

A
PROJECT REPORT ON
IMAGE FORGERY DETECTION USING MATLAB

Submitted to JNT University for the partial fulfillment of the requirements for the
award of the degree

Bachelor of Technology
In
ELECTRONICS AND COMMUNICATION ENGINEERING

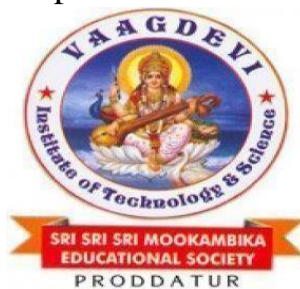
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CERTIFICATE

This is to certify that the project work entitled "**IMAGE FORGERY DETECTION USING MATLAB**" is a bona fide record submitted by **S.NAYAB RASOOL(21L25A0424)**, **J.SANDEEP KUMAR(21L25A0408)**, **S.VENKATA RAMANA(20L21A0465)**, **Y.SAI NARASIMHA REDDY(20L21A0466)**, **K.VINAY KUMAR REDDY(20L21A0459)** in partial fulfillment for the award of the degree of Bachelor of Technology in "**Electronics and Communication Engineering**" for the year 2020-2024, the work reported here in does not form a part of any other thesis on which a degree has been awarded earlier.

This is to further certify that they have worked for a period of one semester for preparing their work under our supervision and guidance.

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ABSTRACT

Over the past years, image manipulation tools have become widely accessible and easier to use, which made the issue of image tampering far more severe. As a direct result to the development of sophisticated image-editing applications, it has become near impossible to recognize tampered images with naked eyes. Thus, to overcome this issue, computer techniques and algorithms have been developed to help with the identification of tampered images.

Research on detection of tampered images still carries great challenges. In the present study, we particularly focus on image splicing forgery, a type of manipulation where a region of an image is transposed onto another image. The proposed study consists of four features extraction stages used to extract the important features from suspicious images, namely, Fractal Entropy (FrEp), local binary patterns (LBP), Skewness, and Kurtosis. The main advantage of FrEp is the ability to extract the texture information contained in the input image. Finally, the “support vector machine” (SVM) classification is used to classify images into either spliced or authentic. Comparative analysis shows that the proposed algorithm performs better than recent state-of-the-art of splicing detection methods.

Overall, the proposed algorithm achieves an ideal balance between performance, accuracy, and efficacy, which makes it suitable for real-world applications.

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