CPU-LOAD CALCULATION:

ECU-1:

Let excution time of: SpeedSensor Processing=X

  DoorSensor Processing=Y

      LightSwitch Processing=Z

  CANTransmitterProcessing=M

Since Periodicity Of: SpeedSensor Processing=5ms

                DoorSensor Processing=10ms

                LightSwitch Processing=20ms

                CANTransmitterProcessing=5ms

CPU-Load= $([(4*X) + (2*Y) + (Z) + (4*M)] / 20) *100\%$

ECU-2:

Let excution time of: Light Processing=X

  BuzzerProcessing=Y

      CANReciever Processing=M

Since Periodicity Of: Light Processing=5ms

                Buzzer Processing=5ms

                CANReciever Processing=5ms

CPU-Load= $([(4*X) + (2*Y) + (4*M)] / 20) *100\%$

CANBUS:

Since:

Speed status send and Received every 5ms. "Consume bus for n sec."

Door status send and Received every 10ms. "consume bus for l sec."

Light Switch status send and Received every 20ms. "consume bus for m sec."

@ 5ms   : bus busy for (n).

@ 10ms : bus is busy for (m+n).

@ 20ms : bus is busy for (l+m+n).

So: every 20ms bus is Consumed by (3n+2m+l).

Therefore:

BusLoad/Second= 50*(3n+2m+l).