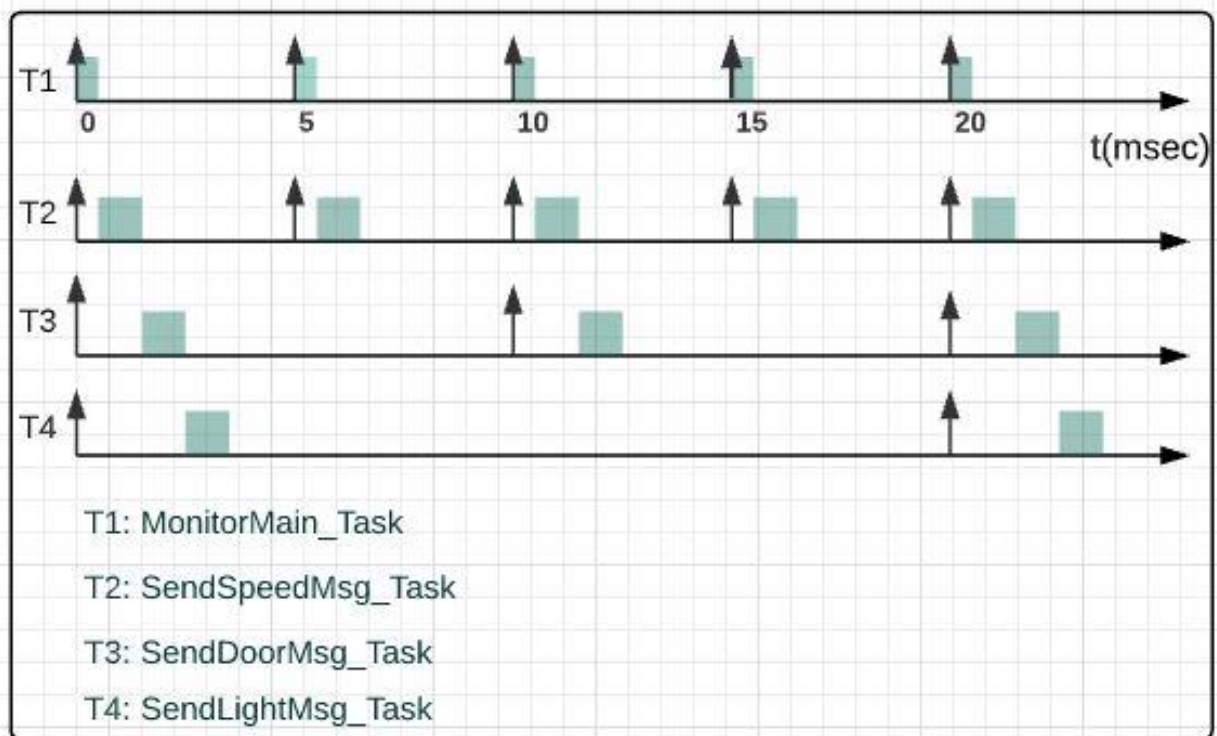
$T_i(P_i, C_i)$     P: Periodicity    C: Capacity(Execution Time)

- $T1(5, 0.5)$  Highest Priority
- $T2(5, 1)$
- $T3(10, 1)$
- $T4(20, 1)$  Lowest Priority

$$U = \sum C_i / P_i = ((0.5/5) + (1/5) + (1/10) + (1/20)) * 100\% = 45\%$$

$$U_{RMS} = (4 * (2^{1/4} - 1)) * 100\% = 75\%$$

$$U < U_{RMS}$$



## CPU Load For ECU2:

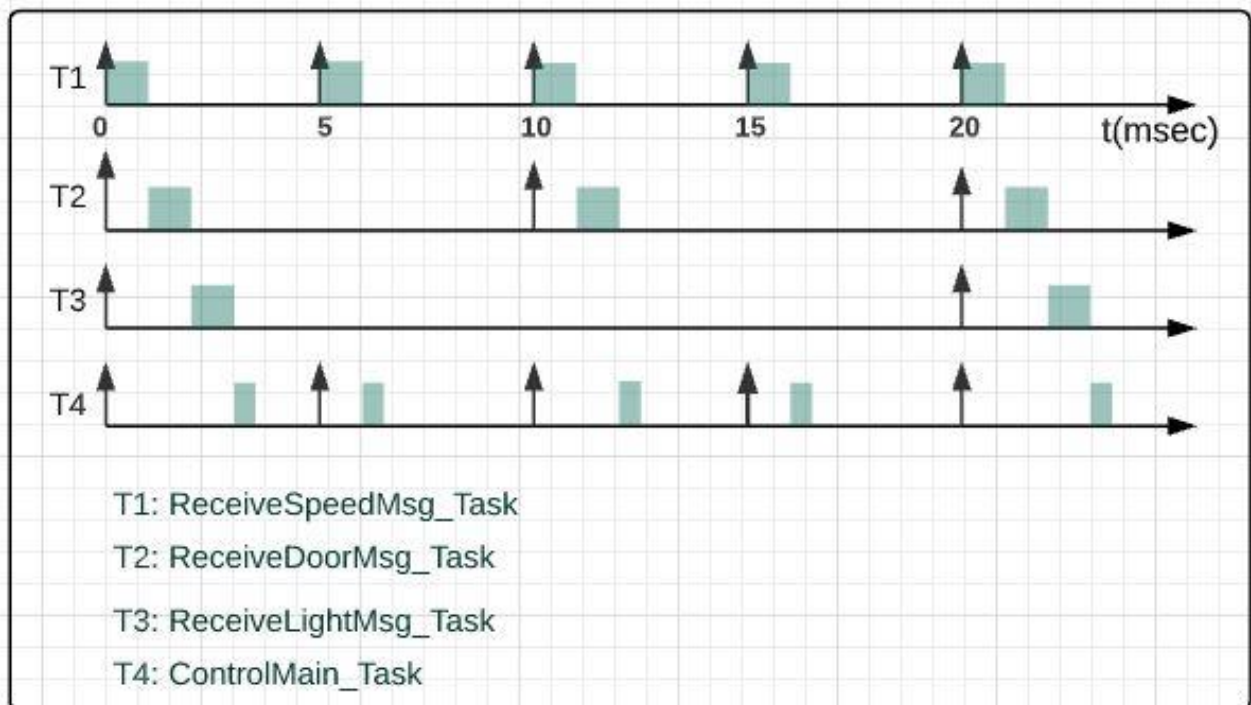
$T_i(P_i, C_i)$     P: Periodicity    C: Capacity(Execution Time)

- $T1(5, 1)$  Highest Priority
- $T2(10, 1)$
- $T3(20, 1)$
- $T4(5, 0.5)$  Lowest Priority

$$U = \sum C_i / P_i = ((1/5) + (1/10) + (1/20) + (0.5/5)) * 100\% = 45\%$$

$$U_{RMS} = (4 * (2^{1/4} - 1)) * 100\% = 75\%$$

$$U < U_{RMS}$$



### **BUS Load:**

Bus load will only equal the propagation time of messages (7Msg in 20msec)=  
 $((7 * 1\text{msec}) / 20 \text{ msec}) * 100\% = 3.5\%$