Image Encryption using Chaos-based Standard Map Algorithm

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Abstract

Images are routinely used in diverse areas such as medical, military, science, engineering, art, entertainment, advertising, education as well as training. With the increasing use of digital techniques for transmitting and storing images, the fundamental issue of protecting the confidentiality, integrity as well as the authenticity of images has become a major concern. This system is intended to develop a digital image encryption system for securing images. We focus on the security mechanism of digital image name encryption with the usage of Chaos-based standard map algorithm. Chaos-based map is used to discover the pixel coordinates of the digital image and then perform exclusive OR operation between certain pixel value of the digital image and chaotic value.