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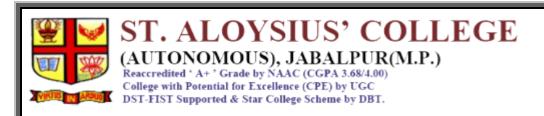






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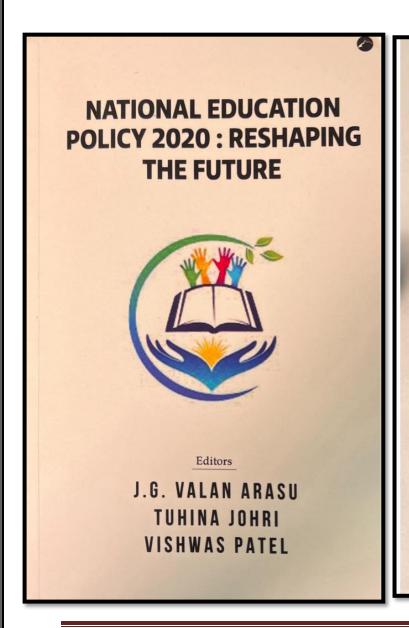
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ligher Education: Evidence of Practices and Collaboration Implementation Sustainable Development Goals Implementation of Sustainable Development Goals in Higher Education: Evidence of Practices and Collaboration

Edited by:

J. G. Vazhan Arasu Rupali Ahluwalia | Nidhi Khurana

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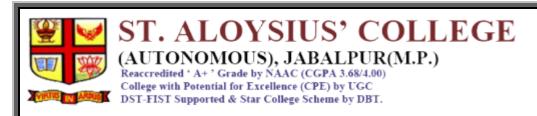
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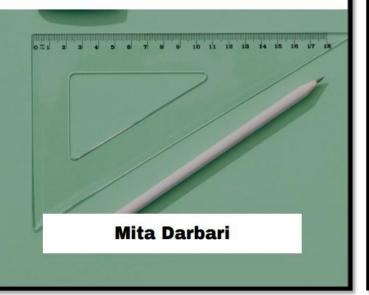


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Publications



PYTHAGORAS AND HIS TRIANGLES



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ABOUT THE BOOK

Whenever Pythagoras is mentioned, we immediately think of his famous Pythagoras theorem of right-angle triangle that has applications in many branches of modern science; from geometry to Einstein's theory General Relativity. The impact of this theorem was or rather still is so great that it outshines all the othe contributions of this great teacher. In Pythagoras, who is considered as the father of pure Mathematics, one can eet the union of mathematical genius and mysticsine. Pythagorae intringles fasciante those who love numbers More than 400 proofs of his great theorem have been discovered so far. In this book, Pythagorae and Hi Triangles, various aspects of Pythagoras teachings are tooched upon and special Pythagorean Triangles an mentioned which satisfy eleven different constraints.

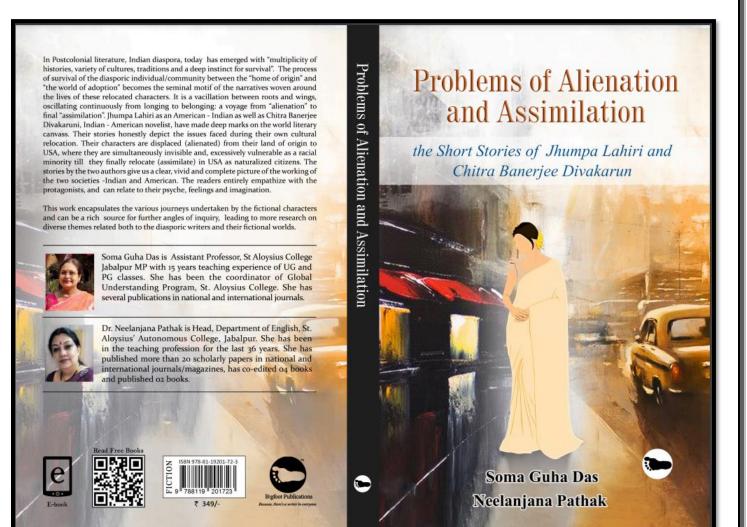


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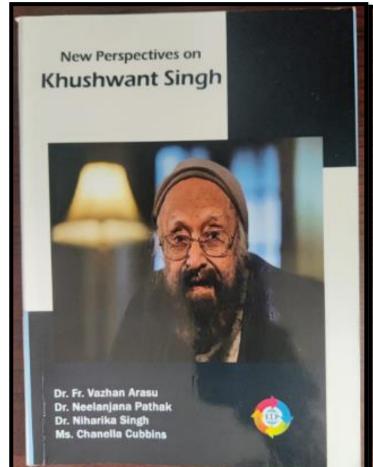
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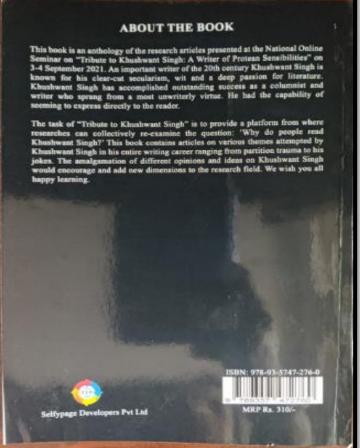


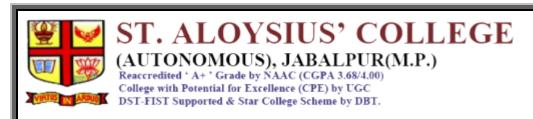


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Digital Awareness & Cyber Security

A Multiple-Choice Question Booklet

(According to NEP 2020 Syllabus, M.P. Govt.)

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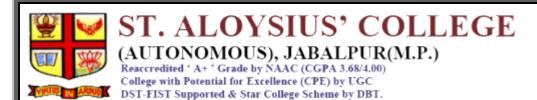
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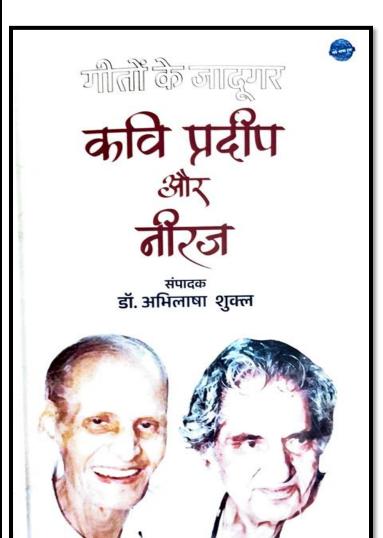
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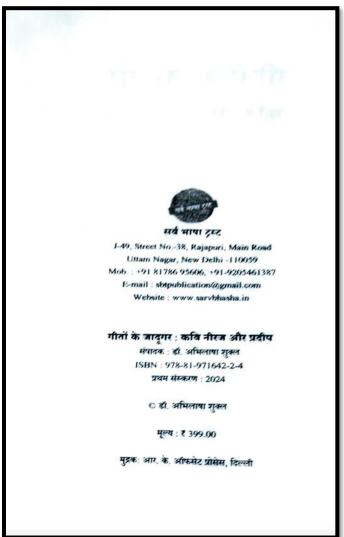
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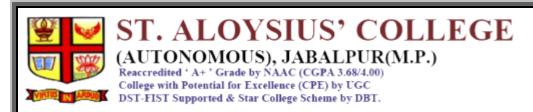
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Service Sector in India: Prospects and Challenges

> Edited By J. G. Valan Arasu J. Ben Anton Rose Rupali Ahluwalia Preeti Jain

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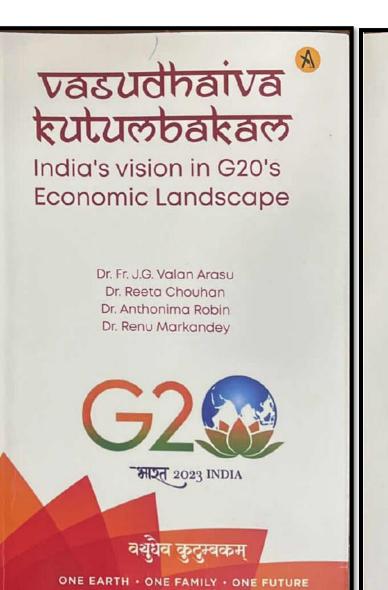
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"Vasudhaiva Kutumbakam: India's Vision in G20's Economic Landscape" is a comprehensive exploration of India's strategic and philosophical approach within the G20 framework. Anchored by the ancient Indian concept of "Vasudhaiva Kutumbakam" (the world is one family), the book examines how this principle guides India's economic policies and diplomatic efforts to foster global cooperation and harmony. Key themes include sustainable development, inclusive growth, and digital leadership, emphasizing India's initiatives in education, health, and financial inclusion.

The impact of India's G20 presidency in 2023 is analyzed, showcasing its contributions to global sustainable development. The book also highlights the roles of key financial institutions like SIDBI and SBI, and institutional supports like CEDMAP in entrepreneurship development. Women's empowerment and participation are central themes, with discussions on their critical role in economic growth and the transformative potential of women's entrepreneurship. Challenges faced during India's G20 presidency are addressed, alongside an evaluation of the effectiveness of the G20 framework.

The Startup20 initiative is presented as a game-changer for innovation and entrepreneurship. Additionally, the book underscores the importance of education and digital financial literacy in driving economic growth within the G20 countries. Through detailed analyses and insights, "Vasudhaiva Kutumbakam: India's Vision in G20's Economic Landscape" highlights India's pivotal role in promoting a more inclusive, equitable, and sustainable global economy, illustrating its commitment to global unity and development.



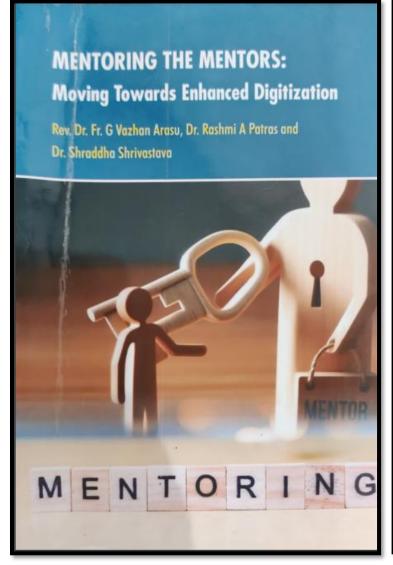




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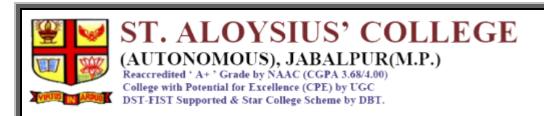




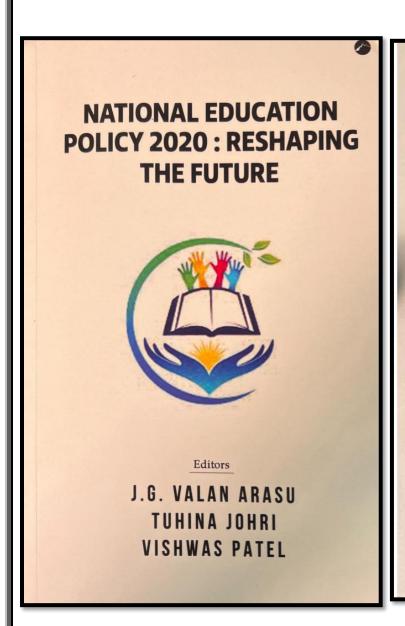




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A STUDY OF NATIONAL EDUCATION POLICY 2020, AWARENESS AMONG HIGHER EDUCATION TEACHERS IN DISTRICT JABALPUR

Mrs. Neha Namdev

Abstract

Well define and futuristic education policy is essential for our country at school and college levels due to the reason that education lead to the economic and social progress. Different countries adopt different education by considering the tradition and culture and adopt different stages during their life cycle at school and college education levels to make it effective. Recently the Government of India announce its new education policy which is based on the recommendation by an expert committee headed by Dr. Kasturirangan, former chairman of Indian Space Research Organization ISRO. This research wants to find awareness on national education policy 2020 among college teachers in Jabalpur district. In this study the awareness is studied according to the variables i. e. Gender and Management.

Key words: National education policy 2020, awareness, Gender and Types of Management.

Introduction-

Education is remarkably the most decisive factors in shaping a nation's economic potential, social richness, and success in all international ventures. It's not surprising that the most literate human societies are probably the most influential nations on the planet. Education creates and enhances the thought process of an individual and gives him strength to fight against the social evils of society. The United Nations in 2015 adopted the "2030 Agenda" which included 17 Sustainable Development Goals (SDGs) for ensuring a more sustainable growth of mankind on this planet.



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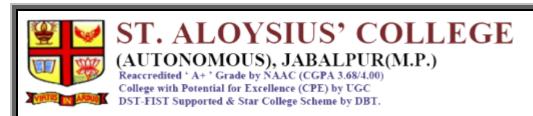
NATIONAL EDUCATION POLICY: A TOOL TO ENHANCE SKILLS AND EMPLOYABILITY

Dr. Reeta Chouhan Ms. Janvi Paniwani

Abstract

Today the economy tends to move forward in the direction of globalization, technical diversification and strong competition between businesses and countries. Today companies are worrying that they will not only have outstanding technically qualified personnel but also extremely competitive employees who will be able to respond to rapid market shifts. Employers appreciate the skills of a graduate, which vary depending on the sort of job to comply with the scenario of the employment. The National Education Policy 2020 has therefore been transformed into the framework, which could help to build a new education system in the country and ensures that the evolving needs of employers will be catered efficiently. NEP aims to make student comfortable with their education and also fulfill purpose to encourage skill based education, to promote employability. It effectively addresses various gaps existing in the education system of India and through this policy, India is expected to achieve sustainable development goal of 2030 by ensuring inclusive and equitable Quality education. NEP 2020 sets a major focus on job satisfaction, emphasizing the importance of education in equipping students with the skills they need. It also correlates with the United Nations' 2030 Agenda for Sustainable Development, which aspires to provide high-quality education to everyone and encourage lifelong learning opportunities by 2030.

The National Education Policy 2020 also recognizes the importance of soft skills such as communication, team work, problem solving, decision making, analytical thinking, resiliency, etc. New policy will reduce the curriculum to core concepts, and



A NEW EDUCATION POLICY 2020 TOWARDS EQUITABLE QUALITY EDUCATION

Dr. Sarita Goel Dr. Harbhaksh Moolchandani

Abstract :

The New Education Policy 2020 envisions achieving the fourth Global Goal with a target of 4.6, or equality in education. It is stated that "education liberates the intellect, unlocks the imagination, and is fundamental for self-respect," and its provision is to Literate All by 2030. It opens up a world of opportunities and is the key to prosperity, allowing each of us to contribute to a healthy, progressive society. Every person benefit from learning and everyone ought to have access to it. As a nation of caste, culture, and creed diversity, India benefits from providing equal educational opportunities to all citizens. The purpose of this research paper is to emphasize the importance of providing high-quality, equal education, as well as the need to ensure that all youth and a significant portion of adults, both men and women, attain literacy and numeracy.

Keywords: Global Goals, Quality Education, Higher Education, National Education Policy and SDG4.

Introduction:

The meaning of education has changed a lot as institutions now offer a variety of programs to their students that help them stay in the job market for a long time, prepare them for different economic fields, and keep up with changes in the global economy and technology. Advanced education is the driving force behind development and innovation. The majority of large universities advise students to wait until after their first or even their second year to choose a focus area. Even if you aren't sure what kind of job you want to do, remember that academic settings are probably



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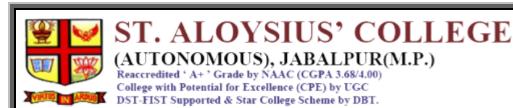
CHANGES IN HIGHER EDUCATION AND ROLE OF ICT

Dr. Nisha Pandey Garima Singh Rajput

Abstract

Education is an essential part of a civilized society; traditionally it has been associated with strong teachers having high degrees of personal contact with learners. The technology is the demand of the current century, the introduction of ICT in education under NEP 2020 has targeted in changing the whole scenario of traditional education of the country. The role of ICT is becoming dominant in the teaching and learning process, it provides facilities of e-learning making education handy and easily available for everyone around the country. It promotes cooperative and motivated learning environment. NEP 2020 has majorly focused on increasing the role of ICT in providing quality education. Major changes in Higher Education, to increase GER in Higher Education including vocational education from 50% by 2035. Exposure of vocational education in higher education system. Focusing on expansion of open and distance learning to increase GER. Strictness and transparency in providing teacher's training. Consolidation of higher education system into smaller number of institution across three types of clusters. Providing more autonomy to the academic institutions. This research paper focuses and highlights various changes in Higher Education and role of ICT under New Education Policy 2020. Different forums are to be created to ensure smooth and transparent working are discussed. The education system is planned to be made more flexible focusing more on practical knowledge and training and not only on theoretical education. NEP 2020 aims as making India as a Vishwa Guru indeed.

Keywords; New Education Policy, HEIs, Role of ICT



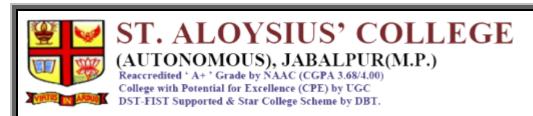
NEW EDUCATION POLICY 2020; A POWERFUL TOOL TO BRING CHANGE IN SOCIETY

Dr. Vishwas Patel Dr. Tuhina Johri Ms. Nansy Bhadoria

Abstract

Education is elemental for realizing full human potential, developing an impartial and unbiased society. The New National Education Policy introduced on 29 July 2020 solicits to introduce and implement a sea of changes across all levels of education in India. Providing comprehensive access to quality education is the key to bring changes in society. Issues like school drop-out, illiteracy, unemployment, gender discrimination, brain-drain, increasing rate of suicides among youngsters will be targeted. As education must build character, enable learners to be ethical. rational, compassionate while at the same time prepare them for gainful, fulfilling employment. For example, the primary cause of brain-drain is lack of higher education opportunities. National education policy 2020 will tackle the issue of brain drain from India and will become a knowledge economy in the 21st century, once the best institutes are present in India candidate won't need to travel abroad. About a quarter of Indian's say there is a lot of discrimination against women in their country and national education policy 2020 will tackle the issue by economic empowerment of women through skilling in educational institutions will surely be progressive and attract girl students to educational institutions.

National education policy 2020 being based on pillars of "access, equity, quality, affordability and accountability." India moving towards becoming a developed country as well as among the three largest economies in the world, there will be growing demand for humanities and arts. This paper puts emphasis on the

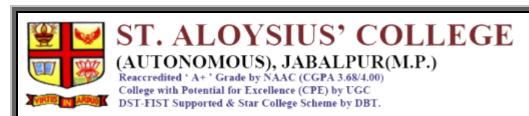


NAVIGATING THE EDUCATIONAL NEXUS: IMPLEMENTING INDIA'S NATIONAL EDUCATION POLICY 2020 WITHIN THE FEDERAL STRUCTURE

Ms. Bhawna Tekam Ms. Yashica Choudhary

Abstract

The National Education Policy (NEP) of 2020, a comprehensive reformative framework, has been envisioned to revolutionize India's education landscape. This abstract delves into the intricate challenges and opportunities associated with the NEP's implementation within India's federal structure. India's diverse federal structure comprises multiple states, each with its unique socio-economic, cultural, and educational landscape. The NEP 2020 seeks to strike a balance between centralized policy objectives and localized adaptation to cater to this diversity. This paper explores the nuances of this endeavor. Central to this analysis is the articulation of the NEP's key pillars - early childhood education, pedagogical reforms, equitable access, and technological integration - within the federal paradigm. The coalescence of these elements at the national and state levels is imperative for successful implementation. Furthermore, the abstract evaluates the collaborative and cooperative mechanisms between the central government and state governments. Striking this balance is crucial, as education largely falls under the purview of the states. Issues of resource allocation, autonomy, and capacity building become focal points in this dialogue. Additionally, the NEP's emphasis on multilingualism, vocational education, and holistic development necessitates a critical examination of their integration across states with distinct linguistic and cultural identities. Finally, this abstract underscores the role of technology as an enabler and equalizer in bridging educational disparities across states, while acknowledging the challenges of digital

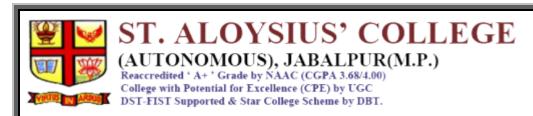


ANCIENT INDIA'S EDUCATION SYSTEM AND ITS INFLUENCE ON NEP-2020

Dr. Anthonima Robin Ms. Apoorva Choudhary

Abstract

The magnanimity and richness of the ancient Indian knowledge system is well known to the world. It was a system based on Vedas, Dharmasutras, Upnishads and Bhramanas. The educational system promoted coexistence of human and nature. As quoted in the NEP2020, the core principles of the Indian Knowledge system were the pursuit of knowledge (Gyan), wisdom (Pragya) and truth (Satya) considered to be the guiding light to achieve the highest human goal of self actualisation. Following the path shown in the Indian knowledge system, NEP is based on approaching the growth of an individual holistically. It emphasises on tapping the creative potential of an individual while exploring their cognitive abilities at the same time. National Education Policy is concerned with integrating both the formal system of education as well the skill based vocational system of education. The present education system can take a ride back to the past to reboot the future and redeem its original grandeur. With the onset of epidemics and unforeseen but unavoidable situations like Poverty, Climate crisis, Unemployment etc., it becomes all the more essential to reform the education system that prepares an individual to tackle these issues in the best of their capabilities. This requires a call for collaborative research and study of a variety of dimensions and this is exactly what NEP has tried to achieve. It is the first step towards a historic endeavour and a comprehensive policy in 34 years. This paper presents an assessment on how the National Education Policy has carved its route from the Ancient Indian knowledge system to produce a modern system which is more research oriented, learner centred, enquiry driven and most of all focused on encapsulating the essence of values, compassion and self fulfilment in an individual.



NEP 2020: TOWARDS A MORE HOLISTIC AND MULTIDISCIPLINARY EDUCATION SYSTEM

Ms. Decksha Jain Ms. Isha Sammerwar

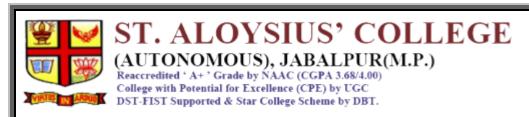
Abstract

To direct the promotions and innovations in Indian education, the Indian government promulgated the new National Education Policy in 2020. Built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability, this policy aims to transform India into a vibrant education society and global knowledge superpower by making both school and higher education more holistic, flexible, multidisciplinary. This paper primarily focuses on how this education policy can bring a paradigm shift in Indian education sector, making education and learning more accessible and inclusive to all and the vision of government to align ECCE (Early Childhood care education), School Education, Higher Education and Professional Education with the aim to make India 'a hub of global education'. As India moves towards becoming a knowledge economy and society, the system should envisage broad-based, multi-disciplinary, and holistic curricula with well-designed Curriculum Framework. This paper will focus on the impact of effective learning along-with adequate student support policy with multiple entry and exit on the individual's professional development and will acknowledge the criticality of faculty in achieving this goal.

Key Words: NEP, foundational pillars, holistic, multidisciplinary, professional development

Introduction

The world is undergoing rapid changes in the knowledge landscape. There has been a gradual shift from heavy reliance on content to 'learning how to learn'. It is pivotal to address these



MATHEMATICAL LEGACY TO THE WORLD FROM INDIA IN CONTEXT TO NEP 2020

Prof. Mandira Kar

'Neglect of mathematics, works injuy to all knowledge since he who is ignorant of it cannot know the other sciences or things of the world.'

Roger Bacon

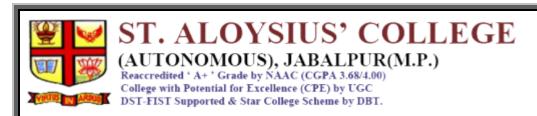
Abstract:

Realizing the importance of education in the progress of a nation, India's first Minister of Education- Maulana Abul Kalam Azad envisioned a uniform educational system throughout the nation for which a variety of programmes were funded.

Post-independence three main education policies can be listed to date and each covers elementary education to higher education. The first was based on the report and recommendations of the Kothari Commission in 1968 followed by National Policy on Education (NPE) in 1986 and very recently National Education Policy (NEP) 2020. All of them emphasized on the importance of mathematics education.

Stating mathematics as an integral part of general education till the end of the school stage. Kothari commission suggested the introduction of general mathematics up to class 10 and advanced mathematics at the secondary level as an optional subject. NPE-1986 a visionary educational policy visualized mathematics as the pathway to train a person to think, reason, analyse and articulate logically.

NPE 1968 and 1986 were very well thought out policy documents, however they did not bring in desired results as reported in National Achievement Survey (NAS) 2017 conducted by Ministry of Human Resource Development (MHRD) which reflected the learning achievements of students across India.



NATIONAL EDUCATION POLICY 2020: A HISTORICAL PERSPECTIVE

Dr. Soma Guha Das Ms. Shiony Das

"Indian Education Framework needs to change completely"
----- A.P. J. Abdul Kalam

Education is an element of human evolution which is also pronounced in areas of creativity and innovation. It encourages thinking outside the box and experimenting with new ideas which opens up new avenues. It teaches values and helps in the development of society as a whole. Education gives people a chance to mould themselves into more responsible members of society. It is imperative when it comes to building a modern society. The importance of education is especially pronounced when we want to communicate with people from different cultures across the world through the digital mediums of learning and spreading information that have played an instrumental role in bridging this gap. Quality education enhances the ability of the human being to build a good society and nation. High quality education is the key to see the nation on global platform in terms of economy, social equality, art, culture, science and technology. Change is the law of nature. When man wants to develop, he wants change in something. Human development of a civilization depends on its education system. Presently, the world is undergoing rapid changes in knowledge and employment landscapes. So, an education system must be prepared and shaped with character, ethics, and reason and at the same time it should have capability to generate employment. With the passage of time, reforms are necessarily to bring about quality, equity and integrity into the system, from Early Childhood Care and Education (ECCE) to Higher Education (HE). India introduced the first education policy in 1968 during the government of former Prime Minister Mrs. Indira Gandhi. Rajiv Gandhi government created



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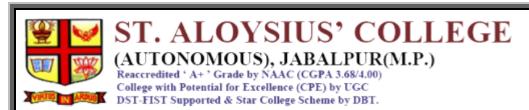
SKILL DEVELOPMENT AND ROLE OF VOCATIONAL TRAINING FUTURE FOR THE FUTURE GROWTH OF COLLEGE STUDENTS

Dr Renu Markandey Ms Vidushi Mishra

Abstract-

This paper has been prepared at the request of the Government of India. Despite the fact the India is a fast developing economy, difficulties have led the Government conclude that far more need to be done to engender more employment opportunities for the majority of Indians, to enable them to participate in the benefit of growth and to contribute to the growth to do this they must have education and training that equips them for the labor market. One of the sources of the skilled workforce is the vocational education and training system. However, the government realizes that the system is not being able to appropriately respond to the needs of the labor market. A key issue, then, is what reforms/interventions are needed to improve the effectiveness of the system. Answering that question is far from easy and this paper attempts to provide some options for doing so. Earlier skills were barely given importance over hard and tangible skills are a set of skills that improves and develops our behavior and personality. It was categorised under stress buster and motivational sessions. With the passage of time, most of the corporate houses and educational institutions understood the contribution of these skills in an individual's life and society, youth unemployment the availability and quality of vocational education takes on particular importance. It is seen by policy-makers and researchers as essential for supporting transitions from education to work, but concepts and purposes of vocational education vary. This article draws on international comparisons to explore the extent to which vocational programs are designed to prepare

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ANCIENT INDIA'S EDUCATION SYSTEM AND NEP-2020

Dr. Manju Maria Solomon Ms. Devika C S

Abstract

The history of education is a lens that provides unique insights into the history of Indian culture and civilization. Ancient India had organised learning with universities, which students from all parts of India, as well as other lands of Asia, attended. The New Education Policy NEP-2020 aims to renovate the education

system and create a new order that will meet the requirements of 21st century education, while building upon India's traditions and value systems. On 29th July 2020, the cabinet approved a new National Education Policy with the aim to introduce several changes to the existing Indian education system. The NEP seeks to instil in students a rootedness and pride in India, and its rich, diverse, ancient and modern

culture and knowledge systems and traditions. This paper is an attempt to state the important feature of the ancient education system that is the roadmap towards an all-inclusive education for India.

Keywords: Ancient India, New Education Policy, Changes, Value System, NEP 2020

Introduction

The Snataka Dharma recitation from Shiksha Valli in the Taittiriya Upanishad was an important ritual in the graduation ceremony.

- A partial translation of the Snataka Dharma recitation is as follows:
- · Never deviate from Truth,



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INDIA'S INTELLECTUAL LEGACY - A JOURNEY TOWARDS BECOMING THE HUB FOR OPPORTUNITIES AND FACING CHALLENGES

Dr. Nidhi Khurana Shridatri Mukherjee

Abstract

Intellectual life in India between 1200 and 1800 CE was substantially different in comparison with the preceding centuries. This was true logic, metaphysics, and esoteric forms of knowledge as well as the more material disciplines in science, such as architecture, medicine, mathematics, and astronomy. The advances made in mathematics and astronomy draw particular attention. The commentary continued to be the preferred method of exposition, even when the descriptive form made modest beginnings in the twelfth century and gained wider acceptance from the sixteenth century onwards. Over the preceding centuries India slacked behind because of the dividing nature that was introduced by the Britishers who divided India and subtracted the intellectual richness. After independence India started working on itself again and is now a developing country. The IT sector of India is growing rapidly and is famous all around the world. The richness in India's history attracts tourists and students from all over the world, people come to India in order to learn about their roots and how their soul connects them to their body by meditating and gaining internal insights by activating their chakras. Therefore, this paper highlights the significant role of National Education Policy to revive India's legacy as Vishwaguru, challenges faced by Indian education system and India's journey towards becoming a global hub for opportunities.

Keywords: Challenges, India's Legacy Revival, National Education Policy (NEP), Opportunities.



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PROSPECTS AND CHALLENGES OF NATIONAL EDUCATION POLICY 2020

(with special reference to Primary Education System to Higher Education System)

> Dr Tarvinder Kaaur Ms. Namrata Rao

Abstract

The research involved discovering education system, effective at Primary Education to higher education institutions (HEIs) appropriate towards superior level of learning and personal growth of the students. The study explored either the semester system with outcome-based assessment has a greater impact on students' performance or the annual system. System of education is an important element that needs to be considered as it directly affects the performance of a student. A student's performance is dependent upon the system according to which the education is being facilitated. The objective has to find best learning environments suitable for students which would also facilitate them to achieve their futuristic career pursuits. This research also objectifies to find out the difficulties that students face in semester and annual system & how they perform in those teaching learning environments.

Introduction

The Gurukul was India's first system of education. It was a residential schooling system dating back to around 5000 BC, where shishya (student) and guru (teacher) used to reside in the guru's ashram (home) or in close proximity. This allowed for an emotional bond to be developed prior to the transmission of knowledge. The mode of communication was the ancient Sanskrit language. The basis of learning wasn't only to read books and memorize information but also incorporated the holistic development of a child. This includes their mental, cognitive, physical and spiritual wellness. Subjects taught were religion, holy



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NATIONAL EDUCATION POLICY 2020: CHALLENGES AND OPPORTUNITY

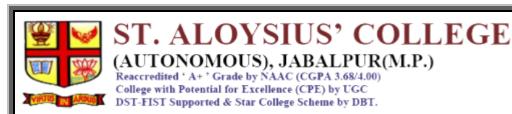
Dr. Kudshiya Raza Ms. Nidhi Rajak

Abstract

Education is arguably the most critical and an important element in building a nation and the roots of education can be seen in India dates back to its early civilization when the process of education encircles the Gurukul system where religion was the basis of education. India being a growing liberal country for education currently has about 845 universities and approximately 40,000 higher education institutes, to augment the growth of the Indian education system the present government decided to revamp it by introducing a comprehensive National Education Policy 2020 which envisions an Indian centered education system that contributes to transforming our nation sustainably into an equitable and vibrant knowledge society by providing high education to all. This paper provides an overview of National Education Policy 2020 while its main part will focus mainly on the challenges and opportunity it offers. In this research a comparative study has been done about the old and new education policy. Secondary data has been used in this research. Implementation of the new education policy is more difficult and challenging especially in rural areas.

Keywords: Introduction, Challenges of NEP, Objectives, Research Methodology, Comparative Study of New and Old Education Policy.

Introduction: - Education is arguably the most critical and an important element in building a nation and the roots of education can be seen in India dates back to its early civilization when the process of education encircles the Gurukul system where religion was the basis of education. Modern concept of university style



A STUDY ON AWARENESS OF CAREER OPPORTUNITIES ON SOCIAL MEDIA

Dr. Komal Rawat

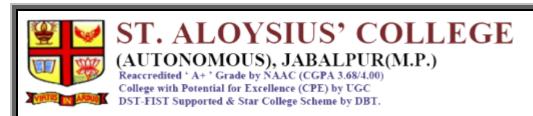
Abstract

Social media covers all apps, websites, and blogs that allow users to talk, share material, make video calls, and perform a variety of other functions over the internet. Everyone who wants to view information, share it with others, and talk with other members of that social media network. Facebook, Twitter, WhatsApp, and Snapchat, Linked In are just a few of the popular and commonly utilized social media sites. Social media is a part of everyday life for most people, and companies are using it in massive numbers to reach out to customers. Some Trends were introduced. It is essential to have an awareness of emerging social media sites and understand how they could fit into your communications strategy. However, not all social media sites will be conducive to your department's brand or marketing goals. There are many forms of social media, including blogs, microblogs, wikis, social networking sites, photo-sharing sites, instant messaging, video-sharing sites, podcasts, widgets, virtual worlds, and more and many people are earning good income from these social media platforms. It was found that in a lack of awareness, most people are not able to get the benefit of the various career opportunities available on social media. The objective of the study is to study the awareness level toward career opportunities of people in social media and identify various challenges to find out a suitable job on social media.

Keywords: Social media, social media platforms and career opportunities.

Introduction

Nowadays, social media platforms have become a strong vehicle for spreading information quickly. This includes issues,



NEW EDUCATION POLICY 2020 : AN INITIATIVE TOWARDS EFFECTIVE LEARNING AND SELF-RELIANT INDIA.

Dr. Sonal Rai Mr. Jatin Anand

Abstract

The future of the country and the fate of its citizens are both determined by education, which has a significant impact on the creation of a nation. In the current environment, the relevance and role of education cannot be disregarded. If we contrast the pre- and post-independence eras, we can see the progress and development. This will be the third time in 34 years that the Indian government has changed the way we study. Numerous provisions in the new National Education Policy 2020 would surely have an impact on all parties involved. Through this paper, an effort is made to look into National Education Policy 2020 and how it affects the stakeholders, as well as to try and spread awareness of the policy and its potential future Implications. This study is exploratory in nature and is based on secondary data. Results are based on a thorough evaluation of the body of literature. It was discovered that NEP 2020's key goals is to boost student enrolment by 2030 throughout all educational institutions, including elementary school, professional, and higher education. It has proposed gradual reforms to the current educational and governmental structures in order to accomplish the goal of Self- Reliant India.

Keywords: Indian Education, National Education Policy 2020, Self-Reliant India.

Introduction

India was a world-famous name that was related to the education system of ancient times. Gurukul system of education is very familiar to all of us. With the change of time, some changes

PROSPECTS AND CHALLENGES OF NATIONAL EDUCATION POLICY 2020

(with special reference to Primary Education System to Higher Education System)

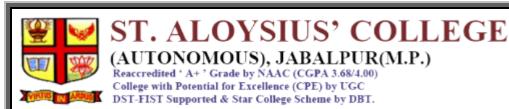
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EFFECT OF VOCATIONAL TRAINING PROGRAMME OF VERMICOMPOSTING ON STUDENTS AS INCOME GENERATING ENTERPRISE

Dr.Priyanka Sinha Amita Saxena Surabhi Saha Charchita Shoyam

Abstract

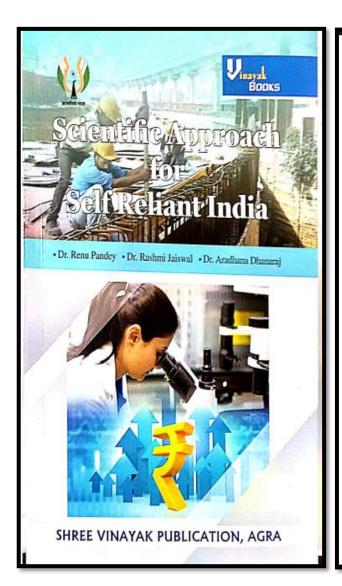
Vocational education and training, allows students to gain practical experience in their chosen career path before they even graduate. Students who finish these rigorous programs, have the credentials and training they need to get started right away in their chosen career path. In my point of view, the effect of the vocational training programme of vermicomposting on students as an income generating enterprise is the best option because the agrarian system of our country is in a state of transition from subsistence oriented to commercialization. The modern farming system is gradually becoming unsustainable and the increasing problems of chemical agriculture, cost of cultivation and upsetting environmental as well as health impacts have many negative impacts over agrarian society. The vermicomposting production plays a major role in organic production of all types of field crops, vegetables and fruits etc.

Vermicomposting is a method of preparing enriched compost with the use of earthworms. It is one of the easiest methods to recycle agricultural wastes and to produce quality compost. This organic input production could become an income generating activity. Therefore vocational training on vermicomposting, under NEP 2020 was conducted by the Department of Zoology for undergraduate students of various colleges of Jabalpur in St. Aloysius' college campus. The skill regarding production of



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Mathematical Heritage and India's Contributions

Prof. Mandira Kar

'Neglect of mathematics, works injury to all knowledge since he who is ignorant of it cannot know the other sciences or things of the world' Roger Bacon

Philosophy is written in the grand book 'Universe' in the language of mathematics. Squares, circles and other geometrical figures are the alphabets and unless one first learns to read the alphabets it is impossible to read this book. Since the beginning of human civilization men have tried to understand this philosophy and the consequent reflections were instrumental in initiating traditions, arts and culture in the society.

Indian philosophy values and beliefs conceived religious traditions and temples. They are the heart and soul of the nation. The supreme architectural splendour of ancient temples and differently shaped fire alters stand apart echoing the glorious heritage and culture of India. The precision of these constructions stirs in mind the magnitude of the geometrical expertise of those times.

The beginnings of mathematics in the Indian subcontinent can be traced to constructional geometry that emerged to serve the needs of priests as they solemnized ceremonies. The first place where we find geometrical applications is Kalp Vedang (कल्यदेशंग) which focuses on execution of Vedic rituals.

The history of Indian mathematics however spans from the Pre-Aryan times. Excavations at Mohenjo-Dero and Harappa reveal that Harappans had designed a scale whose unit of length was approximately 3.4 centimetres and all dimensions needed for construction were integral multiples of this unit length. Length, breadth and height of bricks used were in the ratio 4:2:1. In addition they used standardized weights and could determine the position of the stars which helped them to navigate.

Post Indus Valley Civilization (2500–1700 BCE) followed the Vedic Civilization (1500-600 BCE) so-called apparently because in this period the four Vedas were compiled by a great sage known as Vedavyasa. Historians believe Rigveda was compiled in the early Vedic period (1500-1000 BCE), subsequently



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Optimization Models with Real-World Perspective

Dr. Mandina Kar, Srashti Agrawal, Shakshi Agrawal, Tulika Hazra

"True optimization is the revolutionary contribution of modern research to decision processes"

—George Dantzig

Abstract:

Operation Research is a branch of mathematics that has applications from real-life perspective, It deals with optimal solutions to real life problems that are obtained in terms of maximizing profit and minimizing cost. Assignment problems basically deals with optimization of the cost of the employers while recruiting a person for a specific job. In every such problem we proceed with an objective and each has given constraints.

In this paper the authors will throw light on the mathematical formulation and solution to an assignment problem and study a few problems encountered in real life. The data used in the problems are secondary.

Keywords: Operations Research, optimal solution, objective, constraints and real-life perspective.

1. Introduction

Real-world situations can be solved using different mathematical models and for this the problem needs to be expressed in mathematical equations constraints with chosen variables. Further the equations are solved using different branches of Mathematics.

Operation Research is a branch of mathematics that has real-life applications. It deals with optimal solutions which are precisely in terms of maximizing profit and minimizing cost. It was devised in 1942 during the Second World War and is relatively a new branch of mathematics. Operation Researchges its name because of its application in military operations in the war. During World War II the British military had limited resources and so they called upon a group of scientists to study the problem and give optimal military operations to win

Today however it used in practically all fields like agriculture, industry,marketing, production, finance, personal management etc.lt is widely



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Rudali: A Quintessential Figure of Subalternity, Hegemony, and Marginalisation

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Keywords: Subalterns, Dalits, Hegemony, Marginalisation, Existentialism.

