File compression is an important field as it significantly reduces storage requirement and communication cost. Some memory efficient encoding schemes are analyzed and implemented in this work. These are Huffman Coding file data compression is useful because it helps to reduce the consumption of expensive resources, such as hard disk space or transmission bandwidth the objectives of this work are efficient representation and implementation of some text data compression algorithm. Our objective of this project is to achieve a faster file transfer. for data communication, transfer of compressed data over medium result in the increase of information transfer. This is the aim of file compression. Data Compression is the science and art of representing information in a compact form. Compression is the process of coding that will effectively reduce the total number of bits needed to represent certain information.

The general principle of data compression algorithms on text files is to transform string of characters into a new string which contains the same information but with new length as small as possible a Huffman code is a particular type of optimal prefix code that is commonly used for lossless data

. This is a technique which is used in a data compression or it can be said that it is a coding technique which is used for encoding data.

Huffman coding is a lossless data compression algorithm. In this algorithm, a variable-length code is assigned to input different characters. The code length is related to how frequently characters are used. Most frequent characters have the smallest codes and longer codes for least frequent characters.

Huffman code is a data compression algorithm which uses the greedy technique for its implementation. The algorithm is based on the frequency of the characters appearing in a file. ... Since characters which have high frequency has lower length, they take less space and save the space required to store the file.