

***Design and Build an Electronic Medical Record Security System Using the
Caesar Cipher Cryptographic Development Method.***

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ABSTRACT

In this industrial revolution 4.0 era, digital technology has a considerable influence, this technology can connect the whole world and produce the Electronic Medical Record (EMR). Patients are encouraged to share information between doctors and different healthcare services, and it means that the privacy of patient information is being violated. Therefore, the adoption of EMR can use a data encryption system to protect the contents of the medical record, which is by using the Caesar Cipher cryptographic method. The purpose of this study is to design and create an EMR security system that can be used in separate EMR programs, both in the program itself and in the programming language used by using a caesar cipher formula that has been formulated to improve patient data security. The result of this research is that an EMR security program that uses the Caesar Cipher method can encrypt data so that the data that needs to be secured cannot be read with an average data processing time of 2.6237 seconds.

Keywords: Caesar Cipher Method, Cryptography, Electronic Medical Records