Abstract:

Dalits are closely identified and recognized as subaltern. This term finds its origin from the Latin word submeaning next below and alterns meaning every other. Subalterns are a group of people or community who are excluded because of their inferior rank in the Varna system and are under the hegemony of the dominant class. In the Indian context, marginality stresses on the notion of boundary, edge, and limit. Subalterns of allits occupy the edge or boundary of the Indian societal arrangement. This has given rise to their literature which is arresting the attention of its readers for its authentic descriptions of invisible lives. Mahasweta Devi has worked effortlessly and dedicated the entire life for the uplifiment and betterment of this class of tribals and dalits, who are tortured, disrespected, and exploited. Her short fiction Rudali portrays the constant struggle of exploitation and survival of Sanichari. This paper explores her journey as a winner, a quintessential figure of subalternity, hegemony and marginalisation.

1 INTRODUCTION

"The strong survive but the courageous triumph." Michael Scott

Since ages, Literature and society have a close association with each other. Every event that occurs is duly recorded variously by different people. Revolutions, movements, science and technology, feudal systems, ancient civilizations all find place in books, which is created by writer(s). Writers perform the role of a social reformer and point at the wrong and also suggest remedies to the ailments of society. They draw attention to the emotional stresses, socioeconomic offences and backwardness of a community. Specifically, when talking about Indian writers who voice the callous realities of society which is divided into various castes and race, voices the racial isolation and efforts put in to climb the economic and social ladder by them. The deep-seated hostilities of a large group of people against the dominant group of society are expressed by these writers. A writer makes a conscious effort to bring to light all that is hidden and experienced in a lifetime. Harish Narang writes:

The writers attitude plays a crucial role in depicting this reality, infact no correct formulation of a book or a writer is possible without probing into the writers attitude to life because a piece of literature is not merely a dream but an act of deliberate communication, a choice of verbal gesture of advocating a certain point of view. (Narang, 2014)

What a writer creates is a reflection of his or her

What a writer creates is a reflection of his or her own world. Largely therefore, literature created is autobiographical in nature. This way, the writer gives way to a thought, an idea or a view that sheds light on society through every character, situation and plot of a story. Writers as part of society are affected and they reflect the changes ushered through their writings. As an informant of society, writer(s) form the bridge which links the two.

2 LITERATURE REVIEW

Dalits are closely identified and recognized as 'subaltern'. This term finds its origin from the Latin word 'sub' meaning 'next below' and 'alternus' meaning 'every other'. The Compact Oxford Dictionary Thesaurus defines Subaltern' as an officer in the British army below the rank of captain. But the connotation this term has acquired is far different. Subalterns are considered a group of people or Subalterns are considered a group of people or

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Draupadi: Revisioning the Mythical Character in Chitra Banerjee Divakaruni's the Palace of Illusions

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Keywords: Mythical Character, Re-Visioning, Retelling, Unconventional, Enigmatic Psyche.

Abstract:

In mythology, Draupadi is a very significant woman who speaks her mind with an unbending will in the maledominated world. Her unconventional marriages and her active role in the fatal battle recognized her as different from others. Women's writing is a medium of expression and no under for one's emotions and desires. Chira Baneejee Divakaruni's The Palace of Illustons is a judicious retelling, reinterpreting of the Mahabbarrata myth from a ferminist perspective. She analyses the fact that since ancient times women have been comered and marginalized in society. The events of Mahabbarrata are narrated by Panchali, whose voice acquires universal significance. It has surely achieved momentum in the present accuratio. This paper is going to explore the elaborate implanted in the characterization of Draugad, the mythical character through the words of the female mind of the author, in this novel. It further discusses the effrontery of Draupadi as the expression of her intricate relationships with Karna, Krishna and her Palace are the incomprehensibility of her enigmatic psyche.

1 INTRODUCTION

The binary concept of patriarchy and female submissiveness is one of the most prominent themes in Indian Epics. Rewriting and revisioning a mythical character through the lens of modernity and sensibility is a bold step into a new literary world. It portrays a new and refreshed look to the character which is unconventional to the audience and readers. In mythology, Draupadi is a very significant woman who speaks her mind with an unbending will in the male-dominated world. Her unconventional marriages and her active role in the fatal battle recognized her as different from others. Women's writing is a medium of expression and an outlet for one's emotions and desires. Chitra Banerjee Divakaruni's The Palace of Illusions is a judicious retelling, reinterpreting of the Mahabharata myth from a feminist perspective, Divakaruni created many women characters in mythology, she said, "I was left unsatisfied by the portrayals of women characters in ...they remain shadowy figures, their thoughts and motives mysterious (Divakaruni xi-xxy)!. Divakaruni portrays Draupadi's life as a series of choices created by herself and not by the people around her, giving her a voice in a male-dominated

society that prevailed in Ancient India. She analyses the fact that since ancient times women have been comered and marginalized in society. The events of Mahabharata are narrated by Panchali, whose voice acquires universal significance. It has surely achieved momentum in the present secenario. Far from being docile and frail, we now see women as iconoclasts. Draupad's life is not only troubled by her conjugal concerns but also by the system of patriarchy. She gathers the courage to face the challenges of patriarchal notions which are an aspersion to her womanhood and wins remarkable success when she deconstructs patriarchy. This paper is going to explore the elaborate implanted in the characterization of Draupadi, the mythical character through the words of the female mind of the author, in this novel. It further discusses the effortnety of Draupadi as the expression of her intricate relationships with Kama, Krishna and her Palace are the incomprehensibility of the renigmatic psyche.

2 DETAILED REVIEW

The Palace of Illusion is about women's discrimination, struggles, identity, male domination,

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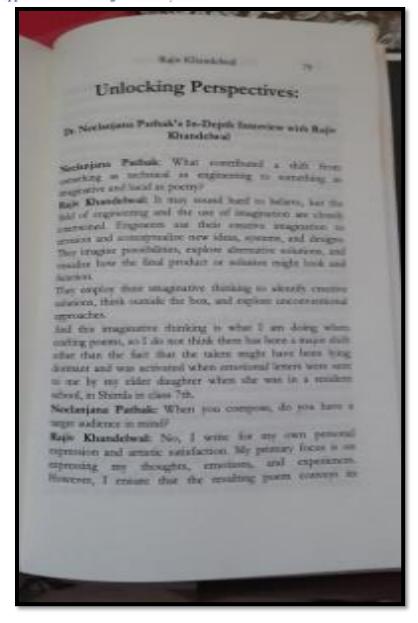
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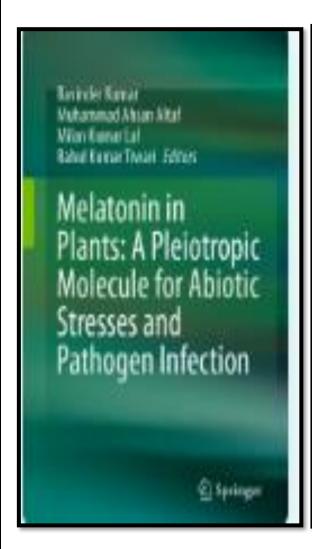
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<u>Home</u> > <u>Melatonin in Plants: A Pleiotropic Molecule for Abiotic Stresses and Pathogen Infection</u> : Chapter

Role of Melatonin in Management of Stress Tolerance of Forest Tree Species

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K. Darshan, K. N. Harshitha, S. Shreedevasena, Aditi Tailor, Tanmaya Kumar Bhoi, Sonali Nigam & Niti Kulkarni

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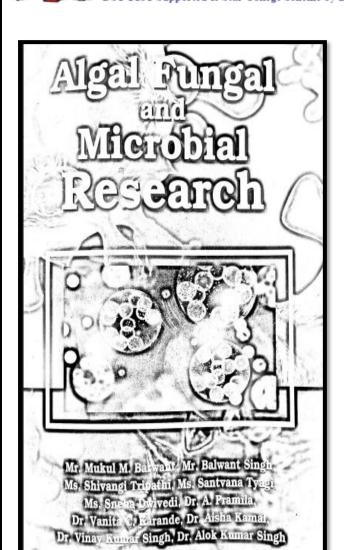
Abstract

Plant growth is hindered by the exposure to biotic and abiotic stresses. Biotic stress comprises the attack of plants by insects, fungi, bacteria, viruses, protozoa, nematodes, and phanerogamic plant parasites. Abiotic stress which includes low or high temperature, high salinity, deficient or excessive water, heavy metals, and ultraviolet radiation, etc. Melatonin which is present ubiquitously in all living organisms has a multifunctional role. It regulates plant stress response generally by inhibiting the accumulation of reactive oxygen species, and indirectly by affecting stress response pathways. Owing to protective functions of melatonin against both biotic and abiotic stresses, which has increased research attention in recent years because of the elevated harmful effects of climate



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CHAPTER

18

ENDOPHYTES A BOON FOR SUSTAINABLE CROP PRODUCTION:

Dr. Femina Sobin*



Any organism that grows within plant tissues are termed as endophytes, Fungi and bacteria are the most commonly reported endophytes. The other microbial endophytes being actinomycetes and mycoplasma, as endophytes of plants. The most frequently isolated endophytes are the fungi. Almost all the vascular plants and grasses on earth are thought to harbor endophytes. Most of the microbes that inhabit plants play a major role in the plant's health and development. They play significant role as producers of plant growth promoting hormones and metabolite, insect and pest repellents, possess antimicrobial activity against plant pathogens and protectors in stress conditions. Excessive use of chemical fertilizers, pesticides and modern agricultural practices has several environmental hazards. Increased soil pollution and reduced microbial diversity in soil are among few of such concerns. Endophytes are being used and can be more explored to be used as biofertilizers and biological control agents (biopesticides) for sustainable crop production, thus, may be a potential solution to resolve the above stated concerns. They can even be exploited for their novel secondary metabolites of great industrial values.

Keywords: Biofertilizers, Biopesticides, Crop, Endophytes, Fung. Sustainability.

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Algal, Fungal and Microbial Research



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CHAPTER

A STUDY ON CELLULOSE AND ITS DEGRADATION: A PROMISING BIOMATERIAL

Roshni Choubey1* and Shreyashee Naveria2



Cellulose has been in use as fuel since history. In fact, it was man's first fuel being the major component of wood used for fires. Its conversion into synthetic fuels, feed and food could become a boon for the near future. In the era of global energy crisis's, this alternative source of energy could be proved as the most economic and reliable source for energy generation. In the current study, a detailed description of cellulose, its structural complication, biodegradation by various biological agencies majorly microbial conversion into valuable products and the possible end products are highlighted.

Keywords: Cellulose, Energy Crisis, Biodegradation, Microbial Conversion.

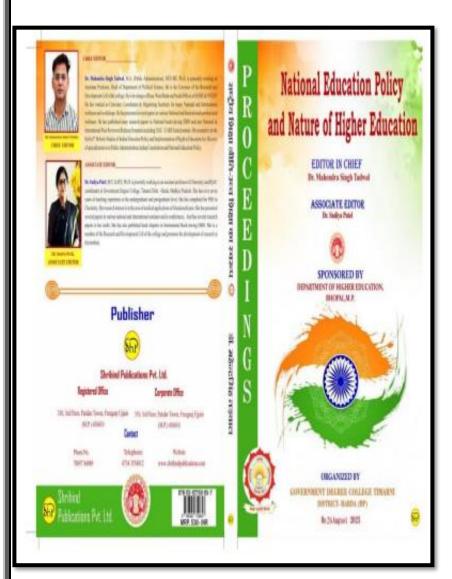
Assistant Professor und ²Post Graduate Student Department of Microbiology, St. Aloysius College (Autonomous) Jabalpur, M.P., India

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A Comparative Study of Education Policy In India: Past and Present

Dr. Femina Sobin

Assistant Professor, Department of Botony and Microbiology, St. Alaysius' College (Autonomous), Jabaipur, Madhya Prodesh

Abstract :

A definite and interestive education policy is what for the progress of any country, Lately, Indian gravement had annument National Balaction Policy (NES)² – 2020, its assectification Policy. It encounted to deliver a quitiey education which is betweeth or most the estimated and expectations of its statisheddorn. This piece of work users review method to compare previous and turnent education policies of ladia. This paper aims to identify the emphases and corrects of NES 2020, and have better than previous education policies. Study reveals that must of the people antisiquest the policy as a continuitive and curroot and control.

Keywards: Education policy, NEP - 2020, quality, stateholders, company, emphasis, concerns.

Introduction:

The obsolies system of a county is planned keeping in view the further progress (Bleek & Liegael, 2009). The Generatests of holds has verbaland the National Education Nelscy (NPE) for the melatures of ordinary people in the maintenant and to recoverage education at all comments classes.

Izifad Ozrakad system of relocation to the observiou system influenced by the Bittish, many improvements and advertises has been made and implemented in our relocation system. After independence the initial national relocation priley was published in the year 1998 and the improved version of the first priley tot, second national relocation priley was doubted in the year 1996. National observation priley 2000 in the third change that in proposed in the year 2000, by the Prince Minister of Indian National Workshoot. 2000.

First National Education Policy (1968) :-

On the hain of Kothai Coveninian's (1964-1966) stanseers and commodation, in 1968 the Price Meister India Graph's powerseer produced the first National Policy on Education, Instean for a maked summering and equal adoctional appearables. This pelicy was preposed with the size to achieve national integration, greater cultural and sometic development. Seen appear of the PEP 1968 are:

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Chapter- 11

National Education Policy (NEP) - 2020: Key Features and Awareness among Students

Dr. Femina Sobin

Assistant Professor Department of Botany and Microbiology St. Aloysius' College (Autonomous), Jabalpur, Madhya Pradesh E-mail: j.m.femina@gmail.com

Abstract

For economic and social progress of any country, a definite and revolutionary education policy is crucial. Recently Government of India announced the new Education policy i.e. National Education Policy (NEP) -2020. It is visualized to provide a quality education which is beneficial to meet the needs and expectations of learners. The new policy is aiming to include Multidisciplinary and cross-disciplinary education, Multiple Entry and Exit System (MEES), focus on skill development and research, continuous evaluation system in the education system from schooling to higher education. The current study focuses on assessing whether or not, students are aware of various innovations and key features of NEP 2020 of the Indian higher education system. The survey among students shows a lack of awareness about higher level education opportunities in NEP 2020. Whereas, they are well aware of the benefits of the policy in the curriculum under study. This piece of work will also discuss the merits of the policy and suggestions to help out students for motivating them to take up higher level education.

Keywords: National Education Policy, quality, key features, higher education, aware, merits, suggestions.



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Chapter- 10

An Investigation on Awareness of New Education Policy amongst Youth: A Survey

Roshni Choubey

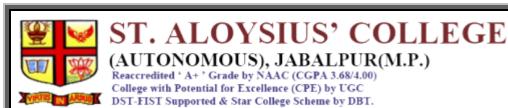
Assistant Professor St. Aloysius College (Auto.) Jabalpur, M.P. Email: roshnic.sac@gmail.com

Abstract

Education is a prime right of every person. In the current era. technology has moved on to another level and it's important to update our education policy too. The New education policy will empower the youth for future challenges in the fast developing world. There is going to be a rise in the culture of innovation, inclusion and institution is education sector which in turn will strengthen India. The NEP majorly focuses on

- · Holistic and multidisciplinary education for youth
- Flexibility, interest as well as aptitude-oriented education for
- Equity and inclusion in higher education for bringing marginalized youth in the mainstream
- Online and digital education for youth for employability and career growth
- · Minimizing dropout rates among youth and ensuring universal access to education at all levels for youth
- · Professional education for youth,

This investigation aims to identify the current status of youth with respect to NEP 2020. As per the survey conducted, it was concluded that more than 60 % youth understands the significance of NEP. The data indicates that the urban popularion knows better than the rural



New Education Policy: Reforms and Opportunities



Boshni Choubey,

Assistant Professor, St. Alaysius College (Auto.) Jubulpur, M.P.

Shivani Verma

PG Student, (Microbiology). St. Aleysius Callege (Auto.) Jebalpur, M.P.

Abstract :-

fiducation is a prime right of every person. Well defined and futuristic education policy in essential for a country at school and codage levels due to the reason that education leads to economic and social pragress. In the current era, technology has moved on to another level and it's important to update our education policy to edifferent education dept different education systems by considering the tradition and culture and adopt different stages during their life cycle at school and college education levels to make it effective. The National Education Policy 2020 (NEP 2020) sketches the vision of India's new aducation system for national development. It replaces the previous National Policy on Education, 1986. The policy is a comprehensive framework for elementary education to higher education as well as vocational training in both rural and urbon India. Change in curriculum, outcome-based education, exits with certificates and diplomas midway, no ago bar, provision of major, minor, elective and vocational courses, choice-based study, experiential learning are few highlights of the reforms under NEP The New education policy will empower the youth for future challenges in the fast-developing world. There is giving to be a rise in the culture of innovation, inclusion and institution is education sector which in turn will strengthen ladia.

Keywords: New Education Falicy, national development, outcome-based advocation, apportunities, youth empowerment.

Introduction:

The fature of the country and the fate of its citizens are described by education, which is a key factor in the construction of a nation. In terms of the state's and the tapic's growth and development, the impact will be long-listing. In the current environment, the relevance and role of education cannot be disregarded. If we contain the pre-independence and post-independence crass, the expansion and progress are evident. This is the third time in 34 years that the fieldan government has

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Role of Green and Clean Fechnology in Present Sciences

Study of Water Quality parameters of Manegaon Pond at Jabalpur, M.P.

Priyanka Sinha, Surabhi Saha and Charchita Sinta Department of Zoologi

St. Aloysius Collège Autonomous Johahus Mi Isla

This paper presents a water quality study performed on Managan by This paper presents a water quality and appearing of M.P., India. The specific communication target at Japanpur or our an include a wide spectrum of chemicals, published polysical changes. Water quality is one of most critical facing size good feed feeding in fish production and it varies with cultury rate. or media amongst other factors. Several water quality parages should normally be sampled and tested to ascernain water cally, or the data recorded. These include pH, dissolved oxygen (DO), Solger exygen demand (BOD), temperature, conductivity, turbido, at discharge of Manegaon pond of Jabalpur city and it is located a populated area. Data provided by present investigation is useful a designing water quality management issues.

Introduction

Water is one of the most essential resources of a country. It comabout 3 4th, i.e., 71% of the Earth's surface but only 1% of a p available for domestic use like drinking, irrigation, industrial use, ware disposal and power generation. Due to an already existing the control of the state hygienic water is also increasing. People residing in urban areas have ny greene water as also increasing, reopte resteing in urous areas regular supply of water from the municipality to their homes but people who live in subsection and most applicable to their homes but people regular supply of water from the municipality to their nomes out pro-who live in suburban and tural areas mostly rely on surface water from who live in suburban and rural areas mostly rely on surface water from ponds and lakes to meet their water needstexcopt drinking) on a daily basis hence it is very important to know its water quality so that important measures can be taken and suggested if the water is contaminated or polluted as it also disturbs the ecosystem of the pand and can be very harmful for the survival of fishes, planktons and other



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Applications of Blockchain Technology

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3. Evolution of Block Chain Technology

Dr. Siby Samuel

PhD

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Abstract.

Block chain technology, since its inception in 2008, has drastically evolved and impacted a variety of sectors globally. This paper explores the evolution of block chain technology from its inception to its present state and beyond. The journey begins with Bit coin, the first block chain application introduced in 2008-2009, marking the beginning of Block chain 1.0. The paper further delives into the emergence of altooins and the conceptualization of Ethereum and sount contracts between 2011-2013, characterizing the Block chain 2.0 eva. The subsequent ICO boom of 2017 and the rise of Block chain 3.0 technologies like sharding and layer-2 solutions highlight the rapid advancements in the field. The paper concludes with an examination of the latest trend toward enterprise block chain solutions and anticipates the future directions of block chain technology. The comprehensive review provides a deep indepstanding of the trajectory of block chain technology and its potential inspact on diverse industries and the global ecunomy.

