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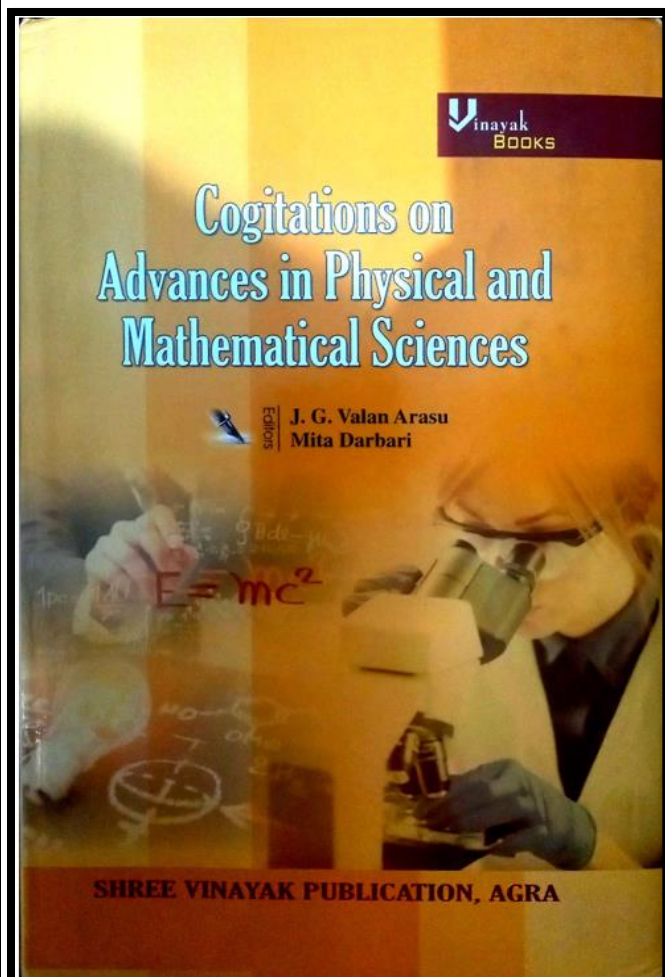
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Waste management is a global issue with which the entire globe is currently grappling. The composition and characteristics of the pollutants in effluents are unknown, which poses the greatest worry. Bioremediation is the method of utilizing the high and diversified metabolic activity of microorganisms to break down contaminants in industrial wastewater, particularly distillery effluent. Their readily available nature and affordable price make them the preferred option. Bioremediation is the process of using bacteria with strong metabolic activity to break down contaminants in industrial effluents, particularly distillery effluents. Microorganisms, alone or in conjunction with other microorganisms, create an environment conducive to not only the breakdown of toxicants but also the production of some useful by-products. This work focuses on the bioremediation of distillery effluent using bacterial strain. The book is of interest to students, researchers, teachers, or any person interested in the topic.



Dr. Ranjan Singh is working as Associate Professor Microbiology in Dr. R.M.L. Avadh University, Ayodhya, U.P., India.
Dr. Laxmi Kant Pandey is working as Assistant Professor and Head Biotechnology in St. Aloysius College, Jabalpur, M.P., India.
Dr. Femina Sobin is working as an Assistant Professor of Microbiology at St. Aloysius College, Jabalpur.

Ranjan Singh
Laxmi Kant Pandey
Femina Sobin

Bioremediation of Distillery Effluent

A Bacterial Study



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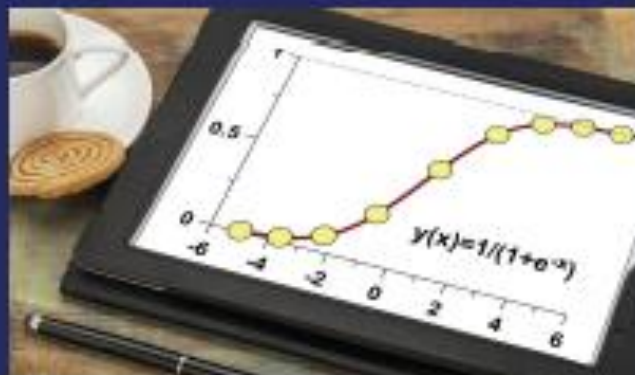
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During the period of the last decades, fixed point theory becomes not only a field with a high development but also a strong field for solving various problems arising in different fields of pure and applied mathematics. A pioneer of the metric fixed point theory is the Banach Contraction Principle. Here, a fixed, we have many generalizations of this result, which were studied with respect to all types of generalized metric spaces.



Dr. Akhlesh Pathak was born on 25 Jan 1987. He completed his Ph.D. in Mathematics from Ram Durgawati University, Jabalpur.



Akhlesh Pathak, P. W. Jain

Akhlesh Pathak
P. W. Jain

FIXED POINT THEOREMS WITH RESPECT TO DIFFERENT CONTRACTION MAPS

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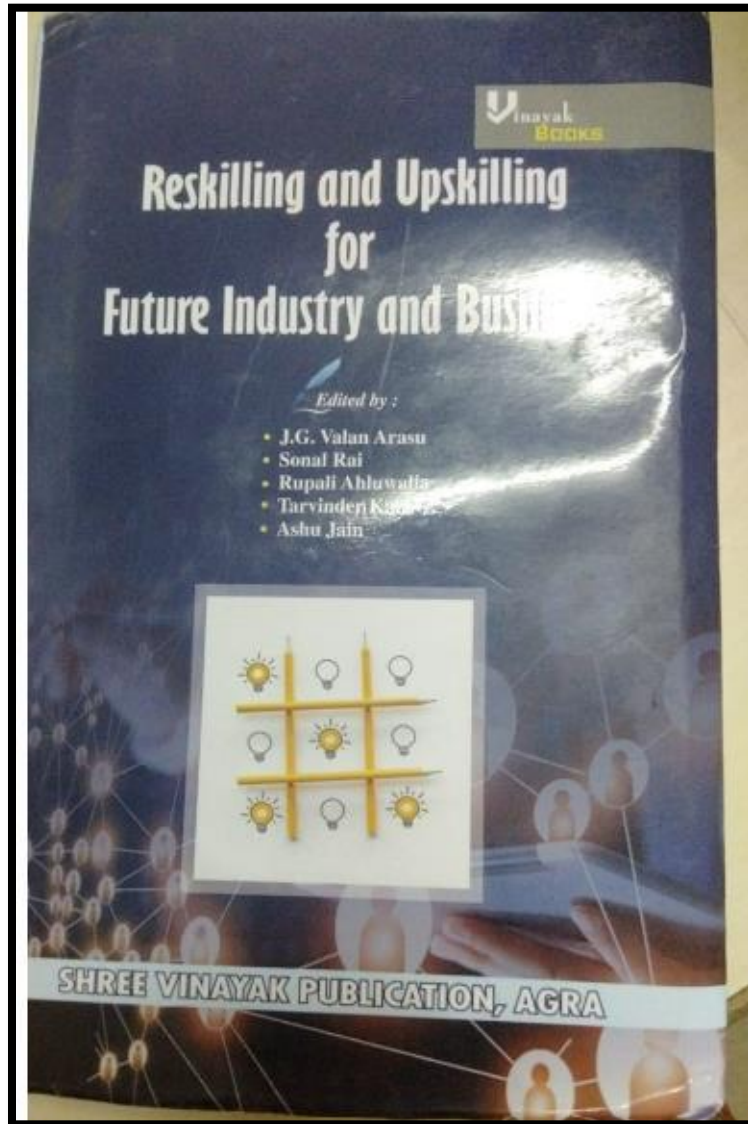
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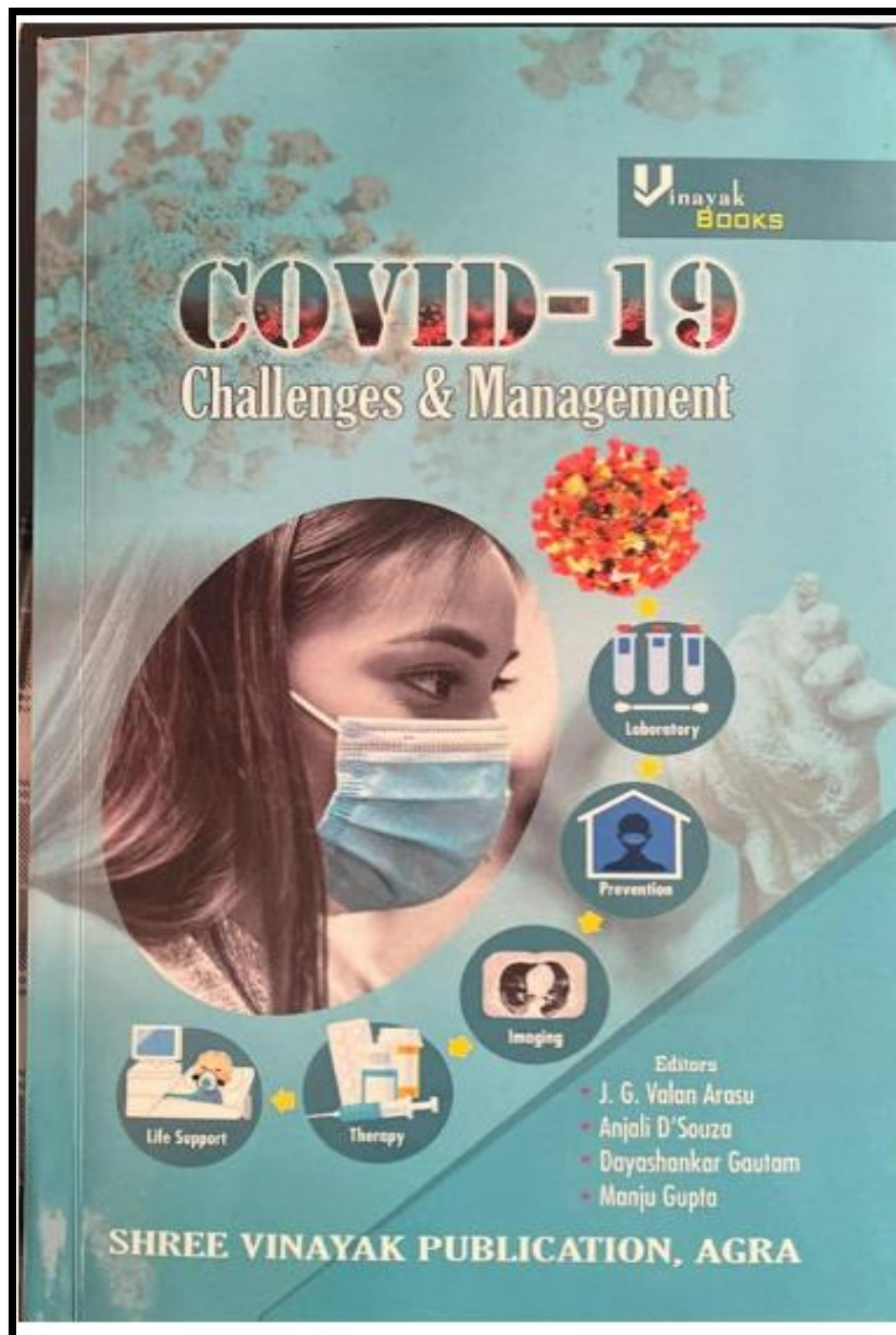
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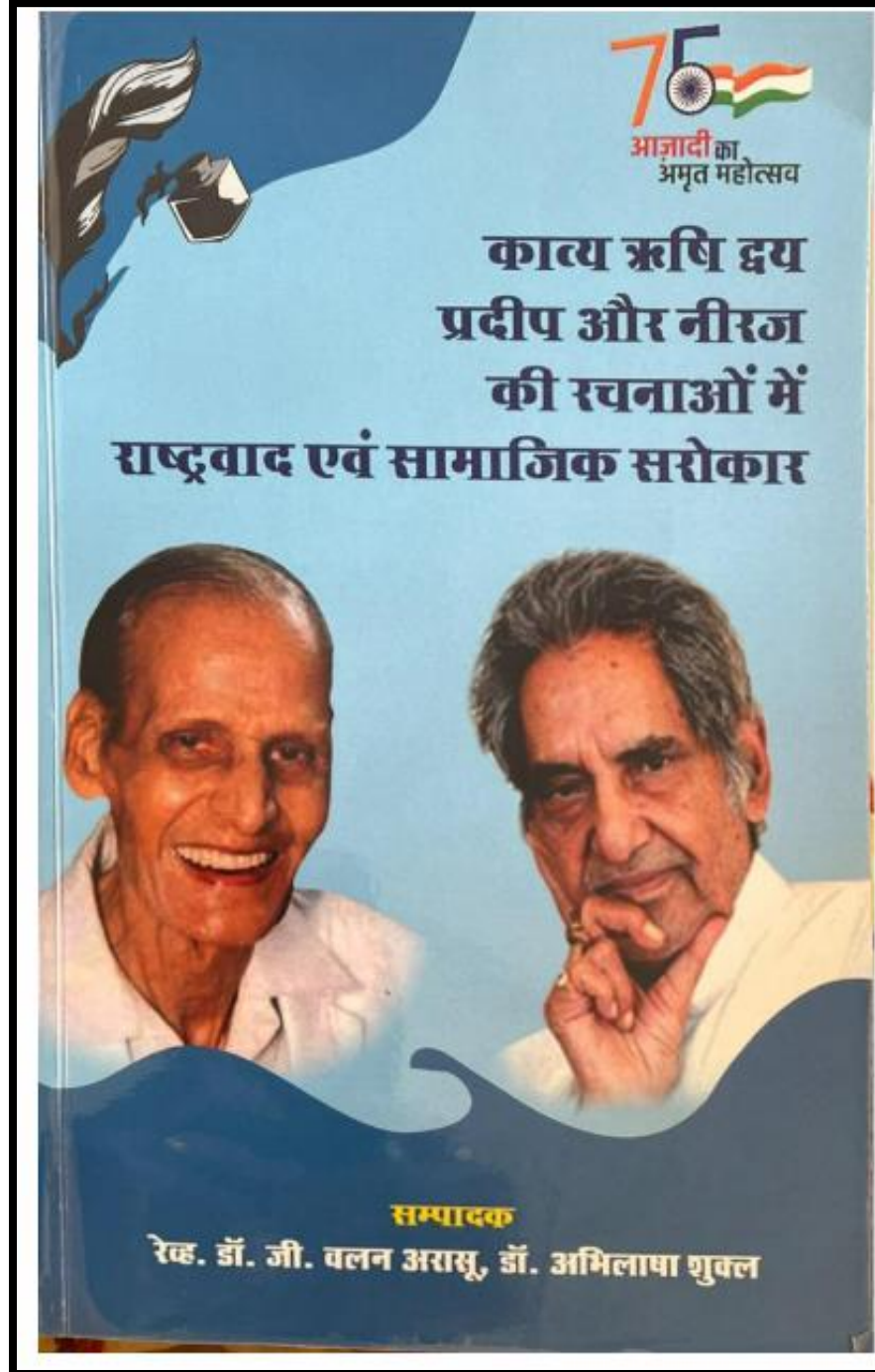
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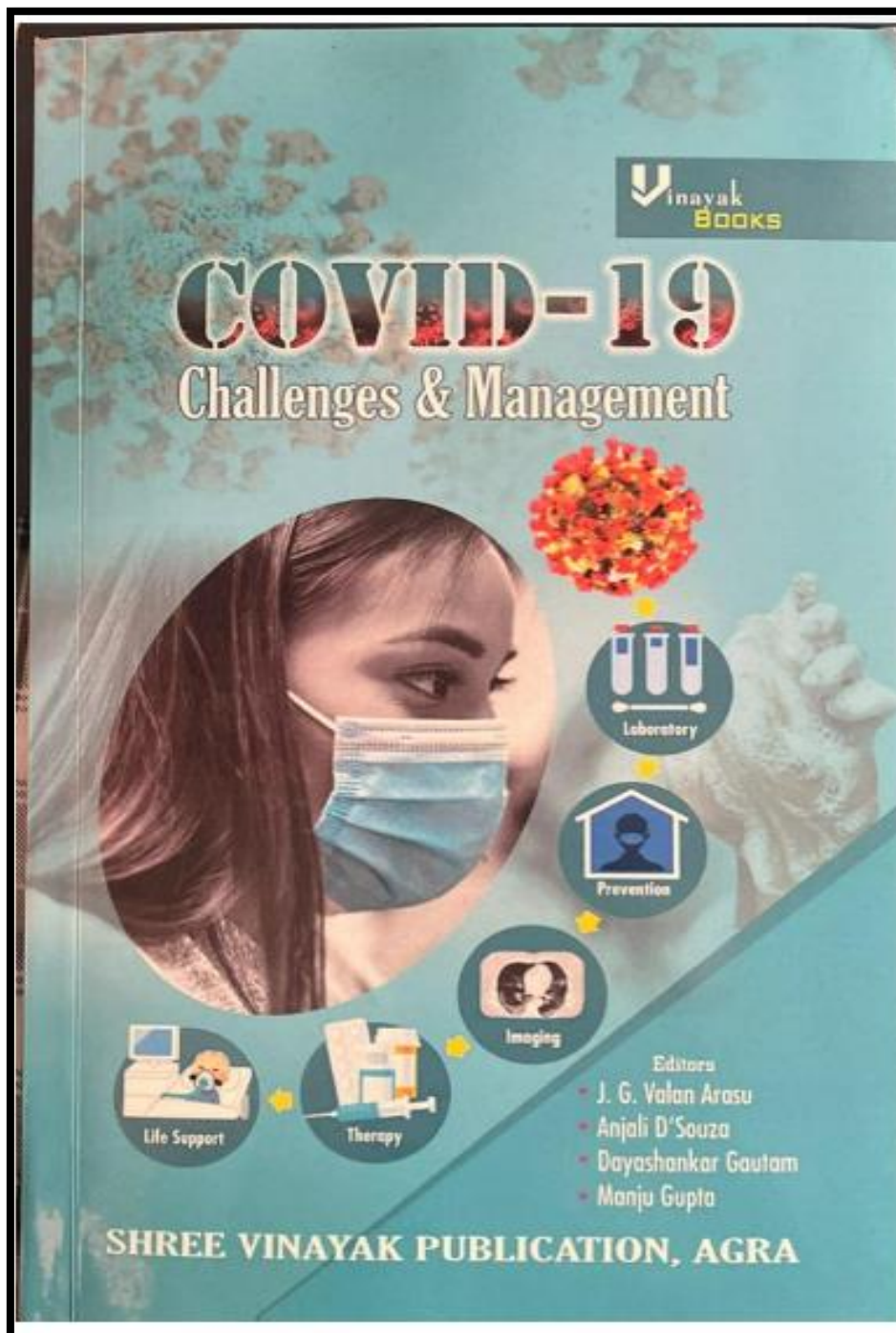
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Herbal Immunity Boosters : Positive and Negative Aspects

