

# About Journal

International Journal of Innovations in Engineering Research and Technology (IJIERT)

## Welcome to IJIERT (Online, Scholarly, Open Access, International Journal)

*"International Journal of Innovations in Engineering Research and Technology (IJIERT)"* is an international journal. IJIERT is one of the fastest growing open access journals. It is an international online journal for the paper publication. The international journal provides the prospect to publish the original research papers with the author-friendly environment through its processes. This international journal is specially designed for paper publication in engineering, research, and technological advances.

IJIERT international journal supports the open access journals society by providing the free access to the published scholarly articles without any login or passwords. We being online journal taking care of the online presence and indexing of the articles published in various databases.

The paper submission in IJIERT is totally free of cost; however, after acceptance, we request the authors to pay the processing charges. We are working on high standards of scholarly journal publishing. Authors in search of international journals for paper publication will get fulfillment of publishing with our online international journal.

The scholarly journal is available online since 2014. The open access journal is highly indexed in databases. IJIERT is peer-reviewed, open access online journal aiming to serve the technical society with its high-quality technical contents. We are one of the best international journals for paper publication.

### Abstracted & Indexed:



(<https://zenodo.org/communities/ijiert/>)



(<https://scholar.google.co.in/citations?user=1k9EvloAAAAJ&hl=en&authuser=2>)



(<https://www.openaire.eu/search/find?keyword=>)



Directory of Science

(<http://www.directoryofscience.com/site/4549282>)



(<https://issuu.com/editorijiert>)

iSSUU



(<http://www.citefactor.org/journal/index/15164/international-journal-of-innovations-in-engineering-research-and-technology>)



Open Academic Journals Index

([http://oaji.net/journal-detail.html?](http://oaji.net/journal-detail.html?number=1511)

[number=1511](http://oaji.net/journal-detail.html?number=1511))



(<http://esjindex.org/indexedjournal.php?p=180>)

# About the Journal

---

## About IJERT (International Journal of Engineering and Technology)

It's an enormous pleasure to share about IJERT's progress over the period of last 7 years. We being the emergent publishers of academic journals are continuously thinking of the uplifting the quality of IJERT to do the best in research journal's list. The editorial team with the advisory member is taking the bold decisions with a freedom to act marvelously in research journal publishing.

IJERT's journey started in early 2014, with the goal of playing a key role among academic journals and we are happy to announce that with quality content variety for publication, IJERT has reached to the milestone of more than 1000 articles published in 2017. We are trying our level best to explain what IJERT is:

### 1. Academic journal

IJERT is the academic journal of engineering and technology. The strong peer-review process of the journal is supporting the scholarly publishing. The well-known academicians are the part of editorial and reviewers board of this academic journal. The remarkable participation of the academicians as the author is the strength of this academic journal.

### 1. Journal of engineering research

The academic journal focuses mainly on the engineering research. IJERT being the journal of engineering research has reach to better citations from research articles in the field of engineering research.

#### a. What makes us research journal?

We focus on publishing the research journal articles. We being research journal mainly prefer the original research articles for publication.

#### a. What makes us engineering journal

Most of the articles of IJERT are making it an Engineering journal. Engineering journal articles published in IJERT are of excellent quality and hence referred by the engineering societies and libraries.

### 1. Journal of science and technology

We are the journal of science and technology. We prove the claim of being a journal of science and technology as below:

#### a. What makes us science journal

The science journal, IJIERT includes the science articles for publication. Being science journal we are also wishing to sponsor some international conferences in the field of sciences.

a. What makes us technology journal

We include the articles proposing or explaining the technological advancements of recent times. The technology journal, IJIERT is the great supporter of the recent technological research trends.

1. International Journal of Engineering and Technology

IJIERT is an international journal of engineering and technology. The target of IJIERT is to become a best international journal of engineering and technology. We invite the engineering and technological researchers to work with us by publishing and joining the editorial board. The creative ideas are always proposed by the researchers around the globe and the global participation of technocrats will make IJIERT an **innovative international journal of engineering and technology** in a real sense.

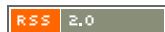
Regards

**Editorial Team, IJIERT**

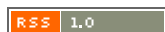
## Current Issue



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/atom>)



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss2>)



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss>)



## Browse

# Make a Submission

Make a Submission (<https://repo.ijert.org/index.php/ijert/about/submissions>)

## Information

For Readers (<https://repo.ijert.org/index.php/ijert/information/readers>)

For Authors (<https://repo.ijert.org/index.php/ijert/information/authors>)

For Librarians (<https://repo.ijert.org/index.php/ijert/information/librarians>)

## Developed By

Open Journal Systems (<http://pkp.sfu.ca/ojs/>)

## Keywords



## IJERT

Indexing (<https://repo.ijert.org/index.php/ijert/indexing>)

Impact Factor (<https://repo.ijert.org/index.php/ijert/impact-factor>)

ISSN (<https://repo.ijert.org/index.php/ijert/issn>)



<https://repo.ijert.org/index.php/ijert/program>

Conference Colaboration (<https://repo.ijert.org/index.php/ijert/conference-colaboration>)

Penalty (<https://repo.ijert.org/index.php/ijert/penalty>)

FAQ (<https://repo.ijert.org/index.php/ijert/faq>)

## **Journals**

Topics (<https://repo.ijert.org/index.php/ijert/topics>)

Submit a Paper (<https://repo.ijert.org/index.php/ijert/paper-submission>)

Call for Papers (<https://repo.ijert.org/index.php/ijert/call-for-papers>)

Publication Charges (<https://repo.ijert.org/index.php/ijert/publication-charges>)

Guidelines for Author (<https://repo.ijert.org/index.php/ijert/authors-guidelines>)

## **Archive**

All Issue (<https://repo.ijert.org/index.php/ijert/issue/archive>)

Current Issue (<https://repo.ijert.org/index.php/ijert>)

## **Peer Review**

Peer Review Process (<https://repo.ijert.org/index.php/ijert/peer-review>)

Editorial & Reviewers Board (<https://repo.ijert.org/index.php/ijert/editorial-board>)

Join as Reviewer (<https://repo.ijert.org/index.php/ijert/user/register>)

Publication Ethics and Policies (<https://repo.ijert.org/index.php/ijert/publication-ethics-and-policies>)

## **Download**

Paper Template (<https://repo.ijert.org/document/Paper%20Template.doc>)

Publication authority form ([https://repo.ijert.org/document/Publication\\_Authority\\_Document.doc](https://repo.ijert.org/document/Publication_Authority_Document.doc))

MOU Form ([https://repo.ijert.org/document/MOU\\_IJERT.pdf](https://repo.ijert.org/document/MOU_IJERT.pdf))

## **Useful Links**

About IJERT (<https://repo.ijert.org/index.php/ijert/about>)

Aim & Scope (<https://repo.ijert.org/index.php/ijert/aim-and-scope>)

Indexing (<https://repo.ijert.org/index.php/ijert/indexing>)

Downloads (<https://repo.ijert.org/index.php/ijert/download>)

Privacy policy (<https://repo.ijert.org/index.php/ijert/privacy-policies>)

Terms and Conditions (<https://repo.ijert.org/index.php/ijert/terms-and-conditions>)

## **IJERT Contacts**















**Novateur Publication**













466, Kumthekar Road, Sadashiv Peth, Pune, M.S.










India Zip-411030








# Editorial and Reviewers Board




## Members

Sr.No.	Name	Designation	Affiliation Details	Photo
1	Lakshmisri Surya	Associate Editor	Sr. Data Scientist, The Walt Disney Company (Disney), USA	
2	Raghunandan Reddy Alugubelli	Associate Editor	Senior Data Analyst, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA	
3	Rahul Reddy Nadikattu	Associate Editor	Department of information Technology, University of the Cumberland, U.S.	
4	Dr. Avinash ChavanPatil	Associate Editor	Principal, Rajaram Shinde College Of Engineering, Pedhambe	
5	Mr. Sudhir Allam	Associate Editor	Sr. Data Scientist, Department of Information Technology, USA	
6	Ishaq Azhar Mohammed	Associate Editor	Sr. Data Scientist, IAM & AI Expertise, Dubai, UAE	
7	Dhaya Sindhu Battina	Associate Editor	Sr. Data Engineer, DevOps & Automation Expertise, USA	
8	Mr. Ravi Teja Yarlagadda	Associate Editor	Sr. Cloud DevOps SME, Department of Information Technology, USA	
9	Dr G.K.Deshmukh	Associate Editor	Chairman, V.V.P. Institute of Engineering and Technology, Solapur, India	
10	Abduvakhitov Shakhboz Rovshan o'g'li	Member Editorial Board	Deputy Dean of the Faculty of Transport Systems Management, Tashkent State Transport University PhD, Uzbekistan	
11	Moise, Daniel	Member	The Bucharest Academy of Economic Studies, Marketing Faculty, 41 Dacia Blvd., District 1, code 010511 Bucharest , ROMANIA	 image
12	Ashok Kumar Nadikattu	Associate Editor	Sr. Data Scientist, ML & AI expertise, USA	



Sr.No.	Name	Designation	Affiliation Details	Photo
13	Dr. V.V.Potdar	Member, Editorial Board	Vice Principal and Professor,AGPIT,Solapur, M.S.,India	
14	Abdiyev Umirbek Begmatovich	Member, Editorial Board	Doctor of Sciences in pedagogy (DSc), Termez State University, Uzbekistan	
15	Mr. Naveen Kunnathuvalappil Hariharan	Member	Sr. Hyperion SME, Department of Information Technology, United States	
16	Dr.S.R.BOSELIN PRABHU	Advisor	VSB College of Engineering Technical Campus, Coimbatore, India Email: eben4uever@gmail.com	
17	Dr. Abhijeet J. Kaiwade	Member Editorial Board	Dr Professor, DY Patil Institute of MCA & MBA, Akurdi, Pune, India	
18	Dr.Iranna M.Korachagaon	Editor In Chief	Professor and HoD Electrical and Electronics Engineering, Vice Principal,Tontadarya College of Engineering, Gadag, Karnataka India	
19	Dr. Rajinder Singh Sodhi	Member, Editorial Board	Deputy Director Aryans Group of Colleges Chandigarh, Punjab, India	
20	Dr. Dadaboev Tulqinjon Yusupjanovich	Member, Editorial Board	Head of the Department of Management ,Namangan Engineering Construction Institute Street I.Karimov 12 , 716003, Namangan, Uzbekistan	
21	Dr. Leonilo B. Capulso	Member, Editorial Board	Department of Education, Division of Pampanga, Philippines	
22	DR. SERTAC TUHTA	Member, Editorial Board	Associate Professor, Faculty of Engineering, Ondokuz Mayis University, Turkey	
23	Dr. Jurayev Tohirjon Mansurali	Member, Editorial Board	Head of the educational and methodical department of Namangan Engineering and Construction Institute, Uzbekistan	
24	Dr. Khabib Kholikovich Razzokov	Member, Editorial Board	Associate Professor, Samarkand Institute of Veterinary Medicine, Uzbekistan	

