

The techniques of securing imaging data in medical system

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ABSTRACT

Over the years, the technology evolution has brought a huge change on the people daily life, however, it is undeniable that some vulnerabilities have also been arisen. The cyber-attacks and cyber threats are always the main challenge of cybersecurity. The unsecure network causes the data leakage, data theft and data interception that affect the data integrity. In the healthcare sector, the medical images are the important records for the organization to detect and diagnose the disease. Hence, the confidentiality of the medical images needs to be ensured to assure the integrity of the data. The techniques that are used to enhance the security and integrity of the medical images include cryptography, steganography and digital watermarking to prevent the medical images from being modified and the techniques can also be used for authentication in which the content of the medical images can be viewed only by the authorized person. This paper will describe the techniques used in medical image for security and integrity purposes, moreover, it will propose the suitable technique to use in medical images by hospitals.

KEYWORDS

Data security; Cryptography; Steganography; Digital watermarking; Data forensics

ACKNOWLEDGEMENTS

This research work is supported by RDU190366 of Universiti Malaysia Pahang. The data in this paper can be accessed at <http://fskkp.ump.edu.my>.