Keywords:

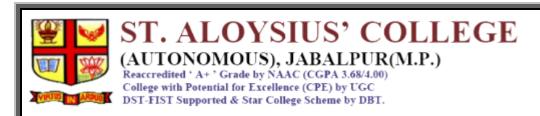
Block chain Technology, Bit coin, Ethereum, Smart Contracts, Enterprise Block chain

3.1 Introduction:

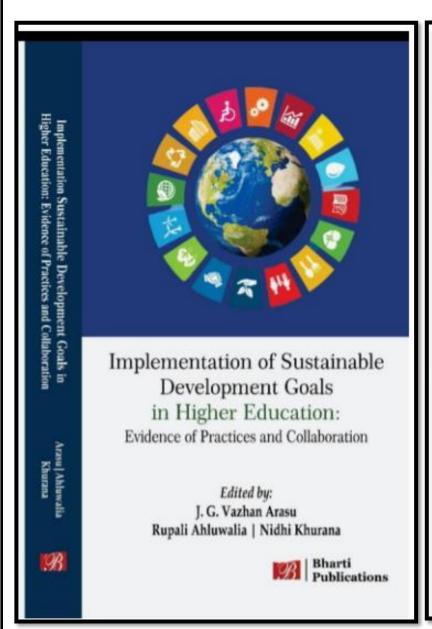
Block chain technology is a decentralized and distributed digital ledger system that securely records transactions across many computers in such a way that the registered transactions cannot be altered retroactively.

This ensures the data's integrity, transparency, and immutability. The key characteristics are

- Decentralization: Unlike traditional centralized databases, a Block chain is decentralized, with data managed by a peer-to-peer network of computers, also known as nodes. This lack of a central authority eliminates potential points of failure and increases system resilience [1].
- Transparency and Anonymity: All transactions recorded on the Block chain are visible to all network participants, providing unparalleled transparency. However, while transaction data is public, user identities remain pseudonymous, protecting user privacy [2].
- Immutability: Once a transaction is validated and recorded on the Block chain, it becomes permanent and can't be altered or deleted, adding a layer of trust and security to the system [3].



Chapters in Book Implementation of Sustainable Development Goals In Higher Education: Evidences of Practices and Collaboration with ISBN No 978-93-93810-76-2



About the Editors



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Economics on "Impact of Globalization on Infrastructural Development in India since 1981", He is also registered as a Research Guide in Economics. He is the Member of NAAC Peer Team, Vice President of AIACHE and also member of many academic administrative and Professional Bodies. He is a devoted and committed administrator and has been awarded as the Best Principal by AIACHE, for his distinct vision, pro-active and assortive leadership, He has been Resource person for various leadership and Human Resource Development Programme & has conducted several orientation and Retreat Programmes. He has authored and edited many books and has published many articles and research papers in opurads, books & Newspapers. He has completed 92 Minor research projects and organized International & National Seminars, Conferences and Workshops.



Dr. Rupali Ahluwalia, Head Department of Commerce, St. Aloysius College Jabalpur, has a teaching and administrative experience of 19 years. She has completed Post-Doctoral and Doctoral studies in the area of India and International Trade. She has outstanding academic record and has been recipient of University Gold medal in post-graduation. Her areas of interest are Applied Economics and Management studies. She has been resource person in various UGC HRDC induction Programmes. She has authored and widated many books and published research papers. She has also successfully completed Harvard Derek Bok Certification in Higher education.



Dr. Nidhi Khurana. Assistant Peolossor, Department of Commerce, St. Aloysius College Jabalpur, has a teaching experience of 10 years. She holds a Doctorate in Commerce and has completed one Minor Research Project sponsored by ICSR. She has attended many international and national conferences and has published more than 25 research papers and enticles in International and National Journals and edited books. She has been the recipient of Beet Teacher Award by ICFAI University, Debradun, Herareas of interest are Applied Ilconomics and Management studies.







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13

Higher Education and Sustainability Development: An Indian Perspective

Dileep Kumar Koshta & Sunil Kumar Tiwari

Abstract

This research article delives into the crucial role of higher education in addressing the impending challenges presented by India's projected population growth to 2 billion by 2050, with a strong focus on sustainability and development. It emphasizes the necessity for collaborative efforts involving the government, educational institutional associety to harness higher education as a catalyst for p 156/3 transformation. The article underscores the significance of inno. 20 quality education, and social justice within the education system effectively confront environmental and societal challenges. It highlights the potential of higher education to drive sustainability and development in India and calls upon all stakeholders to work collectively towards a more sustainable and developed future.

Keywords: Sustainability Education, Sustainable Development, Resource Consumption, Waste Generation, Knowledge Creation, Quality Education, Technological Advancement.

Introduction

India is projected to reach a population of 2 billion by the year 2050. Such substantial growth poses significant challenges in terms of resource consumption, energy utilization, and waste generation. To mitigate the ecological impact of this demographic expansion, it is crucial to foster knowledge creation and effective information dissemination that can be applied within the country. The global landscape for sustainability education is currently uneven, demanding increased efforts



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5

Changing Role of Higher Education in India in the Era of SDGs: Implementation of Sustainable Agenda

Ekta Mukar & Sayali Yaday

Abstract

Successful development has become one of the emportant concept for a make father of the north. Surtemakir development at its over true a before different and propertily concerting needs against an accommof the autocommunital, social and economic limitations that a mostly face. The Sustainable Development Goals' America as SDGs, closely assessed development to matematistry and also recognises the contribution of higher education in morning global sustainable depelopment challenge and promoting santalushility. This research paper investigate to septementation of Sustainable Development Goals (SDGs) water for rodes of higher education, facustry on the evidence of practice as indubination. SDGs how emerged as a comprehensive framework to althree pressing global challenges, encompassing a broad species of noval, removed, and environmental dimensions. As institution of Migher education play a repol role in shaping future leaders and charge agents and related by their engagement with SOGs however 1966 This paper explains carious once studies, instructions, and collaboration that descentrate from higher relacation multipations are incornerated SDEs into their care practices and fastering partnerships to a bear martineable development.

Repropheriestamente Development Gender SDGas, international of higher education. AdHRD, International Development Programme Distance Education Institutions (DEIs), ODI, YCMCKI, Ad 1666 Survey on Higher Education.



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7

A Study of Sustainable Development Goal. (SDG) 4 on "Quality Education" from Micro and Macro perspectives

Sarita Goel & Vijay blvarti Jain.

Abstract

This article examines the engine focal parts of education princips of one the merid on marking artin herehouses, marken and largets. He past is to expend deferration on expected vertical eigen to mark the fault United Nations Scattainable Development Good (SDG 4), unless takes a righ of quality education. The Southwalds Development Goals (SDG) are a compensant of the UN's "2010 Agendo for Southwalds Development," which was inventionally adopted in 2015 as a "plan of cross for people, planet, and prosperty" by all UN Marater States. The investigate in short earliest prospection. This study investigates the who that militabels, takentoned and training toolstations, and processing governments of store the responsibility for actioning the SDG 4 goals.

Repaired's SDC 4. Quality Education, Organization for Educatic Competition and Oranigement (OECD): Learning

Introduction

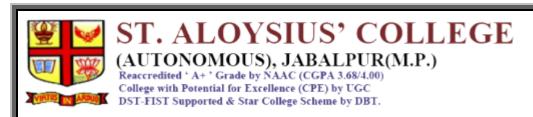
This article studies fire particular focuses made the fourth bound Countries Support capable bogoverners Organive (SDG 4) on "postty aducation" from micro, and macure perspectives. In post to investigate the intracey of raising instructive quality of over the phones, proposing the requirement for distance materialises to participate intently. The article draws on design and organization draws reset to offer further understanding into the label that people, achooling and preparing establishments.



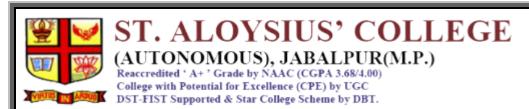
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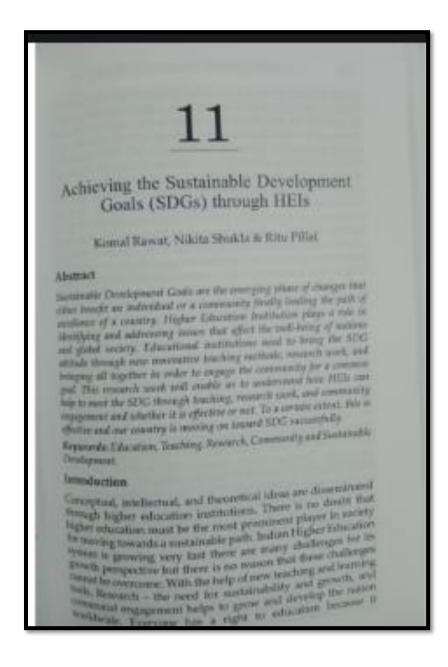


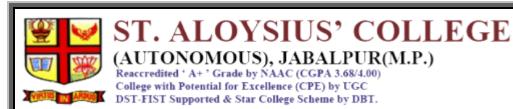




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The Role of Technology in Advancing Education for All: Lessons from India's Experience with Sustainable Development Goal-4

Yogesh Ashar & Harbakidi Monkfundani

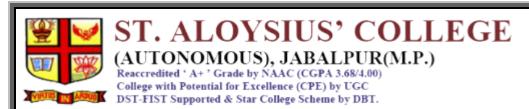
Abstract

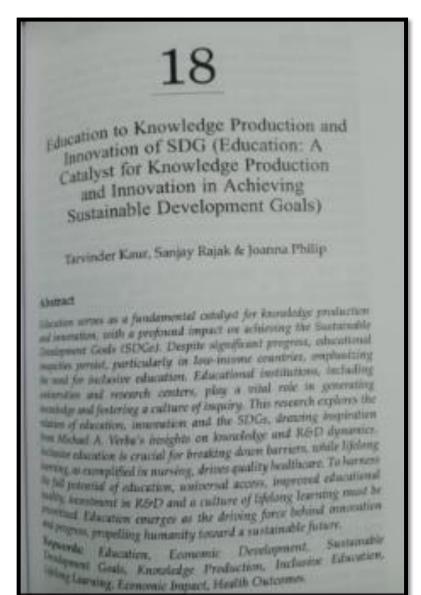
Education is an important and necessary compound for the complete development of the occiety and the right to bring education to all to also a social value. Indice to facing the challenge of SDG-4 transferring its observed to the field of obscution. In this paper, we will try to find the house ensembling from the experience of SDG-4 of backs in which the role of individual papers indication, beginning to the characters to use a new education indicates and support integralion in the calculation system. The ensemble from many challenges to increase the use of technology in education to the name of technology in education. In this paper, are until our what we can have from the superwise of SDG-4 of ladia and have to use what we can have from the superwise of SDG-4 of ladia and have to use if he parents it.

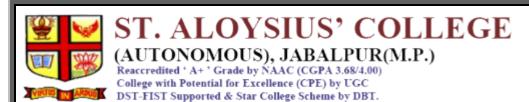
Repaireds Technology, Education, Statistical Development Goal & SDG-8), India, Inclusivity, Quality Education, Institution, Equality, Challenger, Recommendations.

Introduction

Education is an important medium for perspectly and social development. Through education, humans develop valuable fractions like knowledge, thoughtfulness, and discipline, which helps him in getting success and respect to security. The right to thread education to all people is a constitutional right which is inge of the personness development goals set by the United







Role of Higher Education in Accomplishment of the Sustainable Development Goals

Nidhi Khurana, Tanaya Patil, Shakti Prathaban & Priya Sahni

Abstract

This chapter examines the correlation between Sustainable Development Goal (SDG) 4 and higher education, with a focus on its evolving roles and expectations in society. Historically, higher education has been assigned three key responsibilities: education, research, and social contribution However, with the advent of globalization, these roles and expectation are gradually undergoing transformation. SDG 4 encompasses the specific targets that directly pertain to higher education. Target 4.3 aims to ensure "equal access for all women and men to affortable and quality technical, vocational, and tertiary education, including university." It is noteworthy that this target emphasizes not only the accessibility of higher education but also its quality. Moreover, The Times Higher Education has recently published the 2022 edition of the Impact Ranking, which assesses universities based on their contribution in the SDG framework and visualizes their global performance India emerged as the fourth most represented nations in the rankings, with a total of 64 universities featured. Taking this into account, this chapter introduces diverse activities and initiatives undertaken by Indian higher education institutions to foster international joint research on global issues Fundly, the issues. Finally, this chapter explores the potential future roles of legist education in account of the country education in society, highlighting its indirect spillover effects on its other peak of the control of the contr other goals of the SDGs. By fulfilling its travious responsibilities and actively engaging. actuely engaging in sustainable development, higher education of contribute significontribute significantly to addressing societal challenges and administ the operall objectives of the SDGs.



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21

A Study on Stagnant Growth of India in Achieving SDG-4

Rupali Ahluwalia, Taranpreet Saluja & Vaishnavi Naghar

Abstract

Sustainable Development Goals (SDGs) are at the forefront of government initiatives across the world. The SDGs primarily promote sustainable growth by ensuring well-being, economic growth, encoronantal legislation, and academic advancement. One of the most prominent gain of the SDG is to provide learners with high-quality estucation (SDG 6).

This paper aims to evaluate the current state of SDG-4 achievement in the various states in India, identify issues humpering the achievement of SDG-4 and pin down the shortcoming in the adeption and implementation of SDG-4 in India. For the study, secondary data is used for data collection and analysis. The outcomes reveal that even hough Government of India has taken several steps to achieve SDG-4 god the progress still remains stagnant. This is because the

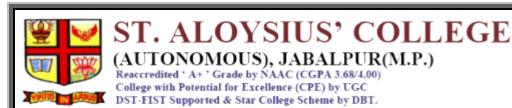
achievement rate of these initiatives is less than 50%. These finding will assist governing bodies to create awareness about the necesaristaken by government for effective enactment of SDG 4 goals, which will subsequently aid in resolving issues related to other SDGs.

Keywords - SDG-4, Government initiates, Stagnant Growth, Gross Enrollment Ratio, Educational Infrastructure.

Introduction

Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet, and ensure that all people can enjoy peace and prosperity. Also known as the Agenda 2030, the SDGs were agreed in 2015 by the UN General



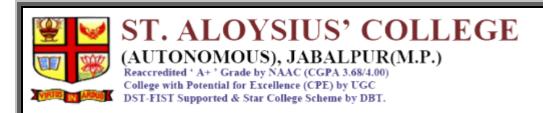
From Theory to Practice: Implementing Sustainable Development in Higher Education

Jatin Anand & Priyanka Anand

Abstract

The Sustainable Development Goals (SDGs) are an international call to action to end poverty, safeguard the environment, and promote peace and prosperity. The UN Member States ratified them in 2015, and they offer a thorough framework for tackling global issues. 169 specific goals from 17 SDGs must be achieved by 2030. Institutions of higher learning have a big part to play in helping to attain the Sustainable Development Goals (SDGs). They have the power to mould and mould students. researchers, and the larger society in terms of knowledge, skills, annedes, and behaviours. The significance of higher education institutions in promoting and accomplishing the Sustainable Development Goals (SDGs) of the United Nations is examined in this research study. Higher education has a crucial role in developing future leaders, innovators, and change-makers equipped with the knowledge and abilities to confront the complex challenges the world faces, such as climate change, povery. and inequality. The study looks at the possible effects of incorporating the SDGs into curriculum for higher education, research projects. campus customs, and community involvement programmes. In order to maximize higher education's contribution to sustainable development. also examines the significance of creating international connections and collaborations.

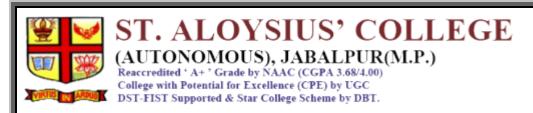
Keywords: Higher Education, Sustainable development Goals. Future Leulers.



Chapters in Book G20 And Green Growth: Collaborative Action for Sustainable Future Under Saptrishi Budget 2023 with ISBN No. 978-93-5879-480-7







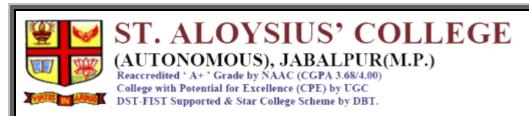
FOSTERING GREEN TECHNOLOGY STARTUPS THROUGH G20 SOFT POWER IN INDIA

Rupali Ahluwalia*, Nidhi Khurana**

ABSTRACT

The concept of soft power was introduced by Joseph Nye in the field of International Relations, encompasses the ability to influence the behaviour of other nations through non-coercive means, including cultural exchanges, political values, and foreign policy. In the 20th century, India's soft power was primarily rooted in its non-alignment policy, anti-colonial stance, and commitment to peaceful co-existence. However, as the 21st century unfolds, India has evolved into an emerging soft power, leveraging its cultural influence, particularly in the Indo-Pacific region, and capitalizing on its vast Diaspora. Additionally, India has adapted to address global challenges such as environmental governance, aligning itself with its aspirations to be a global leader. In a contemporary context characterized by heightened environmental awareness and an urgent call for sustainable development, the promotion of green technology startups has emerged as a global imperative. This paper delves into the pivotal role of G20 soft power in India, acting as a catalyst for nurturing and propelling innovative ventures within the sphere of green technology. India, as a G20 member, stands at the vanguard of this transition, confronted with environmental challenges that necessitate inventive solutions. This research scrutinizes the diverse strategies of soft power harnessed by G20 nations in synergy with India, accentuating their role in stimulating the growth of green technology startups. Moreover, this paper underscores the critical importance of collaboration between G20 countries and India, with a specific focus on aligning policies, facilitating technology transfer, and providing financial support. The outcomes of this research illuminate the transformative potential of G20 soft power in India. Not only does it aid in nurturing and bolstering green technology startups, but it also contributes to India's progress towards sustainable development and its commitments to global environmental stewardship.

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ROLE OF TECHNOLOGY IN GREEN INNOVATION AND GREEN GROWTH IN G20 INDIA: MACHINE LEARNING EVOLUTION

Kajal Mahawar*

ABSTRACT:

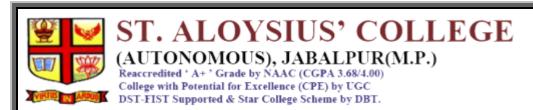
The global economy has long seen environmental and development issues through the prism of G20 sustainable development in India. The BRICS (Brazil, Russia, India, China, and South Africa), which is typically understood to mean addressing present demands without jeopardising the capacity of future generations to address their own. Despite the fact that this strategy has been beneficial and effective in many aspects, it does not provide a clear plan for achieving those objectives. Therefore, this research investigates into how financial globalisation and green innovation affect green growth in the economies of the India. The dataset utilised in the present study spans the years 2000 through 2023. To analyse the data, the study used the machine learning classifier model. As a result, environment-related technologies are beneficial in achieving green growth in the India economies. The findings confirm that the long-run estimates of environmental inventions are favourably significant. Our results suggest that governments should concentrate on R&D initiatives in technology that can foster the creation of green innovations in order to support green

Keywords: G20, BRICS, Green Innovation, Machine Learning Classifier, Green Growth, R&D

INTRODUCTION

t present, environmental anomalies are being observed globally, which have en- dangered humans as well as economies. On one side, humans are making numerous accomplishments economically, industrially, and technologically by exploiting their knowledge and skills. On the other side, they have brought themselves to the verge of destruction by ruining the environment through harmful processes and materials for development pur- poses. The sudden climatic changes, increasing pollution, the higher levels of emission of greenhouse

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ROLE OF TECHNOLOGY AND INNOVATION IN ENABLING GREEN GROWTH

Preeti Jain *, Ekta Amlani **

ABSTRACT

Technology and innovation are the two key factors leading to an increase in our country's green growth and economic growth. India is a developing country promoting new technology and innovation, creating new output and production, and increasing the country's green growth. This paper gives an outline of how green growth and technology are inter-related, how green growth and innovation are inter-related, the reach of new technology and innovation in a few high-income countries but not all countries, how new technology and innovation meet the needs of poor consumers, challenges in implementing new technologies, the use of resources to meet future needs, the role of technology and innovation in enabling green growth, various policies and schemes by government to bring new technology and innovations. This paper also states some recommendations and suggestions to bring new technology and innovation to meet the needs of rural areas, improve skills and the environment to foster innovations, proper support and funds by the government, limit local technology, and promote global technology. This paper mainly aims to analyze the fact of bringing new technology and some possibilities to overcome such difficulties for enabling green growth.

Keywords: Technology, innovation, green growth, G-20 summit, sustainable development, sustainable future.

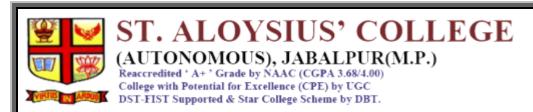
INTRODUCTION

Green growth refers to fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies."OECD (2011, p.9)

G-20: The Group of Twenty (G20) is an international forum comprising 19 individual countries and the European Union. The G20 was

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SAPTRISHI BUDGET 2023: GREEN GROWTH STRATEGIES AND PRIORITIES

Tuhina Johari *, Jatin Uikey **

ABSTRACT

India is emerging as the one of the fastest growing economies with the growth rate of 6.3% (FY2023-24) and 5th largest GDP in the world. Where Indian population is constantly rising and requirement to achieve its developmental objectives have huge environmental consequences, which places serious constraints on natural resources such as land, water, mineral and fossil fuels, driving up energy prices and environmental degradation. Such challenges needs to be addressed where India's sustainable development is imperative needs an economic growth balanced with the preservation of natural resource and the environment. This year Union Budget 2023 present by finance Minister Nirmala Sitharaman, focus on seven priorities sectors calling it as Saptrishi Budget 2023 have green growth as top priority showcasing India commitment to lead the global action against climate change, preserve biodiversity and support sustainable development. Thus, this Paper focuses on the initiatives, policies, schemes, and projects under Saptrishi Budget 2023 for the green industrial and economic transition, environmentally friendly agriculture, and sustainable energy development in the country.

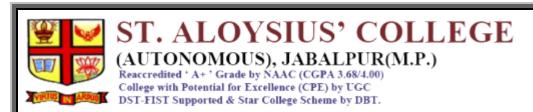
Keywords- Saptrishi Budget 2023, Green Growth, Sustainable Energy, Environment, Farmers Income, schemes and initiatives

INTRODUCTION

nion finance minister Nirmala Sitharaman on Wednesday, 1 February presented the Union Budget for 2023-24 also referred as 'Amit Kaal'. "This Budget lays a futuristic 'Amrit Kaal' for women, youth and marginalised communities, big public investment for infrastructure guided by PM Gati Shakti, productivity enhancement, energy transition and climate action and financing of investments."

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OPPORTUNITIES AND CHALLENGES IN IMPLEMENTING GREEN GROWTH MEASURES IN INDIA

Vishwas Patel *, Nishi Nirmalkar**

ABSTRACT

This seminar will explore the opportunities and challenges in implementing green growth measures in India. Green growth refers to a sustainable development approach that promotes economic growth while preserving the environment and natural resources. India, as one of the fastest growing economies faces significant environmental challenges, including air and water pollution, deforestation, and climate change.

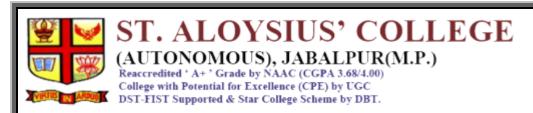
The seminar will begin by highlighting the opportunities that green growth measures can bring to India. These include job creation in renewable energy sectors, improved public health due to reduced pollution, enhanced energy security through diversification of energy sources and increased competitiveness in global markets through sustainable practices. The paper will also discuss the potential for technology transfer and foreign direct investment in green sectors. By adopting sustainable practices, Indian industries can trap into these markets and gain a competitive edge.

However, implementing green growth measures in India is not without challenges. The seminar will delve into these challenges, such as limited financial resources and, inadequate infrastructure. Policy reforms are also crucial for the successful implementation of green growth measures. The discussion will focus on finding innovative solutions to overcome these obstacles and strategies for effective implementation. It will also explore ways to streamline regulatory processes and remove barriers to green investments.

Key Words- Diversification, Green Growth, Sustainable Practices, Investments.

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SAPTRISHI BUDGET 2023: GREEN GROWTH STRATEGIES AND PRIORITIES

Yashica Choudhary*, Parul Vishwakarma**

ABSTRACT

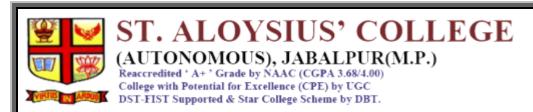
G20 and green growth Collaborative action for sustainable future under saptrishi budget 2023. G20 presidency is an opportunity for "India to articulate an agenda and for the Global South to show the way." G20 members currently account for nearly 80 per cent of the world GDP, 75 per cent of global trade, and 60 per cent of the global population. Over the years, the G20 agenda has broadened and deepened, and the Group became the premier global forum for discussing the many pressing socioeconomic and development issues.

Green Growth' as one of the seven priorities of the government of India's budget. The seven principles complement each other and act as the 'Saptarishi' guiding India through the Amriti kaal. Green Growth is the fifth of these seven priorities. India presidency in this unique global institution presents an excellent opportunity to accelerate sustainable growth within India, in the emerging world and beyond. The G20 countries have increasingly recognised the importance of green growth. These green growth efforts will help in reducing carbon intensity of the economy and provides for large scale green job opportunities. the "green growth" priority sector will include multiple programmes on green fuel, green energy, green farming, green mobility, green buildings and green equipment. This will also include policies for efficient use of energy across various sectors. The world has praised India's G20 Presidency as a unique opportunity with enormous potential and a unique vision embodied in the phrase "Vasudhaiva Kutumbakam," which translates to "the world is one family. This paper throws light on India's vision for Saptrishi budget 2023: Green Growth strategies and priorities in achieving it.

KEYWORDS: Sustainable growth, Amrit Kaal, Green Growth, Global South, Vasudhaiva Kutumbakam.

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GREEN MONEY FOR SUSTAINABLE GREEN FINANCIAL GROWTH IN INDIA - CHALLENGES AND OPPORTUNITIES

Sarita Goel *, Harbhaksh Moolchandani **

ABSTRACT:

Green money is a centre piece of the low carbon green development, since it interfaces the monetary industry, natural improvement and financial development. Green Money is a market-based financial planning or loaning program that factors natural effect into risk evaluation, or using ecological motivating forces to drive business choices. The objective of this paper is to concentrate on the green money and to approve the idea as plausible in the Indian businesses for adjusting the environmental devaluation because of the digestion of carbon gases in air. Consequently, the paper additionally talks about the new patterns and the future open doors and difficulties in green money in the arising India. Green financial planning perceives the worth of the climate and its regular capital and furthermore tries to further develop the human prosperity and social value while diminishing natural dangers and working on the environmental respectability.

Keywords: green money, financial growth, Industry, environmental, green finance.

INTRODUCTION

Sustainable green financial growth" in India, like in many countries, is an essential goal that encompasses various aspects of sustainability, environmental responsibility, and economic development. Achieving this objective typically involves multiple stakeholders, including the government, financial institutions, businesses, and the public. Environmental challenges associated with carbon emissions and climate changes are significant and wide-ranging. These challenges are a result of the increase in greenhouse gas emissions, primarily carbon dioxide (CO2), in the Earth's atmosphere due to human activities such as the burning of fossil fuels, deforestation, and industrial

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GREEN FINANCE EXPLORATION IN G20 ECONOMIES: A JOURNEY THROUGH INVESTMENT TRENDS

Jatin Anand *, Priyanka Anand **

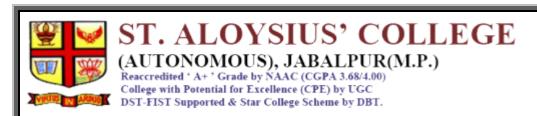
ABSTRACT:

Green finance refers to the financing of investments and projects that have positive environmental and sustainable impacts. It encompasses a wide range of financial instruments and practices designed to support and promote environmentally responsible activities. The primary goal of green finance is to redirect capital flows toward projects and initiatives that contribute to environmental sustainability, mitigate climate change, and address other pressing environmental challenges. As the world confronts the challenges of climate change and environmental sustainability, green finance has emerged as a critical avenue for addressing these pressing issues. This paper endeavours to explore the landscape of green finance within the G20 economies, delving into the investment trends and strategies that are shaping the sustainable finance sector. The G20, comprising the world's major economies, plays a pivotal role in influencing international economic policies, including those related to green investments and environmental sustainability. By examining the practices and policies of G20 member countries, this study aims to provide valuable insights into the current state of green finance in G20 economies, identify key trends and emerging practices, and offer recommendations for policymakers, financial institutions, and investors interested in promoting sustainability and environmentally responsible finance. Ultimately, the study contributes to the global discourse on green finance, underscoring the pivotal role of the G20 in shaping the path to a more sustainable and environmentally conscious global economy.

Keywords: G20, Green Finance, Green Investment trends.

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GREEN MARKETING AND ENVIRONMENTAL SUSTAINABILITY: OPPORTUNITIES AND CHALLENGES OF GREEN ADVOCATES

Tarvinder Kaur Ghai*, Komal Rawat**, Ritu Pillay***

ABSTRACT

Environmental sustainability has become a global policy priority in recent years and is now considered a key driver of innovation. As a result, more and more companies are promoting the environment by producing environmentally friendly products, and customers are increasingly interested in them. It is becoming increasingly important in the modern market.

The idea of green marketing makes it possible to remarket and package existing items that already follow these rules. Any company implementing a green marketing program may start with green design, green package, green production process, implementing internal green policies, and switching to local or more environmentally friendly sources or partners. This study aims to discover and assess various opportunities for companies to become environmental advocates as well as the difficulties they encounter in adhering to green marketing standards.

Keywords: Green Marketing, Green Advocate, and Environmental Sustainability.

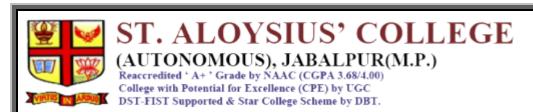
INTRODUCTION

reen marketing is the development and promotion of environmentally friendly products and services. It involves creating and promoting products and services that are designed with the motive of minimizing their impact on the environment, it can include using sustainable materials, reducing energy consumption,

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SKILL DEVELOPMENTS IN GREEN JOBS - CHALLENGES AND OPPORTUNITIES

Daspreet Kaur *, Kudshiya Raza **

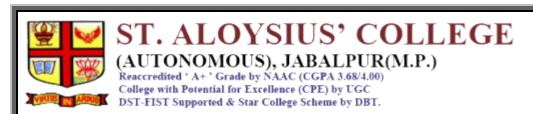
ABSTRACT

Development of skill in greening the economy is a significant topic of discussion mainly in the underdeveloped and developing nation. It had lately realized among developing countries like India that green growth is playing a vital role in the global context. The development of green job skills is not just a response to change, but it may also be a significant change agent. The ability to accomplish goals and carry out better plans depends on one's skills. In light of this, the Indian government launched the "Skill India" project in 2015 to enhance skill based green jobs in India. Government has introduced many policies and schemes for promoting green initiatives and better job opportunities to people. This paper focuses on development of green growth with skill development and to accelerate economic development in this area. The study is based on secondary data and necessary information about the skill development scheme and opportunity under green growth employment are collected from books, journals, newspapers, internet on related topics. Due to lack of awareness among people about green development and job opportunities under green zone various corrective measures are taken by Government for creating "green jobs" that links skills related to the effective performance of organizational functions, skills necessary for energy conservation and adherence to environmental policies for the conservation of e-waste. Social development can also be aided by the advantages of an sustainable friendly environment that generates green jobs.

Keywords- Skill Development Schemes in India, Government Policies on Green Jobs, Research Methodology, Opportunities and Obstacles for Green Jobs.

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AN ANALYSIS OF GREEN CONSUMERISM FOR G20 AND INCLUSIVE GREEN GROWTH

Surbhi Jain *, Nidhi Rajak **

ABSTRACT:

Green consumerism refers to recycling, purchasing, and using eco-friendly products that minimize damage to the environment. Green Growth endeavors to provide a solution to the joint targets of economic growth, and ecological and environmental sustainability. The G20 nations have progressively perceived the significance of green growth. G 20 committed to creating new economic opportunities while solving environmental resource scarcity challenges. This paper aims to understand the perception of consumers towards eco-friendly goods and awareness about the availability of such products and also tries to connect a relationship between green consumerism and economic development which leads to green growth and accomplish the motto "Sabka sath sabka vikas" For this purpose Primary data has been collected from 78 respondents using random sampling method. Statistical techniques like percentage and frequency distribution have been used. The hypothesis has been framed and tested. To achieve the objectives of G 20 Nations for inclusive green growth Recommendations have been given.

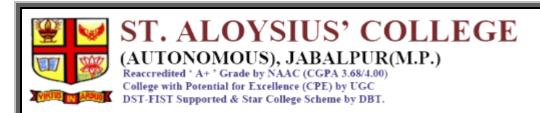
Keywords: Green Consumerism, Green Marketing, Green Growth.

INTRODUCTION

The Group of Twenty (G20), an informal grouping of the world's largest 20 economies, was formed in 1999 after the Asian financial crisis. The Grouping was created to enhance global policy coordination and give greater visibility to emerging economies, which are increasingly interconnected in the global economy. In its initial years, global economic growth and financial market regulation have been the sole focus of G20. The main objective of G20 countries is to implement a framework for strong, sustainable, and balanced green global growth.

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ASSESSING THE PATH TO SUSTAINABLE DEVELOPMENT IN THE INDIAN SERVICE SECTOR: CHALLENGES, OPPORTUNITIES, AND STRATEGIES FOR A GREENER FUTURE

Aditi Shrivastava*, Ashu Jain **

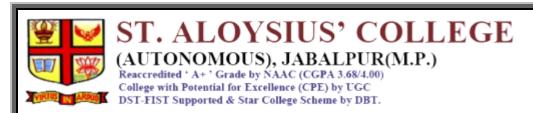
ABSTRACT:

India's service sector encompasses a diverse range of industries, including information technology, business process outsourcing, hospitality, finance, and healthcare, among others. The rapid expansion of this sector has led to significant socio-economic benefits, but it has also presented formidable environmental challenges. The objective of this study is to analyze the current state of sustainability within the Indian service sector and identify key challenges, opportunities, and strategies for fostering a greener future. The research employs a multi-dimensional approach, integrating both qualitative and quantitative methods. It involves a comprehensive review of existing literature, industry reports, and government policies, as well as primary data collection through surveys and interviews with key stakeholders, including industry leaders, policymakers, and environmental experts. The study also outlines a set of strategic recommendations for businesses, policymakers, and civil society to facilitate a greener and more sustainable trajectory for India's service sector. These recommendations emphasize the importance of corporate social responsibility, green innovation, regulatory frameworks, and public awareness campaigns. In conclusion, this research contributes to the discourse on sustainable development in the Indian service sector by offering a holistic understanding of the sector's current environmental footprint and the potential pathways to a greener future. The findings aim to inform industry practices and policy decisions that can harmonize economic growth with environmental responsibility, ensuring a sustainable and prosperous future for India's service sector and the nation as a whole.

Keywords: sustainable development, strategic, policy, greener future

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SUSTAINABLE MARKETING PRACTICES: AN INDIAN PERSPECTIVE

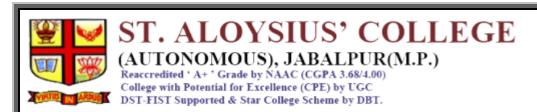
Chitranshi Verma *, Saraswati Kanojia **

ABSTRACT

The planet is plagued by the environmental concerns. People around the world are already experiencing the consequences of climate change from rising sea levels to intense heat waves. Scientists argue that urgent actions should be taken in order to avoid the most dangerous effects of the climate change. Taking into consideration the current scenario, the modern organizations have started committing to sustainable practices in business. In an effort to raise public awareness about the companies involvement in climate change, numerous corporations and brands have started advertising environmentally friendly products and services. Also, with the climate change becoming more visible every year, the public has shown more interest in green practices and green businesses even if they have to pay a slightly higher price for the product. Even the recent budget of 2023-24 as proposed by Union government of India highlighted upon the inclusion of green practices to sustain healthier environment and make this world a better place for our generations to come. Such environmental sustainability would contribute in perpetuating an ecological balance in our planet's natural environment and conserve natural resources to support the wellbeing of current and future generations. Companies that are seen as environmentally responsible can benefit from increased customer loyalty and a positive brand reputation by doing the proper branding of their products which refers to the process of creating distinct identity for a business in the mind of target audience and customers. This paper is an attempt to study and analyze various practices being implemented by the stakeholders towards the contribution in green revolution. Green marketing instances demonstrate that it is a combined effort on the part of corporates and even the government at large to promote and advertise their environmentally friendly practices and to encourage the entire community to cooperate. Through the business' commitment to sustainability, the

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GREEN FINANCE STRATEGIES FOR SUSTAINABLE FUTURE

Priya Sahni *, Ekta Mukar **

ABSTRACT

The paper attempts to comprehend the importance of Sustainable Development and Sustainable development is an approach of meeting present needs without compromising the abilities of future generations to meet their own financial and non-financial needs. This is achieved through the introduction of green finance, a recent change in the investment pattern (both in the public and private sector). Additionally, the message aligns with the global strategic goal of drawing trillions of dollars for infrastructure development, both technologically and humanly. A supplementary method of data collection has been employed for research purposes. The objective of the research is to clearly understand and define the term Green Finance Strategies and the modes and forms, how the green investment strategies are being introduced by the Government and the various companies like Supporting renewable energy, energy efficiency and pollution control. Reasons why this type of financing is increasingly being recognized as an effective tool for mitigating climate change and promoting sustainable development. As India is among the countries most affected by the impacts of extreme weather events the study will conclude with recommendations for promoting Green Finance for sustainable development and for removing extreme weather events like this are becoming frequent and are expected to get worse due to climate change.

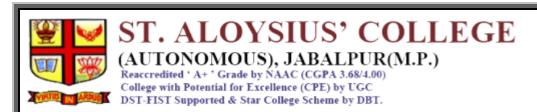
Keywords: Green Finance Strategies, climate change, Sustainable Development, Green finance.

INTRODUCTION

reen investments refer to the allocation of financial resources to projects or companies that focus on sustainable practices, environmentally friendly technologies, and the conservation of

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"MILLETS": THE RESILIENT CROPS FOR SUSTAINABILITY

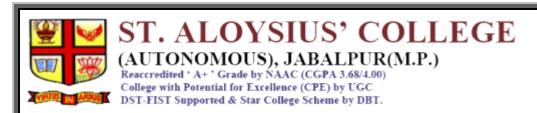
Kajal Dubey *, Hridya V Nair *, Bharti Kol *, Aditya Yadav *, Anisha Rupashree **

ABSTRACT

Millets, a group of small-seeded, drought-resistant grains, are emerging as a powerful driver of sustainable agriculture and rural development. This is a comprehensive overview of the central role that millets play in promoting sustainable farming practices and enhancing the livelihoods of rural communities. This crop demonstrates exceptional adaptability, thriving in diverse agro-climatic conditions, making them a lifeline for regions facing water scarcity and the multifaceted challenges of climate change. Their low water and input requirements underscore their potential to reduce the environmental impact of agriculture and support sustainable farming methods. From a nutritional perspective, millets provide a rich array of essential nutrients, dietary fiber, and phytonutrients. They are gluten-free and have a low glycemic index, making them an excellent choice for individuals with dietary restrictions and those seeking to manage blood sugar levels. The consumption of millets has been linked to various health benefits, including improved digestion, weight management, and a reduced risk of chronic diseases. They offer a costeffective, locally adaptable solution to combat malnutrition while serving as a staple food source. Additionally, millets can diversify diets, reduce reliance on a few major crops, and enhance food system resilience. Several stresses significantly affect plant growth which ultimately results in reduced crop yields. However, various adaptation mechanisms have evolved in millets to withstand different stresses. Some identified and characterized genes for stress tolerance and enhancing its nutrient content can be exploited for further development of millet resilience. This abstract emphasizes the multifaceted importance of millets in addressing current global challenges related to agriculture, nutrition, and sustainability. As a crop with a rich history and promising future, millets are a valuable resource in building resilient and sustainable food systems.

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SYNTHESIS, CHARACTERIZATION, AND APPLICATION OF BIOCHAR-CHITOSAN BASED NANO-FERTILIZERS IN ECO-SUSTAINABLE AGRICULTURE

Asra Fatimah Kareemi *, Shweta Likhitkar **

ABSTRACT

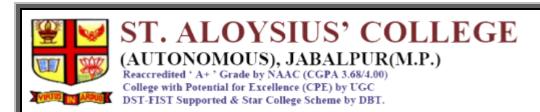
A new hybrid nanocomposite was designed in this work as an alternative nanoscale fertilizer to maximize nutrient use efficiency, as required by the growing food demand for the world's future population. An environmentally acceptable chemical preparation based on the electrostatic complexation between zinc-loaded banana peel-derived nano-biochar and chitosan (CBNC) as a bio-nanofertilizer. Scanning and transmission electron microscopy were used to analyze the morphological aspects. In contrast, X-ray diffraction, Fourier-transform infrared spectroscopy, and dynamic light scattering were used to characterize the chemical composition. In comparison to a sample lacking chitosan (BNC), water retention, water absorbance, swelling ratio, and equilibrium water content all indicated higher values of CBNC. Furthermore, it was revealed that the biopolymer played a key influence in the considerable slowing of zinc release from the hybrid nanocomposite. Ultimately, rice crops were used to assess the effectiveness of nanocomposite planting and germination, which improved plant uptake of zinc by up to 60% over conventional fertilization. Furthermore, these matrices permit a 33% decrease in the amount of water required for production. The outcomes showed that the suggested hybrid nanocomposite might be a viable substitute for implementing an environmentally friendly and smart delivery nano fertilizer.

INTRODUCTION

sing chemical fertilizers results in plants with low nutrient usage efficiency (NUE), which makes it difficult to achieve sustainability in agriculture. Due to high chemical fertilizer release rates that take into account the plant's real nutrient absorption and change

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CARBON FOOTPRINTS: FOR SUSTAINABLE ENVIRONMENT

Priyanka Kumari*, Raj Pratap Singh*, Rashi Sharma*, Rumana Faraz**

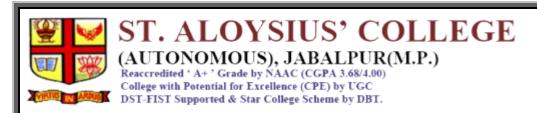
ABSTRACT

The amount of greenhouse gas emissions to the atmosphere by an individual, organisation, process, product, or event within a specific boundary is referred to as a carbon footprint. Carbon footprints represent a total quantity of greenhouse gases released during production manufacture, processing, and retailing of consumer goods. Global issues caused by climate change, such as harsh weather, air pollution, reduced food supply, rising sea levels, and epidemic spread, have become important tests for countries in the process of sustainable socioeconomic development. This issue is further aggravated by the high quantity of carbon emissions produced by human activity (IPCC, 2013). In the context of global climate change, carbon footprint research has become a flashpoint for numerous regions. However, there is still lack of a comprehensive, systematic, and intuitive literature on carbon footprint. According to studies from numerous reputable and high-impact journals, it is found that between 1992 and 2019, the focus of carbon footprint research switched from ecology and sustainable-environment to international trading and household behaviours, etc.

According to the extensive international cooperation, many countries have begun to take actions for reducing carbon emissions as a major national strategy platform. To maintain sustainable growth, it is critical to investigate a realistic and scientific carbon emission measuring method. The concept of carbon footprint significantly depicts the impact of human behaviour on climate change and provides a valuable tool for accurately monitoring carbon emissions. Quantitative analysis based on carbon footprint not only permits investigation of carbon emission concentration areas and intensity, but also serves as a foundation for targeted measures and periodic monitoring. The benefits of carbon footprint are beneficial to stakeholders in many areas adopting unified

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PARIS AGREEMENT: KEY TO SUSTAINABLE DEVELOPMENT IN THE AGE OF CLIMATE CHANGE

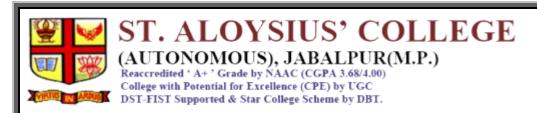
Sonal Rai *, Taranpreet Kaur **

ABSTRACT

Sustainable development is the basic requirement to cope with the hazardous nature of climate change. Climate change and its consequences in our daily lives have been a universally recognized major problem for decades. We are experiencing varying weather patterns, rising sea levels, and extreme climate conditions day by day. It is rising due to excessive emissions of Greenhouse gases from several human development activities which is now at its highest level. The Paris Agreement marks a significant moment in international climate law and policy. It represents a confirmation that the international community will continue to approach climate change multilaterally. The Paris Agreement brought the nations closer for the first time to a common cause of determined actions to combat climate change and encouraged enhanced support to developing countries in this regard. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change. This paper mainly focuses on the governance of Goal 13 of SDGs which has been a matter of multi-decadal debate. After various significant agreements on climate change, the Paris Agreement 2015 was adopted by countries at COP (Conference of Parties) 21 in Paris which underwent great hostility from nations. This paper critically assesses the extent to which the Paris Outcome incorporates the SDGs or sustainable development concerns. It concludes that scrutiny of the Paris COP Decision and Agreement reveals both direct and indirect references to the SDGs and sustainable development. The close relationship between international climate law and the SDGs highlights the need to integrate the SDGs into the implementation of the Paris Agreement. This paper also includes the economic impact of Global Warming in the world.

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SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT UNDER GREEN GROWTH: A COMPREHENSIVE REVIEW

Bhawna Tekam*, Anamika Sharma **

ABSTRACT:

Green growth is seen as a response to the challenges posed by climate change, resource scarcity, and the need for a more sustainable and equitable economic model. It is promoted by many governments, international organizations, and environmental groups as a way to reconcile economic development with environmental protection and social well-being. The specific policies and strategies associated with green growth can vary by country and context, but the overarching goal is to create a more sustainable and resilient global economy. Sustainable Agriculture encompasses various practices aimed at optimizing land use, conserving natural resources and minimizing negative environmental impacts. Organic farming, crop rotation, integrated pest management, and agro forestry are just few examples. These techniques contribute to increased agricultural productivity and long term ecological stability. It also significantly influences rural economies. By employing environment friendly methods, farmers can reduce production costs and improve crop yields, thereby enhancing their income. Sustainable agriculture also provides a platform for diversification, it encourages the cultivation of multiple crop and the adoption of innovative technologies. This in turn creates revenue streams, stimulating economic growth in rural areas. This academic research paper examines the interrelationship between sustainable agriculture and rural development, characterized by environmentally friendly practices and a focus on long term viability, plays a pivotal role in the overall development of rural communities. This paper explores the multifaceted dimensions of sustainable agriculture and its impact on rural development, highlighting the economic social and environmental aspects of this vital connection.

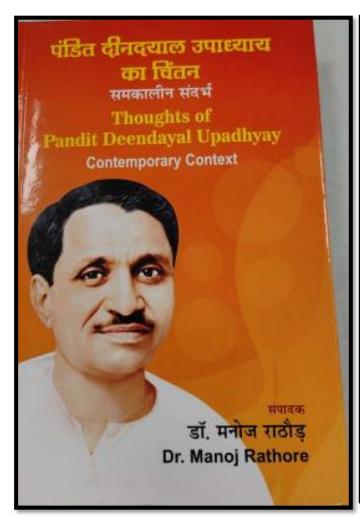
Keywords: resource scarcity, organic farming, ecological stability, rural economies, rural communities.

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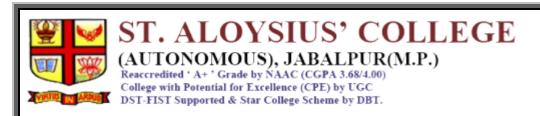
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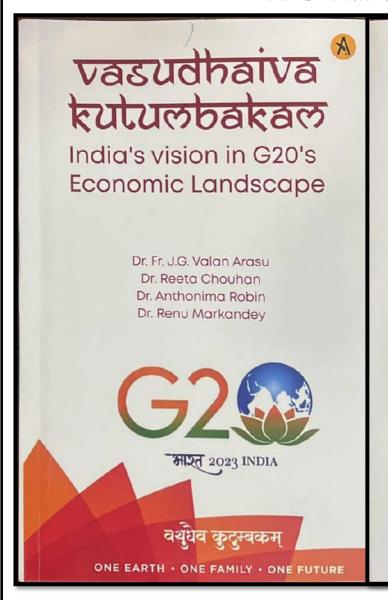
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Chapters in Book Vasudheva Kutumbakam: India's Vision in G20's Economic Landscape with ISBN No. 978-81-96895-25-



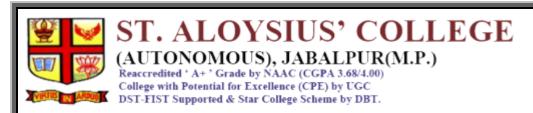
"Vasudhaiva Kutumbakam: India's Vision in G20's Economic Landscape" is a comprehensive exploration of India's strategic and philosophical approach within the G20 framework. Anchored by the ancient Indian concept of "Vasudhaiva Kutumbakam" (the world is one family), the book examines how this principle guides India's economic policies and diplomatic efforts to foster global cooperation and harmony. Key themes include sustainable development, inclusive growth, and digital leadership, emphasizing India's initiatives in education, health, and financial inclusion.

The impact of India's G20 presidency in 2023 is analyzed, showcasing its contributions to global sustainable development. The book also highlights the roles of key financial institutions like SIDBI and SBI, and institutional supports like CEDMAP in entrepreneurship development. Women's empowerment and participation are central themes, with discussions on their critical role in economic growth and the transformative potential of women's entrepreneurship. Challenges faced during India's G20 presidency are addressed, alongside an evaluation of the effectiveness of the G20 framework.

The Startup20 initiative is presented as a game-changer for innovation and entrepreneurship. Additionally, the book underscores the importance of education and digital financial literacy in driving economic growth within the G20 countries. Through detailed analyses and insights, "Vasudhaiva Kutumbakam: India's Vision in G20's Economic Landscape" highlights India's pivotal role in promoting a more inclusive, equitable, and sustainable global economy, illustrating its commitment to global unity and development.







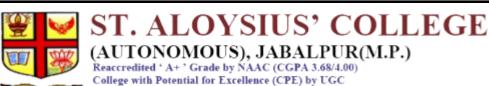
G20 and Sustainable Development of India: A Comprehensive Analysis

Dr. Sonal Rai & Mr. Jatin Anand

Background and Significances of Sustainable Development in India

SUSTAINABLE DEVELOPMENT in India is of paramount importance due to the country's unique socio-economic and environmental challenges. With a population of over 1.3 billion and a quickly expanding economy, India's natural resources, infrastructure, and social structures are under a lot of strain. By fostering social inclusion, economic progress, and environmental preservation all at once, the idea of sustainable development aims to solve these issues.

India's rapidly growing population, expected to surpass China by 2027, demands sustainable development to meet current demands without compromising future generations' needs. The country faces severe socioeconomic inequalities, including income distribution, access to essential services, and high-quality education. Sustainable development aims for inclusive growth to benefit all sections of society and reduce poverty and inequality. It also addresses environmental deterioration caused by industrialization, urbanization, and unsustainable farming practices. To reduce negative



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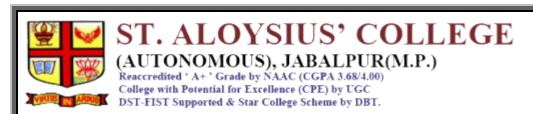
Vasudhaiva Kutumbakam Shaping India's Economic Policies in the Global Aren

Dr. Reeta Chouhan & Dr. Rupali Ahluwalia

Introduction

THE CONCEPT of Vasudhaiva Kutumbakam enco the essence of India's ancient philosophy and resonant guiding principle for the nation's economic policies global arena. As the world becomes increasingly comthis ancient Indian philosophy offers timeless with guide India's trajectory in the global economy. This me emphasizes interconnectedness, unity, and a sense of h responsibility towards the well-being of all individual rapidly globalizing world, India can harness this princip shape its economic policies, fostering sustainable deukpu inclusivity, and cooperation among nations while alim global challenges. Through the implementation of lead Kutumbakam, India can effectively move towards a equitable and prosperous global economy.

By embracing an open trade policy, prioriting welfare, promoting sustainable development practics leveraging cultural diplomacy, India can create a pain a more inclusive and harmonious global scenario. Prof sustainable development practices and leveraging a



Vance of Vasudhaiva Kutumbakam in Contemporary World and Indian Economic Policies in the Global Arena

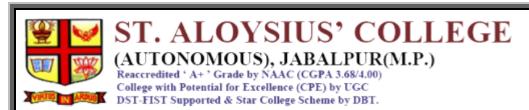
Dr. Manju Maria Solomon & Ms Prachi Vishwakarma

Introduction

"Be universal in your love. You will see the universe as picture of your own being" —Sri Chinmoy.

SANSKRIT, A rich language, is the origin of great ideas. One such idea that originated is "Vasudhaiva Kutumbakam" is a philosophy that includes an understanding that the "whole world is one family". It is a social philosophy that imbibes upon the concept of global citizen and is fundamental to the overall development of the world order. It is a Sanskrit phrase meaning that the "World is one entire family". This phrase is made up of 3 Sanskrit words "Vasudha, eva and kutumbakam" where Vasudha means the 'carth', eva means 'emphasizing and kutumbakam means a 'family'.

The concept of "Vasudhaiva Kutumbakam" enjoins people to practice acceptance and live in harmony. It exhorts people to realize a lofty universal culture wherein there are no fights and assertions of the supremacy and arrogance of a given race or sect. "Live and Let Live" is the trust manifestation of concept of "Vasudhaiva Kutumbakam"



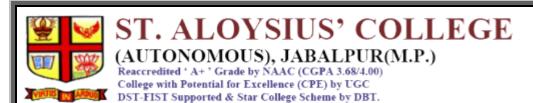
India's Digital Leadership Elevating Transformation G-20's Priority Sphere Ms. Nidhi Rajak & Miss Vaishnavi Nagha

Introduction

GROUP OF 20 is an intergovernmental forum for co cooperation that shapes and strengthens the global and and governance amongst the developed and decinations forming part of G-20. Each year one of these countries of G-20 gets the opportunity to hold the proand in the year 2023, this opportunity resides in the la India. The G-20 Presidency offers India a chance in la the voice of the Global South, which is otherwise represented in such forums. India can use the G-20 proachieve a stable, inclusive and representative global no and financial system.

The themes of G-20 during the Indian presidence

- Technological Transformation & Digital 16 Infrastructure
- Green Development, Climate Finance & LiFE
- Accelerated, Inclusive & Resilient Growth
- Accelerating progress on SDGs
- Multilateral Institutions for the 21st Century
- Women-led development.



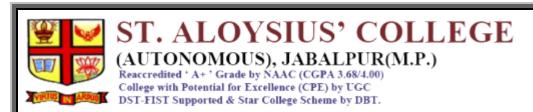
Digital Financial Inclusion Literacy from G20 Perspective Bridging the Gap for Sustainable Development

Dr. Ekta Mukar & Ms. Khushmeet Kaur Muka

Introduction

DIGITAL FINANCIAL inclusion and literacy plan roles in fostering inclusive economic growth and empos individuals and communities. In today's rapidly or digital landscape, where technology permeates various a of our lives, the Group of Twenty (G20) nations to the significance of harnessing digital tools and strate bridge the financial inclusion gap and promote in literacy worldwide. The G20, consisting of major con representing over 80% of the global GDP, holds significant influence and serves as a platform for international comon economic and financial matters. As the world be increasingly interconnected and technology-driven de acknowledges the transformative potential of digital fin services in promoting inclusive and sustainable develop However, it also acknowledges the existing challenge hinder the realization of this potential, particularly in bo the digital divide and enhancing financial literacy.

The digital divide refers to the disparity in access: use of digital technologies including internet connectivity

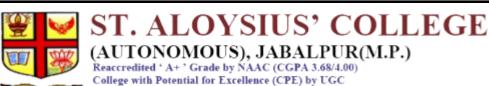


Importance of Women Empowerment for Sustainable Development

Dr. Priya Sahni & Dr. Komal Rawat

Introduction

MORE WOMEN than men have benefited from the advancements in economic and social growth during the past three decades, as women make up half of the world's population. However, they still outnumber men in terms of access to resources and power, making them one of the worlds most vulnerable populations. In addition gender equality is essential for social, economic, and environmental sustainability. A sustainable route of development can be reached by giving women and men the equal chances, including in decisionmaking in all sorts of activities, to ensure that women's and mens interests are both taken into account in the distribution of resources. Development that satisfies current demands without compromising the capacity of future generations to satisfy their own needs is known as sustainable development. Like sustainability, sustainable development is thought to have three dimensions: the environment, the economy, and society. The goal is to achieve a reasonable balance between the three dimensions. Other terminology that are frequently used instead of designating them dimensions are pillars, realms, facets, and spheres.



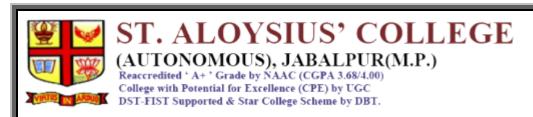
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G20: Sustainable Finance in Present Era

Dr. Harbhaksh Moolchandani & Dr. Sarifa Goel

Introduction

THERE IS growing evidence that financial inclusion substantial benefits for the excluded population especials women and poor adults in many countries, and policy and in many countries have embraced financial inclusion a deto economic empowerment and a solution to rising porlevels - and this is a good thing! But the question to me asking is: do international financial inclusion practicescome to a set of common practices? If no, why are there dress practices? If yes, which recent developments encounged convergence of international financial inclusion pratie The former deals with the issues or controversy underlying global financial inclusion agenda, while the latter desires the recent developments in financial inclusion aromen world that encourage the convergence of financial india practices, globally. To date, no comprehensive literature and has emerged to address these questions. To address and questions, this review presents a comprehensive analysis of state of financial inclusion in several countries and regime the world. It also identifies the recent development is



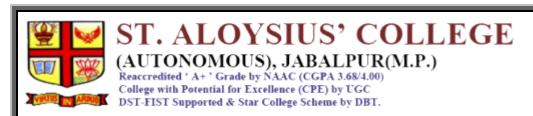
Women at work in G20: With special Reference to India

Dr. Renu Markandey & Ms. Mansi Lahoriya

Introduction

GENDER EQUALITY has always been a prominent issue in the light of women's economic, social, cultural and political conditions across national, regional and international arena. The common problems faced by women, both in developed and developing countries have persisted for long time. Though, women who have been contributing effectively in promoting economic growth of the nations, apart from sharing wide variety of responsibilities, playing pivotal role in upbringing their children, and supplementing the family income, they are still being discriminated at every level. Despite various measures and initiatives taken and efforts made at different levels, gender disparity in respect of health, nutrition, education, employment, decision making and more importantly in political participation still persists all over the world. At the very outset, it needs to be emphasized that ending all forms of discrimination against women and girls is not only a basic human right issue but it is also necessary to accelerate sustainable development.

Therefore, empowering women and girls will have



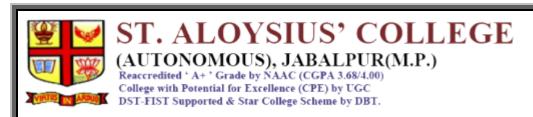
G20 and Global South Cooperation

Dr. Vishwas Patel & Dr. Tuhina Johri

Introduction

IN THE Emerging World 2.0 characterized by multiple engines of growth. India has actively championed the well-being of the Global South during its G20 presidency. Prioritizing inclusive growth, innovation, and resilient supply chains, India has strived to address the inherent imbalances in the international system, which continues to be dominated by the Global North—a reality mirrored in the composition of the G20. While the initial stages of globalization seemed to offer abundant opportunities, the subsequent revelation of its inequalities, exacerbated by the devastating impact of the COVID pandemic worldwide, underscored the imperative to shift attention towards the development of countries in the Global South.

The complexities arising from the Ukraine conflict further heightened concerns, affecting global energy, food, and fertilizer security. Trade disruptions, elevated interest ates, and climate-related events have introduced additional stressors. The current emphasis on the Global South stems from the belief that these are nations deserving of special



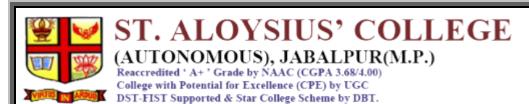
Startup 20: The S Factor to Increase, Diversify and Ease Innovation and Entrepreneurship

Ms. Deeksha Jain & Ms. Jagrati Ramrakhwani

troduction

HE G20 met for the first time at the level of heads of state government in Washington, DC, on 15 November 2008 the midst of the most serious financial crisis since the Great pression of the 1930s. What was previously an informal and hnically-oriented meeting of finance ministers and central nk governors from economically significant countries, the 20 took on, under these precipitous conditions, a highofile leader-oriented format intended to tackle a global sis. At their subsequent summits in London (April 2009) d Pittsburgh (September 2009), the G20 exhibited an apressive degree of solidarity. Jolted by the shocks of the obal financial crisis, participants were able to agree on intly initiating measures to calm down international nancial markets, implementing large domestic fiscal stimulus ckages, strengthening the crisis response of international nancial institutions and setting in place a mechanism for utual assessment of member countries' economic policies.

These steps are credited with helping to contain the nancial crisis. As India leads the G20 presidency of 2023



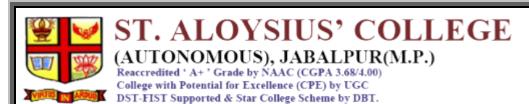
"Women's Entrepreneurship: A Catalyst for Economic Transformation and Social Progress"

Dr. Kiran Mishra

Introduction

THE INCREASING presence of women as entrepreneurs has led to significant business and economic growth in the country Women-owned business enterprises are playing a prominer role in society by generating employment opportunities in the country, bringing in demographic shifts and inspiring the next generation of women founders. The impact of women in entrepreneurship is profound and seismic in today's far changing global scene, sparking economic revolution and driving societies to previously unheard-of levels of soci advancement. The statement, "Women's Entrepreneurship, A Catalyst for Economic Transformation and Social Progress is a potent illustration of the significant and comprehensive influence that female entrepreneurs have. Far from being one dimensional, their revolutionary power resonates through social, cultural, and economic dimensions, permanents altering the fundamental fabric of our society.

Globally, women are shattering strong barriers, dispelling long-held misconceptions, and driving innovation in a wide range of fields. Going deep into the many dimensions that



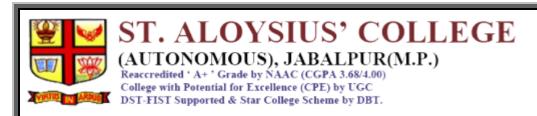
Importance of Education for Economic Growth in G20 Countries

Mrs. Seema Potphode

Introduction

THERE ARE many reasons why education is important, this report focuses on its contribution to economic growth and outcomes. Education can be defined as the stock of state of the stock of the stock of the state of the stock of

Finally, by increasing creativity it boosts a country's own capacity to create new knowledge, products, and technologies. Better education leads not only to higher individual income but is also a necessary (although not always sufficient) precondition

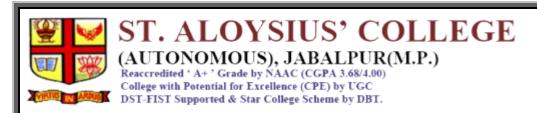


Role of Women in Economic Development in India

Neha Namdev

NDIA. Role of Women is dependent on different variables NDIA. Role of Women is dependent on different variables are ducation status, social status, and geographical status. It is dependent of the women in the economic development of the matry is known as the women empowerment. Women repowerment defined as increasing the ability of women to propose to the constituents of progress in particular health, education, aming opportunities, rights and political participation.

in the 1980s, the Gender and Development (GAD) appeach arose out of the analysis of (WID) Women in Independent. Gender and Development recognized that pader roles and relations are crucial to improving women's into with the term 'Gender' suggesting that a focus on both women and men is needed. The Gender and Development appears addresses that of not enough to add women and ph into existing processes of development, but there is also a need of their exclusion and imbalances of power at the base of that exclusion. In the 1990s witnessed the 'rise of appears to development Rights increase the recognition that

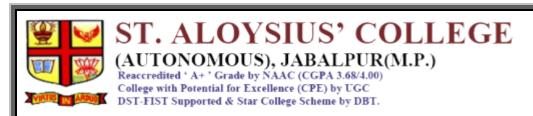


Susive Growth with Inclusive Growth within the G20 in India

Dr. Anthonima Robin & Ms. Krati Jain

Introduction SUSTAINABLE DEVELOPMENT is about meeting the sustantial needs of all people and extending the opportunity meet everyone's aspirations for a higher quality of life. Living sandards that exceed the bare minimum are only sustainable when consumption standards everywhere reflect long-term sustainability. Perceived needs are social and cultural; and asstainable development is about promoting values that promote consumption standards within the ecological possible that all people can reasonably aspire to. Meeting fundamental needs depends partly on realizing full growth potential; and it is clear that sustainable development necessitates economic growth in areas where those needs are being met. In other places, it can co-exist with economic growth as long as the content of that growth reflects broad sustainability principles and nonimportation of others. But advance by itself is not enough.

High levels of advantageous action and boundless abjection can coexist, and can endanger the environment. Hence acceptable development requires that societies accommodated atimal needs both by accretion advantageous abeyant and

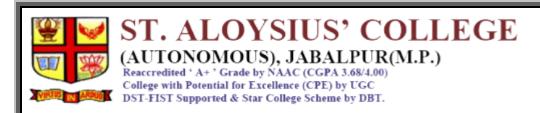


"G20: A Road to Women Prosperity"

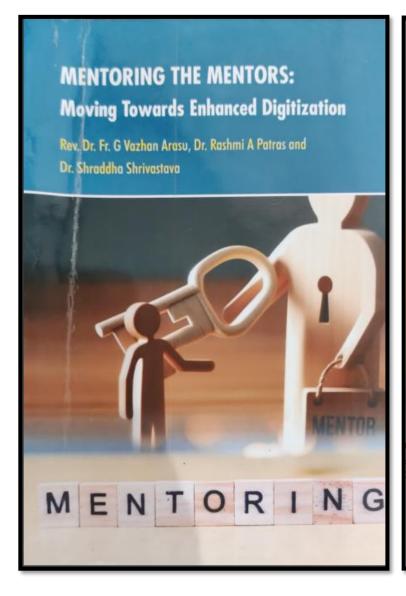
Mrs. Shruchi Shanker Saxena Mrs Shruti Shankar Srivastava

Introduction

"THERE IS no chance for the welfare of the world unless the condition of women is improved. It is not possible for a bird to fly on one wing. "The wisdom of Swami Vivekanand, the great Indian sage and humanist, resonates strongly to this day as there is universal recognition that women and girls represent half of a country's and the world's population. No country has yet found the Parasmani or the Holy Grail of gender equality. The progress has been slow and uneven with frequent setbacks and it is still a politically challenged and culturally contested project. Ever since 2008, G20 summits have been held annually and within G20 there are several working groups that include Women 20 (W20), launched during the Turkish Presidency in 2015. W20 is established with the aim to give further impetus to women economic empowerment. India is committed to its vision "to create a world of equality & equity where woman lives with dignity". It is dedicated to its mission of "removing all barriers to women-led development and ensuring an enabling environment and ecosystem for women to thrive, transcend and transform their lives as well as others."



Chapters in Book Mentoring the Mentors: Moving Towards Enhanced Digitization with ISBN No 978-93-92268-69-4







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Mentoring The Menton: Moving Towards Enhanced Digitization - 13

Study of Mentoring in Digital Era

Ms. Ambiya Khanam Assistant Professor St. Aloysius College (Autonomous) Jabalpur

Abstract:

The following paper discusses the important duties that a teacher must play in the modern digital age. Since information is virtually limitless today, teachers' roles have grown more complex in the twenty-first century. Teachers are required to become proficient in technology and accountable for both their own teaching and their students' learning. Today's instructors must be active collaborators, open-minded and critical independent professionals, and facilitators, mediator who assist students in making decisions, regarding the value and authenticity of new sources of information. Mentor is the person who help students grasp what they need to know, and providers of understanding-stacking materials, necessary resources. This research focused on the Covid-19 epidemic to examine how the pandemic affected mentorship practices in the digital era. With full awareness of the current situation, including all issues and uncertainties, the research data were obtained from recent investigations and descriptive studies. The function of instructors in this digital age has changed from being merely a preacher to being a manager of students, social and emotional behaviours and a mentor for their learning. Greater access to mentors across time zones and geographic constraints is now possible thanks to technology."



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> Impact of Digital Technology on Student Mentoring: Opportunities and Challeng

Dr. Yogesh Ashar Assistant Professor, St. Aloysius College Autonomous, Jah

Abstract:

This research paper explores the impact of digital technon student mentoring in the contemporary educational lands. With the rapid advancement of digital tools and plate traditional mentoring approaches have undergone signiturns formations. This paper examines the opportunities challenges presented by digital technology in fostering efficient mentoring relationships. It investigates the benefits and draw of digital mentoring, analyzes the changing dynamics be mentors and students, and provides insights into strateg optimize the use of technology in student mentoring. The refindings emphasize the importance of understanding implications of digital technology in shaping the future of men programs.

Introduction

Student mentoring has long been recognized valuable practice in education, providing guidance, sul and personal development opportunities to studie and personal development opportunities to studie and involved face-to interactions and close relationships between mentor mentees. However, the rapid advancement of technology has brought about significant changes in value.



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Mentoring The Mentors: Moving Towards Enhanced Distrustion - 43

Fostering Growth Mindset in Students and Mentors of Digital Age - A Review

Dr. Chitranshi Verma

Assistant Professor, St. Aloysius College (Autonomous) Jabalpur

Abstract:

In this era of artificial intelligence, our technology friendly generation especially the one those who are in the teenage is undergoing huge transformation in all spheres of life- be it mental, physical, social, emotional or psychological. This is the phase of one's life where if proper counseling and guidance is given to the child, it can create long lasting impression on them and mould their lives. Our society has changed tremendously due to the change in social dynamics, culture and sub -culture, relationships, increased exposure to social media. Mentors can support students to develop: social and emotional skills and capabilities that promote life-long mental health and wellbeing, problem solving skills and manage the normal stressors of life, healthy relationships and the ability to work cooperatively with others. This paper aims to study that how the social and mental set up of students has changed in the present era and how can mentors contribute towards making their lives more meaningful.

Key words: psychology, social dynamics, growth mindset.

Introduction

One of the biggest challenges that mentors or educators encounter, which is the most formidable and least obvious, that is the student mind set. Teaching students to



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Mentoring The Mentons: Moving Towards Enhanced Digitization - 53

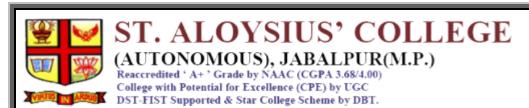
Challenges and Strategies of Successful Student Mentoring in Higher Education: Present Scenario

Dr. Manju Maria Solomon Head, Department of History, St. Aloysius Auto. College, Jabalpur

Abstract:

"The mind is not a vessel to be filled, but a fire to be kindled."-Plutarch

In a new globally competitive world, today's students will need creativity, problem-solving abilities, passion for learning, a dedicated work ethic and lifelong learning opportunities. Students can develop these abilities through instruction based on Best Practices in teaching-learning strategies particularly by mentoring them in the right direction. Mentoring - The word has long been used to describe an interaction between someone who is experienced at what they do, and someone who wants to learn from that experience. It is believed to be a great way to achieve personal and professional growth for both the mentor and the mentee. These conversations may range from mentors being allocated to mentees to respond to queries and give moral support, to structures that involve more in-depth "counselling" of mentees to solve complex, challenging problems. The National Education Policy (NEP) released in 2020 proposed to revamp all aspects of the education structure in alignment with the fourth sustainable development goal (SDG4) of quality education. It proposed mentoring as a solution at various levels to improve the quality of outcomes. Student mentoring in higher education faces



Challenges of Student Mentoring in Today's Era

Ms. Seetika Patel

ssistant Professor, St. Aloysius College (Autonomous), Jabalpur

bstract:

Mentoring students in today's era presents a unique set of hallenges due to the evolving nature of education, technology, and poietal expectations. Student mentoring in the contemporary eraces multifaceted challenges that necessitate a comprehensive inderstanding and innovative strategies for successful mentorship. This research paper delves into the intricate landscape of mentoring a today's educational environment, exploring the complexities used by technological advancements, evolving learning dynamics, and shifting societal norms. This research paper offers an in-depth xamination of these challenges, providing insights into their implications and potential solutions. Through the analysis of tudies, it contributes to the development of strategies that facilitate affective student mentoring in today's complex educational andscape of today's era.

Introduction

In order for students to succeed in academic settings and beyond, mentoring has long been a crucial component of education. However, changes in demographics, societal standards, and technological advancements all have an ongoing impact on the educational landscape. Student mentoring faces a particular set of issues in the modern period



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Mentoring The Mentors: Moving Towards Enhanced Digitization . 40

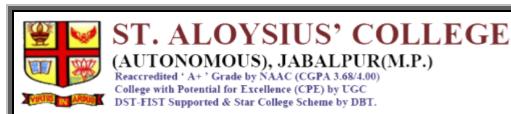
Understanding Students Changing Psychology and Ways to Mentor Them

Mrs. Reshu Nayak

Assistant Professor, St. Aloysius College (Autonomous) Jabalpur

Abstract:

Higher education institutions are intricate social emironments where various relationships play a crucial role. especially the teacher-student bond. Understanding the complex minds of students can be challenging for teachers, as student behavior is influenced by a myriad of factors, including environmental, societal, and hereditary aspects. Positive student behavior encourages teachers to support students through their academic journey. Desirable student conduct includes sincerity, attentiveness, timely completion of tasks, soft skills, gratitude, ethical behavior, and a positive outlook. This study, based on observations and indirect interactions with 150 students from disadvantaged backgrounds, delves into the emotional and behavioral issues prevalent among college students and identifies the underlying causes. The study attributes students' inappropriate behavior to factors such as underdeveloped morals, short temper, excessive technology use, reinforcement patterns, excessive freedom, increased purchasing power, peer influence, comfortable lifestyles, convenience, and access to extra amenities. The study also highlights the importance of teachers, parents, and friends in shaping students' Positive character and fostering their key competencies. Personalized leacher efforts, individualized approaches, attention, control, discipline, empathy, involvement, interactions, and counselling can



Mentoring The Mentors: Moving Towards Enhanced Digitization

Impact of Insecurity on Teenagers: An Analytical Study

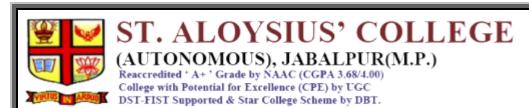
Dr. Komal Rawat Assistant Professor, St. Aloysius' College, Jabalpur

bstract:

The study of insecurity among teenagers is based on the nsecurities related to appearance, skills, and friendship insecurities aced by teenagers. The core purpose of the study was to find out the mpact of insecurity among teenagers due to a lack of confidence in elation to skills, friendship, and appearance. Most teenagers can make their own decisions but still, they hesitate when answering the mestions in class, and doubts their own capability which shows that hey are not confident in their answer because of the possibility of ailure. They try hard to improve themselves so that they can prove to he world their capabilities in this competitive era due to which they work tirelessly and have a huge impact on their mental and physical realth. Thus, this study focuses on the study of the impact of nsecurity among teenagers and is prepared with the view to include all the details related to insecurities among teenagers, examine their reas of insecurities, and also find the problems associated with them n relation to the insecurities faced by them. The design for the study vas a survey that involved 12, 13 to 19 years students.

ntroduction

Teenage-An age of dreams, An age of recklessness. A eenager, sometimes known as a teen, is a person aged 13 to 19. eenagers are so named because their age number ends in



Mentoring in the Age of Social Media

Dr. Siby Samuel

Head, Department of Computer Science, St. Aloysius College

Autonomous, Jabalpur

Abstract:

This chapter delves into the intricacies of mentoring in the contemporary era of ubiquitous social media usage. The advent and proliferation of social media have reshaped the traditional structures of mentoring, presenting novel opportunities as well as unprecedented challenges. Utilizing a systematic review of literature and an empirical approach, this study explores how social media has fostered increased accessibility, enabling mentors and mentees to communicate and collaborate across geographical and temporal boundaries. Additionally, it investigates the potential of social media as a platform for networking and resource sharing, facilitating the exchange of knowledge and the development of professional connections. However, the usage of social media in the mentoring process also poses significant challenges, including the threat to privacy and the risk of misinformation. The study uncovers the need for heightened digital literacy, critical thinking skills, and ethical guidelines to navigate these challenges effectively. Ultimately, this research underscores the necessity for mentors to adapt to the changing digital landscape, leveraging the potential of social media while also fostering a culture of responsibility, respect, and privacy. This scientific exploration into social media's role in mentoring provides valuable insights for improving current practices and offers recommendations for future research.



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Unlocking Potential: The Transformative Power of Mentoring in Personal and Professional Growth"

Dr. (Major) Sonal Rai
Incharge, Department of Commerce, St. Aloysius' College
(Autonomous), Jabalpur
Mr. Jatin Anand
Assistant Professor, St. Aloysius' College (Autonomous), Jabalpur

Abstract:

Mentoring has emerged as a crucial aspect of personal and professional development, offering individuals valuable guidance support, and opportunities for growth. This research article examines the importance of mentoring in various domains. including education, career advancement, and skill enhancement. It reviews existing literature and case studies, highlighting the positive impact of mentoring relationships on mentees' self-confidence, motivation, and overall success. The article also discusses the benefits of mentors, emphasizing leadership and communication skills. The article concludes with practical recommendations for effective mentoring programs, emphasizing the need for continuous research to understand the relationship between support forms and mentoring outcomes. Evaluators should assess both the overall program's effectiveness and the effects of specific program activities. The study suggests that mentors and students' experiences of mentoring may not always align. To improve education, it is crucial to gather information from both mentors and students, including relationship quality measures. Despite the need for effective faculty development, few mentoring programs exist. This literature review



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> Challenges of Student Mentoring in Today's Era

Mentoring The Mentors: Moving Towards Enhanced Common

Dr. Rupali Ahluwalia

HOD Commerce Department, St. Aloysius College Autonomous, Jabalpur, M.P.

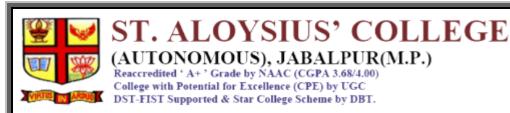
Dr. Tarvinder Kaur

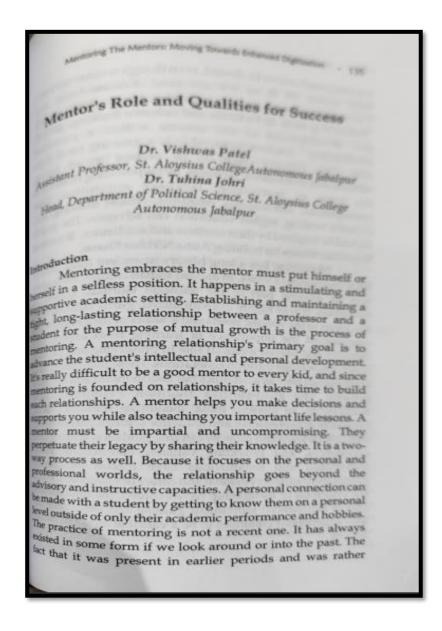
Deputy Controller of Examination, St. Aloysius College Autonomous, Jabalpur

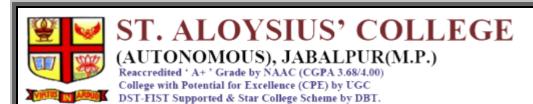
Joanna Philip

post Graduate student, M.Com, St. Aloysius College Autonomous, Jabalpur, M.P.