Roshni Choubey and Ruchira Dakhore

ABSTRACT

Exploring the diet-health connections is a prominent topic of research in the nutrition realm. As a result of these treatments, functional and nutraceutical foods have gained broad appeal. Increasing immunity, on the other hand, is a significant focus of dietary plans. Indeed, the immune system is a remarkable collection of organs and cells that have enabled humans to defend them against unwanted responses. Its correct operation is required to maintain bodily homeostasis. Immunomodulating characteristics may be found in a variety of plants and their components. Their prospective inclusion in diets might open up new therapeutic pathways for improved disease immunity. Interactions between medicines and herbs/botanicals, on the other hand, should be thoroughly researched before being approved for safe use, and this knowledge should be shared to all relevant stakeholders. Since history, the spices have been an integral part of human diets and commerce. In recent times, the widespread recognition of diet-health linkages bolsters their dietary importance. The bioactive components present in them are of considerable significance owing to their therapeutic potential against various ailments. This survey work was focused on the good and the possible bad effects of herbal boosters and the results of the survey confirms the fact that herbal boosters are a boon for human health but there are chances of being negatively affected by the improper usage of such boosters.

Key words: immunity, herbal boosters, nutraceuticals, immunomodulators, therapeutics.



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Fighting COVID : Post COVID Care Strategies

F. Sobin and A. Alex

ABSTRACT

COVID-19 has a broad spectrum of severity ranging from an asymptomatic form to a severe acute respiratory syndrome requiring mechanical ventilation. Defeating the Corona Virus is only the beginning of an unexplored post-COVID scenario for COVID-19 survivors. What follows after the COVID infection depends on the severity of viral attack and the post-COVID care taken. The aim of this article is to describe the prominence of Post COVID Care Strategies. This article will throw light on post-COVID complications like difficulty in breathing, concentrating; deleterious effects on lungs, kidneys, heart; manifestation of black fungal infection, psychological challenges, etc. The article also discusses possible solutions, rather post-COVID care strategies to overcome these complications.

Keywords: COVID-19, post-COVID complications, post-COVID care strategies.

Since 2020, the world community is experiencing a pandemic from a novel coronavirus COVID-19 that touches every corner of the world. Throughout the pandemic, it is easy to get overwhelmed by the dumbfounding speed of infection and the daily blitz of new and ever worsening predictions. Pandemics are extraordinary public health challenges that demand targeted and coordinated responses by health care systems and governments. But this pandemic, almost from the outset, has also raised the menace of utter health systems failures to cope with the 'surge' of demand, putting not only COVID-19 victims at risk but all other individuals who require health care services. [Stamet *et al.*, 2020].



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Role of Traditional Medicine in Covid-19

Harshita Rajput, Shrutika Kumari, Yati Iyer, Nitin Swamy

ABSTRACT

Traditional Medicine: Natural products and traditional medicines are of great importance. Such forms of medicine as traditional Chinese medicine, Ayurveda, Kampo, traditional Korean medicine, and Unani have been practiced in some areas of the world and have blossomed into orderly-regulated systems of medicine. When the first pharmacologically-active compound morphine was isolated from opium, natural products and traditional medicines have already made fruitful contributions for modern medicine. When used to develop new drugs, natural products and traditional medicines have their incomparable advantages, such as abundant clinical experiences, and their unique diversity of chemical structures and biological activities.

Survey: A short survey was conducted by our group among relatives, family and friends to assess the Knowledge, Attitude and Practices related to the Corona Virus disease. This survey was conducted among the people who had been diagnosed with Covid-19 or by the people taking home remedies/traditional medicines as a precautionary measure.

Observation : Participants of the conducted survey were reliable on the traditional medicine. 33% Participants were diagnosed with Covid-19 and were consuming home remedies like Warm Water, Turmeric Milk, Ginger, Tulsi, Neem, Kadha and Siddha. Other participants followed the salt water gargling, steam inhalation and yoga practice as a precautionary measure. Participants found the traditional medicines trustworthy and found basic symptoms could be subsided by



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A Scientific Comparison of Covid-19 and Spanish Influenza Pandemic Affecting the Human Race a Century Apart

Dr. Sutapa Roy and Nitin Swamy

ABSTRACT

Wuhan province had reported the first case of the covid-19 in the month of December 2019 and within a short span of time covid-19 had spread across the globe and was later declared as a global pandemic by the WHO. Covid-19 is the second pandemic which has been properly documented after the Spanish influenza which affected the mankind in 20th century. Both the pandemics have caused a huge impact on people's lives all across the world, with a high mortality toll as well as global social, political, and economic consequences. In this article an attempt has been made to draw a scientific comparison relating to the etiology, diagnostic approaches and tackling strategies implemented during the two pandemics that has impacted the world health on a huge scale.

Keywords: Pandemic, Spanish influenza, Covid-19, etiology, diagnostic approach

Introduction :

Several pandemics have occurred in recent decades, but none have been on the scale or with the impact of the current COVID-19 pandemic, at least not since the Spanish flu. At the height of World War I, the human population was attacked by a powerful, but insignificant, foreign agent who appeared seemingly out of nowhere. This agent, later identified as the "Spanish flu," wreaked havoc on anyone who came into contact with it. The "Spanish flu" estimated to have killed 20-50 million people worldwide by infecting a large number of people with severe



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Eminence of Genome Sequencing in Covid-19 Management

Palak Khare, Nitin Swarny

ABSTRACT

Delineation of underlying genomic and genetic variables in a certain disease may aid in diagnosis, assisting patient care, counselling, and identify at-risk family members. Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019. Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, loss of smell and taste. Genome sequencing enabled the world to rapidly identify SARS-CoV-2 and develop diagnostic tests and other tools for outbreak management. The combination of near to real-time whole-genome sequence (WGS) analysis and epidemiology resulted in reliable assessments of the extent of SARS-CoV-2 transmission in the community, facilitating early decision-making to control the local transmission of SARS-CoV-2. WGS assisted in understanding changes in the genetic sequence of the viral genomes collected from different patients allowing researchers to build a viral 'family tree' and contribute to monitor disease spread within and between populations over time, designing therapies and vaccines that target specific features of the virus, detection of viral variants by tracking new mutations to identify if different strains are emerging and preparation for future threats. The key challenge in WGS of SARS-CoV-2 is that the sample types such as nasal swabs don't always provide good quality viral RNA (viral DNA is often obtained by using viral RNA as a template) and quantities of genetic material can vary greatly between samples. To cope with this restraint of WGS, Next-generation sequencing (NGS) provides an effective, unbiased way to identify new coronavirus strains and other



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Knowledge of General Medication

Dr. Smarika Lawrence, Dr. Amita Chhatri,
Mr. Vipul Kumar Shrivastava, Ms. Rushali Sahajwani,
Mr. Konjengbam Kangoiba Singh, Ms. Shivangi Shrivastava

ABSTRACT

This research survey aimed to get an insight of knowledge of people towards general medication. The survey aimed in getting an overview of people's belief towards different types of medication practices, way of taking medicines, and the pattern of medication. An online survey was carried out through sharing the questionnaire in different social media platforms. A self administered questionnaire including 30 questions, was used for data collection. The questionnaire was based on the six categories: Self-medication, Complementary and alternative medicine, Knowledge of general medicine, Social Media remedies, Medicine directly from advertisements, Whom to consult for medication. A total of 360 responses were received. The data was analysed on the basis of these categories and with the help of these a result was drawn. The data shows majorly people consult the doctor for primary medication and only a few go for self-medication also a large category of respondents are aware of complementary or alternative medicines and a huge number of respondents use them on a daily basis. Only a few numbers of people self-study about the medicines besides consulting a doctor. Data shows that during this pandemic people are fine with using online platforms and social media platforms for general medication but only a very few respondents follow the advertisements. During this pandemic it was a tough task to get out of our homes and get a doctor's prescription for minor ailments. In this situation the knowledge of general medicine proved quite helpful for the public. Also in this busy world everyone wants the services on their fingertips, the study shows majority of respondents were ok to receive doctor's advice



An Overview : Determination of Phosphate in Water Samples for Recognizing its Impact on Human Health

Dr. Sutapa Roy, Dr. Manju Gupta and Ankita Arya

ABSTRACT

Phosphate is one of the key components and a common constituent of agricultural fertilizers, manure and organic wastes from sewage and industrial effluents. It is essential for the existence of plants as well as humans. It has been investigated that when present in ample quantity in water bodies it triggers eutrophication which can have a damaging effect on the aquatic life. Thus, it becomes significant to conduct qualitative and quantitative analysis for the determination of phosphate in water samples. In this paper we provide an overview of various methods that can be implemented for the determination of phosphate. The methods covered in this paper are spectroscopic, chromatographic and colorimetric.

Keywords: Phosphate, eutrophication, spectroscopic method, chromatographic method, colorimetric method

1. INTRODUCTION

Phosphorus (P) is an essential, often limiting, nutrient for growth of organisms in most ecosystems. However, excessive supply of phosphorus from wastewater into water bodies, such as lakes, rivers and creeks cause eutrophication, resulting in the bloom of aquatic plants, growth of algae and depletion of dissolved oxygen[1]

There is a growing research interest in the development of adsorbents based on agricultural wastes (AWs) for the removal of phosphate from waste water sources, which otherwise can cause



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Role of Immunity in Covid Era- Herd Immunity

Girish Kumar Pathak and Dr. Priyanka Sinha

ABSTRACT

Some coronavirus disease 2019 (COVID-19) vaccines are being administered to people and some COVID-19 vaccines are under trial. In August 2021 I have surveyed 113 people in some states of India to check whether there is a possibility of development of Herd Immunity or not. Out of 113 participants 93.8% respondents have trust on COVID-19 vaccines while 6.2% respondents haven't trusted the vaccines. 92.9% respondents are vaccinated while 7.1% are not vaccinated. Those respondents are vaccinated, out of them 58.4% have taken 1st dose while 34.5% have taken 2nd dose. 13.3% respondents have symptoms like COVID-19 but they don't go for COVID-19 test. 1.8% respondents test positive for COVID-19 after taking 1st dose of vaccine while no one test positive after 2nd dose of vaccine. Participants have different modes and remedies to boost their immunity. Generally, to achieve Herd Immunity 70% of population should be vaccinated but in the present scenario, when we consider the more infectious Delta variant, according to the experts the Herd Immunity Threshold (HIT) may be 85% or higher. This survey is not representative of whole country.

KEYWORDS

COVID-19, first wave, second wave, delta variant, immune system, immunity, herd immunity.

INTRODUCTION

The Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) or Coronavirus Disease 2019 (COVID-19) cause by coronavirus of Corona viridae family. This virus is called novel Coronavirus (nCoV) because it is never identified before 2019. Coronavirus are RNA viruses



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Vaccination Survey in Pet dogs Against COVID 19

Runa Paul *, Girish Pathak, Deeksha Jain,
Samiksha Beriya

ABSTRACT

Corona virus disease (COVID-19) vaccines are being administered to animals. In August 2021 a survey was conducted on vaccination status and as well as with other disease vaccines such as rabies of pet dogs via Google form. 151 people from all over the Madhya Pradesh (India) has responded. This survey informs us about to what extent people know about the vaccination of dogs and how the pet owners take care about their dogs. Out of 151 participants 41.72% respondents have administered COVID-19 vaccines to their dogs while 58.28% have not administered COVID-19 vaccines to their dogs. Those respondents have pet dogs; they mainly follow different methods to provide safety and comfort to their dogs. This survey provides us with some information about pet dogs. This survey is not the representative of each and every pet dog. This survey does not provide any information about street dogs.

KEYWORDS

COVID-19, Dogs, Rabies, Vaccine.

INTRODUCTION

According to a report published in The Hindu on April 9th, 2020. Juliet Decaestecker of Belgium, an India-based veterinarian and author of "Healthy Dog, Happy You," said, "Despite the number of global cases of COVID-19" surpassing the one million mark. We have only seen examples of two dogs and one cat in Hong Kong, and a tiger in New York that had positive results of infection tests." According to Dr. Decaestecker, PCR testing in these circumstances simply confirms the presence of virus material and that it is a case of passive contamination.



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Synthesis and Crystalline Properties of Reduced Graphene Oxide (R-GO) Reinforced PVA Nano Composite

Nisha Pandey, Muskan Sahni, Amrita Dwivedi,
Arunendra Patel & Poonam Pendke

ABSTRACT

This work reports the synthesis and characterization of Reduced Graphene Oxide reinforced PVA polymer nano composite. The reduced Graphene oxide (r-GO) nanoparticles were incorporated in PVA polymer for the preparation of polymer nanocomposite films by the solution cast technique. XRD study were performed on the prepared pure PVA film and polymer nanocomposite polymer film. The result shows amorphous nature of PVA and as we incorporate reduced graphene oxide, crystalline properties enhances.

Keywords: Reduced Graphene Oxide(r-GO), PVA, nanocomposites

Introduction

Carbon is the most versatile element in the periodic table, owing to the type, strength, and number of bonds it can form with many different elements. The diversity of bonds and their corresponding geometries enable the existence of structural isomers, geometric isomers and enantiomers [1] Discoveries of very constant nanometer size sp² carbon bonded materials such as graphene, fullerenes and carbon nanotubes have encouraged to make inquiries in this field. Most of the physical properties of carbon nanotubes derive from graphene [2]. Graphene has been considered from the beginning as the dream material that will revolutionize our everyday life impacting different fields from



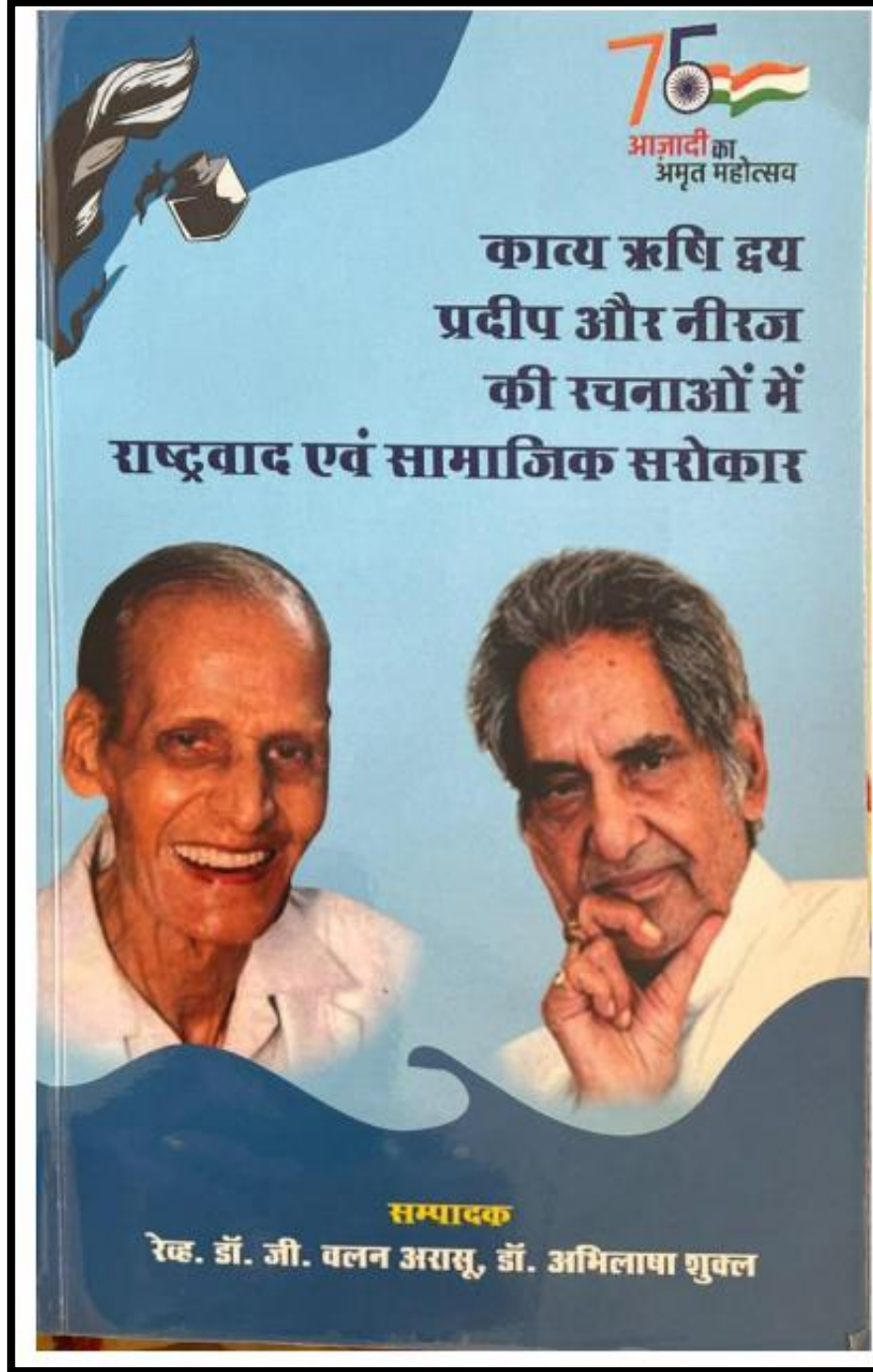
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प्रेम और विरह के गजल गायक नीरज

डॉ. सुषमा पिल्लई
सहायक प्राध्यापक, बी.एड.

स्मृति कुमारी
शोधार्थी

शोध सार

प्रेम और विरह की अजर अमर महा कवि गोपाल दास जी का जन्म 4 जनवरी 1925 को उत्तर प्रदेश के इटावा शहर में हुआ और इनकी मृत्यु 19 जुलाई 2018 में हुई। आप एक हिंदी साहित्यकार शिक्षक एवं कवि सम्मेलनों के मंचों पर काव्य वाचन एवं फिल्मों के गीत लेखक थे। महा कवि गोपाल दास नीरज ने अपने गीतों के माध्यम से न केवल गीत विधा को पुनः स्थापित किया, बल्कि इसके जरिए प्रेम और विरह का बोध कराते हुए इसे आकाश की बुलंद ऊंचाइयों पर पहुंचाया। प्रेम रूपी गगन की धुल्लारे गोपाल दास नीरज की कविताओं और गजलों में प्रेम स्थान - स्थान पर दर्द बनकर इस कदर समाया हुआ है कि आप उसे हर पल महसूस कर सकते हैं।

1963 में फिल्म 'चा चा' में लिखा : 'सुबह ना आई शाम ना आए जिस दिन तेरी याद ना आई' फिल्म 'चंदा और बिजली' में लिखा : 'काल का पहिया घूमे रे-पैदा', हम हैं प्रेम के पुजारी, रंगीला रे तेरे रंग में यूँ रंगा है मेरा मन। 1972 में इन्हें फिल्मफेयर का इनाम भी मिला - 'रे भाई जरा देखकर चलो', 1990 में महेश भट्ट ने अपनी फिल्म फरेब में गीत में लिखवाया - 'ये तेरी आंखें सुको-सुको यह तेरा चेहरा खिला-खिला'। विश्व उर्दू परिषद पुरस्कार पद्मश्री सम्मान (1991) भारत सरकार द्वारा दिया गया, यश भारती एवं 1 लाख का पुरस्कार (1994) उत्तर प्रदेश हिंदी संस्थान, लखनऊ पद्म भूषण सम्मान (2007) भारत सरकार द्वारा दिया गया।

फिल्म फेयर पुरस्कार गोपालदास नीरज को फिल्म जगत में सर्वश्रेष्ठ गीत लेखन के लिए 1970 के दशक में लगातार तीन बार यह पुरस्कार दिया गया। प्रेम और विरह के गजल गायक नीरज ने प्रेम की एक

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नीरज के फिल्मी गैर फिल्मी गीतों में कायनात के कालजयी मंजरी का प्रकृति सौन्दर्य

डॉ. कैरोलिन अब्राहम

सहायक प्राध्यापक

संत अलाशियस स्वशासी महाविद्यालय, जबलपुर

इस संसार में जाति-धर्म के आधार पर जो दूरिया है। उनकी खाई पाटने का काम, गीत, गजल, और शायर ने किया है। गीत चाहे भजन में हो चाहे, प्रेम के हों समाज के हो या स्वातः सुखाय 'गीत' शब्द जब संगीत बन जाता है। मन की वीणा के तार झंकृत हो जाते हैं। नीरज ने फिल्मों के लिये भी 'गीत' लिखे हैं, ये गीत प्रेम राष्ट्रीयता दार्शनिकता और अन्य विषयों से सम्बंधित हैं। और इनके कुछ गीत साहित्यिक भी हैं। कुछ फिल्मों के नाम इस प्रकार जो आज सबकी जुबान पर हैं -

- | | |
|----------------------|--------------------|
| 1. नई उमर की नयी फसल | 2. कन्यादान |
| 3. पहचान | 4. लालपत्थर |
| 5. गैम्बलर | 6. प्रेम पुजारी |
| 7. मेरा नाम जोकर | 8. चन्दा और बिजली |
| 9. छुपे रुस्तम | 10. तेरे मेरे सपने |
| 11. जंगल में मंगल | 12. बेईमान |
| 13. कल, आज और कल | 14. चा चा चा |
| 15. पराया धन | |

नीरज के 'गीतों' में प्रकृति की कोमलता के साथ, बिम्बों के प्रयोग,

164 • राष्ट्रीय संगोष्ठी • रेव. डॉ. जी. वलन अरासू/डॉ. अभिलाषा शुक्ल



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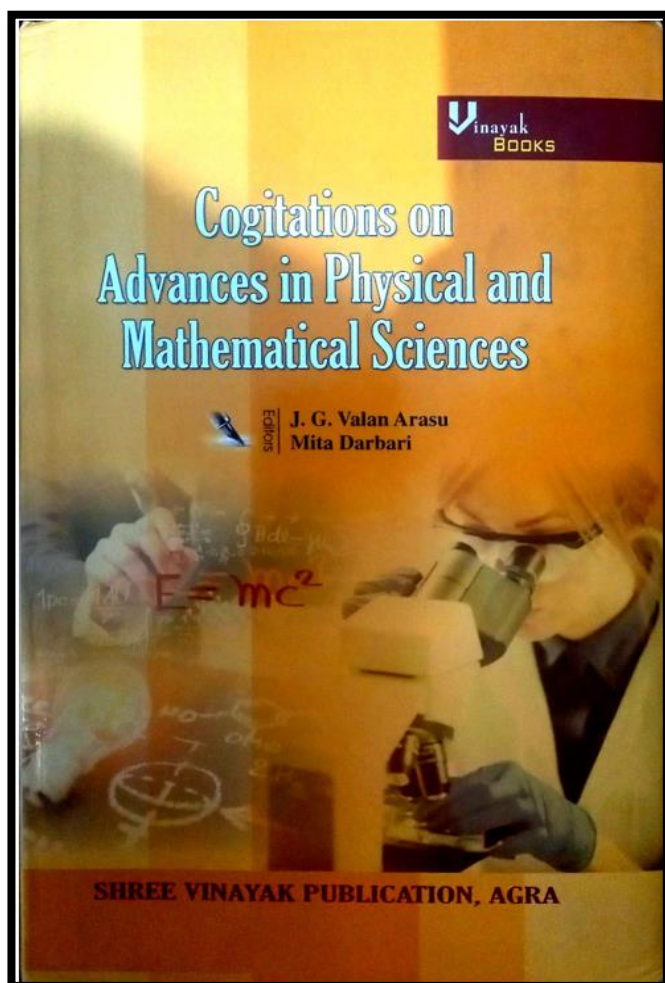
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9

Primitive Pythagorean Triangles and Mersenne Primes

Mita Darbari, Prashans Darbari, Deepanshu Rawat
and Disha Shukla

ABSTRACT

Eight very special Pythagorean Triangles are found in relation with Mersenne primes. Some remarkable properties of these Pythagorean Triangles are observed. A conjecture related to Mersenne Primes and Pythagorean Triangles is also stated.

Keywords- Euclidean formula, Opposite Parity, Primitive Pythagorean Triangle, Mersenne Prime Numbers.

1. Introduction

The search for prime numbers is still going on. The largest known prime is a Mersenne prime. Pythagorean Triangles also fascinate number theorist and they keep finding special Pythagorean Triangles. Darbari and Darbari (2020) have found out special Pythagorean Triangles in connection with Harshad numbers while Darbari et al. (2021) have found two exceptional Pythagorean Triangles with their perimeter as eleventh power of a positive integer. They also applied these exceptional triangles in cryptography in a unique way. In this paper, an attempt has been made to find special Pythagorean Triangles with one leg as Mersenne Prime.

2. Definitions

2.1 Mersenne Prime: Prime numbers of the form $M_p = 2^p - 1$, $p \leq 1$ are called Mersenne Primes (Burton, 2006).

2.2 Pythagorean Equation: A quadratic equation

$$X^2 + Y^2 = Z^2$$

is called Pythagorean equation (Robbins, 2006) after the famous mathematician and philosopher Pythagoras. It is one of the most important equations of the world in all times.



14

Special Pythagorean Triangles in and Fermats Primes

Mita Darbari, Prashans Darbari, Shivam Soni,
Aayushi Sahu and Neha Patel

ABSTRACT

Eight special Pythagorean Triangles are obtained in connection with Fermat primes. Some very interesting properties of these Pythagorean Triangles are observed. Conjectures related to Fermat Primes and Pythagorean Triangles are also stated.

Keywords- Euclidean formula, Opposite Parity, Primitive Pythagorean Triangle, Fermat Prime Numbers.

1. Introduction

The mystery shrouding prime numbers still intrigue mathematicians who love numbers. The largest known prime is a Mersenne prime and there are only five Fermat primes discovered so far. Number theorists are also fascinated by Pythagorean Triangles and they keep on discovering special Pythagorean Triangles. Darbari and Darbari (2019) have found out special Pythagorean Triangles in connection with undecic numbers while Darbari et al. (2019) and Darbari et al. (2020) have found methods to apply these special triangles in cryptography. In this paper, an attempt has been made to find special Pythagorean Triangles with one leg or hypotenuse as Fermat Prime.

2. Definitions

2.1 A Fermat number, named after Pierre de Fermat, who first studied them, is a positive integer of the form $2^{2^n} + 1$, where n is a non-negative integer. The first few Fermat numbers are:
3, 5, 17, 257, 65537, 4294967297, 18446744073709551617, ...

2.2 Fermat Prime: Fermat numbers, which are also primes are called Fermat Primes.

2.3 Pythagorean Equation: A quadratic equation

$$X^2 + Y^2 = Z^2$$



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Fixed Point Theorems Under PGA Contraction in G-Metric Spaces

Akhilesh Pathak and Satyendra Jain

ABSTRACT

In 2012 Zead Mustafa introduced some new types of pairs of mappings on G-metric space called G-weakly commuting of type A_f and G-R-weakly commuting of type A_f and obtained several common fixedpoint results for these mappings under certain contractive condition in G-metric space. In 2016, Powar and Pathak, defined new type of contraction called PGA contraction. In this paper we define Fixed Point Theorems under PGA contraction in G-Metric Spaces.

Introduction:

In 1976 Jungck [1] proved a common fixed point theorem for commuting maps, but his results required the continuity of one of the maps. Sessa [2] in 1982 first introduced a weaker version of commutativity for a pair of selfmaps, and it is shown in Sessa [2] that weakly commuting pair of maps in metric space is commuting, but the converse may not be true. Later, Jungck [3] introduced the notion of compatible mappings in order to generalize the concepts of weak commutativity and showed that weak commuting map is compatible, but the reverse implication may not hold. In 1996, Jungck [4] defined a pair of self-mappings to be weakly compatible if they commute at their coincidence points.

Recently, In 2016, Powar and Pathak, defined new type of contraction called PGA contraction. In this paper we define Fixed Point Theorems under PGA contraction in G-Metric Spaces.

Preliminaries:

Definition 1.1 A G-metric space is a pair (X, G) , where X is a nonempty set, and G is a nonnegative real-valued function defined on $X \times X \times X$ such that for all $x, y, z, a \in X$ we have



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10

g - α -Irresolute Homeomorphism

Pratibha Richhariya and Shaleen Nayyar

ABSTRACT

In this paper g - α -irresolute homeomorphism has been introduced. Moreover, characterization of g - α -irresolute homeomorphism has also studied.

Keywords: g - α -irresolute homeomorphism, generalized and g - α -irresolute continuity.

AMS Subject Classification (2000): primary 54XX; secondary 54CXX.

1. Introduction

sa' szár [2] initiated the theory of generalized topological space and studied the elementary character of these classes. Especially, he introduced the notion of continuous function on generalized topological spaces, and investigated characterization of generalized continuous functions (g, g')-continuous functions in [3]. In [4], [5], [6] W. K. Min introduced the notion of weak (g, g')-continuity, almost (g, g')-continuity, (α, g')-continuity, (ρ, g')-continuity, (β, g')-continuity on generalized topological spaces.

In [1] S. J. Bai and Y. P. Zuo introduced the notion of g - α -irresolute functions and investigated their properties and relationship between (g, g')-continuity [3] (resp. almost (g, g')-continuity [5], weak (g, g')-continuity [4], (α, g')-continuity [6], (ρ, g')-continuity [6], (β, g')-continuity [6]).

In the present paper, using the concept of g - α -irresolute functions which is initiated by S. J. Bai and Y. P. Zuo (cf. [1]), g - α -irresolute homeomorphism has been introduced. Moreover, some of the characterization of g - α -irresolute homeomorphism have been studied and verify some results.



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11

An Easy Method to Find Fourth Power of 11 to 19 By Vedic Mathematics

Archana Pasari, Kshitiz and Nikhat Parveen

ABSTRACT

Finding the fourth power of a number is something which is frequently used in arithmetic calculations. While it's easy to calculate the fourth power of a single digit number like 5, it's not so easy to calculate the fourth power of any twodigit number. The purpose of this paper is to introduce a simple method to calculate the fourth power of the numbers from 11 to 19 in a single step by simple addition and multiplication operation. The method we have introduced is based on the concept of Vedic Mathematics.

Introduction

Finding the fourth power of a Number

Study the following table.

No.	Power four of a number
1	$1 \times 1 \times 1 \times 1 = 1 = 1^4$
2	$2 \times 2 \times 2 \times 2 = 16 = 2^4$
3	$3 \times 3 \times 3 \times 3 = 81 = 3^4$
5	$5 \times 5 \times 5 \times 5 = 625 = 5^4$
8	$8 \times 8 \times 8 \times 8 = 4096 = 8^4$
A	$a \times a \times a \times a = a^4$

fourth power of small numbers like 2, 5, 8, 9,...etc. are easy to find. But can we find the fourth power of 14 so quickly?



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Chapter - 15

Constitutional Progress of the Right to Information

Dr. Vishwas Patel and Dr. Tuhina Johri

It is required to stress at the very threshold that the movement of right to information in India was never aimed to merely ensure an access to the public information. Rather, the aim is to create such favourable conditions so that the right to information can be effectively exercised. It is for sure that the Indian Constitution does not contain any specific right to information or even right to freedom of the press. The Chapter on Fundamental Rights when interpreted broadly guarantees the right to information as a part of freedom of speech and expression. As pointed out by H.M. Seervai, "Corruption, nepotism and favouritism have led to the gross abuse of power by the Executive, which abuse has increasingly come to light partly as a result of investigative journalism and partly as a result of litigation in the Courts". It is submitted that the provisions of the two constitutions (US and Indian) as to freedom of speech and expression are essentially different. The difference being accentuated by provisions in our Constitution for preventive detention which have no counterpart in the US Constitution. Several decisions given by the Supreme Court from time to time have been actually responsible for the development of legal position with regard to the right to information in India.