Sr.No.	Name	Designation	Affiliation Details	Photo
25	Dr. Abdimalik Khakimovich Berdiyev	Member, Editorial Board	Head of the Department of Quality Control of Education at Karshi Engineering and Economics Institute, Uzbekistan	
26	Mr. Pravin R.Choube	Managing Editor	Marathwada Mitra Mandals College of Engineering, Karvenagar, Pune, M.S., India	
27	Sikender Mohsieuddin Mohammad	Member, Editorial Board	Vice President at MUFG, Wilmington University, Master of Science in Information Technology Sacramento, California USA	
28	Dr. Otakulov Salim	Member, Editorial Board	Professor, Jizzakh Polytechnic Institute, Jizzakh, Uzbekistan	
29	Dr. Ikromov Nurullo Avazbekovich	Member, Editorial Board	Andijan Machine Building Institute Associate Professor, Doctor of Philosophy in Technics (PhD) Street Bobur Shah 56 , 170119, Andijan, Uzbekistan	
30	Soliev Rustamjon Xakimjanovich	Member, Editorial Board	Namangan Engineering Construction Institute Dean of the Faculty of Energy and Industrial Informatization, Doctor of Technical Sciences, Professor (DSc) Street I.Karimov 12 , 716003, Namangan, Uzbekistan	
31	Toyirov Akbar Baxramovich	Member, Editorial Board	Doctor of Philosophy in Physical and Mathematical Sciences(PhD), Termez State University,Uzbekistan	
32	Ruzmetov Yadgor Ozodovich	Member, Editorial Board	Dean of the Faculty of Electrical Engineering and Computer Engineering, Tashkent State Transport University Ph.D.,Uzbekistan	
33	Melibaeov Mukhtardjan	Member, Editorial Board	Doctor of Philosophy in Physical and Mathematical Sciences (PhD), Associate Professor of the Kokand Pedagogical Institute,Uzbekistan	

34	Bekpulatov Javlon Mustofokuliyevich	Member, Editorial Board	PhD, Deputy Dean of the Faculty of Mining and Metallurgy, Tashkent State Technical University, Tashkent, Uzbekistan	
35	Bozorov Nosirjon Sodiqovich	Member, Editorial Board	Doctor of Philosophy in Physical and Mathematical Sciences (PhD), Head of the Department of Physics and Astronomy Kokand Pedagogical Institute, Uzbekistan	
36	Mengliyev Shaydulla Abdusalomovich	Member, Editorial Board	Doctor of Philosophy in Technical Sciences (PhD), Termez State University, Uzbekistan.	
37	Abduganiyev Otabek Allajonovich	Member, Editorial Board	Doctor of Philosophy in Economics (PhD), Termez State University, Uzbekistan.	
38	Boltayev Otabek Tashmuxammatovich	Member, Editorial Board	PhD, associate professor department of Power supply, Tashkent State Transport University, Uzbekistan	
39	Mirsagdiyev Orifjon Alimovich	Member, Editorial Board	Doctor of Philosophy (PhD) Technical Sciences, Tashkent state transport university, Uzbekistan	
40	Umarova Dildora Baxtiyarovna	Member, Editorial Board	Doctor of philosophy (PhD) in art history, acting Associate Professor of the Department of "Systems and TV Studios Applications", Faculty of Television Technologies, Tashkent University of Information Technologies named after Muhammad al-Khwarizmi , Uzbekistan	















41	Yusupkhodjaeva Gulchekhra Baxadixodjaevna	Member, Editorial Board	Doctor of Philosophy ( PhD), Economical Sciences, Tashkent State Technical University , Uzbekistan	
42	Sayfullayeva Dilafruz Akhmadovna	Member, Editorial Board	Associate Professor of Pedagogical Sciences  Doctor of Philosophy (PhD), Bukhara State University, Faculty of Pedagogy, Associate Professor of “Technological Education”, Uzbekistan	
43	Tajimirzaev Elyorbek Akramovich	Member, Editorial Board	Senior Lecturer of the Department of History, Andijan State University named after ZM Bobur, Uzbekistan	














## Reviewers













Sr.No.	Name	Designation	Affiliation Details	Photo
1	Prof. Sudeep N, Upadhye	Reviewer, Mechanical Engineering	Assistant Professor, Mechanical Engineering Department,AGPIT, Solapur, Maharashtra,India Email: upadhyesudeep@rediffmail.com	
2	Mr. Anand Magar	Reviewer, Computer Science & Engineering	Director, Savari Technologies, Pvt. Ltd. Pune, India	
3	Dr. K.H. Wanjale	Reviewer, Computer Science and Engineering	Associate Professor,Vishwakarma Institute of Information Technology, Pune 411048	
4	Dr. L.Y. Waghmode	Reviewer, Mechanical Engineering	Vice Principal, Professor, ADCET, Ashta, Maharashtra, India	












Sr.No.	Name	Designation	Affiliation Details	Photo
5	Dr. N.D. Sangale	Reviewer,Engineering Mathematics	Professor, ADCET, Ashta,Maharashtra, India	
6	Mr. M.A. Tagare	Reviewer,Electrical Engineering	Associate Professor, Head of Department, FAMT,Ratnagiri	
7	Mr. S.A.Wamane	Reviewer,Electrical Engineering	Assistant Professor FAMT,Ratnagiri	
8	Dr.S.A.Patil	Reviewer,Mechanical Engineering	Professor, ADCET, Ashta,Maharashtra, India	
9	Mr. S.A.Pattekari	Reviewer,Computer Science and Engineering	Dean, Rajarshi Shahu College of Engineering, Tathawade, Pune, India	
10	Mr. M.D. Patil	Reviewer,Electrical Engineering	Assistant Professor, ADCET, Ashta,Maharashtra, India	
11	Mr. Moceheb Lazam Shuwandy	Reviewer,Computer Science and Engineering	Associate Dean of the Faculty of Mathematics and Computer Science for Administrative Affairs,, Baghdad	
12	Dr.Shahera S. Patel	Reviewer,Electronics Engineering	Associate Professor,Sardar Patel University, V.V. Nagar, Gujrat, India	
13	Mr. S.A.Joshi	Reviewer,Environmental Engineering	Assistant Professor, KIT, Kolhapur, Maharashtra, India	
14	Mr. A.S.Vibhute	Reviewer,Electronics and Telecommunication Engineering	Associate Professor, HOD, BMIT, Solapur, India	
15	DR. MORE BABASAHEB MANIK	Reviewer, Engineering Physics	Associate Professor, BMIT, Solapur, India	
16	Mr. Ganesh Eknath Kondhalkar	Reviewer,Mechanical Engineering	H.O.D Anantrao Pawar College of Engineering & Research, Pune, India	
17	Mr. K.Gopala Reddy	Reviewer, Electrical and Electronics Engineering	Associate Professor, VVCE,Mysore,Karnataka, INDIA	
18	Mr. P.K.Magadum	Reviewer,Electrical Engineering	Assistant Professor,NBNSCOE, Solapur, India	






















Sr.No.	Name	Designation	Affiliation Details	Photo
19	Mr. R.S. Khamitkar	Reviewer, Electronics and Telecommunication Engineering	Assistant Professor, NBNSCOE, Solapur, India	
20	Mr. S.R. Kshirsagar	Reviewer, Mechanical Engineering	H.O.D. SBPCOE, Indapur, India	 image
21	Mr. V. A. Chaudhari	Reviewer, Civil Engineering	Assistant Professor, SBPCOE, Indapur, India	 image
22	Mr. S.C.Mhamane	Reviewer, Electronics and Telecommunication Engineering	Research Scholar, VTU, Vishakhapattanam, India	 image
23	Mr. P.D.More	Reviewer, Electrical and Electronics Engineering	Assistant Professor, SGI, Atigre, India	 image
24	Mr. S.L.Pawar	Reviewer, Electronics and Telecommunication Engineering	H.O.D. , Fabtech COE, Sangola, India	 image
25	Mr. Bavdhane V. D.	Reviewer, Electrical Engineering	Assistant Professor, ZCOER, Pune	 image
26	Mr. Mane S. G.	Reviewer, Electrical Engineering	Assistant Professor, ZCOER, Pune	 image
27	Dinesh Kumar. A	Reviewer, Engineering Mathematics	H.O.D. and Assistant Professor, Dhanalakshmi Srinivasan Engineering College, Perambalur.	 image
28	Prof. Nitin S. Deshpande	Reviewer, Civil Engineering	VACOE, Ahamadnagar	 image
29	Prof. Amol R. Patil	Reviewer, Mechanical Engineering	Hod, Mechanical, VACOE, Ahamadnagar	 image
30	Prof. Bharat N. Kharad	Reviewer, Mechanical Engineering	Assistant Professor, Mechanical Department, VACOE, Ahamadnagar	 image
31	Prof. Ravindra M. Ghodke	Reviewer, Mechanical Engineering	Assistant Professor, Mechanical Department, VACOE, Ahamadnagar	 image
32	Prof. Jaydeep B. Ashtekar	Reviewer, Mechanical Engineering	Assistant Professor, Mechanical Department, VACOE, Ahamadnagar	 image

Sr.No.	Name	Designation	Affiliation Details	Photo
33	Prof. Anand K. Joshi	Reviewer,Mechanical Engineering	Hod, Mechanical Sandwich, VACOE, Ahamadnagar	 image
34	Prof. Vinay D. Patil	Reviewer,Mechanical Engineering	Assistant Professor, Mechanical Sandwich Department, VACOE, Ahamadnagar	 image
35	Mr. Tushar B. Waghmare	Reviewer,Electrical Engineering	Assistant Professor, Electrical Department, MMCOE, Karvenagar, Pune	 image
36	Prof. V.S. Dhongde	Reviewer, Electronics and Telecommunication Engineering	Assistant Professor, E&TC Department, VACOE, Ahamadnagar	 image
37	Prof. Puranik Vipin G	Reviewer, Electronics and Telecommunication Engineering	Assistant Professor, E&TC Department, VACOE, Ahamadnagar	 image
38	Prof. Joshi S.G	Reviewer,Information Technology Engineering	Hod, I.T., VACOE, Ahamadnagar	 image
39	Prof. Kshirsagar Mandar	Reviewer,Information Technology Engineering	Assistant Professor, I.T. Department, VACOE, Ahamadnagar	 image
40	Mr. S.R.Jagtap	Reviewer, Electronics and Telecommunication Engineering	Associate Professor and Head of The Department, RIT, Sakhrale	 image
41	Dr. S. A. Pardeshi	Reviewer, Electronics and Telecommunication Engineering	Professor, Department of E&TC, RIT, Sakhrale	
42	Dr. M. S. Patil	Reviewer, Electronics and Telecommunication Engineering	Professor and Head of Program (M.Tech.Electronics), RIT, Sakhrale	 image
43	Mr. M.S. Kumbhar	Reviewer,Mechanical Engineering	Associate Professor, E&TC Department, RIT, Sakhrale	 image
44	Mr. R.T. Patil	Reviewer, Electronics and Telecommunication Engineering	Associate Professor and Head of Program M.Tech. Electronics , RIT, Sakhrale	 image
45	Dr. A. B. Kakade	Reviewer, Electronics and Telecommunication Engineering	Associate Professor , E&TC Department, RIT, Sakhrale	 image

Sr.No.	Name	Designation	Affiliation Details	Photo
46	Mrs. S. S. Patil (Nalawade)	Reviewer, Electronics and Telecommunication Engineering	Assistant Professor , E&TC Department, RIT, Sakhrale	 image
47	Mr. A. R. Thorat	Reviewer,Electrical Engineering	Assistant Professor , Electrical Department, RIT, Sakhrale	 image
48	Mr. P. Sharath Kumar	Reviewer,Electrical Engineering	Assistant Professor , Electrical Department, RIT, Sakhrale	 image
49	Dr. Nagaraj V. Dharwadkar	Reviewer,Computer Science and Engineering	Associate Professor & Head of the CSE Department,RIT, Sakhrale	 image
50	Mr. Patil S. S.	Reviewer,Computer Science and Engineering	Assistant Professor, CSE Department, RIT, Sakhrale	 image
51	Dr.(Er) Parimita	Reviewer,Food Technology (Food Process Engineering)	Sam Higginbottom University of Agriculture, Technology &Sciences, Allahabad, India	
52	Prof. Sudershan B.Gadwal	Reviewer,Mechanical Engineering	H.O.D (Mech.),AGPIT,Solapur	 image
53	Prof. Rahul V.Dandage	Reviewer, Mechanical Engineering	Asst. Professor, Mechanical Engg. Department, Rajendra Mane College of Engineering & Technology, Ambav, Maharashtra, India Email: dandagerahul@gmail.com	
54	Mr. T.D.Mali	Reviewer, Mechanical Engineering	Assistant Professor, Department of Production Engineering, SCOE,Vadgaon (BK), Pune-41 Email: tushar.aug1@gmail.com	
55	Shambel G. Tadewos	Reviewer, Civil Engineering	Lecturer, Aksum University, Tigray Region, Axum, Ethiopia	
56	Dr.N.JAISANKAR	Reviewer in Information Security, Digital Image Processing, Cryptography, Bio-metrics	Professor, Misrimal Navajee Munoth Jain Engineering College, Chennai, Tamilnadu, India	
57	Dr.AMITABHA KAR	Reviewer, Renewable Energy,Farm machinery,ergonomics,Transfer of Technology,	RRetired Professor, Acharya Narendra Dev University of Agriculture and Technology, Kumarganj, Ayodhya-224229,UP, India	

Sr.No.	Name	Designation	Affiliation Details	Photo
58	Dr. Suma S.	Reviewer Parallel Computing and Big Data	Associate Professor, Department of MBA, Dayananda Sagar College of Engineering, Bangalore, India	
59	Dr. SHREYAS. K.	Reviewer, Highway Design, Construction, Evaluation & Maintenance	Asst Professor, Don Bosco Institute of Technology, Bangalore India.	
60	Dr. Jnaneshwar Pai Maroor	Reviewer, Information Security and Risk Management	Assistant Professor, Justice K.S. Hegde Institute of Management, Nitte, Mangalore, Karnataka, India.	
61	Vithal Rao Chauhan	Reviewer, Composite Materials, DOE, /Machining, Mechanical Characterization	Asst professor, Rao Bahadur Y Mahabaleswarappa Engineering College Bellary, Karnataka, India.	
62	Dr. Ridhima Arya	Reviewer, Biotechnology	Assistant Prof, Maharishi Markandeshwar University, Sadopur, India.	
63	Dr. P.JAYA PRAKASH	Reviewer, Internal Combustion Engines	Assistant Professor, Siddharth Institute of Engineering and Technology, Puttur, India	
64	Shri. Rahulkumar D Katkade	Reviewer, Complex Analysis	Lecturer, Dr. D Y Patil School of Engineering, Lohegaon, Pune, India	
65	Dr. Amol B. Kasture	Reviewer, Software Engineering, Cloud Technology, Web Technology, Data Center, Microsoft Azure	Senior IT Professor, Ajeenkya D.Y. Patil University, Pune, Maharashtra, India.	
66	Dr. Kalpana Verma Narayankar	Reviewer, Ecology, Zoology, Fishery, Pollution	Professor, The Maharaja Sayajirao University, Vadodara, Gujarat, India	
67	Dr. R. Chithra	Reviewer, Wireless Network, Network Security, E-Learning, Deep Learning	Professor, K.S.Rangasamy College of Technology, Tiruchengode, Tamil Nadu, India.	
68	Dr. Parveen Kumar Janjua	Reviewer, Cyber Security, Mobile Phone Forensics, Digital Evidence, Cyber Crime Investigations	National Resource Person- Cyber Security & Forensics, Panjab University, Chandigarh, India.	

Sr.No.	Name	Designation	Affiliation Details	Photo
69	Dr. Abhijeet Gupta	Reviewer,Digital Communication, Analog Communication, Digital Electronic, Image Processing, DSP, Neu	Professor, The Lakshmi Narain College of Technology is a technology, Bhopal, India	
70	Dr. Hardik B. Ramani	Reviewer, Mechanical Engineering, Production, Thermal, Refrigeration, Automobile, Design	Assistant Professor & Head, Om Engineering College, Junagadh, Gujarat, India.	
71	Dr. Somnath Thigale	Reviewer, IoT,Computer Network,Software Engineering,Software Testing,OOAD, OOMD	Associate Professor CSE Department,SVERIs college of Engineering, Pandharpur.	
72	Devidas Kundalik Mahadik	Reviewer, Electrical Poer Generation, Solar Energy, Renewable Energy	Principal, Adarsh Institute of Technology Polytechnic, Vita, Maharashtra, India.	
73	Prof. Mandar K. Kekade	Reviewer, Machine Learning, Artificial Intelligence	Assistant Professor, D. Y. Patil College of Engineering & Technology Kolhapur, Maharashtra, India.	
74	Dr. Avuthu Narender Reddy	Reviewer, Civil Engineering	Teaching cum Research Assistant, Vellore Institute of Technology, Vellore, Tamilnadu, India.	
75	Dr. Nitin Gajanan Kanse	Reviewer, Chemical Engineering	Assistant Professor, Finolex Academy of Management and Technology, Ratnagiri, Maharashtra, India	
76	Mr. Abhinav Vinod Deshpande	Reviewer, Digital Image Processing	Post Doctoral Research Scholar,Department of Electrical Engineering,MIT,USA	
77	Dr. P. Selvaraj	Reviewer, Power Electronics,Renewable Energy,Electrical Machines	Professor, S V Engineering College,Tirupati,Andra Pradesh, India.	
78	Dr. M. R. Arun	Reviewer, Automation and Embedded System, VLSI Design, Image Processing	Associate Professor, St. Xavier's Catholic College of Engineering, Nagercoil, Tamil Nadu, India	











Sr.No.	Name	Designation	Affiliation Details	Photo
79	Dr. Maneesh P	Reviewer, Migration, Refugee studies	Ph.D Scholar, Madurai Kamaraj University, Madurai, Tamil Nadu, India.	
80	Ishan Prabhakar Lade	Reviewer, Machine Design, Operation Management, Marketing Management, Quality Manageme	Assistant Professor, Guru Nanak Institute of Technology, Nagpur, Maharashtra, India	
81	Lakshmanan	Reviewer, Computer Science	Assistant Professor, SRM Easwari Engineering, Chennai, Tamil Nadu, India College,	
82	Sattyendrasing Akashsing Seragi	Reviewer, Power Electronics	Assistant Professor, R.C.Patel Institute of Technology, Shirpur, Maharashtra, India	
83	Pramod M. Suryawanshi	Reviewer, Automobile	Production Head, Laxmi Engineering Work, Pune, Maharashtra, India	
84	T. Ganesh	Reviewer, Computer Science and Engineering	Assistant Professor, Veltech Hightech Dr.Rangarajan Dr.Sakunthala Engineering College, Vel Nagar, Avadi, Chennai, Tamil Nadu	
85	Neeharika Bakhla	Reviewer, Quantum Electronics	Assistant Professor, Guru Gobind Singh Educational Society Technical Campus Bokaro, Jharkhand, India	
86	Ankit Khandelwal	Reviewer, Computer Applications	Asst. Professor, Aryabhatta Engineering College & Research Center Ajmer, Rajasthan, India	
87	Pothula Jagadeesh	Reviewer, Power Systems	Assistant Professor, Sagi Ramakrishnam Raju Engineering College, Chinnamiram, Bhimavaram, Andhra Pradesh, India	
88	Ramineni Hemasri Phanindra	Reviewer, Structural Engineering	Assistant Professor, NRI Institute of Technology, Bramarambapuram, Andhra Pradesh, India.	


