PRACTICAL REPORT

For IoT Practical

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DARSHAN RAMJIYANI (DSP)

DOCS, KSKV Kachchh University

4.3 Serial Communication – Receiving Serial Data

User enters the integral value from 0- 9 and according to the input LED will blink.

Arduino Code:

```
int LEDPin = 13;
int baudRate = 9600;

void setup()
{
        pinMode(LEDPin, OUTPUT);
        /* Established Serial Communication. */
        Serial.begin(baudRate);

        Serial.println("Connection Establishing connection...!");
        while(!Serial){}
        Serial.println("Connection Established!");

        /* Wait until Serial Communication not established. */
        while(!Serial){}

        /* Send data through Serial Communication. */
        Serial.println("- Name of Author : DSP -");
        Serial.println("------------------------------------------------------------");
}
void loop()
{
        char ch;
        Serial.println("Waiting for integeral data from 0 to 9...");
        while(Serial.available() == 0){}
        if(Serial.available() > 0 )
        {
                ch = Serial.read();

                if(isDigit(ch))
                {
```

```
                    Serial.print("LED blinks ");
                    Serial.print(ch - '0');
                    Serial.println(" times.");
                    for(int i = 0; i < ch - '0'; i++)
                    {
                        digitalWrite(LEDPin, HIGH);
                        delay(1000);
                        digitalWrite(LEDPin, LOW);
                        delay(1000);
                    }
                    Serial.println("Blinking Process Done");
                }
            }
        }
```

Output: