

# Excess-3 Code

- The excess-3 code is another important BCD code.
- The excess-3 code for a given decimal number is determined by adding '3' to each decimal digit in the given number and then replacing each digit of the newly found decimal number by
- Excess-3 is a non weighted code used to express decimal numbers.
- The code derives its name from the fact that each binary code is the corresponding 8421 code plus 0011(3).

Decimal	Excess 3	Excess 3 Binary no.
0	3	0011
1	4	0100
2	5	0101
3	6	0110
4	7	0111
5	8	1000
6	9	1001
7	10	1010
8	11	1011
9	12	1100
10	13	- - - - -
11	14	- - - - -
12	15	- - - - -

- Example:
- obtain excess 3 code of  $(56)_{10} = ( ? )_{10} = ( ? )_2$
- obtain
- $( 10001001 )_{\text{EX3}} = ( ? )_{\text{BCD}}$