Sr.No.	Name	Designation	Affiliation Details	Photo
89	Mr. Santosh Das	Reviewer, Data Structure & Algorithm, Machine Learning, Artificial Intelligence, Computer Network	Assistant Professor, Department of Computer Science and Engineering, OmDayal Group of Institutions, Uluberia, Howrah, West Bengal, India	
90	Devendra Gowda	Reviewer, Renewable Energy & Micro Grid	Assistant Professor, Sanjay Ghodawat University Kolhapur, Maharashtra, India	
91	C. Suganthi Evangeline	Reviewer, Vehicular Communication, Wireless Networks	Assistant Professor, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India	
92	Srinivas Jetty	Reviewer, Civil Engineering, Structural Engg, Building Materials and Construction, Composite Material	Vice Principal, Hod, Associate Professor, JNTUH/ ADAMS Engineering College, Palwancha, Telangana	
93	Nagashree B	Reviewer, Civil Engineering	Assistant Professor, Ramaiah Institute of Technology, Bengaluru, Karnataka, India	
94	Shailesh Baliram Pharande	Reviewer, Concrete Technology, Earthquake Engg., Structures	Assistant Professor, Karmaveer Bahurao Patil College of Engineering, Satara, Maharashtra, India	
95	Devasis Pradhan	Reviewer, Antenna Engineering, Signal processing, Image Processing, Microwave/Wireless Communication	Assistant Professor, Acharya Institute of Technology, Bengaluru, Karnataka, India	
96	Grishma Nadkarni	Reviewer, Civil Engineering	Assistant Professor, Shaikh College of Engineering and Technology, Bhutaramanahatti, Karnataka, India	
97	Mr. Kurde Suraj Vishnu	Reviewer, Computational Theory, Artificial intelligence, Cloud Computing, Data Analytics, Big Data	Assistant Professor, D Y Patil College of Engineering, Akurdi Pune, Maharashtra, India	
98	Manish Kumar Goyal	Reviewer, ELECTRONICS, VLSI	Lecturer, Govt. Polytechnic College Chittorgarh, Rajasthan, India	



Sr.No.	Name	Designation	Affiliation Details	Photo
99	Ronakkumar N. Modi	Reviewer, Highway and Traffic Engineering, Transportation Engineering	Assistant Professor, U. V. Patel College of Engineering, Gozaria, Gujarat, India	
100	Anurag Kumar	Reviewer, Data Mining	Asst. Professor, Dr. APJ Abdul Kalam UIT, Jhabua, Madhya Pradesh, India	
101	Abhas Kumar Singh	Reviewer, Power System, Restructuring, Energy Sector Reform	Asst. Professor, Shri Rawatpura Sarkar Institute of Technology, Raipur, Chhattisgarh, India	
102	Bala Subramanian D	Reviewer, Thermal	Assistant professor, Mookambigai college of Engineering, Keeranur, Tamil Nadu, India	
103	Karthikeyan	Reviewer, Image/Video Processing	Assistant Professor, Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Ambattur O.T Chennai, Tamil Nadu, India	
104	Prof. Dr. Abdul Rahmat	Reviewer in Management of Education	S.Sos.I., M.Pd. Gorontalo State University Indonesia	
105	Ujwal Vishnupant Ramekar	Reviewer, Wireless Communication, Digital Signal Processing	Assistant Professor, Sipna College of Engineering and Technology, Amaravati, Maharashtra, India	
106	Mr. Jowhar Massoudie	Reviewer, Management and Allied Fields	Assistant Professor, Kardan University, Kabul, Afghanistan	
107	Dr. Harjeet Singh	Reviewer, Digital signal processing channel estimation OFDM wireless communication system	Teaching / Assistant professor, Baba Hira Singh Bhattal Institute of Engineering and Technology, Leharagaga, Punjab, India.	
108	Dr. Kumar Amit	Reviewer, Population Geography	Assistant Professor, Dayanand Anglo-Vedic College, Kanpur, Uttar Pradesh, India.	
109	Dr. C. Nithyanandam	Reviewer, Industrial Engineering	Associate Professor, Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, India.	



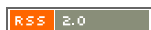
Sr.No.	Name	Designation	Affiliation Details	Photo
110	Dr. K. P. Sanal Kumar	Reviewer, Image processing, Wearable computing, DataMining, IOT, Medical Engineering, AI & Expect sy	Assistant Professor of Computer science, R. V. Government College, Chengalpattu, Tamil Nadu, India.	
111	Dr. Udit Mamodiya	Reviewer, Solar Energy	Assistant Professor, Poornima Institute of Engineering Technology, Jaipur, Rajasthan, India.	
112	Dr. Nazia Abbas Abidi	Reviewer, Human Resource	Assistant Professor, Ranchi University, Ranchi, Jharkhand, India.	
113	Dr. Rubee Singh	Reviewer, Management	Assistant Professor, Dr APJ Abdul Kalam Technical University, Noida, Uttar Pradesh, India	
114	Dr. Sudhanshu S. Gonge	Reviewer, Cryptography, AI,Softcomputing	Assistant Professor, Vishwakarma Institute of Technology, Pune, Maharashtra, India.	
115	Dr. Rupak Kumar	Reviewer, Environment biotechnology	SRTDA, Central Drugs Standard Control Organisation, New Delhi, India.	
116	Dr. Suresh Kumar V.	Reviewer, VLSI	Assistant Professor, SRM Valliammai Engineering College, Kattankulathur, Tamil Nadu, India.	
117	DR IHTIRAM RAZA KHAN	Reviewer, Artificial intelligence software engineering and IoT	Teaching, Jamia Hamdard 5, New Delhi, India.	
118	DR. BABASAHEB MANIK MORE	Reviewer, Solar Cells, Groundwater, Gravitational Force	Associate Professor and Head GSE Dept, Brahmdevdada Mane Institute Of Technology, Solapur, Maharashtra, India.	
119	Dr. MUQTHIAR ALI SHAIK	Reviewer, Power Systems.	Assistant Professor, AITS Rajampet, Boyanapalli, Andhra Pradesh, India.	

Sr.No.	Name	Designation	Affiliation Details	Photo
120	Dr.(Er) Parimita	Reviewer, Food Technology (Food Process Engineering)	Sam Higginbottom University of Agriculture, Technology &Sciences, Allahabad, India	

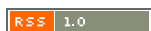
## Current Issue



(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/atom>)



(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/rss2>)



(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/rss>)



## Browse

## Make a Submission

Make a Submission (<https://repo.ijert.org/index.php/ijert/about/submissions>)

## Information

# Indexing

## IJERT indexing, abstracting and digital preservation:

Being an author-friendly journal, we take care of our authors even after making the paper available online. We feel that the authors publishing with us should get the better reach to their articles even if we exist or not. We commit for submission of the published papers to various repositories and the preservation libraries. The articles published must reach to the researchers all over the world for citation purpose of their future work. The indexing of the journal in various databases improves the journal rankings as more number of the researchers will cite the data. Scimago decides the journal ranking by average number of the citations the journal articles has over the specific period. The worldwide journal rankings are available at scimago (<http://www.scimagojr.com/>) journals rank. The basic need to improve journal ranking is to publish the original quality research articles and meet more number of citations. The high index journal will be promoting the research articles of the authors to more reputed repositories. Elsevier prepares and publish the journal citation reports. Know more (<http://ipsience-help.thomsonreuters.com/incitesLive/JCRGroup/jcrOverview.html>)

Every indexing and abstracting service has the basic criteria for inclusion of the journals. IJERT is working continuously to get included in more and more standard databases for getting the journal ranking, index journal, journal citation reports. Up till now IJERT is present by indexing means in following international indexing abstracting and digital preservation services. We are trying to elaborate the basics related to the indexing and abstracting services by answering following FAQ's we came across:

### What is indexing of a journal?

Indexing is making the journal available in the renowned databases for better search, reach and citation of the articles

### Shall the author have to pay for indexing?

If the journal is indexed in the service, authors are not supposed to pay for it separately. While individually, if author is submitting the paper to a particular service, author has to pay the charges to the service provider of indexing.

### Who indexes the journal?

Various international service agencies and libraries for indexing will provide the service to the journal/publisher or an individual author at paid or free of cost.

### What are the benefits of indexing?

Generally, if the journal is indexed in various databases, it will be better for researchers to refer it and citations of the papers will improve rapidly.

The journals whose articles are present in more and more standard databases are normally known as high index journal.

## What do we do to index your paper?

IJIERT has taken initiative to index the papers post publishing in many standard databases. We ask the authors to click on the indexing service symbol to check the presence of IJIERT in the database.

### IJIERT is indexed in

 (<https://zenodo.org/communities/ijiert/>)  (<https://scholar.google.co.in/citations?user=1k9EvIoAAAAJ&hl=en&authuser=2>) 

(<https://www.openaire.eu/search/find?keyword=>)  **Directory of Science**  
(<http://www.directoryofscience.com/site/4549282>)  image (<https://www.israjif.org/single.php?did=2394-3696>)

 (<https://issuu.com/editorijiert>)  **CiteFactor**  
Academic Scientific Journals  
(<http://www.citefactor.org/journal/index/15164/international-journal-of-innovations-in-engineering-research-and-technology>)  **Open Academic Journals Index** (<http://oaji.net/journal-detail.html?number=1511>)

 **Eurasian Scientific Journal Index** (<http://esjindex.org/indexedjournal.php?p=180>)  **IFSII**  
Measure Of Journal Quality

([http://ifsij.com/?page\\_id=57](http://ifsij.com/?page_id=57))  **DOCPLAYER** (<http://docplayer.net/>) 

(<https://jgateplus.com/home/>)  **ADVANCED SCIENCE INDEX**  
CENTRAL EUROPEAN SCIENCE ARCHIVE AND EVALUATION (<https://journal-index.org/>) 

(<https://www.mendeley.com/research-papers/?query=ijiert>)  **Scientific Journal Impact Factor**  
TOGETHER WE REACH THE GOAL

(<http://sjfactor.com/passport.php?id=17971>)  (<https://www.doi.org/>)

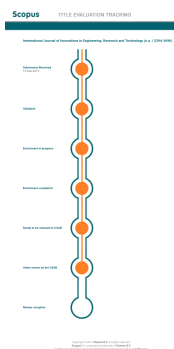
type=all&lookfor=ijiert&ling=1&oaboost=1&name=&thes=&refid=dcresen&newsearch=1)

World Catalogue of  
Scientific Journals (<http://www.wcosj.com/site/search?>

Journal%5Btitle%5D=&Journal%5Beissn%5D=2394-

3696&Journal%5Bpissn%5D=&Journal%5Bdiscipline\_id%5D=&Journal%5Bpublisher\_country\_id%5D=&yt0=)

## Indexing Awaited



(<https://www.thomsonreuters.com/en.html>)

### Current Issue

 (<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/atom>)

 (<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss2>)

 (<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss>)



### Browse

## Make a Submission

Make a Submission (<https://repo.ijiert.org/index.php/ijiert/about/submissions>)

## Information

For Readers (<https://repo.ijert.org/index.php/ijert/information/readers>)

For Authors (<https://repo.ijert.org/index.php/ijert/information/authors>)

For Librarians (<https://repo.ijert.org/index.php/ijert/information/librarians>)

## Developed By

Open Journal Systems (<http://pkp.sfu.ca/ojs/>)

## Keywords



### IJERT

Indexing (<https://repo.ijert.org/index.php/ijert/indexing>)

Impact Factor (<https://repo.ijert.org/index.php/ijert/impact-factor>)

ISSN (<https://repo.ijert.org/index.php/ijert/issn>)

Conference Colaboration (<https://repo.ijert.org/index.php/ijert/conference-colaboration>)

Penalty (<https://repo.ijert.org/index.php/ijert/penalty>)

FAQ (<https://repo.ijert.org/index.php/ijert/faq>)

### Journals

Topics (<https://repo.ijert.org/index.php/ijert/topics>)

Submit a Paper (<https://repo.ijert.org/index.php/ijert/paper-submission>)

Call for Papers (<https://repo.ijert.org/index.php/ijert/call-for-papers>)

Publication Charges (<https://repo.ijert.org/index.php/ijert/publication-charges>)

Guidelines for Author (<https://repo.ijert.org/index.php/ijert/authors-guidelines>)

## **Archive**

All Issue (<https://repo.ijert.org/index.php/ijert/issue/archive>)

Current Issue (<https://repo.ijert.org/index.php/ijert>)

## **Peer Review**

Peer Review Process (<https://repo.ijert.org/index.php/ijert/peer-review>)

Editorial & Reviewers Board (<https://repo.ijert.org/index.php/ijert/editorial-board>)

Join as Reviewer (<https://repo.ijert.org/index.php/ijert/user/register>)

Publication Ethics and Policies (<https://repo.ijert.org/index.php/ijert/publication-ethics-and-policies>)

## **Download**

Paper Template (<https://repo.ijert.org/document/Paper%20Template.doc>)

Publication authority form ([https://repo.ijert.org/document/Publication\\_Authority\\_Document.doc](https://repo.ijert.org/document/Publication_Authority_Document.doc))

MOU Form ([https://repo.ijert.org/document/MOU\\_IJERT.pdf](https://repo.ijert.org/document/MOU_IJERT.pdf))

## **Useful Links**

About IJERT (<https://repo.ijert.org/index.php/ijert/about>)

Aim & Scope (<https://repo.ijert.org/index.php/ijert/aim-and-scope>)

Indexing (<https://repo.ijert.org/index.php/ijert/indexing>)

Downloads (<https://repo.ijert.org/index.php/ijert/download>)

Privacy policy (<https://repo.ijert.org/index.php/ijert/privacy-policies>)

Terms and Conditions (<https://repo.ijert.org/index.php/ijert/terms-and-conditions>)

## **IJERT Contacts**



### **Novateur Publication**

466, Kumthekar Road, Sadashiv Peth, Pune, M.S.

India Zip-411030

**Published:** 2020-09-30

## Articles

---

### TEACHING CHILDREN IN THREE LEARNING STYLES

(<https://repo.ijert.org/index.php/ijert/article/view/124>)

SUYUNOVA DIYORA BAKHTIYOR KIZI, ZIYAYEVA MAKHBUBA FAZLIDDINOVNA

1-2

pdf (<https://repo.ijert.org/index.php/ijert/article/view/124/113>)

### HOW TO KEEP LOYAL RELATIONSHIPS WITH SERVICE CUSTOMERS USING HOLISTIC MARKETING

(<https://repo.ijert.org/index.php/ijert/article/view/125>)

B. E. HAJIKULOV

3-8

pdf (<https://repo.ijert.org/index.php/ijert/article/view/125/114>)

### TENSILE STRENGTH ANALYSIS OF SIMILAR PLATE WITH F.E.A. WHEN LAP WELDED JOINT IS USED

(<https://repo.ijert.org/index.php/ijert/article/view/126>)

KHURD PRAVIN SURESH, PROF. ALIMODDIN PATEL, PROF. S. P. BIRADAR

9-28

pdf (<https://repo.ijert.org/index.php/ijert/article/view/126/115>)

### ELABORATING PEDAGOGICAL SKILLS OF SPECIALISTS IN TRAINING IN HIGHER INSTITUTIONS

(<https://repo.ijert.org/index.php/ijert/article/view/127>)

BAZAROVA UMIDA KHUDAYNAZAROVNA

29-31

pdf (<https://repo.ijert.org/index.php/ijert/article/view/127/116>)

### ARCHITECTURAL MONUMENTS AND CULTURAL VALUES

(<https://repo.ijert.org/index.php/ijert/article/view/128>)

YUSUPOVA AZIZA ISMAILOVNA

32-36

pdf (<https://repo.ijert.org/index.php/ijert/article/view/128/117>)



## SIMULTANEOUS TRANSLATION AND ITS ISSUES

(<https://repo.ijert.org/index.php/ijert/article/view/129>)

BAHOROVY SHERMATOVA, SOJIDA ALIMOVA, OLIMOV SHOKHRUKH

37-39

pdf (<https://repo.ijert.org/index.php/ijert/article/view/129/118>)

## PEDAGOGICAL AND PSYCHOLOGICAL BASICS OF TRAINING TEACHERS

(<https://repo.ijert.org/index.php/ijert/article/view/130>)

H. G'ANIYEVA

40-42

pdf (<https://repo.ijert.org/index.php/ijert/article/view/130/119>)

## FROM THE HISTORY OF THE FORMATION OF THE NATIONAL THEATER ART

(<https://repo.ijert.org/index.php/ijert/article/view/132>)

DILFUZA NASRIDDINOVA

43-45

pdf (<https://repo.ijert.org/index.php/ijert/article/view/132/120>)

## THE KARAKALPAK FOLK EPOS "SHARIYAR" AS A MEANS OF THE AESTHETIC UPBRINGING THE FUTURE GENERATION

(<https://repo.ijert.org/index.php/ijert/article/view/133>)

E. K. ALLAMBERGENOV

46-50

pdf (<https://repo.ijert.org/index.php/ijert/article/view/133/121>)

## IMPROVING THE SOCIAL AND PROFESSIONAL RESPONSIBILITY OF STUDENTS THROUGH A COMPETENT APPROACH

(<https://repo.ijert.org/index.php/ijert/article/view/134>)

KADIROVA DILDORA NADZHATBEKOVNA

51-53

pdf (<https://repo.ijert.org/index.php/ijert/article/view/134/122>)

## STUDY OF INDIAN HISTORY, RELIGIOUS AND PHILOSOPHICAL HISTORY IN THE INDEPENDENT REPUBLIC OF UZBEKISTAN AND ITS FEATURES OF THE STRUCTURE SYSTEM

(<https://repo.ijert.org/index.php/ijert/article/view/135>)

SHOKHRUKHMIRZA MAMADIEV

54-57

pdf (<https://repo.ijert.org/index.php/ijert/article/view/135/123>)

WAYS OF STRUCTURAL AND SEMANTIC FEATURES, SPEECH CONSTRUCTIONS IN SPEAKING AND DIALOGICAL SPEECH OF NATIONAL GROUP STUDENTS (<https://repo.ijiert.org/index.php/ijiert/article/view/136>)

S. ZH. ATAVULLAEVA

58-60

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/136/124>)

PERFORMANCE IMPROVEMENT OF PAMONG BELAJAR AT SPNF SKB BATUDAA (<https://repo.ijiert.org/index.php/ijiert/article/view/137>)

NASARUDIN USMAN, ABD. HAMID ISA, MISRAN RAHMAN

61-66

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/137/125>)

IMPLEMENTATION OF CLINICAL SUPERVISION TO IMPROVE TEACHER PERFORMANCE IN MANAGING LEARNING IN TK DUNGALIYO GORONTALO DISTRICT (<https://repo.ijiert.org/index.php/ijiert/article/view/138>)

ERNI C. AHMAD, ABD. HAMID ISA, MOHAMMAD ZUBAIDI

67-74

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/138/126>)

EMPOWERMENT OF WOMEN THROUGH FAMILY WELFARE PROGRAMS (PKK) BASED ON GENDER EQUALITY IN NAURU WIFE IN PAYUNGA VILLAGE BATUDAA GORONTALO DISTRICT (<https://repo.ijiert.org/index.php/ijiert/article/view/139>)

KARSUM ZAIN, ABD. HAMID ISA, MISRAN RAHMAN

75-79

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/139/127>)

USING A VENN DIAGRAM IN THE STUDY AND TEACHING OF CERTAIN LANGUAGE UNITS (<https://repo.ijiert.org/index.php/ijiert/article/view/140>)

ABDUMUROD NAMOZOV

80-82

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/140/128>)

PERSONNEL MARKETING AS A MEANS OF LABOUR MARKET RESEARCH (<https://repo.ijiert.org/index.php/ijiert/article/view/141>)

TASHPULATOV AYBEK

83-87

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/141/129>)

IMPROVING EFFICIENCY THROUGH THE USE OF NEW TYPES OF DUST  
GAS CLEANING EQUIPMENT IN THE PRODUCTION OF BUILDING  
MATERIALS (<https://repo.ijert.org/index.php/ijert/article/view/143>)

KELDIYAROVA GULMIRA FARKHADOVNA, MADJIDOVA TANZILA RAKHIMOVNA,  
SATTOROV JAFAR JUMANAZAR O'G'LI

88-92

pdf (<https://repo.ijert.org/index.php/ijert/article/view/143/130>)

FOREIGN LANGUAGE TEACHING AND MOTHER TONGUE  
(<https://repo.ijert.org/index.php/ijert/article/view/144>)

YUSUPOVA BARCHINOY QAXRAMANOVNA

93-96

pdf (<https://repo.ijert.org/index.php/ijert/article/view/144/131>)

MODERN APPROACHES AND INNOVATIONS IN RUSSIAN LANGUAGE  
TEACHING IN PRIMARY SCHOOLS

(<https://repo.ijert.org/index.php/ijert/article/view/145>)

ARABOVA MUKHIBA BAZAROVNA, BATIRSHINA JUMAKUL KALMIRZAEVNA

97-99

pdf (<https://repo.ijert.org/index.php/ijert/article/view/145/132>)

GREAT MATH PROBLEMS (<https://repo.ijert.org/index.php/ijert/article/view/146>)

XUJAMOV JUMANAZAR UROZMETOVICH, KHUJATOV NURBEK JUMABOYEVICH

100-124

pdf (<https://repo.ijert.org/index.php/ijert/article/view/146/133>)

DEFORMATION AND STABILITY ANALYSIS OF DOUBLE-WALL VERTICAL  
BREAKWATERS FOR EARTHQUAKE RETURN PERIODS

(<https://repo.ijert.org/index.php/ijert/article/view/147>)

MOHAMED ABOUELNASR

125-130

pdf (<https://repo.ijert.org/index.php/ijert/article/view/147/134>)

ALISHER NAVOI'S POEMS ARE IN KARAKALPAK LANGUAGE

(<https://repo.ijert.org/index.php/ijert/article/view/148>)

YORQINOY MADRIMOVA

131-135

pdf (<https://repo.ijert.org/index.php/ijert/article/view/148/135>)

ARTISTIC SKILLS IN DESCRIBING THE CHARACTER IN A. ATAJOV'S  
STORIES (<https://repo.ijert.org/index.php/ijert/article/view/149>)

KTAYBEKOVA ZULFIYA KENGESBAEVNA  
136-140

pdf (<https://repo.ijert.org/index.php/ijert/article/view/149/136>)

SURVEYS ON SOIL ALGOFLORE IN UZBEKISTAN  
(<https://repo.ijert.org/index.php/ijert/article/view/150>)

O. G. KHUSANOVA  
141-143

pdf (<https://repo.ijert.org/index.php/ijert/article/view/150/137>)

SYNTHESIS OF ORGANOMODIFIER BASED ON MONTMORILLONITE  
(<https://repo.ijert.org/index.php/ijert/article/view/151>)

GOFFOROV JAMSHID MURODILLAEVICH  
144-147

pdf (<https://repo.ijert.org/index.php/ijert/article/view/151/138>)

