

VELAMMAL ENGINEERING COLLEGE

(An autonomous institution)

CHENNAI-600066

**REAL TIME RIVER WATER QUALITY
MONITORING AND CONTROL SYSTEM
USING IoT**

Submitted by

MADHUMITHA.S (113219041060)

**BACHELOR OF ENGINEERING IN
ELECTRONICS AND COMMUNICATION
DEPARTMENT**

PROGRAM:

```
int t=2;
int e=3;
void setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
  //ultrasonic sensor
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance is: ");
```

```
Serial.println(dis);  
  //LED ON  
if(dis>=100)  
{  
  digitalWrite(8,HIGH);  
  digitalWrite(7,HIGH);  
}  
//Buzzer For ultrasonic Sensor  
if(dis>=100)  
{  
  for(int i=0; i<=30000; i=i+10)  
  {  
    tone(12,i);  
    delay(1000);  
    noTone(12);  
    delay(1000);  
  }  
}  
//Temperate Sensor  
double a= analogRead(A0);  
double t((((a/1024)*5)-0.5)*100;
```

```
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
//LED ON
if(t>=100)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}
//Buzzer for Temperature Sensor
if(t>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}
//LED OFF
```

```
if(t<100)
{
    digitalWrite(8,LOW);
    digitalWrite(7,LOW);
}
}
```

OUTPUT:

