Abstract
Securing digital documents is important to ensure unauthorized person not illegally modify the documents, for example an important digital document is the creation of digital diplomas in the education sector. Then, to maintain the integrity if the diploma, a validation system is needed. In this study, a system that implements reversible data hiding (RDH) was developed for digital diploma image validation process. Where the embedding process on RDH uses random sub-blocks embed. Based on experiments conducted, RDH using random sub-blocks embed can improve the security of the system, with PSNR value higher than 48 dB, SSIM value higher than 0,99, and average diplomas validation time 3,9 seconds.

Keywords: diploma, validation, RDH, PSNR, SSIM, histogram shifting