A HISTORICAL VIEW OF DESTRUCTIVE IDEAS AND IDEOLOGIES  
(<https://repo.ijert.org/index.php/ijert/article/view/152>)

YULDASHEVA MATLUBA MUNAVAROVNA  
148-150

pdf (<https://repo.ijert.org/index.php/ijert/article/view/152/139>)

USING ARTIFICIAL NEURAL NETWORKS FOR PREDICTING ABORTION  
CASES IN CHITUNGWIZA URBAN DISTRICT IN ZIMBABWE  
(<https://repo.ijert.org/index.php/ijert/article/view/153>)

DR. SMARTSON. P. NYONI, MR. THABANI NYONI  
151-155

pdf (<https://repo.ijert.org/index.php/ijert/article/view/153/140>)

USING ARTIFICIAL NEURAL NETWORKS FOR PREDICTING NEW BILHARZIA  
CASES IN CHILDREN AGED 15 YEARS AND BELOW AT GWERU PROVINCIAL  
HOSPITAL IN ZIMBABWE (<https://repo.ijert.org/index.php/ijert/article/view/154>)

DR. SMARTSON. P. NYONI, MR. THABANI NYONI  
156-162

pdf (<https://repo.ijert.org/index.php/ijert/article/view/154/141>)

## HIV/AIDS ON THE INCREASE IN PAKISTAN: A STERN WARNING FROM THE BOX-JENKINS ARIMA APPROACH

(<https://repo.ijert.org/index.php/ijert/article/view/155>)

DR. SMARTSON. P. NYONI, MR. THABANI NYONI

163-171

pdf (<https://repo.ijert.org/index.php/ijert/article/view/155/142>)

## ARTIFICIAL INTELLIGENCE FOR CYBERSECURITY: A SYSTEMATIC MAPPING OF LITERATURE

(<https://repo.ijert.org/index.php/ijert/article/view/2797>)

Ishaq Azhar Mohammed

172-176

pdf (<https://repo.ijert.org/index.php/ijert/article/view/2797/2475>)

### Current Issue

ATOM 1.0

(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/atom>)

RSS 2.0

(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/rss2>)

RSS 1.0

(<https://repo.ijert.org/index.php/ijert/gateway/plugin/WebFeedGatewayPlugin/rss>)



### Browse

# IMPLEMENTATION OF CLINICAL SUPERVISION TO IMPROVE TEACHER PERFORMANCE IN MANAGING LEARNING IN TK DUNGALIYO GORONTALO DISTRICT

pdf (<https://repo.ijiert.org/index.php/ijiert/article/view/138/126>)

**Published:** Jan 22, 2021

**Keywords:**

Implementation, Clinical Supervision, Supervisors, Teacher Performance

**ERNI C. AHMAD**

**ABD. HAMID ISA**

**MOHAMMAD ZUBAIDI**

## Abstract

Implementation of clinical supervision by supervisors can make an important contribution in improving teacher performance in managing learning that refers to the functions, principles, goals and procedures for implementing optimal supervision. Supervisors need to have professional competence which is the ability to carry out supervision effectively, efficiently and include all activities related to improving teaching and learning as a service to teachers. Overall improvements need to be made to various aspects that lead to less than optimal implementation of clinical supervision such as the reluctance to be supervised and not fully open to the supervisor for the deficiencies and obstacles encountered in learning during initial meetings or preobservations, influenced by fear, lack of confidence, giving rise to the impression and perception of the teacher, that the supervisor is only a mere assessment activity by looking for weaknesses or weaknesses that the teacher has in learning.

How to Cite

ERNI C. AHMAD, ABD. HAMID ISA, & MOHAMMAD ZUBAIDI. (2021).  
IMPLEMENTATION OF CLINICAL SUPERVISION TO IMPROVE TEACHER  
PERFORMANCE IN MANAGING LEARNING IN TK DUNGALIYO GORONTALO  
DISTRICT. *International Journal of Innovations in Engineering Research and  
Technology*, 7(09), 67–74. Retrieved from  
<https://repo.ijert.org/index.php/ijert/article/view/138>

More Citation Formats ▼

## Issue

Vol. 7 No. 09 (2020): IJERT (<https://repo.ijert.org/index.php/ijert/issue/view/5>)

## Section

## Articles



(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Most read articles by the same author(s)

- RISNAWATI YUSUF, ABDUL RAHMAT, RUSMIN HUSAIN, MOHAMMAD ZUBAIDI, THE PHILOSOPHY OF ONLINE LEARNING IN THE COVID-19 ERA (<https://repo.ijert.org/index.php/ijert/article/view/8>), *International Journal of Innovations in Engineering Research and Technology*: Vol. 8 No. 1 (2021): IJERT (<https://repo.ijert.org/index.php/ijert/issue/view/1>)
- Sriyanti Poma, Abd. Hamid Isa, Mohamad Zubaidi, Abdul Rahmat, Yakob Napu, PARENTS PARTICIPATION IN THE IMPLEMENTATION OF EARLY CHILDHOOD EDUCATION FOR THE MERANTI HIJAU PLAY GROUP IN MERANTI VILLAGE, TAPA DISTRICT, BONE BOLANGO REGENCY (<https://repo.ijert.org/index.php/ijert/article/view/2555>), *International Journal of Innovations in Engineering Research and Technology*: Vol. 8 No. 05 (2021): IJERT (<https://repo.ijert.org/index.php/ijert/issue/view/104>)
- KATI PAYUYU, ABD. HAMID ISA, RUSDIN DJIBU, THE IMPLEMENTATION OF STORYTELLING METHOD IN IMPROVING THE ABILITY TO SPEAK EARLY CHILDHOOD IN TOLANGOHULA STATE KINDERGARTEN

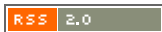
(<https://repo.ijiert.org/index.php/ijiert/article/view/263>), International Journal of Innovations in Engineering Research and Technology: Vol. 7 No. 07 (2020): IJERT (<https://repo.ijiert.org/index.php/ijiert/issue/view/13>)

- KARSUM ZAIN, ABD. HAMID ISA, MISRAN RAHMAN, EMPOWERMENT OF WOMEN THROUGH FAMILY WELFARE PROGRAMS (PKK) BASED ON GENDER EQUALITY IN NAURU WIFE IN PAYUNGA VILLAGE BATUDAA GORONTALO DISTRICT (<https://repo.ijiert.org/index.php/ijiert/article/view/139>), International Journal of Innovations in Engineering Research and Technology: Vol. 7 No. 09 (2020): IJERT (<https://repo.ijiert.org/index.php/ijiert/issue/view/5>)
- YASMIN YUSUF, ABD. HAMID ISA, ABDUL RAHMAT, IMPACT ONLINE GAMES FOR TEENS IN WELL GORONTALO CITY (<https://repo.ijiert.org/index.php/ijiert/article/view/269>), International Journal of Innovations in Engineering Research and Technology: Vol. 7 No. 07 (2020): IJERT (<https://repo.ijiert.org/index.php/ijiert/issue/view/13>)
- NASARUDIN USMAN, ABD. HAMID ISA, MISRAN RAHMAN, PERFORMANCE IMPROVEMENT OF PAMONG BELAJAR AT SPNF SKB BATUDAA (<https://repo.ijiert.org/index.php/ijiert/article/view/137>), International Journal of Innovations in Engineering Research and Technology: Vol. 7 No. 09 (2020): IJERT (<https://repo.ijiert.org/index.php/ijiert/issue/view/5>)
- WHENCHING ALI, ABD. HAMID ISA, ABDUL RAHMAT, DESIGN OF DEVELOPMENT EDUCATION PROGRAM BASED OUTSIDE OF SCHOOL EDUCATION (<https://repo.ijiert.org/index.php/ijiert/article/view/270>), International Journal of Innovations in Engineering Research and Technology: Vol. 7 No. 07 (2020): IJERT (<https://repo.ijiert.org/index.php/ijiert/issue/view/13>)

## Current Issue



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/atom>)



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss2>)



(<https://repo.ijiert.org/index.php/ijiert/gateway/plugin/WebFeedGatewayPlugin/rss>)



# **IMPLEMENTATION OF CLINICAL SUPERVISION TO IMPROVE TEACHER PERFORMANCE IN MANAGING LEARNING IN TK DUNGALIYO GORONTALO DISTRICT**

ERNI C. AHMAD

Nonformal Education Departement Graduate Program  
Gorontalo State University, Indonesia  
[erniahmad505@gmail.com](mailto:erniahmad505@gmail.com)

ABD. HAMID ISA

Nonformal Education Departement Graduate Program  
Gorontalo State University, Indonesia  
[abdhamidisa@gmail.com](mailto:abdhamidisa@gmail.com)

MOHAMMAD ZUBAIDI

Nonformal Education Departement Graduate Program  
Gorontalo State University, Indonesia  
[mohammadzubaidi@gmail.com](mailto:mohammadzubaidi@gmail.com)

ABDUL RAHMAT

Nonformal Education Departement Graduate Program  
Gorontalo State University, Indonesia  
[abduhrahmat@ung.ac.id](mailto:abduhrahmat@ung.ac.id)

## **ABSTRACT**

Implementation of clinical supervision by supervisors can make an important contribution in improving teacher performance in managing learning that refers to the functions, principles, goals and procedures for implementing optimal supervision. Supervisors need to have professional competence which is the ability to carry out supervision effectively, efficiently and include all activities related to improving teaching and learning as a service to teachers. Overall improvements need to be made to various aspects that lead to less than optimal implementation of clinical supervision such as the reluctance to be supervised and not fully open to the supervisor for the deficiencies and obstacles encountered in learning during initial meetings or pre-observations, influenced by fear, lack of confidence, giving rise to the impression and perception of the teacher, that the supervisor is only a mere assessment activity by looking for weaknesses or weaknesses that the teacher has in learning.

**KEYWORDS:** Implementation, Clinical Supervision, Supervisors, Teacher Performance.

## **INTRODUCTION**

The development of science, technology, and socio-economic community can further broaden the variety of approaches to teacher capacity building. Generally known, supervision is carried out by supervisors by conducting class visits. The supervisor examines the teacher's preparation for teaching and comments on the teaching preparation made by the teacher. Next, observe teaching and record everything regarding the implementation of learning conducted by the teacher. The observations are discussed with the teacher; The supervisor gives comments to the teacher about things that need to be improved. Such a supervision approach is not always carried out in its entirety. Supervision is often done only until the stage of checking the learning plan or observing the implementation teacher learning in class.

