Keamanan Pesan Teks Menggunakan Teknik Steganografi Dan Kriptografi Pada Citra Digital Berwarna Dengan Metode *Least Significant Bit* Dan *Rivest Shamir Adleman*

Agung Wahyu Gunawan Program Studi Teknik Informatika Jurusan Teknologi Informasi

ABSTRACT

Cryptography and steganography applications are applications designed to keep messages secret to be sent. This application uses the RSA cryptography method which is asymmetric cryptography and LSB steganography with color digital image storage media in png and bmp formats which are included in lossless compression techniques. This lossless compression technique is more suitable to be implemented in the steganographic method in the spatial domain, with the advantage of storage capacity. The purpose of this study was to compare the two by testing the changes in quality and characteristics that occurred. The results obtained, digital images with png and bmp format experienced changes in characteristics but not significant. To measure the difference in image quality before and before the message is inserted, it can be known through the MSE and PSNR values. At the MSE value is getting closer to zero, then start to distinguish the image between before and before is quite small in the PSNR value, the greater the increase in the image the better. The image is said to be good if the PSNR value is above 30dB

Keywords: RSA Cryptography, LSB Steganography, Digital Imagery, MSE, PSNR