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Original Research Article

Antimicrobial Activity of Mimordica Charantia

Phytochemical Analysis and Antimicrobial Activity of Mimordica Charantia Medicinal Plant Against Selected Common Human Pathogenic Microorganisms

Sonali V. Padwad[1] Ashish P. Lambat[2], Prachi A. Lambat[3*] Ankita R. Chaudhary[1] And Ashish D. Tiple[4]

[1] P G T D, Botany R T M Nagpur University, Nagpur, M.S., India
[2] Sevadal Mahila Mahavidyalaya, Nagpur, M.S., India
[3] D R B Sindhu Mahavidyalaya, Nagpur, M.S., India
[4] Department of Zoology, Vidyabharti Mahavidyalaya, Seloo, Wardha, M.S., India

Abstract: *Momordica charantia* is a plant belonging to Cucurbitaceae family known for decades for its medicinal and nutritional value. The objective of the present study was to do qualitative evaluation and compare the antibacterial activity of *M. charantia leaf*, seeds and fruits. Results of our study showed that hybrid seed methanol extract had more active phytoconstituents like alkaloid, carbohydrate, saponin, proteins, resin, flavonoid, diterpens, reducing sugars than other extracts of fruit, leaf and seed of wild and hybrid varieties of *M. charantia* extracted using different solvents. Carbohydrate, phytosterol, and proteins are mostly present in all extracts of *Mimordica charantia*. Flavonoids are significantly present in seeds. So hybrid seed methanol extract can be considered as the main source of above mentioned phytochemicals to facilitate pharmaceutical industries. Methanol extracts of hybrid seed exhibited highest zone of inhibition against *Salmonella paratyphi A* (30±0.64mm) & *Staphylococcus aureus* (26±0mm) and chloroform extract of wild fruit showed highest activity against *E.coli* (22.5±0.64mm).Hence these extracts may be used to treat infectious diseases, surgical wounds, skin lesions, salmonellosis, enteric fever, food poisoning. The purpose of the current study was to investigate antimicrobial activity of M. *charantia, apart* from being used as anti-psoriatic drugs and this plant earlier have been used also as antibacterial agents, hence the activity was also carried out against other organisms such as *Escherichia coli*, *Staphylococcus aureus*, *Bacillus subtilis*, *Salmonella typhi* and *Aspergillus niger*. Further phytochemical analysis (using techniques like TLC and HPLC) will be necessary to isolate the active constituents and clinical studies are required to understand the mechanism and the actual efficacy of these extracts in treating various infections and skin diseases. This will have significant importance in pharmaceutical and herbal industries.

Keywords: *Momordica charantia*is, Phytochemicals, Flavonoids, *Salmonella, Cucurbitaceae.*

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***Corresponding Author**

Prachi A. Lambat , D R B Sindhu Mahavidyalaya, Nagpur, M.S., India

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SPERM HEAD MORPHOLOGICAL DEFECTS AFTER CYCLOPHOSPHAMIDE TREATMENT

Health Science

Dr. Z. N. Kashmiri Associate Professor, Department of Zoology, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur

ABSTRACT

Cyclophosphamide (CP) is a class of medications called alkylating agents used against many cancers. It works by slowing or stopping the growth of cancer cells in the body. CP has genotoxic effect on normal cells of reproductive system. Present investigation is carried out to find the effect of Cyclophosphamide on sperm head morphology. Results showed that Cyclophosphamide treated rats showed a significant decrease in epididymal sperm count, testosterone level and sperm head abnormalities. This study indicates anticancer drug Cyclophosphamide caused the germ cell toxicity in male rats which ultimately affect the reproductive behavior of organism.

KEYWORDS

Cyclophosphamide, alkylating agent, spermatogenesis

INTRODUCTION

Cyclophosphamide (CP) is one of the most prevalent cytotoxic alkylating agents often used in cancer treatment (Fernandes et al, 2020). It is known to disturb spermatogenesis and induce testicular toxicity (Wtwt et al, 2012 and Namoju et al, 2021). CP is used for the treatment of cancer diseases such as Lymphoma, Myloma, Leukemia, Mycosis, Neuroblastoma Adenocarcenoma, Retinoblastoma, and Breast carcinoma (Shanafelt et al, 2007 and Cronin et al, 2018).

Also used as immunospressor after organs transplantation and in autoimmune disease such as Rheumatoid arthritis, Wegeners granulomatosis, and Nephritic syndrome in children (Chabner et al, 2001). Its cytotoxic effects are the result of chemically reactive metabolite that creates DNA adducts, DNA-DNA and DNA-protein cross links, sister chromatid exchanges, chromosomal aberration and DNA strand breaks in many cell types, including germ cells (Condrington et al, 2007). One of the many consequences of Cyclophosphamide treatment is a negative effect on male fertility (Vaisheva et al, 2007 and Fernandes et al, 2020) by disturbing spermatogenesis, sperm parameters, and increase in oxidative stress. Present study was emphasis on the effect of CP on sperm head morphology and count.

MATERIALS AND METHODS

A. Drug

The anticancer drug Cyclophosphamide (Endoxan-N, CAS no. 50-18-0), with the chemical formula $C_7H_{15}Cl_2N_2O_2P$ and molecular weight, 261.086 g/mol. manufactured by Candila Healthcare Limited, Goa was used for the present experiments.

B. Animals

Male Wistar rat, *Rattus norvegicus* weighing between 250-300g obtained from Shree Farma, Bhandara (MS) were used. Animals were maintained in the laboratory under an absolute hygienic condition as per the recommended ethical standards. They were fed *ad libitum* with standard pellet diet and had free access to water, kept on a 12-h light-dark cycle.

C. Treatments

Animals were allowed 3 to 5 days acclimation period before being treated. They were randomly selected and divided into four groups with six animals in each group. For the chronic study, rats were treated with 5mg, 7mg and 10mg/Kg on body weight basis for six days a week for two weeks by intraperitoneal injections of Cyclophosphamide whereas control group received same amount of normal saline for two weeks.

D. Sperm Count

Animals were sacrificed by using chloroform 24 hours after the last day of each experiment. The cauda epididymis was removed and placed in a normal saline. The epididymis was minced into small pieces to allow the sperms to swim out. The sperm suspension thus obtained was centrifuged at1000rpm for 5min. After centrifugation, 1ml of the supernatant was taken and the epididymal sperm count was determined using Neubauer's hemocytometer. Data were expressed as number of sperms per mg weight of epididymis.

E. Sperm Head Abnormality

The cauda epididymis was removed and placed in normal saline solution. The epididymis was minced into small pieces to allow the sperms to swim out. The sperm suspension thus obtained was stained with 2% eosin solution and kept undisturbed for 1 hour. Smears were prepared using the above solution, air dried and fixed with absolute methanol for 5 min. The sperms from control and CP treated rats were examined for sperm head morphological abnormalities at 1000X magnification. Sperm head morphology was scored under the category of normal, amorphous head, headless sperm, deformed head, extremely curved head, reduced curvature of head, flattened or banana shaped head.

F. Statistical analysis:

Statistical analysis was reported in terms of mean ±SEM. Difference between the groups was statistically determined by Student 't' test (Dalgaard, 2008). The average data generated for the group of rats treated with Cyclophosphamide were compared with data on Vehicle control group of rats. A significant level of $P<0.05$ was accepted.

RESULTS

Cauda epididymal sperm count

Cyclophosphamide exposed experimental groups (5mg, 7mg and 10mg/kg) were differ statistically from the vehicle treated control group ($p< 0.01$) in total cauda epididymal sperm counts (Table 1).

Table 1: Cauda epididymal sperm count

Sr. No.	CP Treatments mg/KgBW for 2weeks	Sperm Count (x106/ml)
1	Control	82.833±0.543
2	5mg	65.000±0.577*
3	7mg	42.333± 0.760*
4	10mg	29.500±0.764*
Values are mean ± SEM, *Significant at P < 0.05		

Sperm head abnormality

The sperm from vehicle-treated control rat showed sickle shaped head (Fig. 1) while the CP treated sperm head abnormalities were classified into amorphous head, headless sperm, deformed head, extremely curved head, reduced curvature of head, flattened or banana shaped head (Figs.2-7). The head abnormalities were increased in a dose depended manner in CP received groups of rats (5mg, 7mg and 10mg/kg).

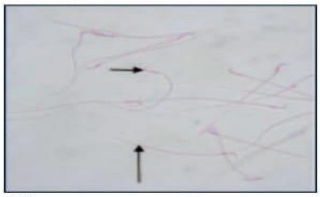

Fig.1: Normal Sperm

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STRATEGY FOR CHROMIUM (Cr) REMOVAL FROM CONTAMINATED SOIL DUE TO TEXTILE EFFLUENTS THROUGH BIOAUGUMENTATION

P. A. Lambat[1], A. P. Lambat[2] and S. A. Watile[3]

ABSTRACT

Textiles are among the basic needs of human being. The textile industries therefore have great economic significance by virtue of its contribution to overall industrial output and employment generation. Heavy metal such as chromium can bio-accumulate and through the food chain, to toxic levels in man. A study was conducted in 2016-17 on eastern part of the State; Yavatmal, which is bordered by Amravati district on the north, Wardha district on the northeast, Chandrapur district on the east, the State of Andhra Pradesh on its south, Nanded on its southwest, to its west, Parbhani district and the district of Akola on its north west. Yavatmal district stretches over an area of 13584 Sq. Km This sector has wide spectrum of industries ranging from small scale units that use traditional manufacturing process, to large integrated mills using modern machineries and equipment. Based on the wastewater characteristics and the prevailing vegetation, the experimental work was carried out in 2017 at 3 site of effluent. The experiment was designed by using the principles of design of experiment. The role of organic amendments (Farm yard manure and microorganisms like *Actinomycete*, *Azotobacter* and *Rhizobium*) in enhancing bioremediation of textile industry effluent contaminated soil was assessed. The COD of textile industry wastewater showed decline over a period of 10 days after treated with the plants. The field experimental data indicated the highest chromium uptake rate was observed with the plants, such as *Bacopamonnieri* (Brahmi), *Alternanthera sessilis*, *Typha angustata* (Lesser Indian Reed Mace), *Kyllinga tenuifolia* (Cyprus grass) and it was highest with *Typha angustata* when bio-augmented with Azotobacter, Rhizobium and FYM.

