



# IJEAST

INTERNATIONAL JOURNAL  
OF ENGINEERING APPLIED SCIENCE  
AND TECHNOLOGY



**VOLUME : 7    ISSUE : 12    Print / Issue Publication Date: 06-Jun-2023**



**ISSN : 2455-2143**



**DOI : 10.33564/IJEAST.2023.v07i12.002**

Indexed In



[WWW.IJEAST.COM](http://WWW.IJEAST.COM)

[editor@ijeast.com](mailto:editor@ijeast.com)



# EDUCATING SLUM CHILDREN: A COMMUNITY OUTREACH STUDY (CASE STUDY OF A VOLUNTARY ORGANIZATION)

Rimjhim Dutta

Graduate (Hons) International Relations  
Amity School of International Relations  
AUUP.

Madhur Mrinal

Ph.D. Candidate(Health Sciences)  
School of Medical and Health Sciences  
Bangor University, Wales, UK

**Abstract:** Paper presents a case study of Jax Health Care Foundation (JHCF), a voluntary organization and its work activities. It has been working mainly in slum areas, in school, in hospital for the cancer awareness and other public health awareness programs. Besides other activities- environmental awareness programme, social forestry, etc. are the major work of foundation in the communities.

**Key Words:** Voluntary Organizations, Education, Slums and Health care.

## I. INTRODUCTION

Several Voluntary organizations are working in our Country in education of marginalized section, in health care, in sanitation and Environment etc. Singh and Kumar(2014) have emphasized the importance of voluntary action. It may be cruel to the marginalized group who even fail to earn their daily bread. It is the main reason of the contemporary decline in voluntarism due to growing poverty, unemployment, frustration and alleviation among youth. Several views of different school of thoughts have been expressed on the voluntarism. One school of thought criticizes voluntary as a tax on poor, especially in case of women who are already burden with a lot of responsibilities. This school fees involvement in voluntary work should offer personal benefits in form of acquirement of skill and experiences and says voluntary action should be a preparatory ground for the paid employment.

Voluntary action is a cost effective way of providing social and welfare services but not cost free to flourish voluntarism requires necessary infrastructures and institutional mechanism to facilitate the mobilization of popular support

and engagement of volunteers in appropriate task and responsibilities. The decline in civic engagements among young raises fears regarding the feature of voluntary action in the country. It needs steps to educate youths in values of active citizen. Further, voluntary action is also hindered due to lack of recognition of their work. Many volunteers from bigger institutions wants the lime lights while local volunteers do a lot of hard work in addressing the local problem which no one recognizes at the national level(Singh and Kumar, 2014).

In Delhi voluntary organizations are working on different aspects, such as Teach for India, a nationwide movement to help marginalized children. They need people to mentor or teach any skills they know to kids. Volunteers get the opportunity to teach kids from the most under-resourced schools and it definitely instills more responsibility in our roles towards equality in education. Make A Wish Foundation, works in Malviya Nagar in South Delhi for children who are in the grips of terminal illness, and tries to make them a little happier. It can range from something as simple as a Doraemon toy to being a pastry chef for a day. The volunteer programme is very flexible, so you can choose the number of days, hours, and area of work as per your liking. Smile Foundation, it works in Yusuf sarai, south Delhi and covers everything from healthcare and education to empowerment and disaster response and help over 600,000 children and their families every year (1).In this paper we are presenting a case study of a voluntary organization, the brief work and activities of the Jax Health Care Foundation (JHCF)<sup>1</sup>. The foundation has been working for the cancer awareness and other public awareness programs where in the first author (RD) was placed as intern and worked for the foundation.



The Foundation (JHCF), believes that all people living with cancer have the right to access the best treatment and support. Further it also aims to access to services, quality training and education. The organization aims to help through providing them with the essentials and work opportunities to live their life with utmost dignity and hope. Services of Foundation are global and multifaceted which has several partnerships and associations with numerous industries, non-governmental agencies, health care providers and various cancer organizations in the world which help us to support the masses, provide them effective solutions for access to treatment (Dutta, 2022). It has been organizing events, gathering people to support for the noble causes and our Amity University has been a constant support the foundation. Therefore it has become a platform for us for the voluntary work in the community (Ibid). The following, community outreach activities and social activities- hospital visits, community/slum visits, school visits for education of children, healthcare education and other activities. Other activities are fund raising, environment awareness and social forestry- for deforestation or plantation of trees to increase the green cover are the brief activities which first author has seen as intern in the foundation

## II. COMMUNITY OUTREACH ACTIVITIES AND SOCIAL ACTIVITIES

### Hospital Visits

The foundation members frequently visit the AIIMS Delhi and other such government hospitals, to help the people in need of finance and better care for live. There have been many instances where we all have collected donation and have financed the medical procedures for patients who lack it. The members of foundation have been a part of other different Non-Governmental Organizations (NGOs) where we all collectively try to help the people suffering from Oncology and its treatment. This organization tries to bring awareness through loading videos and photos of the work with hospitals to help a person or two to live a better and healthy life. This Healthcare Foundation is committed for care in all aspects of Cancer and its management.

### Slum Visits

There is a socio-cultural group, 'Kalpana' of this foundation which works with slum people for their development. They arrange monthly medical camps, old clothes donation drives, movie screenings, stage street plays and hold discussions with slum people areas where people live in inhabitable situations. Such slums are near to our Amity University it's so strange that a place 2 just a few kilometers from our Amity University, it seems we are in different world. We went down to slums in Lalbagh and helped in setting up a medical camp there. First step into those slums and it was like entering another marginal world- dirty stagnant water, clogged drains, narrow lanes, cramped

houses and heaps of garbage etc. As we entered in their space, the residents gathered all around us to brief us about their grievances, as normally happens whenever we work with the people in the community. Meanwhile we shared our purpose to these people and tried to convince them that we can only try making their voices be heard by the right people.

Water! It was their main problem. They collectively talked about water, being the rainy season there was water logging everywhere, inviting all kinds of water-borne diseases. They do have clean drinking water. The toilets there were in pathetic conditions, no doors, doors without latches. Children had to go to the roadside public toilets which are equally bad. One decent looking public toilet in the slums is still locked because of some government problem. The living conditions of the houses were pathetic where a family of six people lived in a room, smaller than one can imagine for six people.

About rationing, food grains and other raw material, at the government fare price shop, there were people who were entitled to get sanctioned amount ration to all customers. They all echoing the same complaint about how they are being duped by the store keepers? They are supposed to get 35kg of wheat but get only 20kg and story of rice, sugar and oil rations is same-they do not get what they should.

### School Visits for Education of Children

The schools in villages i.e. Raipur village, we visited suddenly a school so we observed it in progress. We went to see how schools are working, if at all, classrooms were utilizing their kits which contain educational resources for mathematics and English classes, such as counting mats and blocks and conversation sheets, which seem as if they should be standard in every class room – especially the math tools. These are tools that helped me, as a younger student; visualize operations like addition and subtraction. They helped many of us learn when we were starting our primary education, so it made us optimistic to see the students in Mundargi Village and Kushtagi Village using the same tools so effectively. When we initially arrived at the schools, the first thing that I noticed was the resourcefulness. The same resourcefulness that we saw in the residential areas is found in schools; class bells are made from small hammers tied to thick metal trays, small pillows are attached to blackboards by string to create erasers. Making do with what you have is a concept that has grown increasingly rare in countries like the U.S. and big cities, where shortage of resources is rarely felt. One area where this scarcity is not felt, however, is in style. Each student was equipped these bags provided by the state government (Dutta, 2022). About the financial aspects on the Delhi Government, For example Delhi Public School(DPS) has already spent 30.06 Cr on the books, gadgets, dress etc. but still government has only reimbursed the 2.02 Cr and still 27.43 Cr is awaited from the Delhi government. This is a big burden on the State for

implementation of the Court Order (Sarfraz, 2020). Over Rs 5,700 crore allocated to school education sector to 'mitigate' Covid risks (Sharma, 2020), Samagra Shiksha Abhiyan (SMSA) from Room to Read (Kundu, 2019).

Kannan(2020) has expressed a need to adopt a new method of teaching in school. The government is trying to reopen the Delhi schools with a reduction of syllabus as well as reducing the teaching or instructions times for the teachers as policy planners and makers suggest improving their learning skills. Children already experienced a loss in their learning capabilities. This "Camp model approach" to control the school children during Covid-19 situation may be useful (Kannan, 2020). She emphasized her experiences in J-PAL South Asia where specific tailored made programme to the disadvantage groups (DGs) and economically weaker sections (EWS) of a particular school (Ibid).