The landmark case in freedom of the press in India was *Bennett Coleman & Co. vs. Union of India* in which the court struck down the newsprint control order saying that it directly affected the Petitioners right to freely publish and circulate their paper. In that, it violated their right to freedom of speech and expression. The judges also remarked, "It is indisputable that by freedom of the press meant the right of all citizens to speak publish and express their views" and "Freedom of speech and expression includes within its compass the right of all citizens to read and be informed." The dissenting judgments of *Justice K.K. Mathew* also noted, "The freedom of speech protects two kinds of interests. There is an individual interest, the need of men to express their opinion on matters vital to them and a social interest in the attainment of truth so that the country

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6

Post Pandemic Business and Industry Operations

Sanjay Kumar Rajak
Madhu Kumari

Abstract:

"Every problem is a gift – without problems, we would not grow"

—Anthony Robbins

The outbreak of the Covid – 19 Pandemic has brought a 360-degree turn in the world. It ached not only a few countries or few people but impacted billions of people around the globe. Everyone has been affected either directly or indirectly.

Businesses and industries are no exceptions to this. These have been either hit very hard or got an advantage through this pandemic. The pre and post-pandemic scenarios are drastically different, be it a shift of office culture to work from home, on-ground marketing to online advertising, shopping at retail outlets to home delivery method, GDP going negative from positive, demand going downwards, and many more. The results caused by this shift were expected as well as unexpected; few coped with the problem whereas few were left devastated.

Business is all about risks and uncertainties. This pandemic has served well in that sense but problems do bring hidden opportunities with them. There exist such businesses which have performed well and grown out of this situation. Reskilling and upskilling are among such ways which can provide an opportunity for businesses. It assures, if not a success, then at least, the least possible damage to any organization in the worst circumstance like this.

Introduction

The article discusses how COVID-19 pandemic impacted the industries and businesses across the globe. Undoubtedly the pandemic



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24

The Role of Education Institute for Building Skilled Workforce for Industry 4.0

Sonal Rai
Amit Verma

Abstract

The world economy is in an exceedingly phase of rapid development. Unprecedented changes are happening within the way the world works; traditional jobs are being replaced by new ones that require critical skills for workers of the long run. Enter the age of 'Industry 4.0'. This era, knowledge and skills are paramount for one to stay relevant and remain competitive within the job market. Terms like 'reskilling' and 'upskilling' reflect the type of changes that are happening. supported the reports by recognized research organizations and therefore the opinions of famous scholars, the paper explains the role of education system for responding the challenges of the Industrial 4.0, discusses opinions about the ways for improving school and university education, describes the finest examples found within the world. The necessity for cooperation between different stakeholders for the implementation of effective education policies is particularly emphasized in this paper.

Keywords

Industry 4.0, Reskilling and upskilling, educational institute.

Introduction

The initiated issue by citing the forecast data that show the main challenges that the government of each country faces. World Economic Forum published several reports in 2018, where the most issues are related to the Fourth Industrial Revolution (4IR). "Across all industries, by 2022, growth in emerging professions is ready to extend their share



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Post Pandemic Business and Industry Operation : A Win-Win Situation for Employees

Ashu Jain
Pramod Kumar

Abstract:

In the scenario of Corona Pandemic, the world is suffering a lot, but the good news is that this suffering can be channelized into opportunities. Total lockdown in 140 countries are making people bore or idle but it can be the best time to make them skilled. If they are skilled they may be asked to re-skill themselves and if they are not skilled they can be asked to learn new things that are up-skilling.

The main objective of this research paper was to understand the need and requirement of the Industry and to know the employee's perception towards learning new skill or update the same. Random sampling was done to know the effect of lockdown and utilization of the same to upgrade them. Data was collected both ways i.e. primary and secondary. Primary data was taken from the employees working in different MNCs and secondary data was collected from various online platforms.

In the end it was observed that after Covid 19, when the pandemic will be over, Industries will look for different skills in same employees or new skills in the new joining. So, the employees upgrade themselves with different skills shall be able to survive and people if inculcate new skills in them shall be getting jobs.

Post Pandemic Business and Industry Operation: A Win-Win Situation for Employees

The COVID-19 crisis created chaos and panic for employers and employees. Those employees who could work from home were forced



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NEP: AN AMBITIOUS STEP TOWARDS MAKING INDIA SELF- RELIANT

Dr. Ashu Jain

Assistant Professor, Department of Commerce, St. Aloysius College (Autonomous), Jabalpur (M.P.)

Ms. Shruti Dubey

Student, Commerce, St. Aloysius College (Autonomous), Jabalpur (M.P.)

INTRODUCTION :- Education is the best tool by which any nation can make progress in every facet. From achieving full human potential to developing the nation education has always been the crucial element. There are tons of changes made in the Education System of India. Quality education is the access key to India's social, political and economic changes, leadership on the global stage in terms of economic growth and scientific advancement.

National Education Policy 2020 is a bold and comprehensive step and the first education policy of the 21st century which aims to address to make an additional versatile and reconciling education system which will meet the wants of scholars and therefore the economy. It's a daring and decisive policy that seeks to cause a radical transformation in the education system over future decades, thus building an "Aatmanirbhar Bharat". This policy is also a response of rapid advances in technology associated with both opportunities and challenges to human well-being. The world is undergoing rapid changes in the knowledge landscape and with the quickly changing employment landscape and global ecosystem, it is becoming increasingly critical that children not only learn, but more importantly learn how to learn.

The Government of India during the COVID-19 lockdown period has announced a massive economic stimulus package of Rs. 20 lakh crore intended to revive the Indian economy stagnated due to the Covid-19 pandemic and create new opportunities for growth in primary, secondary and tertiary sectors to make a resilient and self-reliant India.

Both National Education Policy and Aatmanirbhar Bharat Schemes are introduced to help long term reforms in critical sectors of growth to make them globally competitive and attractive. This has been envisioned by the highest leadership to transform India from a receiver to a performer.

NEP 2020 And AATMANIRBHAR BHARAT :- The National Education Policy was framed in 1986 and modified in 1992. More than three decades have passed since previous to have a new policy which has now been started by the Union Cabinet of India on 29 July 2020, thriving the vision of new education system in India. Built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability, this policy is aligned to the 2030 Agenda for Sustainable Development and aims to transform India into a vibrant knowledge society and global knowledge superpower by making both school and college education more holistic, flexible, multidisciplinary and aimed at bringing out the unique capabilities of each student, thus creating a self-reliant India.

The new NEP is designed for the youths of the 21st century who will lead the world and make India the global leader, also NEP is a key component for creating an "Aatmanirbhar Bharat" (self-reliant India). NEP 2020 focuses on employability and acknowledges the role of education in providing students with the right skillsets.

Dr. Sunita Gandhi, Educationist of the Year 2014, commented, "The NEP insists that without basic learning, the rest of the NEP becomes irrelevant, in it lies the biggest possibility of NEP's impact on quality education but also on equity and inclusion, the hallmarks of a great education that



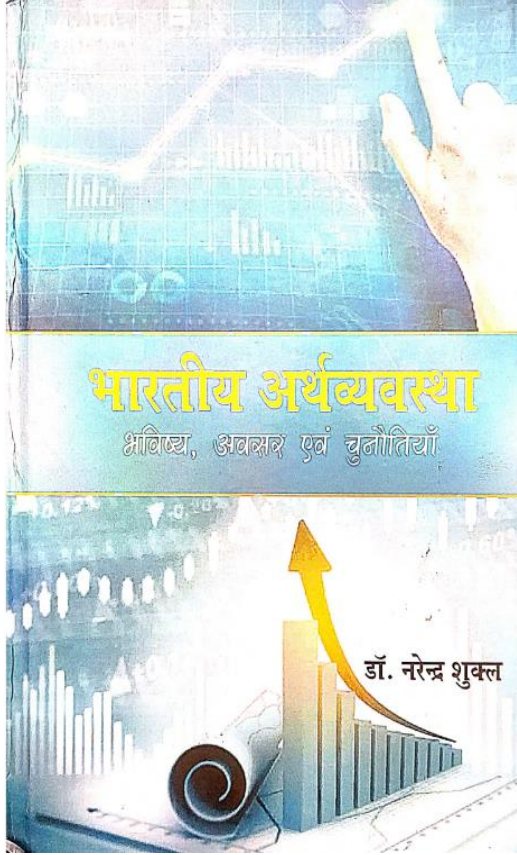
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15.

भारतीय अर्थव्यवस्था पर डिजिटलाइजेशन का प्रभाव और वित्तीय साक्षरता की आवश्यकता

डॉ. दिलीप कुमार कोटा**

डॉ. सुनील कुमार तिवारी**

प्रस्तावना

भारत दुनिया की सबसे तेजी से बढ़ने वाली अर्थव्यवस्था है। जीडीपी द्वारा मापी गई दुनिया में भारतीय अर्थव्यवस्था सातवीं सबसे बड़ी अर्थव्यवस्था है और अमेरिका और चीन के बाद क्रम शक्ति के मामले में तीसरा सबसे बड़ा देश है। भारतीय अर्थव्यवस्था में बहुत बदलाव देखे गए हैं आत्मनिर्भर होने से लेकर वैश्विक बाजार के लिए अपना दरवाजा खोलने तक और तब से पीछे मुड़कर नहीं देखा। नवीनतम आर्थिक सर्वेक्षण के अनुसार, भारतीय अर्थव्यवस्था 2016-17 से 7 प्रतिशत से अधिक की वृद्धि जारी रखेगी। फिच रेटिंग एजेंसी के अनुसार, भारत की सकल घरेलू उत्पाद (जीडीपी) चालू वित्त वर्ष में 7.7 प्रतिशत बढ़ने की संभावना है और आने वाले वित्तीय वर्ष 2021-22, तक धीरे-धीरे बढ़कर 8 प्रतिशत हो जाएगा।

*सहायक प्राध्यापक, वाणिज्य विभाग, संत अर्शांतसिंह महाविद्यालय जबलपुर (म.प्र.)।

**सहायक प्राध्यापक, वाणिज्य विभाग, संत अर्शांतसिंह महाविद्यालय जबलपुर (म.प्र.)।





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डॉ. दिलीप कुमार कोष्टा

सहायक प्राध्यापक एवं समन्वयक, संत अलॉयसिअस महाविद्यालय, जबलपुर

डॉ. सुनील कुमार शिवादी

सहायक प्राध्यापक, संत अलॉयसिअस महाविद्यालय, जबलपुर

प्रस्तावना :- भारत जो शैक्षिक सुधारों के लिए कटिबद्ध है एवं शिक्षा के प्रति बेहद उदार देश होने के नाते भारत में वर्तमान में लगभग 845 विश्वविद्यालय और लगभग 40,000 उच्च शिक्षा संस्थान हैं, जो देश में समग्र उच्च शिक्षा और कई छोटे आकार के उच्च शिक्षा संस्थान का प्रतिनिधित्व कर रहे हैं, जो किसी न किसी विश्वविद्यालयों से संबद्ध हैं। यह पाया गया है कि इन छोटे संस्थानों में से 50% से अधिक उच्च शिक्षा की बहु-विषयक शैली में अपेक्षित सुधार के कार्यक्रम चला रहे हैं, जो 21वीं सदी के लिए देश में वैश्विक सुधारों के लिए एक अनिवार्य आवश्यकता है। यह भी ध्यान दिया गया है कि 20% से अधिक कॉलेजों में वार्षिक नामांकन 100 से कम छात्रों का है, जो उन्हे शिक्षा की गुणवत्ता में सुधार करने के लिए प्रेरित करता है और केवल 4% कॉलेज क्षेत्रीय असंतुलन के साथ-साथ शिक्षा की गुणवत्ता के कारण सालाना 3,000 से अधिक छात्रों को नामांकित करते हैं। यह स्पष्ट है कि दत्त ट्रिलियन अर्थव्यवस्थाएं अपने देश के प्राकृतिक संसाधनों से नहीं बल्कि ज्ञान संसाधनों से संचालित होंगी। भारतीय शिक्षा क्षेत्र के विकास को बढ़ावा देने के लिए सरकार कटिबद्ध दिखाई दे रही है, वर्तमान सरकार ने इसके तहत एक नई शिक्षा नीति 2020 को लागू करने का फैसला किया है, नई शिक्षा नीति 2020 को पेश करके शिक्षा के क्षेत्र को नया रूप देने का फैसला किया। वर्तमान में शुरू की गई राष्ट्रीय शिक्षा नीति 2020 भारत को केंद्रीय शिक्षा प्रणाली के रूप में देखती है जो सन की उच्च गुणवत्ता वाली शिक्षा प्रदान करके देश के समाज को एक समान और जीवंत ज्ञान प्रदान करने में सीधे योगदान देती है।

नई शिक्षा नीति 2020 की समस्याएँ :-

- उच्च शिक्षा तक पहुंच की कमी, विशेष रूप से सामाजिक-आर्थिक रूप से वंचित क्षेत्रों में निचले परिणामस्वरूप वर्तमान सकल नामांकन अनुपात केवल 25% है।
- कई छात्रों को आकर्षित करने के लिए उच्च शिक्षा में नवाचार करने के लिए शिक्षक और संस्थागत स्वायत्तता की कमी।
- अधिकांश विश्वविद्यालयों और कॉलेजों में अनुसंधान और नवाचारों की कमी।
- उच्च शिक्षा संस्थानों के संचालन एवं नेतृत्व में कमी।
- एक ब्रष्ट नियामक प्रणाली नवीन संस्थानों को बाधित करते हुए नकली कॉलेजों को फलने-फूलने देती है।

1. पाठ्यचर्या और सामग्री :- नई शिक्षा नीति 102 संरचना से 5334 संरचना में बदलाव करना चाहता है, जहां प्रारंभिक बचपन की शिक्षा औपचारिक शिक्षा का एक हिस्सा होगी वहीं एनईपी 2020 इस महत्वपूर्ण सोच के चल रहा है कि पाठ्यक्रम सामग्री को काम से काम किया जाए और बदले में व्यक्तियों के कौशल विकास पर जोर दिया जाए। अतः इन लक्ष्यों को प्राप्त करने के लिए पाठ्यक्रम और शिक्षाशास्त्र के सही पहलुओं को पुनर्गठित करने की आवश्यकता है। राष्ट्रीय पाठ्यचर्या की रूपरेखा के अनुसार इन परिवर्तनों को सफलतापूर्वक लागू करने की चुनौतियों में पाठ्यक्रम को संशोधित करना भी शामिल है। इसके अलावा, शिक्षकों को पढ़ाने की सामग्री पर पुनर्निर्धार करने और तदनुसार पाठ्यपुस्तकों को संशोधित करने की आवश्यकता है।

2. प्रशिक्षकों की उपलब्धता और प्रशिक्षण :- नीति में स्कूल पाठ्यक्रम के नए स्वरूप की परिकल्पना की गई है। हालांकि, पाठ्यक्रम को प्रभावी ढंग से संचालित करने के लिए, स्कूलों और संबंधित अधिकारियों को





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नई शिक्षा नीति 2020 के सुचारु रूप से क्रियान्वयन में शिक्षकों की भूमिका का विश्लेषणात्मक अध्ययन

डॉ. सुनील कुमार शिवारी

सहायक प्राध्यापक वाणिज्य विभाग, संत अलॉयसियस महाविद्यालय स्वर्सेरी, जबलपुर

डॉ. योगेश आशर

सहायक प्राध्यापक वाणिज्य विभाग, संत अलॉयसियस महाविद्यालय स्वर्सेरी, जबलपुर

"किन्ती राष्ट्र का विकास इस बात पर निर्भर करता है कि यह किस प्रकार की शिक्षा प्रदान करता है" शिक्षा पूर्णमानव क्षमता को प्राप्त करने, एक न्यायसंगत और न्यायपूर्ण समाज के विकास और राष्ट्रीय विकास को बढ़ावा देने के लिये बहुत आवश्यक है। गुणवत्तापूर्ण शिक्षा तथा वैश्विक मंच पर सामाजिक न्याय और समानता, राष्ट्रीय एकीकरण और संस्कृति का संरक्षण ही भारत की सतत प्रगति और आर्थिक विकास की कुंजी है। उच्चतर स्तरीय शिक्षा यह सरासरी माध्यम है, जिससे देश की समृद्ध प्रतिभा और संसाधनों का सर्वोत्तम विकास और व्यक्तित्व, समाज और राष्ट्र की भलाई के लिए किया जा सकता है। शिक्षा की मधुमयी नीति राष्ट्र के विकास के लिए महत्वपूर्ण भूमिका निभाएगी साथ ही इससे देश की सामाजिक और आर्थिक प्रगति भी होगी। इसने कई बदलाव हैं, जिन्हें नई शिक्षा नीति में शामिल किया गया है जो छात्रों, शिक्षकों, समाज और हिताधारकों अधिकांश को प्रभावित करेगा। नई शिक्षा नीति 2020 के सुचारु रूप से क्रियान्वयन में छात्रों के साथ शिक्षकों की अत्यंत प्रमुख भूमिका है।

परिचय :- प्राचीन काल से भारत की शिक्षा प्रणाली सुप्रसिद्ध है। हमारे देश ने प्रख्यात शिक्षक देखे हैं जैसे: विश्वामित्र, वाल्मीकि, बशिष्ठ, अरविंदो, स्वामी विवेकानंद, रामकृष्ण और कई अन्य। इतिहास के अनुसार के दौरान मोहन-जोदारो और हड़प्पा सभ्यता में शिक्षक प्रशिक्षण शुरू किया गया था। जैसे-जैसे समय-समय पर शिक्षा की आवश्यकता बदलती गई, वैसे-वैसे परिवर्तन भी होते रहे। पहली शिक्षा नीति वर्ष 1968 में शुरू की गई थी, फिर अगली नीति वर्ष 1986 में बनाई गई और इसके बाद 1992 में इसमें कुछ छोटे संशोधन किए गए, फिर 34 साल बाद राष्ट्रीय शिक्षा नीति 2020 आई है। नई राष्ट्रीय शिक्षा नीति में शिक्षक शिक्षा में बड़े बदलाव शामिल हैं। शिक्षकों को अधिक योग्य व अपडेट होना होगा क्योंकि नई राष्ट्रीय शिक्षा नीति 2020 में बहु-विषयक दृष्टिकोण के साथ-साथ छात्रों को उनकी क्षेत्रीय भाषा में पढ़ाने का समावेश है। किन्ती ने यह सही कहा कि नई देश की नियति को उसकी कक्षा में सहेजा जा सकता है। अतः विद्यार्थियों के समग्र विकास एवं उन्हें वर्तमान वैश्विक रोजगार बाजार की आवश्यकताओं के अनुरूप तैयार करने हेतु एक अच्छा शिक्षण-अधिगम वातावरण और गुणवत्तापूर्ण निर्देश कैसे विकसित किया जाए किया जाए यह नई राष्ट्रीय शिक्षा नीति 2020 का प्रमुख दृष्टिकोण है। छात्रों के लिए, अब अपने अनुसार विषय चुनने की स्वतंत्रता है जिससे वे अपनी जरूरत और रुचि के अनुसार उस क्षेत्र में उत्कृष्टता प्राप्त कर सकते हैं। अब भारत की शिक्षा प्रणाली में कुशल छात्रों को भविष्य के लिए तैयार करने की क्षमता है ताकि वे व्यक्तिगत और व्यावसायिक स्तर पर सफलता प्राप्त की जा सके।

अध्ययन का उद्देश्य :-

- शिक्षक-शिक्षा के वर्तमान परिदृश्य को जानना।
- शिक्षक-शिक्षा के संबंध में राष्ट्रीय शिक्षा नीति 2020 की समीक्षा करना।
- राष्ट्रीय शिक्षा नीति 2020 की पिछली नीति से तुलना करना।
- शिक्षक शिक्षा में राष्ट्रीय शिक्षा नीति 2020 की मुख्य विशेषताओं को समझना।
- नई शिक्षा नीति 2020 के सुचारु रूप से क्रियान्वयन में शिक्षकों की भूमिका का विश्लेषणात्मक अध्ययन करना।
- शिक्षकों की कठिनाइयों तथा चुनौतियों का अध्ययन करना।



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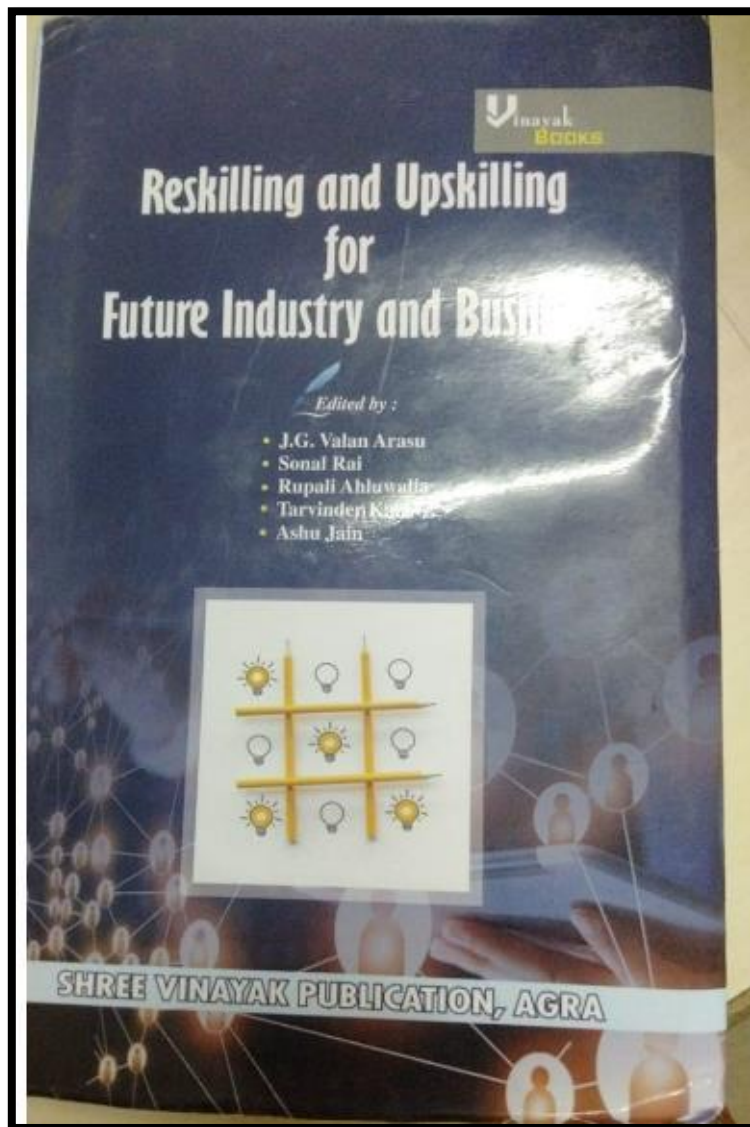
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2

A Study on the Impact of Change in Technology Efficiency of Indian Industries due to Covid-19

Dileep Kumar Koshta
Mohd. Abdul Raffey

Abstract:

The COVID-19 crisis has had a substantial impact on the Indian economy and triggered unprecedented policy responses across the world. With evidence on the effects on the Indian industry manifested until the beginning of 2021, this report aims to address the following key issues:

(1) Impact of COVID-19 on the Indian economy as a whole and across sectors;

(2) Necessary recovery measures to meet the needs of the Indian Industry.

As the pandemic is still unfolding globally, and at the time that a second (and potentially even a third) wave still keeps India and the world in its grips, it is too early to assess the full impacts of this crisis. Nevertheless, to support policymakers with evidence on the effects on the Indian industry established so far, this report aims to address the following key questions:

(1) What is the impact of COVID-19 on the Indian economy, and how is the impact distributed among different sectors?

(2) How comprehensive are the recovery measures, and to what extent they are meeting the needs of the Indian industry?

Keywords:

COVID-19, Pandemic, Indian economy, Substantial, Global, Strategic Ecosystem, GDP

Introduction:

The COVID-19 pandemic, due to lockdowns in India and in the rest of the world, severely affected the Indian industries. Disruptions in



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13

Skill Development in Indian Labor Force : Challenges and Opportunities

Sunil Kumar Tiwari
Sachin K.Parappagoudar

Abstract:

The Indian economy is growing at an advanced rate of about 7.5%. Which is one of the fastest-growing economies of the world? India's demographic situation is helping in setting goals for the country's economic development. India ranks first in the world in terms of labor population; about 65% of the population is today recorded as the labor population of the country. Due to this the labor market is expecting huge growth.

Most of the world's economies are aging rapidly, resulting in a substantial reduction in their contribution to the global workforce. Conversely, India could be a major contributor to the global workforce in the coming years. According to a study, by the year 2020, there may be a shortage of 50 million skilled workers in the world. On the other hand, India will have a surplus of 56 million working people by 2020. If India can develop its workforce with the right skills, then India will benefit from its large working population.

There will be a surplus of million working people. If India can develop its workforce with proper skills, then India will be able to take advantage of its large working population. In this regard, the role of skill development becomes most important in transforming the Indian workforce. Skill development is a very important aspect in India. Therefore, for this, all together, various institutions, beneficiaries, and students will have to make their joint efforts. With the concerted efforts of the government, the labor force available for employment can be skilled. The labor force in India is huge and one has to work towards



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19

Post Pandemic Impact on Manufacturing Industry Operations

Pooja Gupta
Sunil Kumar Pahwa

Abstract

The manufacturing industry faced a real decline when it came to the COVID impact. While surviving it was difficult, it gave a new outlook towards the existing problems and brought unprecedented solutions. Covid-19 pandemic has created a massive disruption all over the globe, especially in Europe, the USA, China, India, and many developed economies. The production supply chains have been enormously disturbed. Manufacturing companies operating in and through India are also affected by Covid-19. However, Covid-19 also offers an opportunity to revisit the competitiveness of Indian manufacturing. Conventionally, India's manufacturing growth has been based mostly on its domestic market. The disruptions due to Covid-19 are likely to offer new models of working and at the same time, opportunities to build capabilities and explore new international markets and operations. The research paper highlights the position of manufacturing industry during the pandemic and post pandemic operations of the industry. The study will also suggest the various sectors which could be the future of the Manufacturing Industry.

Keywords

Manufacturing Industry, Operations, Post pandemic, reimagining.

Introduction

Covid-19 pandemic has created an enormous disruption all over the globe. It has resulted in extensive human casualties all over the globe, especially in Europe, the USA, China, and many developed economies. The abrupt stoppage of demand has disrupted the standard



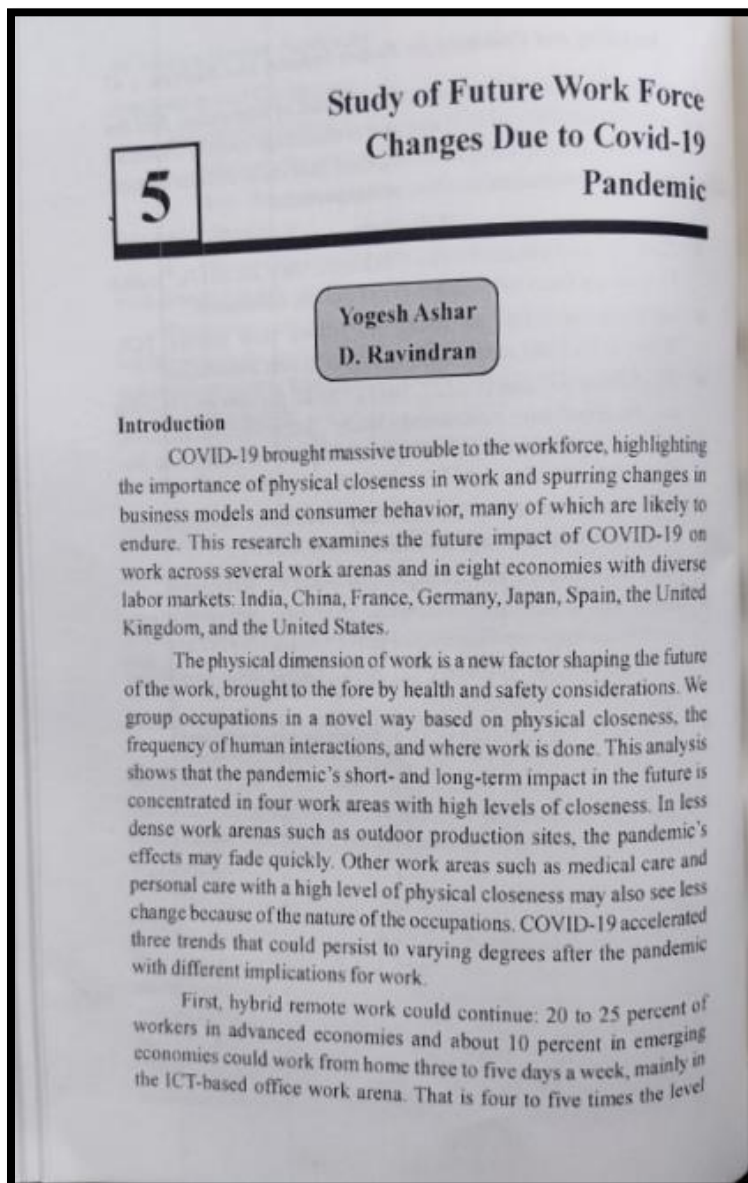
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20

Up-skilling and Reskilling Requirements for the Fourth Industrial

Kudshiya Raza
Sunil Kumar Pahwa

Abstract

Here's a common misconception that we'll all need to develop highly technological or scientific skills to succeed. Yet while it will be necessary for people to work with technology, we're also seeing a growing need for people to develop specialized skills for how they interact with each other. These include creativity, collaboration and interpersonal dynamics, as well as skills related to specialized sales, human resources, and care education roles. Many of these fast-growing jobs are currently undersupplied. This offers an opportunity for a majority of those in the most at-risk roles. However, with 70% of such workers needing to find new opportunities outside of their current industry, such transitions also require better safety nets and stronger private-sector commitments.

Keywords

The Need of Up-Skilling and Reskilling, Workforce, HRD Funding, Requirements of Reskilling and Upskilling

The Need of Up-skilling And Reskilling for IR 4.0

Reskilling and up-skilling are important to increase company productivity. Research done by Mgiba [2019] indicated that upgrading the existing skill or learning a new skill and increase the knowledge will benefit the individual to be successful in the current working industry or moving to a new position. Moreover, the author also stated that reskilling and up-skilling can help the sales and marketing personnel to put more attention on the customer and market, become more agile and can be more flexible when facing the changes. In fact, reskilling and



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3

Professional Training an Edge

Komal Rawat
Nidhi Khurana
Neha Sharma

Abstract:

Within the present-day world, COVID-19 isn't a replacement term for us. This pandemic had been creating impact at global level from the past months. The conditions were and are still challenging but because it is well said- "challenges are meant to be challenged" so to stay our economies stable and growing, we are required to bear in mind, innovative and artistic in each & every aspect. Also at the identical time, this fact isn't hidden from us that each sector of our economy was badly hit by the pandemic as many folks lost the sole earning members of their family. So in such situation, the most important task ahead of each organization was to stay up the motivation, knowledge level & skills of their employees high enough to bring out the favourable results for the organization. The question now is, "What is the most effective approach for teaching employees?" So to answer this question various methods of coaching the professionals are discussed during this research paper.

Keywords: Covid 19, Professional Training & Online Learning

Introduction:

A professional could be a member of a profession or anyone who makes a living from a particular professional activity. The word also refers to the educational and training requirements that provide members of the profession with the real information and skills required to execute their specialised job within that profession. As we are taking breath within the era, we face competition & pressure to take care of our position i.e., our name & fame, in every walk of our lives. It's very necessary to stay up with the market trends for better future prospects. To fulfil this purpose, we want both to-develop our physical & psychological state.



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Upskilling TVET Programmes in the Time of Covid-19

Sarita Goel
Anupam Mitra

Introduction:

The COVID-19 pandemic and related lockdown and physical separating measures caused not just exceptional disturbance in the arrangement of instruction and preparing yet, in addition, catalyzed advancement in distance learning. While admittance to acquiring and abilities advancement was kept up within certain settings through a fast shift to separate learning in technical and vocational education and training (TVET), the prior social and computerized isolates denied the most minimized gatherings of kept learning and put them in danger of falling further behind. With a couple of exemptions, the expanded reception of distance learning arrangements by TVET programs has not worked with the obtaining of useful abilities also, the association of work-based realizing, which are fundamental segments for the accomplishment of specialized and professional instruction. As indicated by gauges from the International Labor Organization (ILO), 14% of working hours were lost all around the world in the second quarter of 2020 when contrasted with the last quarter of 2019 (ILO 2020a). This misfortune is comparable to 480 million everyday positions. Business terminations and misfortunes in benefits affected work and prospects of low work and caused cuts in the proposal of apprenticeship situations in ventures. The absence of functional distance-learning stages and instructive assets, interruptions to evaluation and confirmation, and an overall decrease like preparing caused demotivation among students and educators and, along with rising economic hardship, increased the likelihood of people dropping out of education.



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21 Reskilling Upskilling for Future Industry & Business : Post Pandemic Effects on Business and Industry Operations

Rupali Ahluwalia
Shivika Bhatia

Abstract

The COVID-19 pandemic ushered in the opportunity to rethink how we work. It's a sea change that occurs less than once in a generation and has the potential to reshape society in countless ways. There is the need for humility as leaders, organizations, and employees grapple with learning best practices, testing solutions, and admitting that nobody has all the answers in hand. To meet the challenges posed by the pandemic, businesses around the world have to react in decisive ways. As we move into the next phase, now is the time for businesses to seek out and seize the opportunities emerging in the recovery. This involves conducting an "after-action review" to collect data and insights on lessons learned from the pandemic, and then using these to prioritise actions to enhance business value today and build strategic resilience for tomorrow. Businesses that take these steps now will be well-placed to capitalise more effectively on the opportunities rising in the post-COVID-19 recovery and to continue winning in their marketplaces as greater certainty and stability return. Moving forward from a crisis, a company that invests time and energy into considering upcoming risks and determining the right actions for each is more likely to turn potential surprises into strategic opportunities.

Keywords

After Action Review, Strategic resilience, Covid-19 pandemic.

Introduction

When everything is a priority, nothing is a priority. As executives struggle to make sense of the post-COVID business environment, many



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Upskilling for the New Normal : An Institutional Response

Tarvinder Kaur
Sandeep Raghuwanshi

Abstract:

In today's digital era, with the rapid advancement in technologies and rise in competition, workers are required to possess greater number of skills so as to complete their jobs and tasks in a fruitful manner. In the light of COVID-19 pandemic; a digital era sprouting the new normal, training initiatives once considered prudent are now essential. Even before, there was a clear need for investment in ongoing employee development to meet the demands of rapidly evolving industries. The pandemic has accelerated the demand for upskilling the workforce, compounding preexisting pressures. In the months ahead, many organizations will find they must rapidly develop a more agile workforce that is mentally and emotionally prepared to succeed in the transforming market. Learning and development (L&D) professionals will continue to play an indispensable role across industries in driving responses to the pandemic and, eventually, its aftermath to succeed, they must reevaluate which pre-pandemic strategies can best be applied in a training landscape reshaped by the health crisis. It is that resilient organizations must have highly adaptable workers, and swiftly up-skilling employees which act as an effective solution to meet this need. This research paper focuses on the institutional response to upskilling, its benefits, strategies for upskilling, and challenges faced by an institution in upskilling its employees.

Keywords:

Upskilling, Digital Era, Learning and Development (L&D), Institutional Strategies



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Skill Development in Indian Labor Force : Challenges and Opportunities

Sunil Kumar Tiwari
Sachin K.Parappagoudar

Abstract:

The Indian economy is growing at an advanced rate of about 7.5%. Which is one of the fastest-growing economies of the world? India's demographic situation is helping in setting goals for the country's economic development. India ranks first in the world in terms of labor population; about 65% of the population is today recorded as the labor population of the country. Due to this the labor market is expecting huge growth.

Most of the world's economies are aging rapidly, resulting in a substantial reduction in their contribution to the global workforce. Conversely, India could be a major contributor to the global workforce in the coming years. According to a study, by the year 2020, there may be a shortage of 50 million skilled workers in the world. On the other hand, India will have a surplus of 56 million working people by 2020. If India can develop its workforce with the right skills, then India will benefit from its large working population.

There will be a surplus of million working people. If India can develop its workforce with proper skills, then India will be able to take advantage of its large working population. In this regard, the role of skill development becomes most important in transforming the Indian workforce. Skill development is a very important aspect in India. Therefore, for this, all together, various institutions, beneficiaries, and students will have to make their joint efforts. With the concerted efforts of the government, the labor force available for employment can be skilled. The labor force in India is huge and one has to work towards



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Professional Training : A Competitive Edge

Harbaksh Moolchandani
Arshiya Fatima

Abstract:

In the world where competition is at its peak, the organizations must channelize their resources in the most fruitful and efficient manner. For this, the institution must focus on professional development of its employees which is the set of tools, resources, and training sessions for educators to improve their teaching quality and effectiveness. These resources allow instructors to further their knowledge in their subject area and allows for mentorship and the opportunity to learn new teaching techniques. Those who take part in workshops or leadership sessions develop and enhance specialized skills including technical, quantitative and analytical skills. Organizations are finding it difficult to stay competitive in recent global economy. Importance of professional training program is growing for the organizations those pursuing to receive an advantage among competitors. Employees are esteemed resource of the organization and success or failure of the organization relies on the performance of employees. Therefore, organizations are financing large amount on professional training and development programs. Furthermore, in training program it is supportive for companies to emphasize on knowledge, expertise and ability of employees. There is substantial discussion among professionals and researchers on the affect that development program has on both employee and organization. The study described here is a vigilant assessment of literature on fundamental of employee development program and its benefits to organizations and employees.

