Contrast Enhancement-Based Forensics in Digital Images

**DESCRIPTION OF THE PROJECT**

The project ‘Image forensic tool’ aims with detecting whether the image has undergone any compression or if it is embedded with a file. Forensic department mainly focuses on detecting any kind of malpractices done in the image, whereas the anti-forensic department tries to fool the forensic analyst by hiding the traces of compression. JPEG is the most commonly used image standard. JPEG has a property that it follows lossy compression which does not preserve all the bit values. So it leaves traces after the compression process. This enables the forensic analyst to determine whether the image is anti-forensically compressed by analyzing the histograms of original and suspected images. The histogram of original image exhibits a comb-shape which makes it different from the histogram of original image. Anti-forensic department further works to make the histograms same by adding a noise signal. The project deals with the forensic department detecting compressed image even if it contains the presence of noise signal.

**HARDWARE AND SOFTWARE**

Front end : Visual Studio Dot Net

Back end : MS SQL Server

**PROJECT CURRENT STATUS**

The Dataset has downloaded from the Kaggle and started doing the project. The backend code is almost complete. The project has two phase, one is hiding and other is detection. The hiding part is completed. Now the detection part has started.