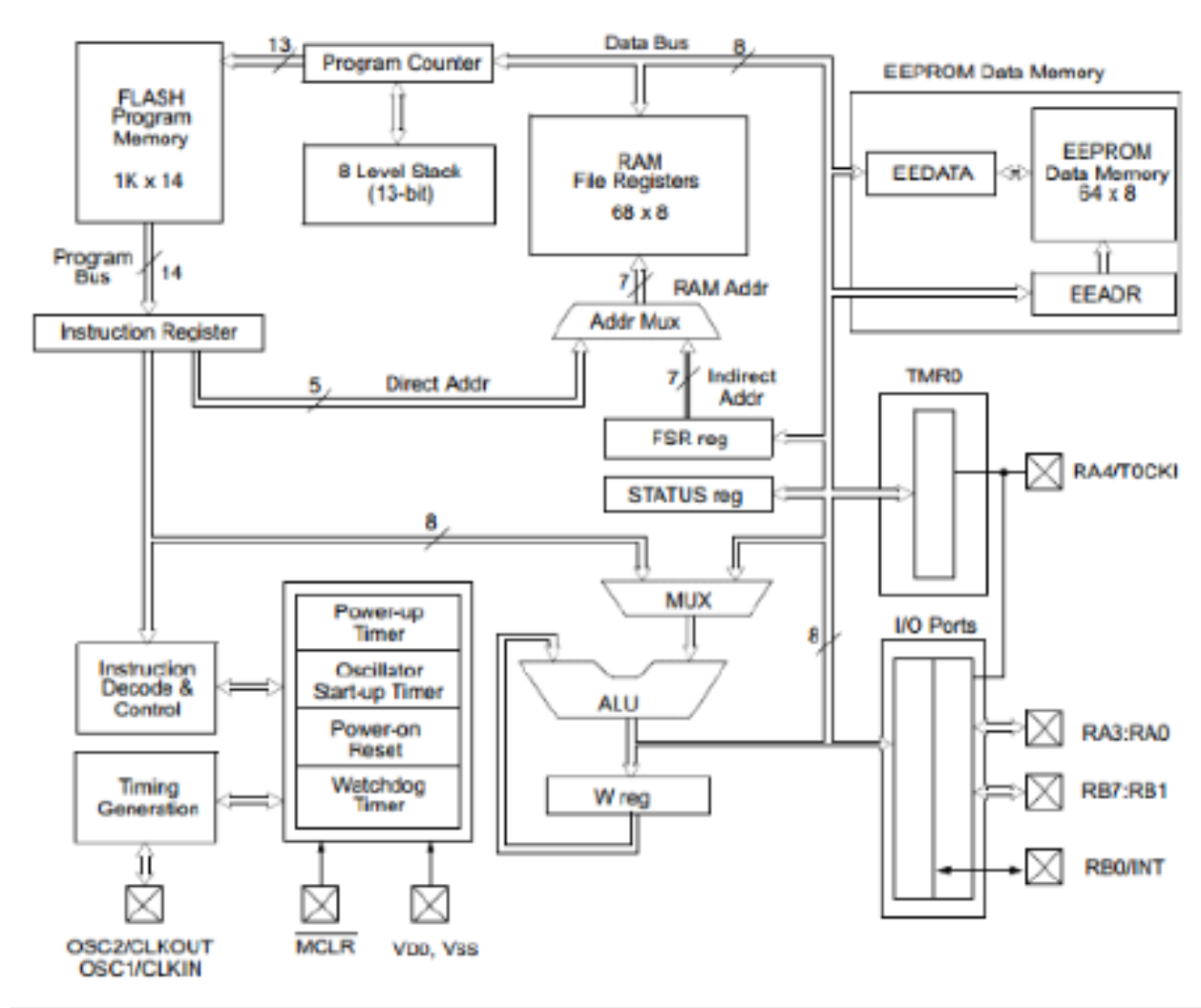# UNIT-V
SYSTEM DESIGN USING MP &MC

TRAFFIC LIGHT CONTROL:

The main objective of this traffic light controller is to provide sophisticated control and coordination to confirm that traffic moves as smoothly and safely as possible.
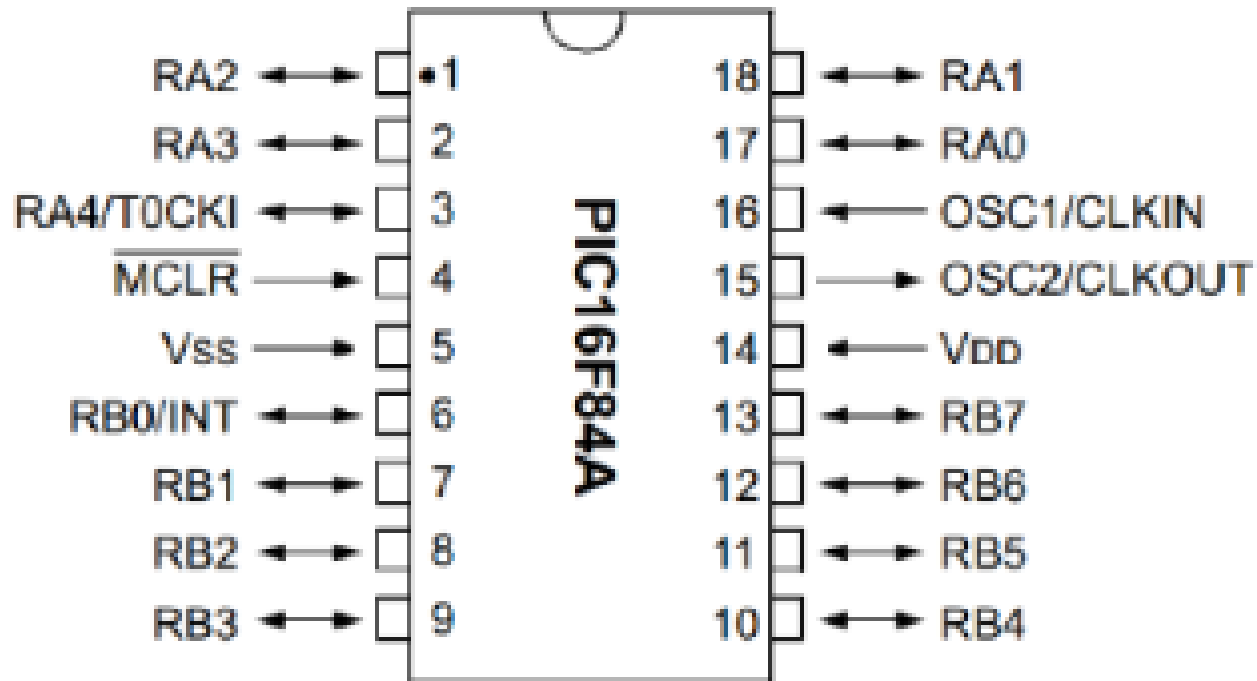
This project makes use of LED lights for indication purpose and a microcontroller is used for auto changing of signal at specified range of time interval.

LED lights gets automatically turns on and off by making corresponding port pin of the microcontroller "HIGH"

PDIP, SOIC

PIC16F84A

Pin				Pin
RA2 ←→	1		18	←→ RA1
RA3 ←→	2		17	←→ RA0
RA4/T0CKI ←→	3		16	← OSC1/CLKIN
$\overline{MCLR}$ →	4		15	→ OSC2/CLKOUT
Vss →	5		14	← VDD
RB0/INT ←→	6		13	←→ RB7
RB1 ←→	7		12	←→ RB6
RB2 ←→	8		11	←→ RB5
RB3 ←→	9		10	←→ RB4

Pin Name	PDIP No.	I/O/P Type	Description
OSC1/CLKIN	16	I	Oscillator.
OSC2/CLKOUT	15	O	Oscillator.
MCLR	4	I/O	Master Clear (Reset) input/programming voltage Input. This pin is an active low RESET to the device.
RA0	17	I/O	PORTA is a bi-directional I/O port.
RA1	18	I/O	
RA2	1	I/O	
RA3	2	I/O	
RA4/T0CKI	3	I/O	

RA4/T0CKI	5	I/O	
RB0/INT	6	I/O	PORTB is a bi-directional I/O port.
RB1	7	I/O	
RB2	8	I/O	
RB3	9	I/O	
RB4	10	I/O	
RB5	11	I/O	
RB6	12	I/O	
RB7	13	I/O	
Vss	5	P	Ground reference .
VDD	14	P	Positive supply for logic and I/O pins.

I=Input   O=Output   I/O= Input/Output   P=Power

Signal target	PORT-bit	Light color
Traffic Light 1	A0	Red
	A1	Yellow
	A2	Green
Traffic Light 2	A3	Red
	B0	Yellow
	B1	Green
Traffic Light 3	B2	Red
	B3	Yellow
	B4	Green
Traffic Light 4	B5	Red
	B6	Yellow
	B7	Green

THANK YOU