



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

Prof Atul Pawar

In recognition of the publication of the paper entitled
**Enhancing Energy Efficiency in Wireless Sensor Networks through
Cluster-Based Routing Protocols**

Published In IJCRT (www.ijert.org) & 7.97 Impact Factor by Google Scholar

Volume 12 Issue 8 August 2024 , Date of Publication: 26-August-2024

UGC Approved Journal No: 49023 (18)

PAPER ID : IJCRT2408858

Registration ID : 278201

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 | Email id: 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. Narender Kumar

In recognition of the publication of the paper entitled
**Enhancing Energy Efficiency in Wireless Sensor Networks through
Cluster-Based Routing Protocols**

Published In IJCRT (www.ijert.org) & 7.97 Impact Factor by Google Scholar

Volume 12 Issue 8 August 2024 , Date of Publication: 26-August-2024

UGC Approved Journal No: 49023 (18)

PAPER ID : IJCRT2408858

Registration ID : 278201

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 | Email id: editor@ijcrt.org | ESTD: 2013