Supervision should be carried out in order to guarantee quality learning. That is, that the success of the supervision is measured by increasing student learning achievement. Tenriningsih's research (2009) found that "there is a positive and significant direct relationship between teacher performance and student learning achievement and there is a positive and significant direct relationship between student learning achievement through teaching supervision". This means that the higher the teacher's performance, the higher the student's

learning achievement. Therefore, to produce high performance teachers who need supervision of teaching effective. In addition, as pointed out by Kompasiana (2012) that Indonesia compared to other developing countries, has a low quality of education due to seven factors, namely; learning is only in textbooks, one-way teaching (one-way lectures), lack of learning tools especially in the regions, binding rules, cheating culture, open-ended questioning methods are not used, and teachers do not instill two-way discussion. Supervisors play an important role in improving the quality of teachers in order to carry out higher quality learning. Supervisory positions at the school include the principal and supervisor.

Supervision conducted by the school principal is regulated in Permen Diknas Number 13 of 2007 concerning Principal / Madrasah Standards. The principal's competency dimensions of supervision include: (1) planning an academic supervision program in order to improve teacher professionalism, (2) carrying out academic supervision of teachers using appropriate approaches and supervision techniques, and (3) following up on the results of academic supervision of teachers in order teacher professionalism improvement. In addition, supervision conducted by supervisors is regulated in Permen Diknas No. 12 of 2007 concerning School / Madrasah Supervisory Standards. The competency dimensions of school / madrasah supervisors include: (1) personality competence, (2) managerial supervision competencies, (3) academic supervision competencies, (4) educational evaluation competencies, (5) development research competencies, and (6) social competencies. Based on Ministry of Education Regulation number 12 of 2007 and Ministry of Education Regulation number 13 of 2007, that school principals and school / madrasah supervisors have the responsibility in increasing teacher professionalism.

The purpose of this paper is to reveal a number of supervisory approaches that can be done by school principals and supervisors in order to improve teacher performance in managing learning in kindergartens in Dungaliyo District, Gorontalo Regency. This writing material is a study of some relatively recent references related to education supervision.

## **THEORITICAL REVIEW**

### **A. Educational Supervision Perspective**

Educational supervision develops as management science develops. At the beginning of its development, supervision was carried out using an inspection approach. Supervisors come to school and observe the teacher teaching. The focus of the supervisor's attention is to find errors based on standard work standards that are formulated in such a way by the education authority. The teacher carries out the task in accordance with standard operational procedures. Supervisors with teachers are the two parties as superiors. Supervisors have a higher level of truth than teachers. Along with the development of management that productivity is also determined by social relations between workers and with supervisors. The supervision approach moves in a more democratic direction; supervisors and teachers can exchange opinions about improving the quality of learning.

The development of supervision today emphasizes more on the efforts of teachers to develop the quality of learning through continuous professional development. In connection with the rapid development of knowledge and technology in a very short period of time, supervisors with very limited amounts and with varied abilities are not able to serve the supervision needs of teachers in large numbers. Teachers need to take the initiative to analyze the quality of learning and find learning problems to continuously improve their quality. Supervisors have more role as facilitators for the ongoing development of teacher professionalism. In addition, fostering high motivation of teachers to always improve their professionalism. With the development of technology, for example cellphones owned by students with video player capabilities. Teachers can use this for learning by students independently. Learning activities are carried out in class, recorded, edited as needed, and then shared with students through Bluetooth media. Thus the material can be re-studied by students during breaks or other opportunities. Such a process can be done easily, in a short time and at a relatively low cost.

The ability of supervisors, also not necessarily, can lead teachers to make learning videos to be delivered to students because supervisors also do not receive training in this matter. As the person responsible for the successful implementation of learning, supervisors can facilitate teachers in improving these competencies by utilizing certain technical resource persons, namely someone who has abilities in a field such as shooting and video editing.

As such, supervision applied in this era not only provided guidance and professional training for teachers (as mandated by Permen PAN and RB number 21 of 2010 concerning the Functional Position of School Supervisors and Credit Scores in article 5), but also facilitated the continuing professional development of teachers in accordance with the demands of the development of technology, science, and social life of the people. Such teacher professionalism enhancement can be carried out using clinical, developmental, or differential supervision approaches with a directive, collaborative, or non-directive style.

Some of the more popular supervision approaches are known as clinical, development, and differential supervision. Each of these approaches has strengths and weaknesses.

Clinical supervision was first developed based on the idea of diagnosis and treatment in the medical field by Morris Cogan in 1950 in a laboratory school at Harvard University. This approach is influenced by behavioristic theory.

The word "clinical" refers to the face between the teacher and supervisor on reflective problem solving, directly targeting each class, and focusing on the teacher as an agent of change. have the capacity to develop the ability of teachers to be responsible for analyzing their performance, openly helping others, and directing themselves. conducted in the form of face-to-face processes that allow supervisors and teachers together to discuss and analyze learning problems that occur in the classroom and find overcoming those problems. This, as stated by Sergiovanni and Starratt (2002: that clinical supervision as a con with teachers with the intention of enhancing learning and enhancing professional growth. Likewise, Acheson and Gall (2003: 4) refer to it as' the process, a style that is specifically related to the teacher.

## **B. The Head Of School**

Permendiknas No. 13 of 2007 concerning School / Madrasah Standards covers personality, social, managerial, entrepreneurial, and supervisory competencies. As the principal's manager manages the school in order to achieve educational goals this is in accordance with the opinion of Hersey and Blanchard in (Risnawati, 2012) defines the term management with activities carried out with others or through other people or groups with a view to achieving organizational goals.

In the Decree of the Minister of National Education Republic of Indonesia Number 162 / U / 2003 concerning Guidelines for Assigning Teachers as Principals called "Emaslim" (educators, managers, administrators, supervisors, leaders, innovators, and motivators). One of the standards and duties of a school principal is supervision competency. These competencies are: (1) planning an academic supervision program in order to improve teacher professionalism; (2) carry out academic supervision of teachers using appropriate approaches and supervision techniques; (3) following up on the results of academic supervision of teachers in the context of increasing teacher professionalism. The principal plays a role in managing the school. This is in accordance with Supardi's (2012: 13) opinion that, "the leadership of the principal through the provision of supervision services to teachers is one of the organizational variables that influences teacher performance". Principals to be effective in the implementation of supervision need to be managed properly this is in accordance with Sari and Sukoco's research (2015) through good planning in general academic supervision by the principal of a public elementary school in Talang Empat sub-district, Bengkulu Tengah effectively.

According to Robbins & Alvy in (: 2004) that supervision to improve student learning through supervision and professional development. Academic supervision is conducted to find out the teacher in carrying out learning activities ranging from planning, implementation, and assessment activities. The principal can find out the competence and performance of teachers in learning activities from each teacher through monitoring, monitoring and supervision of learning in the classroom. The results of monitoring or hereinafter referred to as the results of the supervision are used to compile the next follow-up supervision program. The follow-up program is given to all teachers, both those who have high performance and who still need intensive guidance and supervision.

Principal supervision competencies based on Ministry of Education Regulation No. 13 of 2007 including; 1) planning an academic supervision program in order to improve teacher professionalism; 2) carry out academic supervision of teachers using appropriate approaches and supervision techniques; 3) following up on the results of academic supervision of teachers in order to improve teacher professionalism. This is in accordance with Mulyasa (2006: 112) the principal as a supervisor in the ability to compile, carry out the supervision program and utilize the results.

### **C. School Superintendents**

In advancing education there are elements of the principal's teacher and school supervisor. School supervisors are professional education personnel who are given full duties, responsibilities and authority by officials who have the authority to provide guidance and supervision in the academic field (technical education) as well as in the managerial / school management sector (Sagala: 2012: 138). Mentioned the principal duties of the school supervisor based on Republic of Indonesia Government Regulation Number. 19 of 2005, Concerning National Education Standards, Article 55 states that, "supervision of the education unit includes monitoring, supervision, evaluation, reporting and follow-up to the results of supervision". The role of the principal is so important as Sagala (2012) believes that school supervisors provide guidance, assessment, and assistance / guidance ranging from program plans, processes, to results in school management to improve school performance, while the responsibility as a supervisor is to help improve the quality of education provision (managerial supervision), the school supervisor also has the task of helping to improve the quality of the teaching / learning process and guiding student learning outcomes in order to achieve educational goals.

Based on the National Education Standards Agency in Risnawati (2014: 162-163) there are seven basic abilities that must be possessed by school supervisors in fostering school principals, namely: 1) Assisting in the preparation of school development plans (including setting vision, mission, goals, targets, indicators of success, direction and strategy, internal policies, and work programs); 2) Monitor the management of the code of ethics and code of conduct system for all subjects of education including educators, education personnel, and students / students; 3) Facilitating democratic, participatory and collective decision making; 4) Guiding curriculum development and syllabus dynamically and continuously in accordance with the needs of achieving quality improvement in education; 5) Monitor the implementation of educational programs oriented to improving the quality of education that takes into account both the elements of input, process, and output / output of education; 6) Directing the delegation and distribution of duties, authority and responsibilities proportionally and consistently; 7) Encourage management of all educational resources including funds.

## **RESEARCH METHODS**

This research is a qualitative research with case study. Qualitative research according to Kristiawan and Elnanda (2017) is one of the research procedures that produces descriptive data in the form of words, writing, and behavior of the people being observed. Whereas case study according to Yuliani and Kristiawan (2017) is a method for understanding individuals carried out integrally and comprehensively in order to obtain a deep understanding of the individual and the problems they face. According to Nazir (2009: 57) case study is a study of the status of research subjects relating to a specific phase or typical phase of the whole personality. The study was conducted in TK Dungaliyo District, Gorontalo Regency. The data sources of this study are the principal, school supervisors and teachers in the kindergarten environment in Dungaliyo District, Gorontalo District.

Data collection is done by observation, interview, and documentation techniques. The collected data is then analyzed using interactive data analysis techniques consisting of three activities that interact with each other, namely data reduction, data presentation, and drawing conclusions or verification (Sugiyono, 2007: 337). The researcher describes something that happens to the research target which is the words, behavior or activities and reality of the research source. Therefore qualitative research is carried out on natural conditions of a discovery nature so that researchers are a key instrument. The researcher asks, analyzes, and constructs the object under study related to the implementation of supervision by the school principal and school supervisor.

## **RESEARCH RESULTS AND DISCUSSION**

### **A. Results**

In the implementation of supervision in Kindergarten Se Dungaliyo District Gorontalo District conducted by the school principal and school supervisor. There are 17 principals from 17 Kindergarten Schools in Dungaliyo District. Then the school profile includes "B" school accreditation, preliminary goals of academic supervision, benefits, academic supervision schedule, which starts from December 4, 2019 to December 26, 2019. In this planning, it starts from kindergarten teachers. The annex contains the administration of learning plans, lesson plans assessment, learning observation / observation sheets, processing of observations.

Implementation of supervision principals share supervision schedules and in accordance with the schedule of supervising teachers. As for the supervision of the administration of learning planning which contains components well even though the schedule changes because there are other activities so that it is diverted another day, but the teacher also understands (interview with the school principal, 4 December 2019).