(Key words:Textiles effluent, microorganisms, phytoremediation and bioremediation)

INTRODUCTION

Textiles are among the basic needs of human being. The textile industries therefore have great economic significance by virtue of its contribution to overall industrial output and employment generation. This sector has wide spectrum of industries ranging from small scale units that use traditional manufacturing process, to large integrated mills using modern machineries and equipment. There are 2324 textile industries in the country including composite and process houses.

A study was conducted in 2017 eastern part of the State; Yavatmal, which is bordered by Amravati district on the north, Wardha district on the northeast, Chandrapur district on the east, the State of Andhra Pradesh on its south, Nanded on its southwest, to its west, Parbhani district and the district of Akola on its north west. Yavatmal district stretches over an area of 13584 Sq. Km.

Textile industries transform fibers into yarn; convert the yarn into fabrics or related products, and dye and finish these materials at various stages of production. In processing of textiles, the industry uses a number of dyes, chemicals, auxiliary chemicals and sizing materials. As a result, contaminated waste water is generated which can cause environmental problems unless properly treated before its disposal.

The main environmental problems associated with textile industry are typically those associated with water body pollution caused by the discharge of untreated effluents. Other environmental issues of equal importance are air emission, notably Volatile Organic Compounds (VOC) and excessive noise or odour as well as workspace safety.

Textile effluents are often contaminated with non-biodegradable organics termed as refractory materials. Detergents are typical example of such materials. The presence of these chemicals results in high chemical oxygen demand (COD) value of the effluent.

Organic pollutants, which originate from organic compounds of dye stuffs, acids, sizing materials, enzymes, tallow etc. are also found in textile effluent, such impurities are reflected in the analysis of bio-chemical oxygen demand (BOD) and COD. These pollutants are controlled by use of biological treatment processes. In many textile units, particularly engaged in synthetic processing, low BOD/COD ratio of effluent is observed which makes even biological treatment not a ready proposition. The waste water of cotton

1. Asstt. Professor, D R B Sindhu Mahavidyalaya, Nagpur, M.S., India
2. Asstt. Professor, Sevadal Mahila Mahavidyalaya, Nagpur, M.S., India (Corresponding author)
3. Secretary, Jagdamba College of Engineering & Technology, Yavatmal, M.S., India

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EFFECT OF SOWING MEDIA ON SEED GERMINATION AND SEEDLING SURVIVAL OF *AMMI MAJUS L.*

Megha Bhambri

Department of Botany, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur, Maharashtra, India

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ABSTRACT:
Seed germination, seedling emergence and survivorship of seedlings are affected by various factors. Sowing media is one such factor, which have significant impact on seedlings quality and yield of any crop. An experiment was designed to determine appropriate sowing media for sowing Ammi majus L. The purpose of this study was to examine the effect of planting media on seed germination, emergence and survival of seedlings of Ammi majus L. Three different sowing media i.e., Growth mixture (sand: cocopeat: vermicompost in 1:1:1 ratio) (T1), Sand (T2), Soil (T3) were compared with control (H2O) and evaluated. The best germination and survival percentage was exhibited by growth mixture, 71% and 66% respectively followed by sand, water(control) and soil respectively. The rate of germination was fastest in the case of growth mixture which achieved its maximum germination by 2nd week. Garden soil showed slowest rate of germination and took about three weeks for total germination (58%) to occur. The statistical analysis has revealed that Growth mixture exhibited a statistically significant accretion of over 12.69% in germination and 10% in survival percentage over control/ water. Hence growth mixture (equal parts of sand, cocopeat and vermicompost), was found to be most suitable germination media.

Keywords: - Seed Germination, Seedling emergence, Survivorship, Ammi majus, Growth mixture etc.

INTRODUCTION :

Ammi majus L. is a plant with multifunctional medicinal properties which belongs to the family Apiaceae. Its common names are Aatrilal, Bishop's weed, Greater *Ammi*, False Queen Anne's lace, Bullwort, Lace flower and Honey flower. It is a native of Nile Delta of Egypt and widely grown throughout the Mediterranean region, Abyssinia, Africa and some parts of Egypt. In India, it was first introduced in the Forest Research Institute, Dehradun, in 1955 through the efforts of UNESCO. Since then, its experimental cultivation has been tried in several parts of the country including Jammu, Dehradun, Mumbai, Chennai, Delhi and Punjab. Its cultivation has been undertaken in Jammu by Bradu and Atal in 1970. Later on, its cultivation has been extended in Punjab and in some parts of Rajasthan also.

Ammi majus L. is known for its high coumarin content, particularly furanocoumarins. Coumarin, umbelliferone, bergapten, xanthotoxin, isopimpinellin, imperatorin and isoimperatorin have been reported from the plant (Friedman et al., 1982, Wager & Bradt, 1996). The drug has been the subject of a great deal of chemical and pharmacognostical investigations, due to the utility of its active conatituents in various ailments.

A. majus L. is regarded as the richest, natural source of linear furanocoumarins called paoralens. These compounds are found mostly in the fruits of this species (Nielsen 1964, 1970). In *Ammi majus* L. seed harvest should be done separately for primary and secondary level umbellets, that are major contributors of good quality seeds (Megha et. al., 2017). Like most medicinal compounds, furocoumarins might have potential as natural (or synthetic)

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Dada Ramchand Bakhru
Sindhu Mahavidyalaya, Nagpur-17

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A Minireview on The Applications of Nanobiosensors Based on Localized Surface Plasmon Resonance

Chandrashekhar P. Pandhurnekar*[1], Himani C. Pandhurnekar[2] and Avinash V. Bharati[1]

1*. Department of Chemistry, Shri Ramdeobaba College of Engineering and Management, Nagpur, Maharashtra, India 440 013.
2. Department of Chemistry, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur, Maharashtra, India 440 017.
* Email: pandhurnekarcp@rknec.edu

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Abstract:

In this new era of nano-materials, most chemists and physicists are familiar with the phenomenon of localized surface plasmon resonance (SPR). Noble-metal nano-particles with dimensions (3–100 nm) much smaller than the wavelength of incident light (400–900 nm) exhibit this tendency. In nanostructured materials, due to their very small particle size, the electrons are restricted within the nanoparticle surface area and oscillate with a certain frequency. It is noteworthy that the phenomenon of localized surface plasmon resonance appears when the frequency of the incoming photons overlaps with the frequency of the electrons. As this oscillation of surface electrons is taking place against the restoring forces of the positive nuclei, there is a formation of plasmon resonance. This characteristic property of scattering and absorption of photons appearing in the SPR of every nano-structured material, make them excellent nanoprobes for a variety of applications such as cell imaging and detection of protein phosphorylation and many others. The performance of bio-chemical sensing devices has been greatly improved by the development of localized surface plasmon resonance (SPR) based sensors. In the present minireview, we have briefly discussed the classification of biosensors and the basics of their instrumentation. Some of these applications have been discussed here using some nano-engineered biosensors.

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The versatility of biosensors as potential diagnostic tools for environmental monitoring and control

Doyel Bhattacharya ; Shubhajit Halder

+ Author & Article Information
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Accurate estimation and assays of environmental toxins and pollutants pose major challenges in the analytical field of chemistry. Conventional methods even in their highest accuracy output suffer with disadvantages like low limit of detection limits, unaffordability, tedious methodical procedures and experienced personnel. Hence nanomaterial-based biosensors provide precise detection of environmental contaminants ranging from nano to femto scale of concentration. These are rapid and highly precise sensors that could effectively sense and estimate them at the molecular level. This article aims to put light on the recent advancements of biosensors. Special consideration also has been given to the versatile applications of these sensors in environmental monitoring and control.

Topics
Nanomaterials, **Detection limit**, **Toxins**, **Biosensors**

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EFFECT OF *ACHYRANTHES ASPERA* LINN. ON TESTIS AND EPIDIDYMIS OF MALE ALBINO RATS

VaishaliJamgade and Kavita Apkaje

Department of Zoology, Govt. Institute of science, Nagpur -440001
Department of Zoology, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur-440017

ABSTRACT

Achyranthus Aspera is an Ayurvedic medicinal plant which is being used as asanti-arthritic, anti-fertility, laxative, anti-viral, anti-hypersensitive, anti-coagulant, diuretic and anti-tumor agent. During present study its antifertility activity on male albino rats was studied Histological studies revealed that administration of *Achyranthes aspera* caused degeneration of Leydig cells, spermatogenic disruption, shrinkage of seminiferous tubules in the testis and shrinkage of epididymal tubules. It was observed that there is less population of spermatozoa in the lumen of epididymis.

Key words : *Achyranthes aspera*, Apmargakshara, Histology, Antifertility.

Introduction

Roots of *Achyranthes aspera* cause spermatotoxicity when administered orally to male albino mice (Anuja, et. al., 2010). The leaf extract of this plant has anti-fertility effect (Desta, 1994).. Extracts from roots of *A. aspera* have been reported to possess spermicidal activity in human and rat sperm (Paul, et. al., 2010). It has been reported that ethanolic extract of the roots of *Achyranthes aspera* showed post coital antifertility activity in female albino rats (Vasudeva and Sharma, 2006). During present study male antifertility activity of *Achyranthes aspera,* was studied using albino rats.

Material and Methods:

Achyranthes aspera, was collected from Mahurzari village (25 km away from Nagpur). Identification and authentification of collected specimens has been done with the help of floras viz. Flora of Nagpur District (Ugemuge,1986).The voucher specimen was deposited as specimen number 01132 at the Department of Botany, Dr. Babasaheb Ambedkar College, Deekshabhoomi, Nagpur.

The whole plants were cleaned well and dried completely in sunlight. After drying the plants was completely burnt in an open air till a grey colored ash was obtained. Weight of the ash was recorded. To a sample of the ash 4 times of water was added and it was mixed well and kept overnight. Thereafter, the supernatant fluid was collected, filtered several times toremove insoluble particles. This filtrate was subjected to evaporation till thick layer of white extract was obtained.

Adult male wistar rats (200 - 220 g) of approximately same age were selected, housed in metallic cages and accelimatized for 7 days. The animal received drug treatment orally, for which the animals were divided into 6 groups of 6 individuals each.

Group I: Control, received only food and water.

Group II: Treated, fed powdered or drug sample of Apamargakshara of whole plant of *Achyranthes aspera* 1g/ kg/ day for 7 days.

Group III: Treated, fed powdered or drug sample of Apamargakshara of whole plant of *Achyranthes aspera* 1g/ kg/ day for 14 days.

Group IV: Treated, fed powdered or drug sample of Apmargakshara of whole plant of *Achyranthes aspera* 1g/ kg/ day for 21 days.

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REVIEW

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A review of recent synthetic strategies and biological activities of isoxazole

Chandrashekhar P. Pandhurnekar[1] | **Himani C. Pandhurnekar**[2] | **Arvind J. Mungole**[3] | **Suraj S. Butoliya**[1] | **Babita G. Yadao**[2]

[1]Department of Chemistry, Shri Ramdeobaba College of Engineering and Management, Nagpur, India
[2]Department of Chemistry, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur, India
[3]Department of Botany, Nevjabai Hitkarini College, Bramhapuri, India

Correspondence
Chandrashekhar P. Pandhurnekar, Department of Chemistry, Shri Ramdeobaba College of Engineering and Management, Nagpur, Maharashtra, India.
Email: pandhurnekarcp@rknec.edu

Abstract

Among different heterocyclic compounds, isoxazole and their analogues are very important classes of heterocyclic compounds as they display an extensive range of biological actions. This makes such scaffolds very important structures in the field of medicinal chemistry. From an extensive literature assessment, isoxazole is clinically proven to be very effective as an anti-bacterial, anti-fungal, anti-inflammatory, anti-cancer, anti-tubercular, and anti-neoplastic agent. The different derivatives of isoxazole which exhibits adjustment in their structure have shown a high degree of variety in their medicinal properties which makes evident them as very beneficial in the progress of novel bioactive drugs which show enhanced effectiveness along with minor harmfulness. Structural aspects of isoxazole having aromaticity with weaker nitrogen-oxygen bonding provide a potential site for the ring cleavage. Thus, this isoxazole ring system allows easier modifications of substituents in their ring structure which consequently make isoxazole very useful intermediates in various synthetic routes of bioactive compounds. Hence, the synthesis and evaluation of isoxazole-containing molecules with wider therapeutic consequences are always the topic of interest for chemists. Hence, in light of this comprehensive research on isoxazole, it is thought worthwhile to review various pathways for the synthesis of isoxazole analogues and having a broad spectrum of bioactive actions.

1 | INTRODUCTION

Heterocycles possessing nitrogen together with atoms like oxygen, because of their diverse biological properties are regarded as a significant type of compound in medicinal activities [1]. Some of such classes of heterocycles are pyrazoles, azetidinones, imidazoles, isoxazoles, thiazolidinones, pyroles, triazine, etc. Such heterocycles are the key structural building block in most pharmaceutically active drugs. Isoxazole can be defined as azole with the presence of an oxygen atom following nitrogen, exhibits assorted biological activity, and also forms a very important part of several biodynamic agents [2]. Isoxazole (Figure 1, **1a**) is a heterocyclic compound having five-membered, the ring bears oxygen and nitrogen atoms in the 1 and 2 positions, and its partial saturated analogues are known as isoxazolines (Figure 1, **1b–d**) which are entirely saturated analogue is known as the isoxazolidine (Figure 1, **1e**) [3].

The literature survey revealed that derivatives of isoxazole are a very important class of heterocycles in organic chemistry as these are extensively useful as important pharmacophores [4]. The isoxazole molecules and their derivatives are having great importance in

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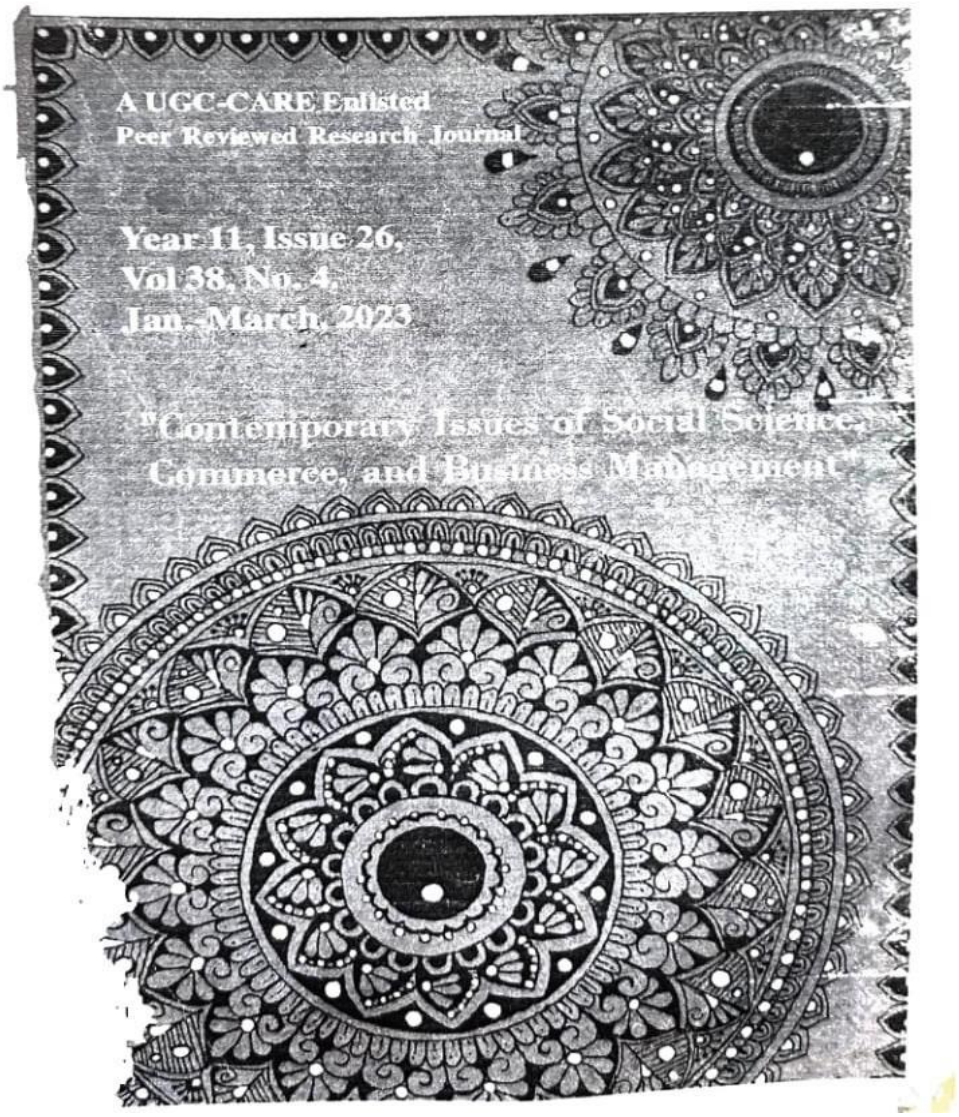
सप्तधारा



A Study of Interrelationship between Language and Power

Dr. Jayant Krishnarao Walke *

Abstract

A message is the exchange of thoughts, ideas, feelings, etc. We generally do it in our mother tongue. But now in modern times, the world has come closer, globalization continues and the era of computers, the internet, etc. has come and survival in the world competition has made us communicate in the most used language in the world apart from our mother tongue. English is considered the common language of the world. That is why it is very important to communicate in English. Mother tongue, regional languages, and English language are taught in India. English is the official language in many countries of the world. Various scientific researches, international trade, communication, etc. are done in English. Various materials available on the Internet are in English. The English language came with British rule in India. Since it was their mother tongue as well as the official language, they also started using English in office and business functions in India. Due to the importance of English since the time of British rule, English has its roots in India even today. This research paper studies the interrelationship between language and power.

