Program to interface Xbee(Transmitter) with LPC 2148:-

```
#include <stdio.h>
#include <LPC214x.h>


unsigned char UART0_GetChar(void)
{
	while(!(U0LSR & 0x01));
	return(U0RBR);
}


unsigned char UART1_GetChar(void)
{
	while(!(U1LSR & 0x01));
	return(U1RBR);
}

unsigned char UART0_PutChar(unsigned char Ch)
{
	while(!(U0LSR & 0x20));
	U0THR = Ch;
	return Ch;
}


unsigned char UART1_PutChar(unsigned char Ch)
{
```

```
        while(!(U1LSR & 0x20));
        U1THR = Ch;
        return Ch;
}
void UART1_isr(void)
{
        UART0_PutChar(UART1_GetChar());
        VICVectAddr = 0;
}
void Uart0Init(unsigned int baudrate)
{
        unsigned int FDiv;
        PINSEL0 |= 0x00000005;          //Enable RxD0 and TxD0
   U0LCR = 0x83;                // 8 bits, no Parity, 1 Stop bit
        FDiv = (15000000 / 16 ) / baudrate ; //
        U0DLM = FDiv /256;                                      //0x00;
        U0DLL = FDiv %256;                                              //0x97;
   U0LCR = 0x03;                                        // DLAB = 0
}
void Uart1Init(unsigned int baudrate)
{
        unsigned int FDiv;
        PINSEL0 |= 0x00050000;          //Enable RxD1 and TxD1
   U1LCR = 0x83;                // 8 bits, no Parity, 1 Stop bit
        FDiv = (15000000 / 16 ) / baudrate ; //
        U1DLM = FDiv /256;                                      //0x00;
        U1DLL = FDiv %256;                                              //0x97;
   U1LCR = 0x03;                                        // DLAB = 0
```

```
	U1IER = 0x01;
	VICVectCntl1 = 0x20 | 7;
	VICVectAddr1 = (unsigned int)UART1_isr;
	VICIntEnable |= 1<<7;
}

void UART1_PutS(unsigned char *Ch)
{
	while(*Ch)
		UART1_PutChar(*Ch++);
}


int fputc(int ch, FILE *f) {
  return (UART0_PutChar(ch));
}



void delay(unsigned int time)
{
	unsigned int i,j;
	for(i=0;i<time;i++)
		for(j=0;j<10000;j++);
}

void xbeeString(unsigned char *ch)			//function to send a command to zigbee
```

```
{
        printf("\r\ncommand: %s",ch);
        printf("response:");
        UART1_PutS(ch);
}

int main()
{
        Uart0Init(9600);
        Uart1Init(9600);
        xbeeString("+++");                                      //enter command mode
        delay(1000);
        xbeeString("AT\r\n");                                   //check if all ok
        delay(1000);
        xbeeString("ATID 10\r\n");                              //change network id to 10
        delay(1000);
        xbeeString("ATCN\r\n");                                 //exit command mode
        delay(1000);
        xbeeString("HELLO.... This is PAN ID 10\r\n");      //send a string on network id 10
        delay(1000);
        xbeeString("+++");                                      //enter command mode
        delay(1000);
        xbeeString("ATID 15\r\n");                              //change network id to 15
        delay(1000);
        xbeeString("ATCN\r\n");                                 //exit command mode
        delay(1000);
        xbeeString("HELLO.... This is PAN ID 15\r\n");      //send a string on network id 15
        delay(1000);
```

```
        while(1);
}
```