Visvesvaraya Technological University
Belagavi, Karnataka-590 018

A

PROJECT REPORT

ON

"K-NEAREST NEIGHBORS ALGORITHM"

Submitted in partial fulfillment of the requirements for the ***Computer Graphics Laboratory with Mini Project (15CSL68)*** *course of the 6th semester*

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING

Submitted by,

PREETHAM D P.,
1JS16CS074

SHRAVANTH V Y.,
1JS16CS095

Under the guidance of

Mr. Mahesh Kumar M R., B.E., MTech
Assistant Professor, Dept of CSE,
JSSATE, Bengaluru

Ms. Shanthala K V., B.E., MTech
Assistant Professor, Dept of CSE,
JSSATE, Bengaluru

JSS ACADEMY OF TECHNICAL EDUCATION, BENGALURU
Department of Computer Science and Engineering
2018 – 2019

JSS MAHAVIDYAPEETHA, MYSURU

JSS Academy of Technical Education

JSS Campus, Uttarahalli Kengeri Main Road, Bengaluru - 560060

Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the project work entitled "***K*-NEAREST NEIGHBORS ALGORITHM**" is a bonafied work carried out by **Mr. PREETHAM D P (1JS15CS074)** and **Mr. SHRAVANTH V Y (1JS15CS095)** in partial fulfillment for the Computer Graphics Laboratory with Mini Project (15CSL68) of 6th semester **Bachelor of Engineering** in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mr. Mahesh Kumar M R. B.E., M.Tech. Assistant Professor, Dept of CSE, JSSATE, Bengaluru	**Ms. Shanthala K V.** B.E., M.Tech. Assistant Professor, Dept of CSE, JSSATE, Bengaluru	**Dr. Naveen N.C.** B.E., M.Tech., Ph.D. Professor & Head, Dept. of CSE, JSSATE, Bengaluru

Name of the Examiners	**Signature with Date**
1)……	**……**
2)……	**……**

ABSTRACT

KNN (k-nearest neighbor) is an extensively used classification algorithm owing to its simplicity, ease of implementation and effectiveness. It is one of the top ten data mining algorithms, has been widely applied in various fields. KNN has few shortcomings affecting its accuracy of classification. It has large memory requirements as well as high time complexity. Several techniques have been proposed to improve these shortcomings in literature. In this paper, we have first reviewed some improvements made in KNN algorithm. Then, we have proposed our novel improved algorithm. It is a combination of dynamic selected, attribute weighted and distance weighted techniques. The accuracy of our algorithm is improved with a blend of classification and clustering techniques. Experimental results have proved that our proposed algorithm performs better than conventional KNN algorithm.

ACKNOWLEDGEMENTS

We express my humble pranamas to His Holiness **Jagadguru Sri Sri Sri Shivarathri Deshikendra Mahaswamiji** who has showered their blessings on us for framing our career successfully.

The completion of any project involves the efforts of many people. We have been lucky enough to have received a lot of help and support from all quarters during the making of this project, so with gratitude, we take this opportunity to acknowledge all those whose guidance and encouragement helped us emerge successful.

We are thankful to the resourceful guidance, timely assistance and graceful gesture of our guide **Mr. Mahesh Kumar M R,** Assistant Professor, Department of Computer Science and Engineering, and **Ms. Shanthala K V,** Assistant Professor, Department of Computer Science and Engineering, who has helped us in every aspect of our project work. We are also indebted to **Dr. Naveen N.C.,** Head of Department of Computer Science and Engineering for the facilities and support extended towards us.

We express our sincere thanks to our beloved principal**, Dr. Mrityunjaya V Latte** for having supported us in our academic endeavors.

And last but not the least, we would be very pleased to express our heart full thanks to all the teaching and non-teaching staff of CSE department and our friends who have rendered their help, motivation and support.

PREETHAM D P

SHRAVANTH V Y

Table of Contents

List of Figures