

INTERFACING OF RELAY AND LED WITH 8051 USING PROTEUS

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COURSE CODE: ECA1487, Embedded Systems for IOT Applications

PROGRAM:

```
        ORG 0000H      ; Start of program
; Initialize Port 1 as output port for relay control
MOV P1, #00H      ; Clear Port 1 (all pins low initially)
MAIN_LOOP:
    SETB P1.0      ; Set P1.0 HIGH (Relay ON, LED ON)
    ACALL DELAY      ; Call delay to keep the LED ON for some time
    CLR P1.0        ; Clear P1.0 (Relay OFF, LED OFF)
    ACALL DELAY      ; Call delay to keep the LED OFF for some time
    SJMP MAIN_LOOP; Repeat the process

; Delay subroutine for blinking speed
DELAY:
    MOV R1, #255      ; Outer loop
DELAY1:
    MOV R2, #255      ; Inner loop
DELAY2:
    DJNZ R2, DELAY2 ; Decrement inner loop
    DJNZ R1, DELAY1 ; Decrement outer loop
    RET              ; Return to main loop
END                ; End of program
```

OUTPUT:

