

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

**(An Autonomous Institution, Affiliated to VTU, Belgaum, Aided by Government of Karnataka)
Near JnanaBharathi Campus, Mallathahalli, Bangalore – 560056**

“SEGREGATING IMAGES BASED ON CONTENT”

A MINI PROJECT REPORT

Submitted by

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in the partial fulfilment for the award of degree

of

Bachelor of Engineering

in

Computer Science & Engineering

Under the Guidance of

Mrs. Asha K. N

Asst. Prof., Dept of CSE

Dr. AIT



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
2017-18**

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CERTIFICATE

This is to certify that this mini project report entitled “**Segregation of Images Based on Content**” submitted by Manu Hegde (1DA15CS067) and Mohan Krishna S (1DA15CS069), submitted in the partial fulfilment of the requirements for the degree of Bachelor of Engineering in Computer Science & Engineering of Dr. Ambedkar Institute of Technology, Bengaluru, during the academic year 2017-18, is a bonafide record of work carried out under my guidance and supervision.

Signature of guide

Signature of H.O.D.

Mrs. Asha K N

Asst. Prof., Dept of C.S.E.

Dr.A.I.T.

Dr. Siddaraju

Prof & HEAD

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Internal Examiner _____

External Examiner _____

ACKNOWLEDGEMENT

We would like to express our deep sense of gratitude to our institution **Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**, for having well qualified staff and well-furnished labs with necessary equipments.

We also express our profound gratitude towards **Dr. C Nanjunda Swamy, Principal, Dr. AIT** and **Dr. Siddaraju, HOD, Department of C.S.E, Dr. AIT** for their continuous support throughout the project.

We express our deepest gratitude and sincere thanks to **Asst. Prof. Asha K. N** our project guide for their valuable guidance during the course of the project. Their continuous suggestion has helped in making this project a successful one.

We are also highly indebted to the lab administrators and lab assistants who acceded to our request whenever we required lab facilities to work on our projects as well as our friends who helped in testing and debugging the project.

We would like to express our gratitude to the intellectuals in the internet community for sharing information about the topic. Last but not the least, we thank our parents and family members for their continuous and great support, encouragement throughout the project work.

Manu Hegde

Mohan Krishna S

ABSTRACT

As the name suggests “Segregation of Images Based on Content”, the software segregates images based on their features and not based on any file attributes or file type. The aim of this project is to segregate a given set of files based on their similarities and differences. The similarities of differences encompass the variation of constituents of image(s), color gradients etc. It is then passed on a trained Convolutional Neural Network for extracting the feature sets from the images, which is present at the penultimate layer of the CNN and this feature set is passed to t-sne algorithm which segregates the files using these feature sets by applying probability on gaussians, where each gaussian contains a set of image files.

The floating points are later used in UI to plot the images at respective coordinates, which gives us the clear, segregated clusters of similar images. We can show the output in 3D (greater accuracy) – like a spherical cluster of images, 2D (optimal) – plotting the images at (x,y) coordinates in 2D plane or in 1D (loss of accuracy) – displaying the images linearly. In our project we have displayed the output in 2D plane which gives us clear picture of how the segregation has been done.

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