

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

Pankaj Kumar Yadav

In recognition of the publication of the paper entitled

BLACK HOLE ATTACK, ITS DETECTION AND MITIGATION UNDER AODV ROUTING PROTOCOL IN WSN USING EXPERT SYSTEM

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

Volume 9 Issue 5 May 2021 , Pate of Publication: 21-May-2021

UGC Approved Journal No: 4902<mark>3 (18)</mark>

PAPER ID: IJCRT2105694

Registration ID: 207567

ISSN 2320-2882 IJCRT

EDITOR IN CHIEF

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



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT

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





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

Vimal Kumar

In recognition of the publication of the paper entitled

BLACK HOLE ATTACK, ITS DETECTION AND MITIGATION UNDER AODV ROUTING PROTOCOL IN WSN USING EXPERT SYSTEM

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

Volume 9 Issue 5 May 2021, Pate of Publication: 21-May-2021

UGC Approved Journal No: 4902<mark>3 (18)</mark>

PAPER ID: IJCRT2105694

Registration ID: 207567

ISSN 2320-2882 JOERT JOE

EDITOR IN CHIEF

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



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT

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





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

Naveen

In recognition of the publication of the paper entitled

BLACK HOLE ATTACK, ITS DETECTION AND MITIGATION UNDER AODV ROUTING PROTOCOL IN WSN USING EXPERT SYSTEM

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

Volume 9 Issue 5 May 2021, Pate of Publication: 21-May-2021

UGC Approved Journal No: 4902<mark>3 (18)</mark>

PAPER ID: IJCRT2105694

Registration ID: 207567

ISSN 2320-2882 JOERT JOE

EDITOR IN CHIEF

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



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT

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





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

Mani Singh

In recognition of the publication of the paper entitled

BLACK HOLE ATTACK, ITS DETECTION AND MITIGATION UNDER AODV ROUTING PROTOCOL IN WSN USING EXPERT SYSTEM

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

Volume 9 Issue 5 May 2021 , Pate of Pub<mark>lication: 21-May-</mark>2021

UGC Approved Journal No: 4902<mark>3 (18)</mark>

PAPER ID: IJCRT2105694

Registration ID: 207567

ISSN 2320-2882 IJCRT

EDITOR IN CHIEF

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



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS | IJCRT

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