Clinical supervision in kindergartens in Dungaliyo District in its implementation consists of managerial supervision; namely supervision to the principal related to the principal as manager in the school. As the principal's manager conducts activities of planning, arranging, administering, controlling, evaluating all activities in the school including student administration, administration, finance, administration of teaching staff, administration of education staff, administration of curriculum. Academic supervision is conducted by school supervisors for teachers. The school supervisor gives the principal the supervision schedule in advance, and the school principal conveys it to the teacher. At the scheduled time the school supervisors are to examine the teacher administration files, namely: 1) academic calendar, 2) annual programs, 3) semester programs, 4) SK / KD analysis, 5) RPP, 6) absent books, 7) grades books, 8) learning agenda, 9) supervision book, 10) minimal completeness criteria (KKM). School Superintendent Erni Ahmad, S.Pd assesses that supervised components are supervised, and what is noted is that there has been no follow up from the supervision of the school principal.

The difference between the supervision of the headmaster and the supervision of the Dunngaliyo District Kindergarten school supervisor; 1) based on the subject supervised by the principal supervising the teacher to improve learning while the supervisor supervises the principal in the managerial field and academic supervision for the teacher. 2) The principal is more flexible while the school supervisor is scheduled. 3) The principal observes teaching and learning activities while the school supervisor only supervises administration and preparation for teaching. 4) Supervision The headmaster is followed up with a program of school activities, for example holding a K13 workshop after concluding that there are still many teacher supervision results that have not mastered K13, while the school supervisor has not followed up. 5) The teacher feels more comfortable with the supervision of the principal than on the supervision of the school supervisor, because the teacher has a closer personal relationship with the school principal.

## **B. Discussion**

Implementation of clinical supervision is very demanding the ability of a supervisor to be able to apply it well, requires high competence from the supervisor. Given the ability of a supervisor to actualize tasks related to clinical supervision is crucial to the success of the implementation of this supervision in the field, so that teacher behavior in the teaching and learning process aspect by aspect can be improved intensively so that the improvement of the quality of learning is achieved well in accordance with national education goals.

To be able to implement clinical supervision, a supervisor needs to understand the stages in the implementation of clinical supervision starting from planning, implementation and evaluation as a follow up to the supervision activities carried out. The findings related to the implementation of clinical supervision by supervisors in improving teacher performance in managing learning especially in the Gorontalo District area can be described as follows:

### **1. Supervisors' ability to plan clinical supervision**

In this activity the supervisor together with the teacher plans the supervision activities in the classroom with a point of accentation on the difficulties faced by the teacher in teaching. So this stage must take place in a human atmosphere so that the teacher will be open to the difficulties they face in learning in class.

Basically kindergarten teachers already have plans for supervision in general. Whereas clinical supervision has not been specifically planned. Supervisor prepares a plan of supervision activities program. In accordance with the supervisory program that has been prepared by each supervisor scheduled in the school visit calendar. Supervisors have plans for supervision that are directed at their respective target school areas. Planning is made even for a period of six months or one semester at each school that is a target, taking into account the situation or condition of the school in preparing its work plan.

The preparation of the program is carried out through stages, namely: identification of problems and the results of supervision that have been carried out last semester (reports from each school supervisor) which include components namely: organization and management, facilities and infrastructure, guidance for school

principals, teacher development, coaching in program preparation school, learning process, extracurricular activities, analysis of student learning outcomes, and school environment. These components are implemented by the school supervisor by empowering the teacher as the main personal element in the school. This empowerment is carried out on the coordination of the principal by dividing assignments to all teachers in accordance with subject specifications for the teaching task area and other task fields according to the teacher's abilities. The identification of problems and the results of supervision will then be processed and analyzed for the preparation of the guidance or supervision program design, and finally the stabilization of the program as a measure of the success of supervisors in the implementation of supervision is to what extent the changes have been achieved, due to the effect of the implementation of supervision on improving the quality of teacher teaching .

Clinical supervision planning is only carried out at any time, adjusted to the teacher's request to be supervised by clinical supervision. However, supervisors recognize the number of teachers who ask to be supervised with clinical supervision is limited, because in general teachers feel afraid to be supervised. Supervision activities carried out by supervisors are still focused on the principal's managerial supervision and administrative supervision. In this context, supervision activities in schools are more focused on conditions in the field, namely the level of achievement of the tasks of teachers in schools, compared to the competencies that teachers must have in implementing or improving learning done in class such as: in formulating goals, choosing materials, choosing methods, activities evaluation and so on. Nevertheless there are certain aspects related to the professionalism of teachers that are carried out but it is almost certain that this has not gone well.

Clinical supervision is a form of supervision that is focused on improving teaching through a systematic cycle, in planning, observation, and intensive and careful analysis of the real teaching performance, and aims to make changes in a rational way. With clinical supervision helping teachers reduce the gap between real teaching behavior and ideal teaching behavior. The emphasis in the approach applied is specific through face-to-face with the teaching teacher, which is focused on improving the teacher's teaching appearance and behavior.

While related to the initial meeting activities in the implementation of clinical supervision in the initial meeting activities or the initial observation activities the supervisors pay close attention to every complaint experienced by the teacher. The supervisor records the complaint, then asks the teacher to focus on one aspect of improvement while another will be planned later. Thus the implementation of clinical supervision through this initial meeting, the supervisor discovers what aspects of behavior in the teaching and learning process need to be improved, prioritizing the aspects of behavior that will be improved in carrying out learning. However, clinical supervision is not the only supervision model carried out in the field. In this case clinical supervision is only one of the models used in field supervision activities.

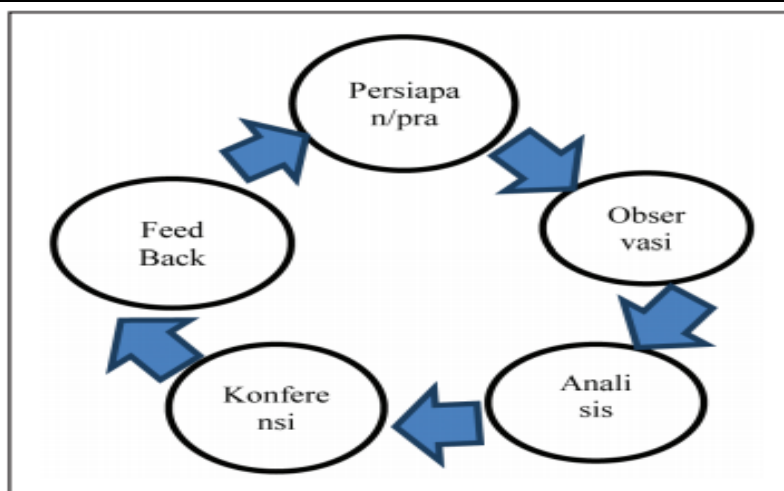
These findings illustrate that the implementation of clinical supervision through initial meetings, will greatly assist teachers in providing input into solving the problems they face in learning, supported by creating an atmosphere that is full of warmth, closeness, and openness, so that humane relations are established. Clinical supervision implies a more democratic sense.

In its implementation, supervision not only supervises whether the teacher performs his best tasks in guiding and teaching students, but also with the teacher how to improve the results of the teaching and learning process.

## **2. The purpose of clinical supervision**

Helping teachers develop and improve their professionalism through joint planning (teachers and supervisors), observation and feedback.<sup>8</sup> The Clinical supervision model was also developed by Baltacy et al.<sup>9</sup> The concept developed was adopted from Acheson & Gall, which developed the five stages of clinical supervision namely "The CSM cycle includes pre-conference, observation and data collection, data analysis, post-conference, and reflection stages. These five stages are shown in Figure 1.

Glickman et al. Explain the five steps of clinical supervision, namely: (1) pre-conference with the teacher; (2) classroom observation; (3) analysis of interpretation of observations and establish a convergence approach; (4) meetings conducted after observation; (5) Conduct criticism of the previous four steps.



Cogan sees clinical supervision as a vehicle for developing teachers to be professionally responsible who are able to analyze their own performance, who are open to change and help from others, especially in directing themselves.

From the statement on clinical supervision, it can be understood that the provision of guidance regarding teacher needs is carried out with various efforts through systematic, analytical observation, so that teachers find ways to improve their performance. It can be said also, clinical supervision is a guidance that aims to increase the professionalism of teachers intentionally starting from the initial meeting, classroom observations and final meetings that are analyzed carefully, thoroughly and objectively to get the expected change in teaching behavior.

## CONCLUSION

In order for teachers to be able to carry out the noble tasks that are their responsibility in school, it is necessary to always get refreshment in the form of technical assistance. This technical assistance is given to teachers in an effort to increase capacity continuously. The assistance is in the form of academic supervision conducted by the school principal and school supervisor.

Academic supervision is conducted to find out the teacher in carrying out learning activities ranging from planning, implementation, and assessment activities. The principal can find out the competence and performance of teachers in learning activities from each teacher through monitoring, monitoring and supervision of learning in the classroom.

## REFERENCES

- 1) Imron, A. (2011). Educational Unit Level Supervision of Education. Jakarta: Earth Literacy.
- 2) Karsiyem, Muhammad Nur Wangit. (2015). Academic Supervision in Improving the Performance of Sentolo Kulon Progo Elementary School Teachers III. Journal of Educational Management Accountability. Volume 3, No2, September 2015.
- 3) Kristiawan, M. (2015). A Model of Educational Character in Al-Istiqamah Simpang Empat High School, West Pasaman, West Sumatra. Research Journal of Education, 1 (2), 15-20.
- 4) Kristiawan, M., & Elnanda, D. (2017). The Implementation of Authentic Assessment in Cultural History of Islam Subject. Al-Ta lim Journal, 24 (3).
- 5) Nazir, Moh, (2009). Research methods. Bogor: Ghalia Indonesia.
- 6) Nugraha, Mulyawan Safwandy. (2015). Academic Supervision Implementation by the Head of Private Madrasah Aliyah in Sukabumi Regency, West Java. Nadwa Islamic Education Journal. Vol.9, Number 1, April 2015.
- 7) Ramadan, Ahmad. (2017). The Effect of Academic Supervision and Supervision of School Principals on the Performance of State Vocational Teachers in Majene Regency. Journal of Educational Science and Technology (EST) Volume 3 Number 2 August 2017 Pg. 136- 144.

- 8) Sari, Ajeng Lentika. Sukoco. (2015). The Effectiveness of Academic Supervision by the Principal of Public Elementary Schools in Talang Empat District, Central Bengkulu. Journal of Educational Management Accountability Volume 3, No. 1, April 2015 (1-12).
- 9) Sudin, Ali (2008). Implementation of Academic Supervision of Learning Processes in Primary Schools in Sumedang Regency. "JOURNAL, Basic Education" Number: 9 - April 2008.
- 10) Sugiyono (2007). Understanding Qualitative Research. Bandung: CV. ALFABETA.