Keywords: English Language, Interrelationship, Language, Power, Language Learning

Introduction

Power means strength. If seen in the social context this relationship is linked with the elite class. Power is the ability to control the actions of others. Power is the mainstay of social structure. Power in society is manifested in two forms - the form of power and the form of influence. In the modern world the power lies in money, muscles and politics. But there is one thing that can control, deviate, direct and guide these tools of power and that is language. In other words, language creates power. Let us find out the relation between these two - the language and the power. In order to establish this relation we have to understand the only and ultimate weapon in the armory, the language, and how this weapon

* *Assistant Professor, Department of Languages, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur*

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Ecofeminism : A Bond Between Woman and Nature

Dr. Leena B Chandnani
Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur
Dr Suman Keswani
Dada Ramchand Bakhru Sindhu Mahavidyalaya , Nagpur

Abstract

The objectives of feminism can never be achieved to the expected extent if land remains enslaved even after women have been granted full freedom because the idea of women's freedom and liberation depends on the idea of having the use of natural resources in the hands of women. It will be an irony of situation if women are considered free and liberated while man keeps land and nature in his control. Such liberation and freedom for women would be ridiculous and meaningless. Therefore it becomes imperative to connect women's liberation with the liberation of land and nature from the clutches of patriarchal man. This paper is an attempt to explore the situation which has given rise to eco feminism which implies a fight for freedom and liberation of women and nature including land.

Keywords
elimination deforestation flora sustenance implementation

Introduction

Feminism is the movement committed to the elimination of male gender power and privilege or sexism despite differences among feminist. All feminists agree that sexism exists, is wrong and out to be changed. Feminists believe that liberation of women cannot be achieved until all women are liberated from the multiple operations that structure gender identities: Women of colour from racism, poor women from classism, lesbian women from heterosexism, young and older women from ageism. Jewish women from anti semitism, women of south from ethnocentrism. Feminism is intrinsically a movement to end racism, classism, heterosexism, ageism, anti-semitism and ethnocentrism.

Mythological significance

Mythological it is said that the sun kept on exploding for years and years giving

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स्वातंत्र्योत्तर हिंदी कविता में मूल्यक और उसकी संघर्ष चेतना

डी. रमेश तिवारी
पेट्रोलियम परीक्षित (हिंदी)
दा.रा.बा. सिंधु महाविद्यालय परियायनी, नागपुर

कविता अपने मूल बोध और संवेदना बोध का सबसे सार्थक अभिव्यक्ति है। कवि अपनी में सार्थक हस्तक्षेप करती कविता भारतीय समाज और समाज के सामाजिक संबंधों के मूल्यों को स्वयं ही आजादी के पहले तथा बाद की कविता अपनी अलग अलग ढंग से ही सही समाज के सांस्कृतिक स्वरूप को बेखबरी से प्रस्तुत कर रही है साथ ही पीड़ा का सीन सही मूर्त है। किसी साहित्य लेखन में प्राण सभी विधा में ही किसान जीवन पर प्रकाश डाला है। फिर भी वे अपने अध्ययनों व गतिविधियों में किसान की जीवन व्यथा का यथार्थ चित्रण किया है। कवियों किसान के सामाजिक जीवन को मूल संघर्ष से समझा तथा ही अपने लेखन का केंद्र बिंदु बनाया फिर भी लेखकों ने सामाजिक जीवन और समाज में व्याप्त विसंगतियों पर अपनी लेखनी चलाई जो अत्यंतोचित है। इसके साथ साथ हिंदी कविता में भी किसान जीवन की आर्थिक समस्या व उसके परिणाम को अपना विषय बनाकर समाज को सार्थक दिशा दिया गया है।

स्वातंत्र्योत्तर हिंदी कविता में तात्कालीन परिवेश, सांस्कृतिक मूल्य बोध के कारण कुछ विशिष्ट परिस्थितियाँ रही हैं जो आई इस कारण से कवियों ने हिंदी कविता के बदलते मानव मूल्य, समाज के बदलते स्वरूप को यथार्थ अभिव्यक्ति दी है। आजादी के पश्चात साठ दशक की कविताएँ वस्तुतः वर्ष पीढ़ी के बीच विद्रोह व आक्रोश की कविता है इस दौर के समकालीन कवियों ने एक ओर अपनी स्वतंत्रपूर्ण विचारधारा, पीड़ा और तथा प्रयोगों का चयन किया है, तो दूसरी ओर सर्वमान्य सुदीर्घ परिस्थितियों के विरुद्ध प्रतिक्रिया व्यक्त कर अपने लेखन को स्वर दिया है। स्वतंत्र के मूल के पश्चात सरकार की लोकप्रिय नीतियों व देश की विषम परिस्थितियों ने लोगों का मोह भंग किया तथा विद्रोह के स्वर कविता में आए कर आधुनिक समकालीन भारतीय कविता के अनेक हस्ताक्षर जैसे नागार्जुन, मुक्तिबोध, त्रिलोचन, धूमिल, रामदरश मिश्र, लीलाधर जगूड़ी, सर्वेश्वर दयाल सक्सेना, रघुवीर सहाय, केदारनाथ सिंह, कुंवर नारायण, सोमदत्त, राजेश जोशी की तकनीक और मानवता से अभिभूत हो सामाजी, मूल्यजीवी संवेदनाओं को किसानों पर किए गए अत्याचार, शोषण पर सशक्त लेखनी चलाई है।

समाज का एक ऐसा वर्ग जो शिक्षितकाल से लेकर आज तक सर्वहारा, शोषण, सामंतीय अधिकारों से पीड़ित, दीर्घकालीन जीवन को भोग रहा है। कृषक जीवन किसी भी दृष्टि से एक मजबूत जीवन से जोड़ता नहीं है। सच्चाई यह है कि यह मजबूत व सशक्त कहा जाता है। समाज के लेखकों, कवियों साहित्यकार, कलाकारों, आलोचकों ने भारत की किसानों का शोषण अपना साथ समझ कर अपने साहित्य में भारतीय किसान की जिंदगी की सही सच्चाई है। किसान ही है जो सभी के लिए अपना संपूर्ण जीवन समर्पित करता है। खेती करना उसके लिए व्यवसाय नहीं अपितु उसके जीवन का एक हिस्सा है। एक साथ खाया सभी सामाजिक लेखन में व्याप्त है। भारत एक कृषि प्रधान देश है। भारत की अर्थव्यवस्था का एक बड़ा हिस्सा कृषि संबंधी कार्यों से जुड़ा है परंतु भारत के विकास में इसका योगदान सबसे बड़ा नहीं है। यह तथ्य कहीं न कहीं इस बात की ओर इशारा करता है कि किसानों के श्रम का पूरा परिणाम उन्हें नहीं मिलता और उसके आर्थिक का यह बहुत बड़ा कारण है।[1]

आगे कहकर कि 2.4 ही शोषण नहीं हो, आजादी की बाद का परिस्थितियों में अपने अभाव ग्रस्त ही होती रहने वाले अन्न उगाता है। लेकिन उसके इस अथाह परिश्रम का उचित मान या फल प्राप्त नहीं हो पाता जीवन भर यह कठिन परिस्थितियों से जूझता रहता है। आर्थिक विपन्नता के कारण ही बिल्कुल जीवन जीना पड़ता है। भले उसका ही उसका परिश्रम फल के एक-एक दाने को उगाता है। कवियों ने इस शोषित किसान और उसका अंधेरों को अपने ही शब्द दीपों से आलोकित किया है, तब यह स्थिति अत्यंतोचित हो जाती है तब आत्महत्या जैसे घातक कदम को चुन लेता है।

ऐसे समय नागार्जुन ने केवल किसी साहित्य के, बल्कि समग्र चेतना, संपूर्ण मूल्य दीक्षित जनता के पक्षधर बनकर किसी साहित्य लेखन में अपनी सशक्तपूर्ण भूमिका निभाने हैं। नागार्जुन ने स्वयं आजादी को जीया है। इन्होंने के साथ शोषण, सामाजिक परिस्थितियों मूल्य बोध को ले किसान मूल है इसलिए उसके कारण में शोषितों की पीड़ा सशक्त रूप में व्यक्त कर पाये हैं। भयावहित, अतिवृष्टि और सूखे से होती भारतीय किसान की अंतहीन समस्या और दिन प्रतिदिन ही बढ़ाते किसान की समस्या को कविता 'आकाल और उसके बाद' सूखी की कविता में बिम्ब रूप अभिव्यक्त किया है, जो सच है सामाजी को छू जाती है सामाजिकता के

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समकालीन कविताओं में प्रकृति व पर्यावरण चेतना के स्वर

डॉ. रापना तिवारी
डी.आर.बी. सिंधु महाविद्यालय, नागपुर

युगधर्म की मानसिकता के अनुसार कविता में परिवर्तन होते रहते है। प्रयोगों के इस आधुनिक दौर में कविता का ढाँचा और प्रतीकात्मक स्वरूप बदला है।समकालीन कविताएँ प्रकृति के कृत्रिम, अभिजात्य और छद्म से पूरे सहबोध से अनुप्राणित हैं। समकालीन कविताएँ यह दर्शाती हैं कि कवि प्रज्ञा को जागृत करने का सबसे उत्तम माध्यम प्रकृति है और प्रकृति जैसी उत्तेजना प्रदान करने वाला अन्य कोई साध्य नहीं है।

बाबा नागार्जुन, शमशेर बहादुर सिंह, अज्ञेय, केदारनाथ अग्रवाल, त्रिलोचन, मुक्तिबोध, रघुवीर सहाय, राजकमल चौधरी जैसे महान कवियों ने प्रकृति, समाज, संस्कृति बोध को अपनी कविताओं में विशेष स्थान देते हुए, उत्पीड़न की पूरी प्रक्रिया से संघर्षरत समाज को जोड़ा है।

