NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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Batch Number	AB11
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Guide	Dr. S. N. Tirumala Rao, M.Tech., Ph.D
Title	Transfer Learning for Efficient and Accurate Image Forgery Detection
Domain/Technology	DEEP LEARNING
Base Paper Link	https://ieeexplore.ieee.org/document/10226188
Dataset Link	https://www.kaggle.com/datasets/divg07/casia-20-image-tampering-detection-dataset
Software Requirements	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
Hardware Requirements	SystemType: Intel Core i5 or above RAM: 8 GB Number of cores:5 Number of Threads: 4
Abstract	Visuals are at the heart of information dissemination, especially on social platforms, but their credibility is not easy to ascertain because of their manipulability. Most of the forgery detection research done is mostly tailored to only a certain type of forgery and this limits its applicability in real life scenarios. The purpose of this study is to explore the use of transfer learning techniques of deep learning in improving the detection of forgeries. It is also used for finding the differences in compression quality in pre-trained models by generating features from them. The method tests eight models for binary classification, and MobileNetV2 has the most accurate performance of 95% because of its lightweight nature and efficiency. Results of the experiment indicate that the accuracy and computational efficiency of the proposed method is satisfactory and surpasses the performance of existing state of the art approaches and can therefore be used in development for environments and scenarios where resources are limited.

Signature of the student(s)   **Signature of the Guide**   **Signature of the project coordinator**