



# INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

*An International Open Access, Peer-reviewed, Refereed Journal*

E-ISSN: 2348-1269, P-ISSN: 2349-5138

The Board of  
International Journal of Research and Analytical Reviews (IJRAR)  
Is hereby awarding this certificate to

**Rakesh P. Badgujar**

In recognition of the publication of the paper entitled

**PERFORMANCE IMPROVEMENTS OF K-MEANS CLUSTERING ALGORITHM**

Published In IJRAR ( www.ijrar.org ) UGC Approved - Journal No : 43602 & 7.17 Impact Factor

Volume 6 Issue 1 February-2019, Date of Publication: 15-February-2019

PAPER ID : IJRAR19J2184

Registration ID : 197249



*R.B. Joshi*

EDITOR IN CHIEF

UGC and ISSN Approved - Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.17 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal

**INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS | IJRAR**

*An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal*

**Website: www.ijrar.org | Email: editor@ijrar.org | ESTD: 2014**

Manage By: IJPUBLICATION Website: www.ijrar.org | Email ID: editor@ijrar.org



# INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

*An International Open Access, Peer-reviewed, Refereed Journal*

E-ISSN: 2348-1269, P-ISSN: 2349-5138

The Board of  
International Journal of Research and Analytical Reviews (IJRAR)  
Is hereby awarding this certificate to  
**Sachin Patel**

In recognition of the publication of the paper entitled  
**PERFORMANCE IMPROVEMENTS OF K-MEANS CLUSTERING ALGORITHM**

Published In IJRAR ( www.ijrar.org ) UGC Approved (Journal No : 43602) & 7.17 Impact Factor

Volume 6 Issue 1 February-2019, Date of Publication: 15-February-2019

PAPER ID : IJRAR19J2184

Registration ID : 197249



*R.B. Joshi*

EDITOR IN CHIEF

UGC and ISSN Approved - Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.17 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal

**INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS | IJRAR**

*An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal*

**Website: www.ijrar.org | Email: editor@ijrar.org | ESTD: 2014**

Manage By: IJPUBLICATION Website: www.ijrar.org | Email ID: editor@ijrar.org



# INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

*An International Open Access, Peer-reviewed, Refereed Journal*

E-ISSN: 2348-1269, P-ISSN: 2349-5138

The Board of  
International Journal of Research and Analytical Reviews (IJRAR)  
Is hereby awarding this certificate to

**Vijay Bircha**

In recognition of the publication of the paper entitled

**PERFORMANCE IMPROVEMENTS OF K-MEANS CLUSTERING ALGORITHM**

Published In IJRAR ( www.ijrar.org ) UGC Approved (Journal No : 43602) & 7.17 Impact Factor

Volume 6 Issue 1 February-2019, Date of Publication: 15-February-2019

PAPER ID : IJRAR19J2184

Registration ID : 197249



*R.B. Joshi*

EDITOR IN CHIEF

UGC and ISSN Approved - Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.17 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal

**INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS | IJRAR**

*An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal*

**Website: www.ijrar.org | Email: editor@ijrar.org | ESTD: 2014**

Manage By: IJPUBLICATION Website: www.ijrar.org | Email ID: editor@ijrar.org