



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | ISSN: 2320 - 2882

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

The Board of  
International Journal of Creative Research Thoughts  
Is hereby awarding this certificate to

**Ms.Ashwini Hedao**

In recognition of the publication of the paper entitled  
**DESIGN OF LOW COMPLEXITY CHANNEL ESTIMATION AND REDUCED  
BER IN 5G MASSIVE MIMO OFDM SYSTEM**

Published In IJCRT ( [www.ijert.org](http://www.ijert.org) ) & 7.97 Impact Factor by Google Scholar

Volume 8 Issue 4 April 2020 , Date of Publication: 29-April-2020

UGC Approved Journal No: 49023 (18)

PAPER ID : IJCRT2004478

Registration ID : 193036

Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.97 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal



EDITOR IN CHIEF

**INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT**  
*An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal*

Website: [www.ijcrt.org](http://www.ijcrt.org) | Email id: [editor@ijcrt.org](mailto:editor@ijcrt.org) | ESTD: 2013



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | ISSN: 2320 - 2882

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

The Board of  
International Journal of Creative Research Thoughts  
Is hereby awarding this certificate to

**Dr.S.B.Dhoble**

In recognition of the publication of the paper entitled  
**DESIGN OF LOW COMPLEXITY CHANNEL ESTIMATION AND REDUCED  
BER IN 5G MASSIVE MIMO OFDM SYSTEM**

Published In IJCRT ( [www.ijert.org](http://www.ijert.org) ) & 7.97 Impact Factor by Google Scholar

Volume 8 Issue 4 April 2020 , Date of Publication: 29-April-2020

UGC Approved Journal No: 49023 (18)

PAPER ID : IJCRT2004478

Registration ID : 193036

Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.97 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal



  
EDITOR IN CHIEF

**INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT**  
*An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal*

Website: [www.ijcrt.org](http://www.ijcrt.org) | Email id: [editor@ijcrt.org](mailto:editor@ijcrt.org) | ESTD: 2013