Abstract— **In today's digital era, protecting digital artworks, particularly images, has become increasingly important to prevent copyright infringement and forgery. This paper proposes a novel method for embedding secret data into images using Reversible Data Hiding (RDH) techniques that leverage histogram shifting and random sub-blocks. The method is designed to maintain the visual integrity of the image while allowing the insertion of critical information, such as copyright metadata. The dataset used consists of 13 digital artworks sized 1280x720 pixels in PNG format, reflecting a diversity of textures and colors. Experimental results demonstrate that the proposed method achieves a high embedding capacity with PSNR values exceeding 37 dB, indicating excellent image quality post data insertion. Additionally, the method exhibits resilience against illegal modifications, with the ability to detect changes in images that have had data embedded. By integrating a PIN-based authentication system, the method enhances the security and integrity of the embedded information. This research significantly contributes to the field of digital artwork protection, offering an effective solution to preserve the authenticity and aesthetic value of images while enabling secure and reversible data insertion. The findings underscore the potential of RDH techniques in safeguarding sensitive information across various applications, ensuring that digital artworks can be both protected and enjoyed without compromising their quality.**

Keywords—authenticator, pin, steganography, RDH, SSIM, PSNR.