समकालीन कविता में प्रकृति के रूप ही नहीं अपितु प्रकृति के सुंदर रूप को बचाए रखने की चिंता भी है। अर्थात प्रकृति संरक्षण की चिंता। वर्तमान समय में पर्यावरण संकट बड़ी चुनौती के रूप में मौजूद है। समकालीन कविताएँ इस उद्देश्य को उद्घाटित करती हैं कि प्रकृति यदि संरक्षित होगी तो हमारा जीवन भी सुरक्षित होगा।

विश्व ही ज्वलंत समस्याओं में मानव और उसके भविष्य से जुड़ी समस्याओं में एक बड़ा संकट उत्पन्न करने वाली बात है, पर्यावरण प्रदूषण। कितने प्रयासों के बावजूद प्राकृतिक वातवरण शुद्ध नहीं हो पा रहा है। इन प्रयासों में समकालीन कविता पीछे नहीं है।

समकालीन कविता में प्रकृति की सत्ता मनुष्य सत्ता में समाहित एवं गुँथी हुई है। वह जीवन संघर्ष का हिस्सा है। मानवीय संवेदना बड़ी सहजता से प्रकृति संवेदना का रूप ग्रहण कर लेती है। यह रूप खुला और निखरा है, कृत्रिमता से अच्छादित नहीं। इनमें मनुष्य प्रकृति पर हावी नहीं हुआ है बल्कि वह उसके साथ रागात्मक सूत्र में बँधा हुआ है।[1]

याद आता है मुझे अपना वह तरऊनी ग्राम
याद आती हैं लीचियाँ, वे आम
याद आती है मुझे मिथिला के रुचिर भूभाग
याद आते धान
याद आते कमल कमुदिनी और तालम खान।[2]

अन्न मनुष्य के लिए प्रकृति का वरदान है। अन्न ही कवि नागार्जुन के लिए वास्तविक तृप्ति व भोग है। फसलों और खेतों की समृद्धि उनके लिए वास्तविक सुखानुभूति है —

बहुत दिनों के बाद, अबकी मैंने जी भर देखी

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REJUVENATION OF VEDANTA IN MODERN INDIAN SOCIETY

DR. LEENA B CHANDNANI

Associate Professor, Head Department of Languages, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur, RTM Nagpur University, Nagpur, Maharashtra

ABSTRACT

Indian civilization, one of the greatest civilizations, dates back to five thousand years. During this long phase it has given rise to a distinct type of society and culture. Regardless of the manifold topical, linguistic and social diversities, the country has always witnessed a fundamental unity of tradition and culture. Since the time of the Vedic civilization, its heritage and culture have continued to advance steadily, despite several internal and foreign invasions and two centuries of British rule in India. Indian culture has an unwavering unity and unbroken continuity that stem from its strong spiritual foundation. Spirituality, philosophy, and religious dogma were always complementary in ancient India. Together, they have created a unique endeavour and crucial discipline. Vedanta is the name given to this fundamentally philosophical religion that combines spirituality. The name Vedanta comes from the fact that its fundamental tenet comes first in the collection of antiquated and outdated texts known as the Vedas. The present paper is an attempt to analyse how Swami Vivekananda was instrumental in the process of rejuvenation of Vedanta in modern Indian society.

KEYWORDS: Philosophy Eternal Spiritual, Scholastic Realisation Unity

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Original Article

INTRODUCTIONS

The real link between ancient and modern India is Shri Ramakrishna, Swami Vivekananda's mentor. Amazing spiritual endeavours made by Shri Ramakrishna honoured the full spectrum of divine encounters had by saints, seers, and sages from the earlier Vedic era until his day. He confirmed the truths of Vedanta and made the Vedic routes apparent, assisting others on their spiritual journey. By highlighting the moral basis of spiritual being, opposing obscurity, and advocating esoterism, he helped bring about the ablution of spiritual existence. Shri Ramakrishna made the realisation of Almighty possible for people of society amid the complications of the modern world and for this he accorded massive fervour to the endeavours to realise the existence of Almighty. Thus this has resulted in a rigorous and exhaustive rejuvenation of Vedanta in modern times.

The world knows Swami Vivekananda as the disciple of Shri Ramakrishna, who was the ambassador of peace and harmony and his great task was to assemble ancient Vedantic concepts acceptable to the existing society. He painstakingly and dedicatedly performed this noble task by explicating the perpetual truths with modern rational conception and science. This modernised record of Vedas and Vedanta are enough to judge and understand how the present day educated and well versed Hindus perceive them. An article on Wikipedia

What is the theory of Vedanta? explains, "God is unlimited existence, infinite consciousness, and endless happiness, according to Vedanta. This ultimate, impersonal reality is known as Brahman, the divine source of everything that is. However, Vedanta also asserts that God can be personal, taking on human form in every era. (https://vedanta.org>)

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INCULCATION OF HUMAN VALUES IN STUDENTS THROUGH VIRTUAL NETWORK DURING CRONA PANDEMIC

DR. LEENA B CHANDNANI

Associate Professor Head, Department of Languages, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur RTM Nagpur University, Nagpur, Maharashtra

ABSTRACT

With the outbreak of deadly pandemic all across the globe, a vacuum has been created in the society. Coronavirus has been contemplated as the scariest virus which has compelled the wheels of the ever-running globe come to a halt, affecting all spheres of life be it social, economic, environmental, psychological, emotional and many other fronts. Educational sector is no exception. A drastic change has occurred in the educational sector turning the age-old traditional blackboard and classroom pattern into the new digital tech board and screen design. With no other option left, students, as well as teachers, have started adapting themselves to the new digital norms of society. Academically teachers are busy trying to complete the assigned syllabus but they have one important role to play in this scenario. As the ambassadors of knowledge, they have to impart and inculcate human values and ethics among the future citizens of the globe. This paper is an attempt to explore the challenges faced by the teachers for inculcating human values and ethics among students through virtual mode.

KEY WORDS: Perspective Impact, Educational, Outbreak, Techboard

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Original Article

INTRODUCTION

A fact cannot be ignored that the base of Indian University education was basically formed during the British regime. To a large extent we have been still slaves in this matter that without bringing about any considerable change we have been following the same pattern with a little bit change and that too as an expression of our egoistic attitude rather than realizing the need of introducing the changes in such a manner as to suit our cultural background. During the British regime the idea of value-based education was not at all taken into consideration and the stress was there more on need-based education leading the students to fulfil the materialistic dreams of their own as well as those of the rulers. The focus of the need-based education was to impart more and more specialised education and train the students in one particular branch of knowledge. However, the cultural values were conveniently ignored as the British wished to see India a country in their own ideological outfit.

Importance of Education

Mahatma Gandhi once said,' education means all round drawing out of the best in a child and man- body, mind and spirit '. Education is bringing about a positive, socially acceptable and socially useful transformation in an individual. Education also means cultivation of universally accepted good values to be practised and operated in a given society. Education is a powerful and pervasive means of all round development and social transformation.

When we speak of education for development in the changing world it becomes imperative for us to assess the quality and quantum of our education with one important criterion of examining whether our education system

Officiating Principal
Dada Ramchand Bakhru
Sindhu Mahavidyalaya, Nagpur-17

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The Study of the Effect of Changes in the Rules of Cricket on Players

Dr. G. Ramchandra Rao, DPE, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.

Abstract: *During this decade, there were many charismatic, amazing, unbelievable things in cricket as well as many such changes which gave this game a different identity. There have been many changes in cricket in the last 10 years, due to which the interest in the game has increased. Given the changing nature of cricket, the Marylebone Cricket Club (MCC) has once again changed the rules. The game of cricket is played under a total of 42 laws. From time to time, the organization making these rules keeps on making changes by looking at the MCC situation. This research paper has been written to study the impact of the changes in the rules of cricket on the players.*

Keywords: *Cricket Sport, Marylebone Cricket Club, Laws, Free Hit, International Cricket Council. Concussion Replacement, Ball Tampering.*

Data Collection Method Used for Research: The research paper has depended on secondary data.

Objective of Research: 1) to study the changing nature of cricket. 2) To study the effect of changes in the rules of cricket on cricket. 3) To study the impact of the changes in the rules of cricket on the players.

Introduction: Nearly 178 years have passed since the first international cricket match was played in 1844, but the game has only grown in popularity among the masses. Although the form of cricket has changed a lot over the years and its rules also keep changing from time to time to maintain balance in every department of the game. The governing body of international cricket seems to have made some changes over the years, but the organization that urges these changes is the Marylebone Cricket Club (MCC). MCC has also given some new suggestions to change the game of cricket, although these suggestions can bring many revolutionary changes in these games. MCC has recommended changes in the rules of cricket, after which the format of the game is almost certain to change. Usually, the MCC only recommends reforms and the ICC decides whether to adopt them or not, but on most occasions, it has been seen that the reforms suggested by the MCC are adopted by the ICC without any changes.

The cricket boards of all the countries and the ICC keep trying continuously to increase the excitement of the game of cricket. Under this initiative, BCCI is preparing to bring a new rule. According to this rule, in every match, instead of 11, the captains of both teams will name 15 players for the match. The name of this rule will be Impact Player. Initially, this rule will be applicable in India's domestic matches. After this, its effect and the changes in the game due to its arrival will be reviewed. If everything goes well, it will be brought into IPL as well and in the future ICC may approve it in international cricket as well. According to the new BCCI rule, each team will have 15 players instead of 11 and players will be allowed to be changed during the match itself. This rule already exists in sports like football, hockey, and kabaddi. Now it is being brought into cricket also. Umpiring in cricket is not for the faint of heart. In a Test match, the umpire often has to take decisions in forty such close cases, which have been strongly appealed by the 11 players standing on the field. These have the potential to change the fortunes of that team. With the introduction of the Decision Review System (DRS) in 2009, the umpire's decision is no longer final. It now uses four to six Hawk-Eye cameras and sneak-o-meters to track every ball and record every sound at the batsman's end.

