**Poster Expo – ABSTRACT (Batch SB02)**

In today's world we know the importance of encryption and privacy and with data being the most prized possession, it is more important than ever to protect that data. Therefore, for our project we are aiming at using this as our principal objective for protecting signal and audio during transmission. To do this will use digital watermarking and using a digital image/unique code superimposing the signal and then transposing that image as a watermark on the audio signal. Watermarking is a technique used to label digital media by hiding copyright or other information into the underlying data. The aim is to create a watermark that must be imperceptible or undetectable by the user and should be robust to attacks and other types of distortion. In our method, the watermark is kept as a digital image or if contingency arises a masked signal copy.

Audio watermarking is currently at the forefront of technology development to detect illegal reproduction and redistribution of audio recordings. Because the human auditory system (HAS) is more sensitive than the human visual system, audio watermarking is more challenging than visual watermarking. A reliable digital audio watermarking shall have imperceptibility, data capacity, and robustness. The watermark must be inaudible within the host audio to maintain audio quality. The watermark data capacity is the information embedded or hidden in the host

audio without perceptible distortion. The watermark robustness is that the watermark must remain intact or identifiable through signal processing such as compression, time-scaling, filtering, and resampling performed on the watermarked audio.

Therefore, for our project we have aimed at a way to protect an audio signal or audio file by encrypting it with a watermark which will ensure that each audio signal transmission and reception is protected from both ends of the communication.