VELAMMAL ENGINNERING COLLEGE

(An autonomous institution)

CHENNAI-600066

REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM USING IoT

Submitted by

SWATHI .A.P (113219041120)

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: