

**A PROJECT REPORT**  
on  
**DIGITAL WATERMARKING OF AUDIO SIGNALS  
FOR ENHANCED SIGNAL PROTECTION**

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## BONA FIDE CERTIFICATE

Certified that this project report titled “**DIGITAL WATERMARKING OF AUDIO SIGNALS FOR ENHANCED SIGNAL PROTECTION**” is the bonafide work of **Gautam Nag (RA1811005010278) and Shruti Srivastava (RA1811005010271)** who carried out the project work under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other candidate.

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## ABSTRACT

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.

With advantages we also have disadvantages of everything switching to an online mode of working. This would augment cyber attacks like phishing, malware, cross site scripting, sql injection and so on. In order to reduce the disadvantages and protect the data watermarking becomes mandatory.

We believe that doing so will uniquely enhance security of the audio signal.

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