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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2020-2024.

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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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Acknowledgement

An endeavor of a long period can be successful only with the advice of many well-wishers. We take this opportunity to express our deep gratitude and appreciation to all those who encouraged us for the successful completion of the main project work.

We are thankful to our guide **Mr.M.SREENIVASULU**M.TECH., Assistant Professor in the Department of E.C.E., Vaagdevi Institute of Technology and Science, Proddatur, for his valuable guidance and suggestions in analyzing and testing until the end of the main project work completion.

Our special thanks to **Dr.S.SIDDESWARA REDDY**M.Tech,Ph.D., Head of Electronics & Communication Engineering Department, Vaagdevi Institute of Technology & Science, Proddatur. During the progress of work, for his timely suggestions and help inspite his busy schedule.

We wish to convey our gratitude and express sincere thanks to all **P.R.C (Project Review Committee)**members for their support and cooperation rendered for the successful submission of our project work.

We wish to express our gratitude to **Dr.B.Siddeswara Rao,Ph.D.,** Principal of Vaagdevi Institute of Technology and Science, Proddatur, for his consistent help and encouragement in completing the project work.

We are very much thankful to **Sri G.HUSSAIN REDDY**, Honorable Secretary of Mookambika Educational Trust, for his consistent help in providing good facilities in our college.

Whatever we are at present is due to the blessings of our's Great Father and mother.

Last but not least, we express our thanks to all faculties of VITS for assistance during the facilities in the laboratory, our well-wisherwisher friends, and lab technicians who encouraged us during the course of this project work successfully.

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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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