Experts rightly say that LBW is a matter of depth perception, geometry, probability, and psychology. Cricket umpiring requires extreme concentration for long periods, with so much going on the field that it can distract one's attention. DRS has exposed the loophole and it should be fixed with the best training and simplification of rules. Umpires will also have to improve their performance or else one more task will be added to the triumph of technology over man.

Changes in the Rules of Cricket and its Effect on the Players: International Cricket Council i.e. ICC is in a mood to change the rules of international cricket. About 2 years ago due to Coronavirus, the use of saliva to shine the ball was stopped in cricket but now it has been banned permanently. ICC i.e. International Cricket Council has recently changed some rules of cricket. These rules have been followed in cricket for a long time, but now changing them with immediate effect, the ICC has also ordered the players to follow these rules. Those rules are given below.

According to the rule of a free hit, if a bowler bowls a no ball, then his next ball is a free hit, which means that the batsman cannot be dismissed except by run out or stumping. This change came in 2015 and applies to international ODIs and T20 matches. With the introduction of night tests and pink ball timings, interest in five-day test matches has decreased. In such a situation, changes were made in the time of the ball and the game to rekindle the interest in Test cricket. Due to this, the name of the Day Night Test has been given. Two new balls this change came in ODI cricket in 2011. This saw a lot of change in ODIs. It was expected that the introduction of two new balls from both ends would bring a lot of balance to the game and help the bowlers, but it did not happen, and the reverse swing was almost finished in the white ball format.

The obligation of close fielder removed This rule was introduced in 2015, which ended the obligation to

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The Study Of The Use Of Technology In Sports AndThe Impact Of Technology On Cricket

Dr. G. Ramchandra Rao
Department of Physical Education Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur
Corresponding Author- **Dr. G. Ramchandra Rao**
Email: rama_rao2878@yahoo.co.in
DOI- 10.5281/zenodo.7543887

Abstract:
In the current era, there is a lot of emphasis on the use of technology to maintain transparency and credibility of spectators in sports and its use is also increasing. Looking at various sports, technology in the form of 'Goal Line', 'Replay System', 'Decision Review System' and 'Hawk-Eye'etc. is taking a special place in sports and its development is also being considered. However, a section has also been raising concerns over the increasing role of the third umpire sitting outside the field in sports. This is helpful but a foolproof technology is very important to use properly. Technology has an important role in sports, whether it is used for an athlete's health or in the formof athletes' technique or equipment features. The development of instructional technology has created new opportunities for research in sports. It is now possible to analyze aspects of the game that were previously thought out of reach. In this research paper, the use of technology in sports and the impact of technology on cricket have been studied.

Keywords: Cricket Sport, Technology in Sports, Instructional Technology, Sports Equipment, Protective Gear, E-Sports

Data Collection Method Used for Research:
The research paper has depended on secondary data.

Objective of Research:
1) To study the changing nature of cricket.
2) To study the use of technology in sports.
3) To study the impact of technology on cricket.

Introduction:
Assistive technology in sports is an area of design that is on the rise. Assistive technology is a range of new equipment designed to enable sports enthusiasts, who are disabled, to play. Assistive technology can be used to invent entirely new sports specifically designed for athletes with disabilities. If we don't use the technology available to improve the game, we will be left behind. In the coming times, there will be more use of technology in sports. Not only will broadcasters use technology in sports, but federations will also look for new ways to integrate technology into sports. Now with the advent of the OTT platform, its possibilities have increased. Assistive technology devices may be simple technology, or they may use highly advanced technology, some of which are even using computers. Assistive technology for sports can be simple or even advanced. Accordingly, assistive technology can be found in sports ranging from local community recreation to the Paralympic Games. Over time more complex assistive technology devices have been developed, and as a result, sports have changed from a clinical therapeutic tool to an increasingly competition-oriented activity.

Technological advances have led to improvements in sports equipment that can enhance performance by both skilled and unskilled individuals. Graphite-made tennis rackets have replaced metal-made tennis rackets which replaced wooden-made rackets years ago. Pole-vaulters using fiberglass poles have jumped to heights that earlier players used wooden poles. Which could only be dreamed of. The technology used in the manufacture of running shoes has made them more comfortable and ensures fewer injuries for runners of all ability levels. Grass

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Numerous initiatives have been taken by the Ministry of Human Resources Development (MHRD) for enhancing learning by various digital platforms.

II. RESEARCH METHODOLOGY

2.1 Objectives of the Study

1. To overview the need & importance of online learning in the current scenario.
2. To overview the Digital Education Platforms launched by MHRD India.
3. To assess the future prospects of online learning in Indian education.

2.2 Collection of Data

The secondary data is the base of present study and has been collected from various articles published in magazines, daily newspaper, websites, internet, published journals, etc.

III. NEED & IMPORTANCE OF ONLINE LEARNING IN CURRENT SCENARIO

In recent years, there has been a surge in online learning. It has been a successful method of giving students a top-notch education. It uses a variety of learning strategies and learning styles to match their particular learning demands. Through its considerable resources, it aids in the education of every student. Online courses let numerous students continue their education throughout the pandemic. Parents and stakeholders recognised the advantages of online education during the significant precautionary shutdowns. Online schools had no influence, but all regular institutions continued to be largely dependent on them. Other obstacles in India's quest for a better education include dropout rates; however, it can be reduced with online education.

In online education students exhibit advanced digital abilities. Their future prosperity depends on having these sophisticated skill sets. Our technology-based educational system has made it possible to effortlessly remove many educational obstacles. People can choose customized options for online learning if they have had bad experiences in the past or have trouble finding the suitable atmosphere to study in at set times. It provides reliable options, such as individualized study plans and adaptable study timetables. In this digital age, students can overcome their knowledge gaps through the technology-based educational system, making online learning just as successful as traditional education. A more student-centric structure is required for contemporary teaching and learning. Because it can overcome all obstacles, online education is urgently needed. Some of the points that make online education relevant are Easy Access, Variability of programs and courses, Flexibility, Career advancement and Teacher Development.

IV. DIGITAL EDUCATION PLATFORMS LAUNCHED BY MHRD INDIA

MHRD has prepared programmes, portals and apps for digital educations some of the important are as follows:

- Swayam Prabha TV Channels: The MHRD has 32 channels dedicated to broadcasting high-quality educational programmes. Swayam Prabha DTH channels are intended to assist and reach learners who do not have internet connection. Other DTH and cable operators use these channels in their systems as well. States of India have been consulted in order to share air time (4 hours daily) on the 5 existing SWAYAM PRABHA channels for telecasting educational related contents.
- DIKSHA portal: It is known as Digital Infrastructure for Knowledge Sharing. DIKSHA is designed to inherently support states/UTs in exercising autonomy, independence, and choice in creating and running learning programmes to suit their needs and achieve their goals. DIKSHA gives access to a wide range of curriculum-related e-content, Energized Textbooks (ETBs) for teachers.
- National Digital Library of India (NDL): This digital platform is available for all categories of educational institutions, academicians, differently abled students and all others who are ready to The Website address to access is: https://ndl.iitkgp.ac.in/.
- PRAGYATA: contains Guidelines on Digital Education to assist school heads, teachers, parents and students in e-learning, it has eight steps for online and digital education namely 1) Plan, 2) Review, 3) Arrange, 4) Guide, 5) Yak (Talk), 6) Assign, 7) Track and 8) Appreciate. It also states that the teaching should be done according to the NCERT calendar.

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Future Outlook of Online Learning in Indian Education System

Dr. Amit S Nanwani
Assistant Professor, Department of Commerce
Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur, Maharashtra, India
amitsnanwani@yahoo.com

Abstract: *Covid-19 pandemic have impacted lives in several ways. To stop the virus from spreading, lockdowns were imposed in every nation around the world. Lockdowns thus interfered with daily living. The Covid-19 outbreak and subsequent lockdowns have had an impact on India's educational sector. The four stages of continual countrywide lockdown led to closure of all the schools, colleges, tutorials, and other education institutions with immediate effect. The Covid-19 pandemic has affected the traditional education system and it has been very alarming. Children were unable to finish their education since people were confined to their homes for months. They were delighted by what they thought would be a holiday, but it turned out to be a terrible disaster. They were deprived of their education, therefore the government had to find a replacement, which was online learning. As both students and educators may not be ready for this single accessible option, countries all over the world have no choice but to turn to go online. Online classrooms have replaced the traditional teaching methods within a very short span of time. There is no doubt that the education system has steadily grown in schools and colleges in the seven decades after independence, with much of the credit due to government policies and the constructive participation of the MHRD. Numerous initiatives have been taken by the Ministry of Human Resources Development (MHRD)for enhancing learning by various digital platforms. In the coming years, digital learning will play an important role in the Indian education system. The main aim of this paper is to assess the future prospects of online learning in Indian education. The entire research study and findings are based on the objectives.*

Keywords: Online & Digital Learning, Digital Platforms, Future Prospects, Indian Education.

I. INTRODUCTION

The Covid-19 outbreak and subsequent lockdowns have had an impact on India's educational sector. The four stages of continual countrywide lockdown led to closure of all the schools, colleges, tutorials, and other education institutions with immediate effect. The Covid-19 pandemic has affected the traditional education system and it has been very alarming. Children were unable to finish their education since people were confined to their homes for months. They were delighted by what they thought would be a holiday, but it turned out to be a terrible disaster. They were deprived of their education, therefore the government had to find a replacement, which was online learning. As both students and educators may not be ready for this single accessible option, countries all over the world have no choice but to turn to go online. Online classrooms have replaced the traditional teaching methods within a very short span of time.

New Circumstances need new initiatives. In the recent crisis of Covid-19 pandemic Online teaching has played a very positive role. Covid-19 has necessitated that the education system should be equipped with alternate methods of quality education, when and where traditional methods of education are not possible. In order to interact with students, university faculties are creating accounts on online video conferencing platforms including Zoom, Skype, Google Classroom, and Meet. The potential for on-demand access to the information at any time or on any digital platform is offered by new media, but this presents difficulties for both the administration and the students. These days, digital media combines traditional learning methods like books and notes with modern technologies like eBooks and PDFs.

There is no doubt that the education system has steadily grown in schools and colleges in the seven decades after independence, with much of the credit due to government policies and the constructive participation of the MHRD.

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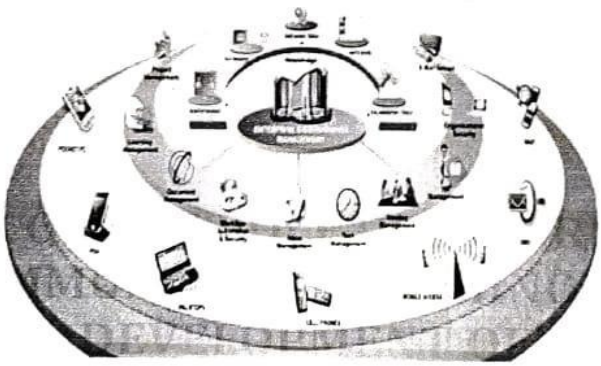
A STUDY OF THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN RURAL DEVELOPMENT OF INDIA



Dr. Mahendra L. Vanjari

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Associate Professor, D.R.B. Sindhu Mahavidyalaya, Nagpur .

Abstract -India is a country of villages and their socio-economic transformation always acts as an index of development. Generally, , ...

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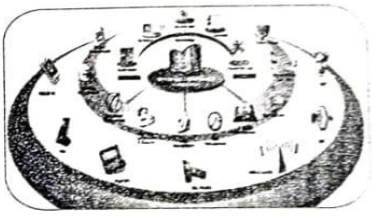
A STUDY OF THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN RURAL DEVELOPMENT OF INDIA

Dr. Mahendra L. Vanjari
Associate Professor, D.R.B. Sindhu Mahavidyalaya, Nagpur .

ABSTRACT:



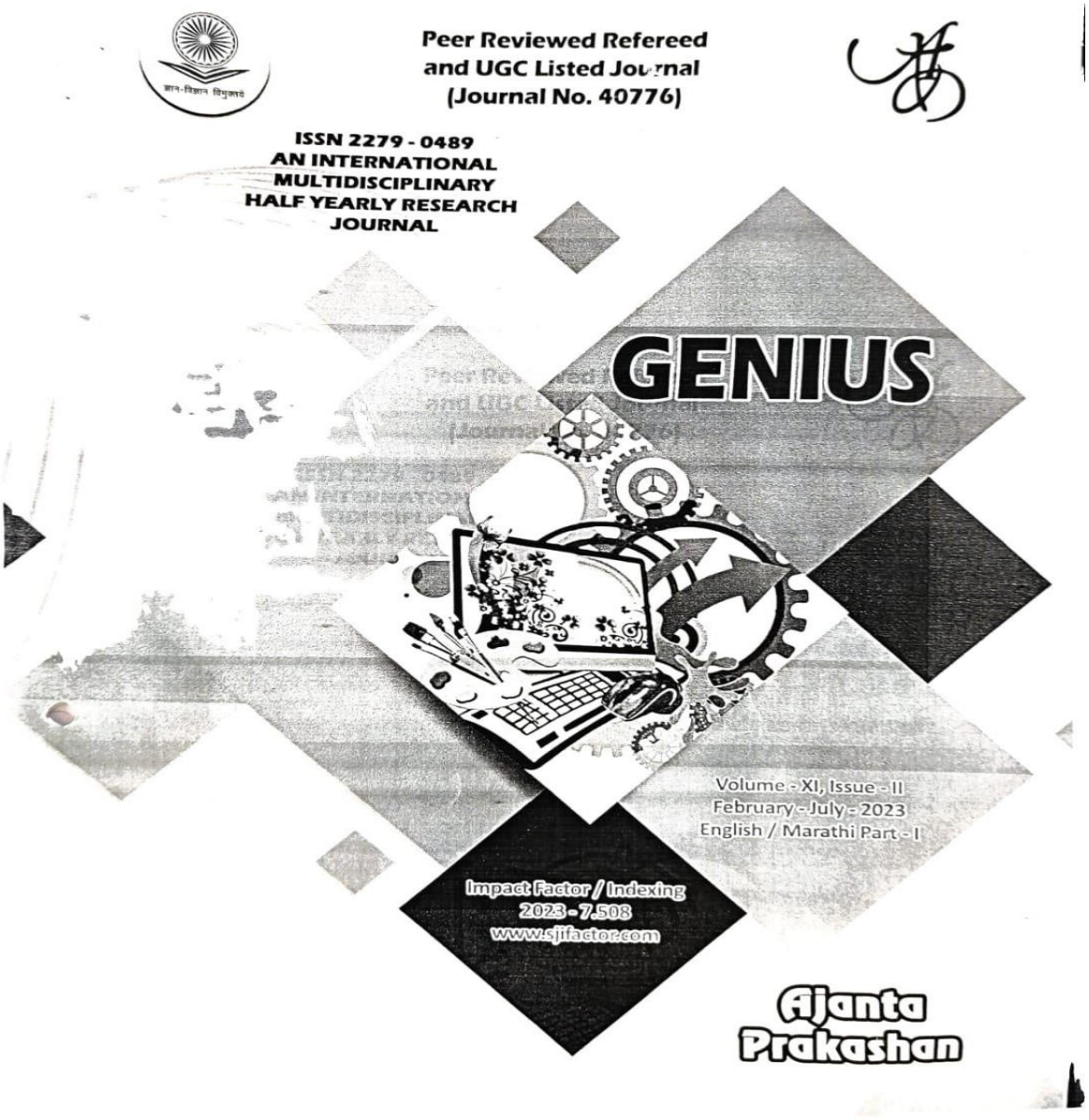
India is a country of villages and their socio-economic transformation always acts as an index of development. Generally, rural development is taken as the development of villages. The concept includes the richness of people and places in rural areas within its scope. Rural development should aim at an overall improvement of the quality of life in rural areas, taken as a whole, and not as the development of a single sector. Rural development means the comprehensive development of rural areas in its entirety. In the country since 1991, such an era has started, which has brought big changes in the country's economic environment. India's economy has opened doors to the world economy and has invited a large amount of foreign capital, investment participation, and technology. The new feature of today's globalization, whose impact on rural development is profound, is information and communication technology. In this research paper, the role of information and communication technology in the rural development of India has been studied.

KEYWORDS: *Information and Communication Technology, Rural Development, Public Service Delivery System, Socio-Economic Development, Agricultural Development.*

INTRODUCTION:

In the 21st era of globalization, ICT (Information and Communication Technology) plays an important role in socio-economic development. Information technology and communication technology were developed independently, but later they were combined to form a new information environment commonly referred to as information and communication technology. ICT is the technical tool used to communicate about and manage information technology. Older forms of ICT include radio and the telephone, while ICT in this century includes the use of computers, various wireless technologies, or the Internet as major tools. ICT can also be considered as an information management tool, which is produced, distributed, and exchanged mainly in developing countries for their development. ICT tools form a vast network that reaches every corner of the world.

Rural development is related to economic development as well as to improving the quality of life of rural people by providing adequate and necessary needs. ICT can be a new tool to help rural development. ICT can help to increase the availability and access to information in rural areas and provide support for creating and changing social relationships. ICTs play an integral part in empowering rural India and offering various ways to achieve sustainable rural development. The government of India is implementing several projects to bridge the digital divide between rural and urban areas. The digital divide is an inability to access and use ICT that limits their ability to reap its potential benefits. Rural areas mainly lag behind urban areas in health, education, government, and infrastructure. Hence there is an urgent need to bridge this gap to help contribute to the Indian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10. A Study of Influence and Present Status of Women Entrepreneurs in Entrepreneurship Development in India

Dr. Mahendra L. Vanjari
Associate Professor, D. R. B. Sindhu Mahavidyalaya, Nagpur.

Abstract

Women have been victims of many atrocities since ancient times. Although gender equality movements are gaining momentum in most parts of the world, the fight for gender equality is nothing new. Undoubtedly, ever since these movements for women's rights started, women have come a long way and have proved themselves in all fields including the areas dominated by men. However, even today women rarely achieve victory without facing many challenges of gender-based and other related social biases. In this context, society, government, and women themselves have a major role to play in enabling women to choose leadership and entrepreneurial roles in society. Despite all the efforts made for women's empowerment, women are undeniably facing struggles in all spheres of life and work and still, patriarchy is not over. India's gender balance is one of the lowest in the world and improving it is important not only for gender equality but for the entire economy. In this research paper, the contribution and present status of women entrepreneurs in entrepreneurship development in India have been studied.