One us, second author(MM), had shared his field work as an intern with Mushy Allie, a voluntary organization working in Delhi, on the mental health issues of the school children, and their mental health narratives in pandemic. This organization work on the mental health issues of the school children. He had examined their issues in greater detail affecting their state of their mind and concludes in discussion on the myths of our education system, digital divide in gender, DGs and EWS and camp model approach for the betterment in the pandemic(Mrinal,2022).

Children from the lower socio-economic income groups began to beg or borrow the mobile for the online classes in Delhi during pandemic 2020. School dropped out Children like Pankaj, 12; Jasin, a 5th class student, and Zareena, 7th class student, all living in Delhi where Society for Promotion of Youth and Masses(SPYM), is a voluntary organisation, particularly working in R K Puram in Delhi. Pankaj was constraint to leave the studies due to Pandemic and began begging to buy a mobile to study on the Traffic signals in R K Puram. Then Government had declared all schools as closed and teachers should teach online to school children. SPYM says most of these kids used to stay under the flyover or on the street all the day and it is our efforts these are now under the shelter home. Often their mothers used to visit them in the shelter and now most of them are back to normal schools (Aggarwal, 2022; Jaiswal, 2022).

#### Healthcare Education

This organization also organizes free health care and medical facilities are made available to the underprivileged and poor cancer patients- a major goal of helping the cancer patients through providing the basic facilities. It organizes various events to educate people about cancer and spread awareness about various diseases. Through the activities of Foundation we try to bridge the gap that exists in cancer public health education, human resource development, and cancer survivor issues etc. One such event was organised in the slum areas of Mansarovar Park, Delhi. A drama was

performed by our volunteers to address topic hazards of smoking and an interactive question-answer session with the children and other adults. Similarly mental health of the children are also important (Mrinal, 2019, 2020a; 2020b).

We, as volunteers, also visited various hospitals to meet the cancer patients for further help them, if required. The foundation also raises funds for the treatment of patients who are below poverty line. Our Foundation comprises of various departments dealing with office work, cultural events, counseling etc. We involved different types of support and tasks which was a lot more than charity, which was, a feeling that was felt while helping. We had several ways to help and manage all the duties of a caregiver to help and coordinate with the cancer patients to provide effective care. Caring for a person with cancer seems complex and likes too much to cope with at first Depending upon the person's need; the foundation provided different types of support such as, emotional support, help with medical care, assist with financial issues, served as the communicator between the patient and the healthcare team.

### III. OTHER ACTIVITIES

Foundation organizes various other events to interact and educate young children who are not able learn themselves or are not able to go to school to take their education. It provides books, pencil, rubber etc. to these children to study. Volunteers also teach them. There are health care facilities for wellness health camps and education center available which being hosted regularly.



#### Funds Raising

Basically, it does not have any particular funds for itself. The founders along with volunteers and students raise the funds. It is upon the students how much they wish to contribute. The volunteers donate the amount of Rs 2000 and register themselves with the organization. The volunteers' and people who take part in events and workshops raise the funds either by collaborating with agencies or events at public places.

## Foundation and its main work



The foundation had been doing voluntary work in cancer, education, women empowerment, 5 human rights, rural development, poverty, international relationship, and blood donation camp, business & entrepreneurship, digital skill and environment.

### Environment

The Foundation also works for protection of the environment through various means by promoting and organizing the public awareness programme to enhance knowledge and appreciation of nature, and promoting the best practices of conservation of natural resources among the common mass. It also maintain the liaison with disciplines of science and technology related to environment, maintain contacts with various departments of State Government and Union Governments for the national, regional and international voluntary organizations beneficial to the Foundation and its Vision. Often it also advices on matters related to environment the State Government, Union Government or any other organization in the interest of people.

Foundation also hold conferences, seminars, symposia, meetings, training programmes, demonstrations, mass mobilization campaigns and conducts popular lectures, cultural programmes, to promote education and awareness on issues related to natural resources and conservation of environment. It continues to publish books, proceedings, journals, newsletters or bulletins to public matters related to natural resources and environment. Further it also forganise co-curricular activities and courses on environmental sciences for people, besides consultancy services on natural resources and environment.

### Forests and Desertification

About 70 million indigenous people with 1.6 billion people depend on forests for their livelihood and these are the home to more than 80 per cent of all terrestrial species of animals, plants and insects. According to a survey the world has lost 3.3 million hectares of forest areas and hence the poor rural women mostly depend on common pool resources which are especially affected by their depletion.

