

Lab-4

Friday, October 09, 2020 11:28 AM

Title:- Configuring UART with LPC2129

Date:- 11/09/2020

Program :-

1) Write a program to configure UART with LPC2129. Print PRN in first line and Name in the second line of UART Serial Window.

Source code:

```
1 #include<lpc21xx.h>
2 void Uart_Init(void)
3 {
4     UOLCR=0x03; //line control register, no parity is used, only 8 bit word length and DLAB bit is set as 1
5     UOELR=0x03; // baud rate register
6     UOLCR=0x03; // baud rate register
7     UOLCR=0x03; // line control register, now DLAB bit is set 0
8 }
9 void Uart_Data(unsigned char data){
10     UOTDR=data; //UOTDR is Transmit Holding Register, the data is stored in it
11     while((UOLSR & 0x20)!=0x20); // wait till this condition is satisfied and once it's satisfied the data will be sent to THR
12 }
13 void Uart_String(unsigned char *dat){
14     while(*dat!='\0'){
15         Uart_Data(*dat);
16         dat++;
17     }
18 }
19 void Port_Init(void){
20     PINSEL0=0x00000005; //to select UART pin
21 }
22
23 int main(){
24     Port_Init();
25     Uart_Init();
26     Uart_String("17070123120");
27     Uart_Data('\n');
28     Uart_String("Ventrupragada Sai Shravani");
29     while(1);
30 }
31
```

OUTPUT:

```
UART #1
17070123120
Ventrupragada Sai Shravani
```

Inference: In this code I have learnt how to print my name, PRN and by configuring UART file with LPC2129