Keywords: Gender Equality, Women Entrepreneurs, Startups, Male Domination, Discrimination.

Introduction

Both men and women have contributed equally to the origin and development of human civilization. In the primitive era, along with the upbringing of the children, the woman also transferred the culture to the human children, but the irony is that in this era, the man has forgotten his primitive consciousness, in which both men and women had equal opportunities. . Indian women are entrepreneurs by nature. Women are not paid any salary for their domestic work and management. According to an estimate, if these works of his are added, there will be an increase of 15 to 25 percent in the gross domestic product. Women's entrepreneurship helps strengthen gender equality and women empowerment. The biggest means of women's entrepreneurship and women empowerment is that through this other challenges like poverty,

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Nickel Oxide Doped Polyaniline Nanocomposite for High Performance Supercapacitor Applications

Bharti S.Anerao[a], Arti M.Chaudhari[b], Arpana G.Wahane[c]

Department of Physics, D.R.B.Sindhu Mahavidyalaya, Nagpur-440017, India

[b]Department of Physics, Yeshwant Mahavidyalaya, Wardha - 442001, India

Department of Physics, D.R.B.Sindhu Mahavidyalaya, Nagpur-440017, India

*Corresponding author, E-mail: [illegible]

ABSTRACT

In this paper, we have reported a facile in situ synthesis approach to incorporate Nickel oxide (NiO) into Polyaniline (PANI) matrix and evaluate its morphological properties by scanning electron microscopy and electrochemical performance as supercapacitor electrode material by using Galvanostatic charge-discharge (GCD). PANI having excellent electrical conductivity, simple acid doping/base de-doping chemistry and relatively high pseudo capacitance proves to be a promising electrode material. Doping of NiO nanoparticles is very effective in enhancing the capacitive performance of PANI by additional pseudocapacitive contribution. PANI/NiO nanocomposite stores charge both through pseudocapacitive and electric double layer mechanism which leading to higher coulombic efficiency, enhanced energy and power density.

Keywords: Nickel oxide doped polyaniline, SEM, GCD.

1. Introduction

Considering perspective of overcoming energy and environmental crisis, the interest in the development of innovating energy storage systems especially in the field of electronics and electrical vehicles are of vital importance. Superiority of energy storage systems plays key role in terms of efficiency, capacity, long cycle life eco-friendliness etc. [1]. Supercapacitors are one of the newest innovations in the field of energy storage and provide the bridge between batteries and conventional capacitors [2].

Transition metal oxides have gained more interest as electrode materials in supercapacitors fast and reversible redox reactions occurring at the electrode-electrolyte interface [3]. Among various transition metal oxides, NiO is promising electrode material for

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Role of e-Governance in Quality Enhancement

Arti M. Chaudhari
Department of Physics, Yeshwant Mahavidyalaya, Wardha

Bharti S. Anerao
Department of Physics, D. R. B. Sindhu Mahavidyalaya, Nagpur

Abstract –

Higher education system with e-governance is requirement for nations overall development. In order to keep pace with the international best practices, the advent of information and communication technology as a highly enabling tool for transforming governance and improving the quality of services provided by the Colleges/Universities to its students has now been universally recognized. Many researches revealed that the integration of ICT helps to enhance the overall administration of higher education system. Electronic Governance (e-Governance) is the use of Information and Communication Technologies (ICT) for the planning, implementation, and monitoring of academic and administrative activities. e-Governance is expected to help deliver cost-effective and easy-to-access student services, and thereby achieving quality enhancement. e-Governance is understood as a set of activities involving the effective contribution of information and communication technology (ICT) for strengthening administra tion and management in higher education system in India has declined somewhat over the past three decades due to remarkable increase in the number of colleges and universities and their privatization. It has become very important for the colleges / universities to keep track of their functioning. The aim is to bring about enhanced access transparency accountability and efficiency in delivering information and services to the students with key of e-governance.

Keywords : e-Governance, Administration, Management, ICT, Service delivery

Educational institutions may have various requirements that include computerization and management of processes such as, admission, student information, classes, time table, transport, attendance, library, salary and expenses, examinations, performance, finance and accounts, grades, hostels, security and reports. Many of the software providers allow their students to choose from the available modules to suit their needs to monitoring of these aspects. In this study, we have mainly focused on the concept of e-Governance and use of latest application in higher education sector. The term governance refer to the decision making processes in academic and administrative activities.

Higher education is generally understood to cover teaching and learning, research and extension activities. There are n number of roles that higher education plays in the society. Higher education is the source or feeder system in all walks of life and therefore supplies the much-needed human resources in management, planning, design, teaching, and research[1]. Scientific and technological development and economic growth of a country are dependent on the higher education system as they are on the working class. India has one of the largest higher education systems in the world[2]. Despite having the largest higher education system, the quality of education, in general, cannot be claimed to be the best. On one hand, this growth promises to produce more skillful youth to fulfill industrial demand, social need and on the other hand it poses a huge challenge for the governing bodies like UGC, AICTE, NCVT, NCTE, PCI, MCI, INC, DCI etc to

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E-Learning - The New Face of Education: Pros and Challenges

Dr. Bhavna U. Choudhary and Dr. Reema Kamlani
Dada Ramchand Bakhru Sindhu Mahavidyalaya, Panchpaoli, Nagpur, Maharashtra, India
bhavnachoudhary1016@gmail.com and rashivaswani@gmail.com

Abstract: *Today is the era of technology. After the recent COVID-19 outbreak, one of the most frequently used terms is "new normal." In the field of education, this can be related to the rapidly increasing use of online learning tools. All over the globe, educational institutions are adapting online learning platforms to pick up the threads of the process of educating students. The new normal now is a modified concept of education with online learning being at the core of this transformation. In the present scenario, digital learning has emerged as a unavoidable resource for students and institutions all over the world. As is the case with most of the traditional teaching methods, online learning also has its own set of positives and challenges. The process of decoding and understanding these two will aid the institutions in creating strategies for more efficient delivery of the lessons, eventually, creating an uninterrupted learning environment for the students. So, this paper attempts to reveal these pros and challenges of E-learning faced by the institutions as well as the learners.*

Keywords: E-Learning, Electronic Resources, Internet, Virtual Class Rooms, Online Learning

I. INTRODUCTION

Almost all the sectors have been hit badly by the Covid-19 pandemic. The education sector was no exception. All the educational institutions were forced to close down to stop the spread of infection. Due to this lockdown and loss of education, many educational institutions started online/E-learning using various platforms like Zoom, Google Class, Google Meet etc. to continue the learning process of students.

A system of learning which is based on formal teaching but with the help of various electronic resources is called E-learning. While on one hand, teaching can be in or out of the traditional classrooms, the use of computers and Internet forms the major component of E-learning. E-learning can alsosaid to be a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. In the early times, it was not accepted with open arms as it was lacked the human element which was considered to be the basic requirement in learning.

Eventually, with the progress in technology and the rapid developments in learning systems, it is now readily accepted by the masses. The introduction of computers supported this revolution

and with the passage of time, as we got absorbed into smartphones, tablets, etc, these devices have now also marked their significance in the virtual classrooms for learning. Books are gradually being put back by a variety of electronic educational materials like e-books, educational content videos, pen drives etc. The most significant advantage of e-learning is that knowledge can also be shared through the Internet, which is accessible 24/7, anywhere, anytime.

The educational institutions which have adapted E-learning technologies are surely a step ahead of those who still follow the traditional learning methods. But the fact remains that although electronic devices are leading the education system to great heights, there are many challenges being displayed too.E-learning or online learning has its own pros & cons or challenges which we will discuss here.

II. LITERATURE REVIEW

There is no doubt that e-learning has an important role to play across all business sectors. In addition to its cost-effectiveness, its main advantages are its flexibility, its convenience to users, its wide reach, its easy accessibility, its consistency and its repeatability. The objectives of e-learning are dependent on the quality of the teaching process and the effectiveness of online access.

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A REVIEW OF DIMENSIONALITY REDUCTION TECHNIQUES FOR HIGH DIMENSIONAL DATA

Kiran H. Varma
Research Scholar, S.G.B. Amravati University, Maharashtra, India.
arow.kiran@gmail.com

P. E. Ajmire
Head. Dept. Of Comp. Science G. S. Sci., Arts & Comm. College, Khamgaon.
peajmire@rediffmail.com

Amit B. Rehapande
Assi. Prof. Santaji Mahavidyalaya, Nagpur.
amitrehapade@gmail.com

Abstract
In last few years, the applications related to pattern reorganization are quickly increasing in number of area. Areas to which it applied include communication (speech recognition, data compression), business (e.g. Character recognition), medicine (diagnosis, abnormality detection and harmful action), military intelligence, biometric authentication, Agriculture and many more. The dimension of the data is the number of feature that is measured on each observation. This paper review traditional and current state-of-the-art dimension reduction methods. The objective of this paper is to summarize and compare some of the well-known and recent dimension reduction methods used in various stages of a pattern recognition system.
Keyword: High dimension, Dimension reduction, feature, machine learning, pattern recognition.

1. Introduction

High dimensional data in pattern recognition encounters several difficulties. Like detection rate, complexity of training and testing data [1]. So main objective is going to reduce dimensionality but at the time of dimensionality reduction take care about accuracy [2, 3, 4]. In pattern recognition system first step is reduce the dimension of the data and then proceed reduced-dimensional data into the system. Dimensionality reduction is a pre-processing stage in Pattern recognition system [5]. Figure 1 show this in graphical format showing the dimension reduction as a pre-processing stage in system.