**PROBLEM STATEMENT**

This project aims to convert a given number from one number system to another number system and to provide faster and easier number system conversion to the user.

**DESCRIPTION**

One of the most important applications of the number system is in computer technology. Generally, a computer uses the binary number system, but humans will use the hexadecimal or decimal number system, as it is easier to understand. For this reason, the number system conversion is required.

Number System Conversion is a converter which allows you to convert between different numeral systems like the binary system, hexadecimal system, octal number system and decimal system.

From this project, the user can easily convert any number system such as: Binary to decimal, octal, hexadecimal. Decimal to binary, octal, hexadecimal. Octal to binary, decimal, hexadecimal. Hexadecimal to binary, decimal, octal. The user has to choose numbers and then enter the number according to their conversion. The whole project is designed in ‘C’ Programming language .This project would be easy to operate and to understand by the users.

The general representation of number systems are:

Decimal Number – Base 10 – N10

Binary Number – Base 2 – N2

Octal Number – Base 8 – N8

Hexadecimal Number – Base 16 – N16

The functions to be performed in this project for conversion of a number from one number system to another number system are listed below:

1:BINARY TO DECIMAL

2:BINARY TO OCTAL

3:BINARY TO HEXA-DECIMAL

4:DECIMAL TO BINARY

5:DECIMAL TO OCTAL

6:DECIMAL TO HEXA-DECIMAL

7:OCTAL TO BINARY

8:OCTAL TO DECIMAL

9:OCTAL TO HEXA-DECIMAL

10:HEXA-DECIMAL TO BINARY

11:HEXA-DECIMAL TO DECIMAL

12:HEXA-DECIMAL TO OCTAL