There are 2.6 billion people depend directly on agriculture. 52 per cent of the land used for agriculture is moderately or severely affected by soiled gradation and an estimate shows 30 to 35 times the historical rate. 12 million hectares are lost each year (23 hectares per minute) due to drought and desertification and 20 million tons of grain could have been grown in a year. Globally 74 percent of the poor are directly affected by land degradation

### Biodiversity

Illicit poaching and trafficking of wildlife continues to thwart conservation efforts, with nearly 7,000 species of animals and plants reported in illegal trade involving 120 countries. Of the 8,300 animal breeds known, 8 per cent are extinct and 22 percent are at risk of extinction. Of the over 80,000 tree species, less than 1 per cent has been studied for potential use. Fish provide 20 per cent of animal protein to about 3 billion people. Only ten species provide about 30 percent of marine capture fisheries and ten species provide about 50 percent of aqua culture production. Over 80 per cent of the human diet is provided by plants. Only three cereal crops—rice, maize and wheat—provide 60 percent of energy intake. About 80 per cent of people living in rural areas in developing countries rely on traditional plant-based medicines for basic healthcare. Micro-organisms and invertebrates are main sources to ecosystem services, but their contributions are still poorly known and rarely acknowledged.

### United Nations Development Programm-2030

UN also expressed concern for forests cover which is 30.7 per cent of the Earth's surface. This cover provides food security and shelter to various indigenous people, who are to combating climate change, protecting biodiversity and the homes of the indigenous population. It shall strengthen natural resource management and increase land productivity. Now thirteen million hectares of forests are being lost every year while the persistent degradation of dry lands has led to the desertification of 3.6 billion hectares. Even though up to 15% of land is currently under protection, biodiversity is still at risk. Deforestation and desertification – caused by human activities and climate change – pose major challenges to sustainable development and have affected the lives and livelihoods of millions of people in the fight against poverty. Efforts are being made

to manage forests and combat desertification. There are two international agreements being implemented.

#### IV. OUR GOVERNMENT INITIATIVE

Our country adopts a holistic approach for Sustainable Development Goals (SDGs) by 2030. Main stream the 'Resource Efficiency Approach' in India's Development Path way for achieving SDGs: Economic Survey Investments required on unprecedented scale and size to implement India's Nationally Determined Contribution to combat Climate Change.

The survey states that in adoption of 2030 global agenda, countries are moving forward for achieving a world free from poverty, gender inequality and economic inequality and thereby ensuring a healthy planet for future generations. These goals are multi-dimensional and integrate various social, economic and environmental dimensions. India follows a holistic approach towards its 2030 Sustainable Development Goals (SDGs) by launching various schemes. India's SDG Index Score ranges between 42 and 69 for States and between 57 and 68 for UTs. Kerala and Himachal Pradesh are the front runners amongst all the States with a score of 69, Chandigarh and Puducherry are the front runners with a score of 68 and 65 respectively among the UT's, the Survey states.

#### Social Forestry and its importance

Tree plantation means planting trees and plants at a large scale. The purpose of planting trees is to save the endangered environment. The main purpose of tree plantation is to enhance and beautify of our life. So to say, tree plantation is very important. Because it serves natural calamities like drought, stems, floods, etc. They increase the beauty of nature. Trees are essential to us in many important ways.

Trees provide us with wood, food, etc. They give us shade on hot days. Besides, they help to prevent drought and devastating floods. Trees bear an important role in the climate of the world. If we destroy trees at random, one day the country will become a great desert. If there is no rain, consequently the country will face a great crisis. Hence, global warming will increase rapidly. Trees keep the soil strong. Trees save us from floods and many other natural disasters. Again, trees prevent the rise in temperature. They give us oxygen and prevent the rise of carbon dioxide in the whole world. Thus, trees maintain ecological balance. Trees give us food and shelter. They make the land fertile.

So, trees are the most valuable asset to a country. The best time for tree plantation is the rainy season that is Proper time of tree plantation is the month of June and July. Tree plantation programme should be expanded to the remotest corner of the country. We can plant trees around our dwelling places and in open places. Moreover, we can plant trees on the side of the roads, rivers, canals and playing fields. We should raise awareness. The officers connected

with this programme should take proper steps and needful measures to make it a success. They should try to make it popular all over the country. They should come forward with their best knowledge. Most of the people of the villages are illiterate. They have no knowledge about the plantation of trees. Attempts should be made to make them aware of the importance of tree plantation.

