ABSTRACT

THE IMPLEMENTATION OF HUFFMAN ALGORITHM FOR ENCODING AND DECODING IN SMS TRANSMISSION

By
TAHTA HERDIAN ANDIKA

Communication is the important thing for human being. The process of indirect communication has created technology to handle long-distance communication. In communication, text message is a frequently used way. And one of the utilization of communication via text is SMS. This sms service is considerably used in cellphone, but it has a weakness like limidity of sms transmission. So the mechanism is necessary to overcome this problem. And one of the mechanisms is making the compression of sms transmission.

SMS compression is a series of processes of encoding, transmission, decoding, receiving, and appearance. The process of encoding with Huffman code is a code which is established by the frequency that appears for a character. Characters with greater frequency will have a shorter code compared to characters with small frequency. Formation of Huffman code starts with forming a Huffman tree which will assist in making of the Huffman code. This process continued with the process of character encoding is in accordance with Huffman codes. Once it has been delivered, the process of decoding need to be done, so those messages can be read back. SMS compression application using Huffman algorithm on average is able to perform SMS text compression with a compression ratio of 30% -34%.

Keywords: SMS text compression, SMS encoding, SMS decoding, Algorithm.