



Research Article



## Application Trends of Enhanced K-Means Clustering Algorithm

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### DOI:

<http://dx.doi.org/>

10.17812/IJRA.4.13(85)2017

### Manuscript:

Received: 14<sup>th</sup> Jan, 2017

Accepted: 7<sup>th</sup> Mar, 2017

Published: 25<sup>th</sup> Mar, 2017

### Publisher:

Global Science Publishing  
Group, USA

<http://www.globalsciencepg.org/>

### ABSTRACT

In this paper, we present a novel algorithm for improving the performing of k-means clustering called enhanced k-means clustering. It organizes all the patterns in a k-dimensional structure such that one can find all the Datasets which are closest to a given dataset efficiently. The main intuition behind our approach is as follows. We have carried out the experimental analysis on various trends of applications namely facial recognition, medical images and social network analysis using enhanced k-means clustering. Our experimental results demonstrate that our enhanced clustering algorithm can improve the Facial Recognition System recognition accuracy and also medical image enhancement, social network analysis of the direct k-means algorithm by an improved recognition accuracy of 2.6%.

**Keywords:** K-Means, Clustering Algorithm, Facial Recognition, Enhanced K-Means, Medical Image Enhancement, Social Network Analysis, Grimace face database, recognition.

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### IJRA - Year of 2017 Transactions:

Month: January - March

Volume – 4, Issue – 13, Page No's:509-520

Subject Stream: Computers

**Paper Communication:** Author Direct

**Paper Reference Id:** IJRA-2017: 4(13)509-520