

# Abstract

In the digital world nowadays, multimedia security is becoming more and more important with the continuous increase in the use of digital communications through the Internet. In addition, special and reliable security in storage and transmission of digital images and videos is needed in many digital applications, such as confidential video conferencing and medical imaging systems, .. etc.

It is noticed that there is a great need for researches which integrate the video MPEG compression standard with the Encryption techniques. So, this is the focus point in our Thesis.

This Thesis divided into two main parts

- **Part 1: Video Encoder and Decoder:**
  - Describe and Implement Video encoder Block
  - Describe and Implement Video decoder Block
  - Peak signal-to-noise ratio calculation (PSNR)
  
- **Part 2: Video Encryption and Decryption:**
  - Video encoder Block (which is implemented in part 1)
  - Describe and Implement Encryption Block algorithm for DES, 3DES and AES
  - Describe and Implement Decryption Block algorithm for DES, 3DES and AES
  - Video decoder Block (which is implemented in part 1)
  - Total time Calculations.
  - Performance results Comparison.