Keywords:

Professional training, training design, training benefits, skill enhancement



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SUSTAINABLE BUSINESS

PRACTICES IN VUCA WORLD

DR. RITIKA MALIK

Assistant Professor

*Bharati Vidyapeeth (Deemed to be) University, Pune
Institute of Management and Research, New Delhi*

DR. NIMIT GUPTA

Professor and Head

*Dept of Management Studies,
School of Management and Liberal Studies
The Northcap University, Gurugram*



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SUSTAINABLE WORK POLICIES IMPERATIVE AT WORKPLACE

Dr. Nidhi Khurana

Assistant Professor

St. Aloysius' College, (Auto), Jabalpur, M.P.

ABSTRACT

Sustainability is an initiative directed towards protecting the environment and its resources from depletion. Sustainable environment does not only mean ecological system but pondering on sustainability practices in human activities too. Today, sustainability is incorporated into businesses, profession and employment for accomplishment of Sustainable Development Goals (SDGs) 2030. Since every employer and employee relationship is exclusive, the contents of their employment agreement are also exceptional and negotiated according to their situation. Organisations effectively managing employee expectations are able to raise morale, enhance unrestricted effort and bring out the hidden potential of their employees. Failing to meet the same may result in negative consequences. With this general statement of significance in mind, the objective of this research article is to examine critically the specific field of employment, with a view to discovering the relevant underlying norms.

Keywords: *Employment Contract, Employer-Employee Relations, Norms, Sustainability.*



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IMPLEMENTING THE NEW NATIONAL EDUCATION POLICY (NEP) 2020: CHALLENGES AND OPPORTUNITIES

Dr. Sarita Goel

St. Aloysius College (Autonomous) Jabalpur
goelsarita@gmail.com

Abstract :- A fundamental requirement for the growth of an egalitarian society is education. In this context, India has implemented three National Education Policies (NEP), namely NEP 1968, NEP 1986, and NEP 2020. It is now common knowledge that a state's economic performance is directly impacted by its educational system. Education is a nation's strength. A developed nation is unavoidably also educated. Madhya Pradesh, India's incredible heart, took the initiative to implement the National Education Policy. This study tries to quickly list and explain every step the state took to put NEP 2020 into higher education institutions. It also discusses the issues and challenges that institutions and various stakeholders face.

In order to ensure that NEP 2020 is successfully implemented, this research paper aims to identify the gaps that require significant interventions and to propose new models. In this paper, the need for NEP 2020 in higher education will be discussed.

Keywords :- Education, Opportunities, Challenges, Curriculum, HEI

INTRODUCTION :- India has the third-largest student population in the world's higher education system, behind only China and the United States. In the future, India will be one of the largest centers for education. The number of universities, colleges, and other higher education institutions has significantly increased since India gained independence. The nation's educational system has been transformed by the "Right to Education Act," which mandates free and compulsory education for all children aged 6 to 14 years old. A fundamental requirement for the growth of an egalitarian society is education. In this context, India has implemented three National Education Policies (NEP), namely NEP 1968, NEP 1986, and NEP 2020. The new NEP 2020, which was approved on July 29, 2020, aims to make education available to everyone from preschool through secondary school by 2030. It envisions a system of education that is centered on India, sustainable access to high-quality education for all students, and There are ten themes that are in line with the NEP 2020's policy goals.

Today, knowledge is the source of power. A person becomes more powerful the more knowledge they have. India still faces numerous difficult obstacles. 25% of the population is still illiterate, even though education funding has increased; According to Masani (2008), only 7% of Indian students graduate from high school and only 15% complete it. India's elementary and secondary education levels are significantly lower than those of other significant developing nations. Newsweek (2011) states that 57% of college professors lack a master's or PhD degree, 25% of teaching positions are unfilled nationwide, and only 7% of India's college-age population has access to postsecondary education. India has 1522 degree-granting engineering colleges and 1,244 polytechnics, according to Science and Technology Education (2009), with 265,000 annual enrollments in 2011; however, there is a faculty shortage at these institutions, and educational quality has been questioned.



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Role of MSME In Sustainable Development

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Sustainable Development for Industrial MSME Businesses - A Critical Analysis (Special Reference to An Energy Sustainability Approach)

Dr. Sarita Goel

Abstract

The manufacturing industry has enormous potential in the struggle for global sustainability. Large-sized manufacturing companies have begun reporting their sustainability efforts in accordance with established norms as a result of regulatory and commercial constraints. On the other hand, micro, small, and medium-sized firms (MSMEs) play an even greater role in enhancing the social stability and economic structure of developed and developing economies. Ironically, they struggle harder to increase and inform their stakeholders about their sustainable efforts. MSMEs are a significant source of employment in many parts of the nation and have a significant positive impact on the region's development, which helps to narrow income, wealth, and consumption gaps. The aim of this study is to determine the current situation of micro, small, and medium-sized enterprises in the nation as well as to develop an easy-to-implement managerial framework for directing the visualisation, implementation, and reporting of energy sustainability (ES) for industrial enterprises. The study adds to the field of knowledge on sustainability management by taking an operational approach to assessing the sustainability impact of shop-floor activities. It adds to the field of knowledge on energy management by extending the reach of energy optimization efforts to include all facets of sustainability.

KEYWORDS: Energy Sustainability (ES), Sustainable Development (SD), Micro, Small and Medium Enterprises (MSMEs).

Assistant Professor

St. Aloysius College (Autonomous) Jabalpur (M.P.) India

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Impact Of NEP 2020 On Higher Education

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Implementing NEP 2020 in Madhya Pradesh: Challenges and Opportunities

Dr. Sarita Goel

Abstract –

The world has come to understand that a state's educational system directly affects its economic performance. A nation's strength is its education. Unavoidably, a developed country is also an educated one. In order to implement the National Education Policy in India, Madhya Pradesh, the nation's incredible heart, took the initiative. This study makes an effort to list and quickly explain all of the state's steps done to implement NEP 2020 in higher education institutions. Additionally, it covers the problems and difficulties that institutions and various stakeholders experience.

The objective of this research paper is to find the gaps that need significant interventions and to suggest new models for the successful implementation of NEP 2020. The need for NEP 2020 in higher education will be covered in this paper.

Keywords: Education, Opportunities, Challenges, Colleges, Universities, HEI

Assistant professor
Sant Aloysius College, Jabalpur (M.P) India

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MSME- An Emerging Pillar of Indian Economy

Dr. Ekta Mukar

Abstract:

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Role of MSME In Sustainable Development

The Micro, Small and Medium Enterprise (MSME) sector has been recognized as engine of growth all over the world. The MSME make significant contribution toward economic growth, balance regional development, employment generation and over all poverty reduction by way of mobilization of capital and entrepreneurship skills. The MSME sector is an important pillar of Indian economy as it contribute greatly towards its growth. It has emerge as an important vehicle for attaining inclusive growth of the country. This paper attempts to focus on the contribution of MSME towards the growth of Indian economy as well as its present scenario in the country.

Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country. MSME sector is the second largest employment provider in our country and it is good vehicle to achieve inclusive and distributed growth.

Ministry of Micro, Small & Medium Enterprises (M/o MSME) envision a vibrant MSME sector by promoting growth and development of the MSME Sector, including Khadi, Village and Coir Industries, in cooperation with concerned Ministries/Departments, State Governments and other Stakeholders, through providing support to existing enterprises and encouraging creation of new enterprises.

Startup India is a flagship initiative of the Government of India, intended to build a strong eco-system for nurturing innovation and Startups in the country that will drive sustainable economic growth and generate large scale employment opportunities. The Government through this initiative aims to empower Startups to grow through innovation and design.

The Micro, Small, and Medium Enterprises (MSME) embody the foundation of an economy in nurturing a recognizable growth rate and for engendering employment juncture. This sector has been considered as a device of socio-economic development in many developing and developed economies. It contributes significantly to India's industrial production, export, employment, and generates an extensive entrepreneurial base. This paper analyzes the definition of MSMEs and its role and performance in the current scenario.

KEYWORDS:

Micro, Small, and Medium Enterprises (MSMEs), current status, sector, role and performance, Contribution, Economic Growth, Employment Generation, Gross Domestic Product (GDP)

Assistant Professor
St. Aloysius College (Autonomous) Bhop.

Introduction:



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Innovation in education: Future in process

Ms. Nidhi Rajak

Assistant Professor

St. Aloysius Autonomous College Jabalpur

Abstract

Innovation and the growth of the economy are correlated, innovation is one of the drivers of the economy. Our country is developing and innovation is uplifting, this research article presents the current scenario of innovation, the contribution of the education system, and the challenges faced.

Keywords: Innovation, Education, Economy

India is a developing nation, it needs to boost its capacity for innovation for economic as well as for social welfare but to do so, first opportunities and challenges need to be identified.

In the current scenario, the world is changing rapidly, and so does the world's economy is developing and the main element on which this growth depends is innovative technologies, Innovative technologies bring many opportunities and challenges, and to make India ready for these challenges our education and training strategies need to be developed accordingly. The challenges and opportunities of globalization and technological development have led to a strengthened emphasis on innovation as a key driver for sustainable economic development.



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Role of MSME In Sustainable Development

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Msme And Sustainable Development : A Study Describing Significant Role Of Msme In Sustainable Development

Mr. Jatin Anand

ABSTRACT:

The only objective that can be applied globally, in both developed and developing nations like India, is sustainable development. To support entrepreneurship in MSME sectors including Khadi and Village, the Ministry of Micro, Small, and Medium Enterprises provide a variety of financial assistances. A Key role is played by micro, small, and medium-sized businesses (MSMEs) in the growth of any economy. MSMEs are regarded as incubators for innovation and entrepreneurship all over the world. MSMEs in India are widely scattered throughout the nation and create over 6000 different types of goods and services. In various regions of India, there are more than 63 million MSME units in operation. About 11 million individuals are employed by these MSME enterprises. The purpose of this study is to examine how MSMEs contribute to the achievement of the Sustainable Development Goals and to identify the strategies and initiative assistance provided by MSME to promote Entrepreneurship. We have divided the function of MSMEs in achieving various objectives into various activity aspects. We have also included some suggested actions that can help MSMEs become more sustainable, which will ultimately aid in the achievement of the Sustainable Development Goals.

Assistant Professor
St. Aloysius College (Autonomous), Jabalpur (M.P.) India

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An Empirical Study on Consumer Protection in Online Shopping

Jatin Anand
Assistant Professor, St. Aloysius' College, Jabalpur (M.P.)

Abstract:

An increasing trend in India is online purchasing, which allows marketers to advertise their goods across a large geographic area. Today, e-commerce is permeating every nation in the world, including our own. The biggest advantage of online shopping is time saving and the ease with which the customer may complete his transaction with a single mouse click. Consumer trust was found to have a significant relationship with online shopping activities. Finally, some useful implications have been offered for the marketers at the end. Despite all the advantages online shopping is always vulnerable to substandard products, false deliveries and other frauds. Attractive sales, influencing and misleading advertisements and social media posts, attract thousands of buyers every day. There are countless cases of online fraud reported in India, where the online buyers are being fooled by the online sellers. This has made it necessary to offer some kind of security and protection to the online buyers. The focus of this study will be on the advantages of online buying and the many difficulties that online consumers encounter. It will also address whether the provisions of the Consumer Protection Act are helpful for online shoppers and what should be done in this regard.

Keywords : Online Shopping, Frauds, Security, And Online Trust

I. INTRODUCTION :

Recent technological developments have resulted in a new digital era. Internet use and other emerging technologies are significantly changing markets and customer perception. The World Wide Web and the web browser's growth in the 1990s transformed the internet from a basic communication tool into a genuinely revolutionary technology. E-commerce in India has exploded in recent years, and the creation of new companies is accelerating. Thanks to improved product information and the opportunity to compare prices and items, consumers can now make informed judgments. Before going any further, it is important to understand

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THE FUTURE OF INDIAN ECONOMY

Challenges & Opportunities

Dr. Narendra Shukla



8.

Covid-19 Effects on Economic Sectors of India and Strategies for Business Survival

Dr. Preeti Jain*

Dr. Minakshi Swamy*

Introduction

The Novel Coronavirus illness outbreak is a serious threat to the entire world, affecting millions of people. It has devastating implications on the global corporate sector, churning the entire economic system and upending trade and commerce, in addition to being harmful to human health. The outbreak of infections was first noticed in December 2019 in Wuhan, China. The World Health Organization (WHO) has been closely monitoring and assessing the global risks, and on January 30, 2020, it declared it a Public Health Emergency of International Concern. The virus began spreading at an extraordinary rate in many countries around the world, prompting WHO to declare it a pandemic on March 11, 2020. The entire planet is now fighting this unseen, terrible foe. The majority of countries are in lockdown, and

*Assistant Professor Department of Commerce St. Aloysius College (Auto.), Jabalpur(M.P.) India.

**Assistant Professor Department of Commerce St. Aloysius College (Auto.), Jabalpur(M.P.) India.