



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET61392, entitled  
GreenRoute Ballari: A Hybrid Approach for Optimizing Waste Collection Routes  
Using K-Means Clustering and Genetic Algorithm*

*by*

*Manasa Bellamkonda*

*after review is found suitable and has been published in  
Volume 12, Issue V, May 2024  
in*

*International Journal for Research in Applied Science &  
Engineering Technology*

*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET61392, entitled  
GreenRoute Ballari: A Hybrid Approach for Optimizing Waste Collection Routes  
Using K-Means Clustering and Genetic Algorithm*

*by*

*Dinesh N*

*after review is found suitable and has been published in  
Volume 12, Issue V, May 2024  
in*

*International Journal for Research in Applied Science &  
Engineering Technology*

*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429





ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET61392, entitled  
**GreenRoute Ballari: A Hybrid Approach for Optimizing Waste Collection Routes  
Using K-Means Clustering and Genetic Algorithm***

*by*

**K Pravallika**

*after review is found suitable and has been published in  
Volume 12, Issue V, May 2024  
in*

*International Journal for Research in Applied Science &  
Engineering Technology*

*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429

## Certificate

*It is here by certified that the paper ID : IJRASET61392, entitled  
**GreenRoute Ballari: A Hybrid Approach for Optimizing Waste Collection Routes  
Using K-Means Clustering and Genetic Algorithm***

*by  
**Zaheed Hussain***

*after review is found suitable and has been published in  
Volume 12, Issue V, May 2024  
in*

*International Journal for Research in Applied Science &  
Engineering Technology*

*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET





ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429

## Certificate

*It is here by certified that the paper ID : IJRASET61392, entitled  
**GreenRoute Ballari: A Hybrid Approach for Optimizing Waste Collection Routes  
Using K-Means Clustering and Genetic Algorithm***

*by*

*Noorullah Shariff C*

*after review is found suitable and has been published in  
Volume 12, Issue V, May 2024*

*in*

*International Journal for Research in Applied Science &  
Engineering Technology*

*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET