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## ABSTRACT

In order to make data storage more effective and to use up less storage space, data can be compressed. Additionally, data compression helps speed up the transmission of data exchange. Currently, a variety of techniques can be employed to data compression Moreover, the outcomes and approaches of each treatment vary. The comparison of data compression will be covered in this essay. We present a detailed analysis of Five separate algorithms, Shannon-Fano, Run-Length Encoding, the Huffman Algorithm, the LZW Algorithm, and the DELTA Algorithm. To address these issues, there is a growing need for greater data compression and communication theory research. Such study addresses the needs of fast data transfer through networks. This study focuses on deep learning analysis of the most widely used picture compression methods.

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## List of abbreviations

1. LZW: Lempel-Ziv-Weich.
2. RLE: Run Length Encoding.
3. MSG: Meteosat Second Generation.
4. SEVIRI: Spinning Enhanced Visible and Infrared Imager.
5. IR: Infrared.
6. ACL: Average code length.
7. CR: Compression ratio.
8. ET: Encoding time.
9. DT: Decoding time.

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