ABSTRAK

Di era pesatnya perkembangan pertukaran informasi digital, keamanan informasi menjadi hal yang sangat penting. Steganografi merupakan metode efektif untuk menyembunyikan informasi rahasia tanpa menarik perhatian orang yang tidak berkepentingan. Menerapkan steganografi ke file media seperti audio, video, gambar, dan dokumen metode yang di gunakan algoritma low bit coding. Penelitian ini menggunakan media digital sebagai wadah untuk menyisipkan suara, gambar, video, dan dokumen. media pesan didasarkan pada hasil akhir dengan tingkat akurasi dan kualitas file media. Pengujian dilakukan dengan mengukur mean squared error (MSE), peak signal-to-noise rasio (PSNR)structural similarity indek measure (SSIM), untuk menghitung akurasi dan kualitas file steganografi. perhitungan akurasi di beberapa file steganografi untuk image di hasilkan Rata – rata nilai MSE 3,88425, Rata – rata PSNR 42,237, Rata rata SSIM 0,989825 serta akuasinya 95% sangat tinggi. Untuk audio di hasilkan Rata – rata nilai MSE 0,396675, Rata – rata PSNR 62,583 dB, Rata – rata SSIM 0,2414 serta akuasinya mencapai 52% lebih rendah karena terdapat nilai parameter yang rendah kurang dari distorsi. Untuk video di hasilkan Rata – rata nilai MSE 104,737, Rata – rata PSNR 42,468 dB, Rata – rata SSIM 0,980 serta akurasinya mencapai 98%. Untuk dokumen di hasilkan Rata – rata MSE 0, Rata – rata PSNR 0, Rata – rata SSIM 0 serta akuasinya 0% karena file dokumen tidak bisa di hitung pixcelnya serta di dalamnya berupa teks sehingga menghasilkan nilai 0. Untuk kualitas tiap filenya memiliki kualitas yang tinggi dan optimal pada file sumber image, audio, video dan dokumen.

Kata kunci : *Akurasi,Pengukuran,Steganografi*

ABSTRACT

In the era of rapid development of digital information exchange, information security has become very important. Steganography is an effective method for hiding confidential information without attracting the attention of unauthorized people. Applying steganography to media files such as audio, video, images and documents using a low bit coding algorithm. This research uses digital media as a forum for inserting sound, images, videos and documents. Messaging media is based on the final result with the level of accuracy and quality of the media file. Testing is carried out by measuring the mean squared error (MSE), peak signal-to-noise ratio (PSNR) structural similarity index measure (SSIM), to calculate the accuracy and quality of the steganography file. Accuracy calculations in several steganography files for images produced an average MSE value of 3.88425, an average PSNR of 42.237, an average SSIM of 0.989825 and a very high accuracy of 95%. For audio, the average MSE value was 0.396675, the average PSNR was 62.583 dB, the average SSIM was 0.2414 and the accuracy was 52% lower because there were lower parameter values, less distortion. For the video, the average MSE value was 104.737, the average PSNR was 42.468 dB, the average SSIM was 0.980 and the accuracy reached 98%. For documents, the average MSE is 0, the average PSNR is 0, the average SSIM is 0 and the accuracy is 0% because the pixels in the document file cannot be counted and it contains text so it produces a value of 0. For the quality of each file, it has the same quality. high and optimal for image, audio, video and document source files.

Keywords : *Accuracy,Measurement,Steganography.*