v,

# IOT BASED SAFETY GADGETS FOR CHILD SAFETY MONITORING AND NOTIFICATION

# ASSIGNMENT

**SUBMITTED BY:**

S.SUMITHA

953119106040

THAMIRABARANI ENGINEERING COLLEGE

# Blinking LED for Raspberry pi:

```
#!/usr/bin/env
python
                import RPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now
                import time

                ledPin = 22    # pin22

                def setup():
                        GPIO.setmode(GPIO.BOARD)       # GPIO Numbering of Pins
                        GPIO.setup(ledPin, GPIO.OUT)   # Set ledPin as output
                        GPIO.output(ledPin, GPIO.LOW)  # Set ledPin to LOW to turn Off the LED

                def loop():
                        while True:
                                print 'LED on'
                                GPIO.output(ledPin, GPIO.HIGH)   # LED On
                                time.sleep(1.0)                  # wait 1 sec
                                print 'LED off'
                                GPIO.output(ledPin, GPIO.LOW)   # LED Off
                                time.sleep(1.0)                 # wait 1 sec
                def endprogram():

                        GPIO.output(ledPin, GPIO.LOW)     # LED Off
                        GPIO.cleanup()                    # Release resources

                if __name__ == '__main__':         # Program starts from here
                        setup()
                        try:
                                loop()
                        except KeyboardInterrupt:  # When 'Ctrl+C' is pressed, the destroy() will be  executed.
                                endprogram()
```

# Traffic Lights for Raspberry pi:

```
# Loop forever
while True:
    # Red
    GPIO.output(9, True)
    time.sleep(3)
    # Red and amber
    GPIO.output(10, True)
    time.sleep(1)
    # Green
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)
    # Amber
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)
    # Amber off (red comes on at top of loop)
    GPIO.output(10, False)
```