The more we plant trees, the more our environment will be green errand balanced. In Bangladesh, tree plantation is compulsory. Because they do not have so much forest as they require maintaining the ecological balance. So, making people conscious of it by holding various seminars and meetings for tree plantation campaigns may be successful. Besides, the Government and NGO should take proper steps to plant trees. The mass media like television and radio can play a great role to inspire people to plant trees. For that, social media can also make people conscious of it. To make our life peaceful, there is no alternative to tree plantation. So, we should plant more and more trees for our existence.

#### Situation of Trees in Our Country

Trees are known for their grandeur and majesty are like the green pearl in the Indian crown. Trees occupy the important place in the history of India. Trees have always been associated with wisdom and immortality in India. Hindu literature describes a celestial tree as having its roots in the heaven and its branches in the underworld that unites and connects beings of every kind. Banyan is our National Tree. Medicinal plants such as Peepal, banyan (Bodhi tree), banana, and Tulsi are some important plants that holds special cultural and religious significance yje country. Indian Rosewood, Kikar, Aleo Vera, Ashwagandha, Cork, Brahmi, Sal, Khair and Garden Asparagus are some of the popular trees grown in our country.



#### Population of Trees in the World

Our country has a tree population of 35 billion which means 28 trees per person. As Compared to Brazil which has 301 billion trees (1,494 per person), Canada 318 billion (8,953perperson), and China 139 billion (102trees per person).America has 319 million p 8 eople in 2014, but 228 billion trees. That's 716 trees per person. Russia is the single country which has largest number of trees - 641 billion (4,461 trees per person) as per survey of 2014 for tree population estimates- statistics under scoring the vastness of Siberia's arboreal forests.

We should regularly plant trees to save the mankind and the animal world. Tree plantation and its after-care is a pleasing



work also and get much pleasure in planting trees and in taking care of them. Students should plant trees in their school-compounds and in the front-yards, backyards and side-yards of their schools and near their own houses and in other places wherever possible. They should explain to their neighbors the goodness of tree-plantation and encourage them to plant and care new trees.

## V. CONCLUSION

We sum up this case study of the Foundation and its activities now. Voluntary organizations are very important to the human societies and the government. As the Government cannot do all the development work alone therefore it need such organistaions for the better management and development of the community at the local level. We should consider the fact that we all need good education, better health facilities, resources for the better environment and forest cover protection. Trees are important to us humans. Save them and they will save us in return. Plant more trees and as you plant trees you are planting life too because of the fact that they are giving us fresh air, woods that we people used to build our houses. They stands as our shelter most especially to the animals, a shield to heat. We should protect bec ause they are helping us. Sometimes we are being rude to them, we cut them without replacements and we are the reason why they are being fewer. Have mercy on them because they are one of the reasons why we still have fresh air now. Wherever you live in the world, trees are essential to your health and well-being. Trees shade our homes, add beauty to our communities and countryside, and protect biodiversity by providing food and habitat for birds and animals. Trees are natural air filters - taking in carbon dioxide and releasing oxygen. Trees protect sources of drinking water by preventing soil erosion. Trees absorb and store greenhouse gases from the atmosphere as they grow, making them an essential tool in fight against climate change. We can all contribute to a healthy natural environment by planting trees. This in-depth case study of this Foundation and its activities immensely benefitted us, particularly to the first author, as young learners, about the voluntary organsiations and their work which are very important and are complementary to whole society.

## Notes:

1. The founder is a post graduate in Immunology. The death of a closely related kin who was diagnosed with Lung Cancer (Bronchogenic Carcinomas) was deeply touched him. As he could not provide any sort of assistance to his family member upon this death so came up with the idea to form the health organization, Jax Health Care Foundation (JHCF), to cease the suffering of many. He approached his friends and together they built the pillars of the foundation. They slowly gathered and more people joined to help them. Gradually JHCF had been come up with his hard work and

support of its members slowly spreading its roots.

## Acknowledgment

We are thankful to our Amity University for encouraging and engaging in the voluntary work in the slum community. Further express gratitude to Shri S.K. Pathak, HVCO, Teacher, for his support during the visit. We are indebted to people of the slum where we all, particularly first author (RD) had learned about them for this case study successfully.

## VI. REFERENCES

- [1]. Aggarwal, Priyagi (2022). Beg, borrow...heal: Kids who dropped out during lockdown return to school. Hindustan Times, Wednesday, 22nd August, 2022, page-2, New Delhi.
- [2]. Dutta, Rimjhim(2022).Community Outreach for Children Education-Case Study of Voluntary Organization. Report, unpublished, submitted to Amity School of International Relations, AUUP, Nodia.
- [3]. Jaiswal, A. (2021). Covid-19: Health workers and occupational Health. Socio- Economic and Health Problems: During Covid-19 Pandemic, 211-218, Raghav Publication, Delhi. ISSN: 978-93-85679-19-9.
- [4]. Jaiswal, A. (2022). Covid-19 Pandemic: Digital Technology Usage and Associated Socio-Technological Challenges. Habitus Toplumbilim Dergisi, 3(3), 233-250.
- [5]. Kannan, Harini (2020). Covid-19: Adopting a New Method of Teaching. Hindustan Times, 28th June, 2020, page-08, New Delhi.
- [6]. Mrinal, Madhur (2019). Troubled Mind and Healing Rituals: Re-Thinking Mental Health. Antrocom Journal of Anthropology, 15-2 pp. 141-148. Accessed on 14/dec/2023
- [7]. Mrinal, Madhur (2020a). Covid-19 Pandemic Situation: New Challenges for Mental Health, <https://www.newdelhitimes.com/covid-19-pandemic-situation-newchallenges-for-mental-health/>. Accessed on 13/Dec/2023
- [8]. Mrinal, Madhur (2020b). Covid-19 Lockdown: Its Effect on Environment, International Journal of Engineering Applied Sciences and Technology, 2020 Vol. 5, Issue 2, ISSN No. 2455-2143, Pages 563-568.
- [9]. Mrinal, M. (2022). Mental Health Wellbeing of school Children in Covid-19, Anthro-Indialogs, 2: 2, pp. 111-123. DOI: 10.47509/AI.2022.v02i01.03
- [10]. Sarfaraz, Kainat (2020). Concern about implementation worry school. Hindustan Times, 19th September, 2020, page-04, New Delhi.
- [11]. Sharma, K. (2020). Over Rs 5,700 crore allocated



to school education sector to 'mitigate' Covid risks. The Print.Retrieved from: <https://theprint.in/india/education/over-rs-5700-crore-allocated-to-school-education-sector-to-mitigate-covid-risks/503143/>

- [12]. Singh, Ravinder and Kumar, U. (2014). The History of Voluntarism in India. Publisher Grin Verlag, Germany.
- [13]. Unicef (2021). UNICEF report spotlights on the mental health impact of COVID-19 in children and young people. <https://www.unicef.org/india/press-releases/unicef-reportspotlights-mental-health-impact-covid-19-children-and-young-people><https://www.unicef.org/india/press-releases/unicef-report-spotlights-mental-health-impact-covid-19-children-and-young-people>. Accessed on 30/March/2023

Web-resources for voluntary originations.

- [14]. Teach for India, Make A Wish Foundation and Smile Foundation, all are voluntary originations working in Delhi for healthcare and education to empowerment and disaster response. <https://lbb.in/delhi/ngos-volunteer-delhi/> accessed on 01.04.2023

# IJEAST

INTERNATIONAL JOURNAL  
OF ENGINEERING APPLIED SCIENCE  
AND TECHNOLOGY

## ABOUT IJEAST

International Journal of Engineering Applied Science and Technology (IJEAST) is a peer-reviewed, open access journal that publishes high-quality research papers in the field of Engineering, Applied Science and Technology.

IJEAST aims to provide a platform for researchers, academicians, and professionals to share their innovative ideas, research findings, and practical experiences with the global scientific community.

## FOCUS AREAS

- Engineering
- Applied Science
- Technology
- Innovation & Development
- Interdisciplinary Studies



### PEER REVIEWED

All submissions are rigorously peer reviewed to ensure quality.



### OPEN ACCESS

Free and unrestricted access to research for all.



### GLOBAL REACH

Connecting researchers and professionals worldwide.



### TIMELY PUBLICATION

We ensure a swift and efficient publication process.



For more information, visit our website

[www.ijeast.com](http://www.ijeast.com)



INTERNATIONAL JOURNAL  
OF ENGINEERING APPLIED SCIENCE  
AND TECHNOLOGY

✉ [editor@ijeast.com](mailto:editor@ijeast.com)

🌐 [www.ijeast.com](http://www.ijeast.com)

📍 India



2455-2143