A SECURE NETWORK COMMUNICATION PROTOCOL BASED ON TEXT TO BARCODE ENCRYPTION ALGORITHM

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Abstract—Nowadays, after the significant development in the Internet, communication and information exchange around the world has become easier and faster than before. One may send an e-mail or perform money transaction (using a credit card) while being at home. The Internet users can also share resources (storage, memory, etc.) or invoke a method on a remote machine. All these activities require securing data while the data are sent through the global network.

There are various methods for securing data on the internet and ensuring its privacy; one of these methods is data encryption. This technique is used to protect the data from hackers by scrambling these data into a non-readable form. In this paper, we propose a novel method for data encryption based on the transformation of a text message into a barcode image. In this paper, the proposed Bar Code Encryption Algorithm (BCEA) is tested and analyzed.