A mentorship programme helps the mentor gain confidence. It gives him or her the confidence and power to stand tall, and it improves both his or her career and personal life. Many abilities are developed at this critical stage of mentorship. This study described the traditional mentoring strategy and its development in the digital world. It focuses on the rising need for digital mentoring, often known as e-mentoring, which shows promise in overcoming the geological restrictions provided by traditional mentoring interactions. Mentoring in today's era with the effective and efficient use of technology is still a distant ideal, but the issues presented in this article provide answers that can make these mentoring programs successful. It is therefore a result of the changing dynamics of the current era, choosing the most appropriate mentoring style is more important than ever. the mentorship program is a rocky ride in a car fitted with shock absorbers. Mentor and mentee endure challenges, yet together they grow and learn to become better people. This program helps mentors and mentees achieve personal and







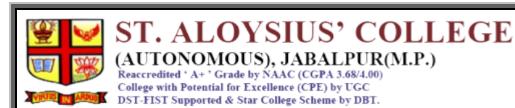
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Psychology of today's students and role of mentorship in enhancing their academic performance: A study with respect to UC students of Jabalpur

Dr. Rishu Jain
Assistant Professor, St. Aloysius College Autonomous, Jabah

Abstract:

The purpose of writing this article is to determine when students' changed psychology have any relationship to mentorship they received from their mentors and as a function of increased number of faculty members conducting mentors program and the inclusion of undergraduate students in fund mentors' research teams, using feedback from current students. I participants were 227 undergraduate, BBA's, Bcom's and students altogether. Students were asked to complete a questioning about whether they had a mentor, the characteristics of their mentor and their perceptions of their mentors. The findings indicated 33% of B.Com and 47% of BBA's had mentors & 20% of B Students of BBA were significantly more likely to choose mention being inspiring instructors, and B.Com students were significant more likely to have mentors because of academic requirements nurturing of management skills. The most important characters of both good and bad mentors was personality. Students at all he perceived their mentors as very interested in their futures. Men satisfaction was high among students at all levels. The finding encouraging, and they provided evidence that student's psycholic

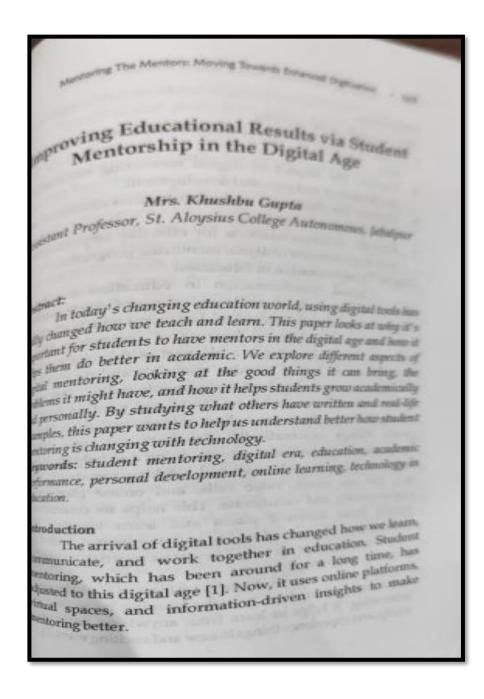


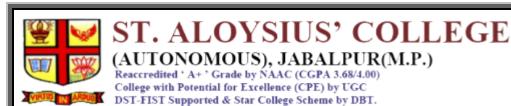
154 . Mentoring The Menton: Moving Towards Enhanced Digitization Enhancing digital mentorship through National Mission for Mentoring Programm in India Ms. Bhawna Tekam Assistant Professor, St. Aloysius College Autonomous, Jahnipa In an era marked by rapid technological advancements, is Abstract: need for effective mentorship has become paramount to for professional growth and skill development. This research pay delves into the transformative potential of the National Missions Mentoring Programme (NMMP) in India, specifically focusing its digital augmentation to enrich mentorship experiences. The investigates the intersection of mentorship, technology, and unique challenges within the Indian context. The NMMP, initial by the Government of India, represents a pioneering effort institutionalize mentorship across various sectors, aiming to bul knowledge gaps and nurture talent. This research assesses the impu of integrating digital tools and platforms within the NMM framework, exploring how technology can amplify the reach efficacy of mentorship initiatives. The first section of the puri provides a comprehensive overview of the NMMP, elucidating objectives, structure, and the broader socio-economic landsout seeks to address. Emphasis is placed on the diverse sectors covered the program, ranging from education to entrepreneurship, will particular focus on how mentorship can catalyze innovation and development. The second section delves into the role of dig

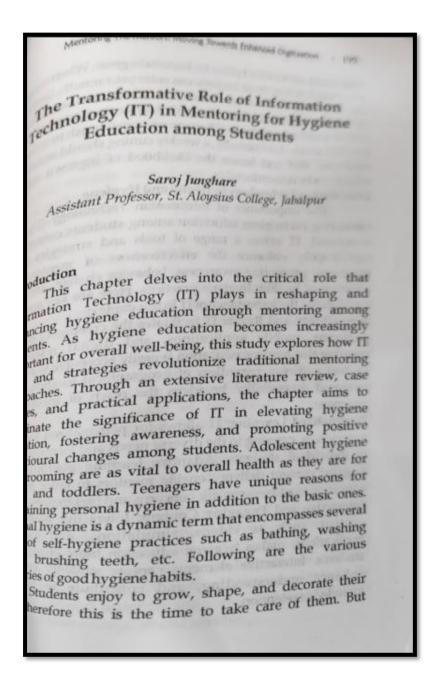


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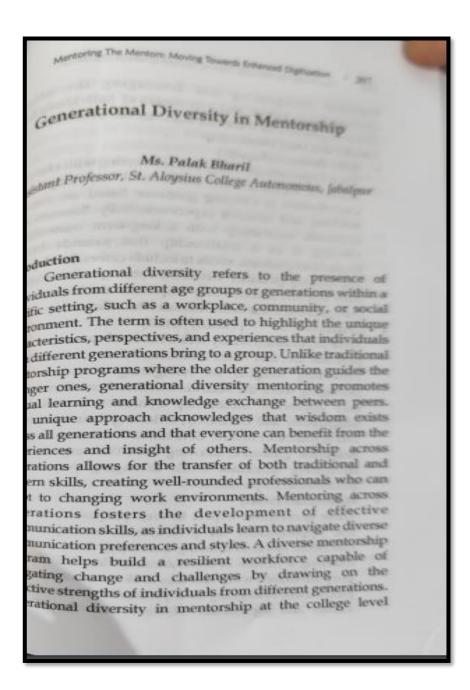


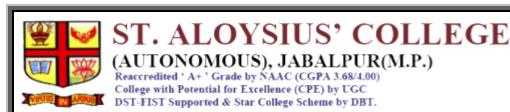




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218 . Mentoring The Mentors: Moving Towards Enhanced Digitization

Study of AI in the Field of Mentoring

Mr. Swapnil Justin

Assistant Professor, St. Aloysius College (Auto.), [BP, MP

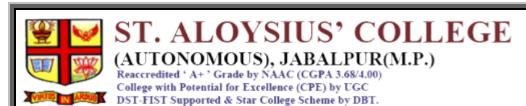
Introduction

A brief overview of mentoring in the digital age involves examining how traditional mentoring practices have evolved and adapted to the advancements in digital technology. In the context of education and professional development, mentoring has transitioned from face-to-face interactions to a more technologically mediated form, often referred to as e-mentoring. This shift is influenced by the widespread availability of digital platforms, online communication tools, and virtual collaboration spaces.

In the digital age, mentoring is not bound by geographical constraints, allowing mentors and mentees to connect remotely. Virtual mentorship leverages various technologies, including video conferencing, email, and collaborative online platforms, to facilitate meaningful interactions. The digital landscape has also given rise to innovative mentoring tools and applications that enhance the mentorship experience by providing new avenues for communication, resource sharing, and collaboration.

Emergence and impact of artificial intelligence (Al) in education

The emergence of artificial intelligence (Al) in education marks a transformative era, reshaping traditional



230 . Mentoring The Mentors: Moving Towards Enhanced Digitization

Mentoring in Digital Era: A Technological Perspective

Mrs. Sukhvinder Kaur Walia Assistant Professor, St. Aloysius College, Jabalpur

Abstract:

In the current digital era, mentoring has changed to include utilizing technology to get beyond accessibility and distance constraints. Technology helps mentees and mentors to communicate virtually and work together in real time. The main objective of Mentoring is to give coaching for the overall development of an individuals. This article examines the benefits and limitations of technology relates to mentoring.

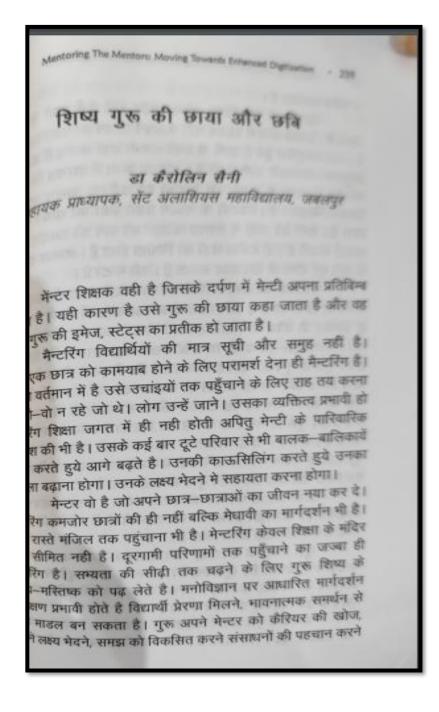
Introduction

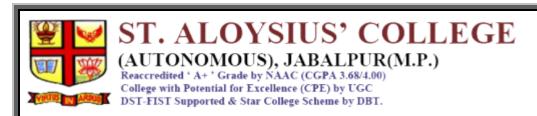
In recent years, there has been a noticeable surge in coaching and mentoring, which suggests that there is growing interest in various elements of growth. This progress affects every area of the economy and society, including enterprise, health care, and education. Actions to improve efficiency through development were the key focus, primarily for the labor sector. The ultimate objective of mentoring and coaching is the multifaceted development of individuals working in a variety of professions, and these activities have become essential components of school life and vocational training. Motivation, professional development, education, and training are all intertwined with individual requirements with human resources in general, and with the objectives that



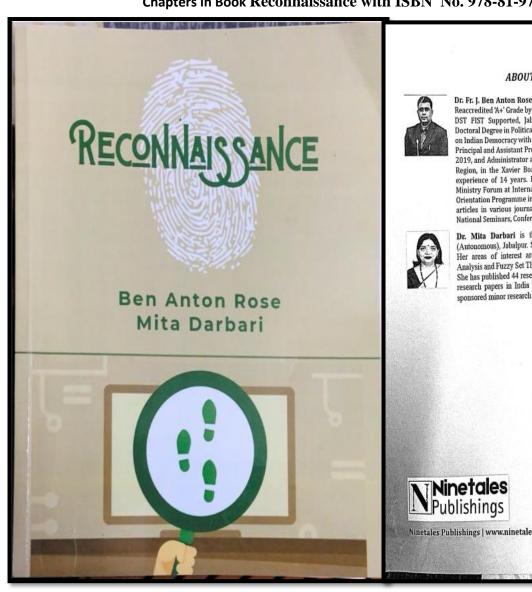
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Dr. Fr. J. Ben Anton Rose is the Principal of St. Aloysius' College (Autonomous) Reaccredited 'A+' Grade by NAAC and College with Potential for Excellence by UGC; Rost St. Supported, Jabalpur (M.P.). His academic achievements include a Doctoral Degree in Political Science on 'Mass Movements in India and their impact on Indian Democracy with a special reference to Jai Prakash Narayan''. He was Vice-Principal and Assistant Professor at St. Aloysius College, Jabalpur M.P. from 2012 - Principal and Assistant Professor at St. Aloysius College, Jabalpur M.P. from 2012 - 2019, and Administrator at SAIT from 2019-23. He was Vice-President, Northern Region, in the Xavier Board for Higher Education in India. He has a teaching experience of 14 years. He has been a resource person in the Asian Campus Ministry Forum at International Christian University, Japan, and in the Teachers' Orientation Programme in many schools. He has published 7 research papers and Vartical Seminars, Conferences, and Workshops.

Dr. Mita Darbari is the Controller of Examination, St. Aloysius College (Autonomous), Jabalpur. She has 38 years of teaching experience in Mathematics. Her areas of interest are Pythagorean Number Theory, Topology, Functional Analysis and Fuzzy Set Theory. She is a registered Research Guide in Mathematics. She has published 44 research papers, 0.2 books, 0.2 edited books and presented 55 research papers in India and abroad. She has successfully completed two UGC sponsored minor research projects.







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Reconnaissance

SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES

Nisha Pandey, Anurag Minj and Amrita Dwivedi

ABSTRACT

Zinc oxide (ZnO) nanoparticles were synthesized by the sol-gel method prepared by mixing a NaOH solution and Zinc acetate dehydrate and adding ethanol dropwise. The nanoparticle was characterized by X-ray diffraction. The average crystallite sizes of the nanopartice was characterized by Army and the samples were calculated from the full width at half maximum of XRD peaks by using Debye-Scherrer's formula and were found to be in the nanorange. The average particle size was about 4.66 nm. XRD patterns showed that ZnO nanoparticles have hexagonal unit cell structure.

Keywords: Nanoparticles, sol gel method, ZnO, XRD analysis

Nanotechnology is now considered to be a proven state-of-the-art technology with numerous branches embedded in industrial fields such as chemical, pharmaceutical, mechanical, and victuals processing industries. Nanotechnology additionally plays a fascinating role in the areas of computing, power generation, optics, drug distribution, and environmental sciences. In the advent of nanotechnology, many nanoscale contrivances have been developed utilizing numerous methods, such as physical, chemical, and green approaches. Nanotechnology has withal incremented the human standard of living by addressing many everyday life issues, such as the contribution to energy sufficiency; climate change; comeliness, textile, and health industries including the remedy of pernicious diseases such as cancers and Alzheimer's.22

Due to their multiple applications in various technical fields, comprehensive investigation into metal oxide nanoparticles has been concentrated in the past decade. Among these, with multifaceted benefits, ZnO-NPs are exciting inorganic materials. ZnO nanoparticles (NPs) magnetize an abundance of attention for fundamental studies and potential applications in different research areas: from physical chemistry to biomedical sciences 5 ZnO NPs represent a multifarious functional material, and their superior properties find current and potential applications in catalysts, transducers, semiconductors, microelectronics, textile, cosmetics, dihydrogen monoxide treatment 6, etc. Additionally, ZnO NPs exhibit antimicrobial activity and anti-inflammation properties 7, providing more efficient, less sumptuous, and less toxic 8 alternatives to antibiotics and bactericides.



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Reconnaissance

SYNTHESIS AND CHARACTERIZATION OF ZNO DOPED PVA COMPOSITES

Poonam Pendke, Vineet Jhariya and C S Sujit

Pure and ZnO doped PVA composite were prepared by using solution cast method The prepared composite was characterized by Fourier-transform infrared spectroscopy (FTIR), Infrared spectra of these materials vary according to their composition and may be able to show the occurrence of complexation and interaction between various constituents.

Keywords: ZnO, Composite, PVA, FTIR

INTRODUCTION

A polymer may be defined as a large molecule made up by repeating structural units joined by covalent bonds. The word polymer has been derived from the Greek word (polymer many). = many, mers = part). It is formed by the repeat unit of the monomer. This repetition can be linear, branched or interconnected to form 3D (three dimensional) geometry [1-4].

A polymer is a substance or material consisting of very large molecules, or macromolecules, composed of many repeating subunits. Due to their broad spectrum of properties both synthetic and natural polymers play essential and ubiquitous roles in everyday life.

MATERIAL

Polyvinyl Alcohol (PVA)

Polyvinyl alcohol (PVA) is whitish, odorless, non-toxic, biocompatible, thermostable, semi-crystalline or linear synthetic polymer [5]. Polyvinyl alcohol (PVA) was first prepared by hydrolyzing polyvinyl acetate in ethanol with potassium hydroxide by Hermann and Haehnel in 1924. It is produced commercially from polyvinyl acetate, usually by a continuous process. The acetate groups are hydrolyzed by ester interchange with methanol in the presence of anhydrous sodium methylate or aqueous sodium hydroxide.

Zinc Oxide (ZnO)

The zinc oxide occurs in a very rich variety of structures and offers a wide range of properties [6]. Zinc oxide is an inorganic compound with the formula ZnO. It is a white properties [6]. Zine oxide is an additive in numerous materials and products including powder willion is a commercial and products including cosmetics, food Supplements, rubbers, plastics, ceramics, glass, cement, lubricants,



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13

PRIMITIVE PYTHAGOREAN TRIANGLES IN CONNECTION WITH WIEFERICH PRIMES

Mita Darbari and Prashans Darbari

ARSTRACT

Three exceptionally rare primitive Pythagorean Triangles are found in connection with Wieferich primes. Some properties of these special Pythagorean Triangles are observed. While studying these triangles, a pattern in relation with Wieferich primes and primitive Pythagorean Triangles was perceived which is stated in the form of a conjecture.

Keywords- Wieferich Prime Number, Primitive Pythagorean Triangle, Euclidean formula, Opposite Parity, Mathematica.

1. INTRODUCTION

Man's love for numbers is perhaps older than number theory; perhaps it assisted in its birth; it has ever been its faithful companion, not untainted by superstitions at times [1].

In number theory, prime numbers have fascinated the mathematicians for ages and so have Pythagorean Triangles. The expedition of discovery of prime numbers is still going on. There are some rare prime numbers whose properties are unknown and many unsolved problems in number theory are related to prime numbers. Wieferich prime numbers are one of these. Pythagorean Triangles also intrigue young and old alike who love numbers and they keep unearthing special Pythagorean Triangles. Darbari and Darbari [2] have found out special Pythagorean Triangles with their sum of two legs as undecic numbers while Darbari et al. [3] have found two unique Pythagorean Triangles with their perimeter as eleventh power of a positive integer. They also gave a novel method to apply these outstanding triangles in cryptography. Darbari and Darbari [4] uncovered primitive Pythagorean Triangles in connection with Harshad numbers. Recently, Darbari and Darbari [5] have found exceptional Pythagorean Triangles with sum of their two legs as dodecic. An effort has been made to find unusual Pythagorean Triangles with one leg or hypotenuse as Wieferich Prime.

2. DEFINITIONS

2.1 Pythagorean Equation: A quadratic equation

$$a^2 + b^2 = c^2$$

is called Pythagorean equation [6] after the famous mathematician and philosopher Pythagoras. It is one of the most important equations of the world in all times [7].



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Reconnaissance

FIXED POINT THEOREM IN POLISH SPACES WITH W-DISTANCE

Dr. Archana Pasari

ABSTRACT

In this paper we have proved some fixed point results in generating Polish space with implicit relations with W - distance in Polish Space.

Keyword: Fixed point, Polish spaces, JSR - mapping, Implicit relation.

1. INTRODUCTION

An importance area in probabilistic functional analysis is Random fixed point theorems for contraction mappings in polish spaces. Their study was initiated by the Prague school of probabilistic with work of Spacek [16] and Hans [5], [6]. The survey article by Bharucha-Reid [4] in 1976 attracted attention of several mathematicians and gave wings to this theory. Itoh [8] extended Spacek's and Hans's theorem to multi-valued contraction mappings and gave their applications to random differential equations in Banach Spaces. Random fixed point theorems are stochastic generalization of classical fixed point theorem Itoh [8] extended several well known fixed point theorems, i,e. for contraction and non expansive mappings to the random case. Thereafter various stochastic aspects of Schauder's fixed point theorem have been studied by Sehgal and Singh [15], Papageorgiou [13], Lin [11] and many authors. In a separable metric space, random fixed point theorems for contractive mappings were proved by Spacek [16], Hans [5],[6], Afterwards Beg and Shahzad [2],[3], studied the structure of common random fixed points and random coincidence points of a pair of compatible random operators and proved the random fixed point theorems for contraction random operators in Polish Spaces. Badshah and Gagrani proved existence of common Random fixed points oftwo Random multi-valued operators on Polish spaces also studied random version of fixed point theorems for increasing decreasing, and mixed monotone random mappings in ordered polish spaces. They also introduced order continuous random mapping and

A bulk of literature exist with commuting pairs and its weaker forms such as weakly commuting, compatible, compatible of type (A), D-compatible, semi compatible, etc. We prove fixed point theorem in polish space with w-distance for introduced in [12] and [19] which is more improved than known mappings.

In 1996, Kada et al. [21] introduced the concept of w - distance on a metrice space (x, d). By using such a w - distanceIn 1990, Nature of all [21] introduced the concept of w - distance on a metric special (X, d). By using such a w - distance concept, they improved some important theorems such as Caristi's fixed point theorem, Ekeland's variational principle and the non-convex



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MATCHLESS CONTRIBUTION TO MATHEMATICS BYBRAHMAGUPTA

Dr. Mandira Kar and Ms. Pooja Hooda

INTRODUCTION

Whether be it the archeological remains of the Harappan civilization, Vedas and differently shaped fire altars of the Vedic age or the ancient temple architecture, they distinctivelyauthentify the glorious heritage and culture of India. They also stand for the mathematicalgenesis ofIndia.

The beginnings of mathematics in India can be traced to constructional geometry the basis andinspiration for the whole of Indian mathematics whose chronology spans from the Pre-Aryantimes, Vedic period to the Classical period. All mathematical works were orally transmitted untilthe5acentury. Thereafter theyweretransmittedboth orally and inmanuscript form.

Flipping through the pages of Indian history we come across many ancient mathematicians whose results are unparalleled eventoday. Brahmagupta was one such mathematician.

BIOGRAPHY

Brahmagupta (598-670 BC) was born in Bhillamala (presently in Rajasthan) during the reign of the Chavdadynasty. Thosetimesit wasa centre of learning for mathematics and astronomy. Hisschooling is from Brahmapaksha one of the four major schools of Indian astronomy during that period.

In the year 628 BC, at the age of 30, he composed the 'Brahmasphutasiddhanta' Correctly-Established Doctrineof Brahma. Itisin Sanskritverse form and without mathematical notations. The book consists of 24 chapters with 1008 verses A good deal of it is astronomy, but it also contains key chapters on mathematics, including algebra, geometry and trigonometry. It is theearliestknown textto treatzeroassa operationalnumberrather thanaplaceholderdigit.

At this time, he was known as Bhillamalacharya- the teacher from Bhillamala. Later Brahmagupta moved to Ujjaini (presently Ujjain) a centre of learning for Mathematics and Astronomy and there at the age of 67 he composed 'Khandakadyaka' - Edible Bit (665 BC) apractical manual of Indian astronomy. It contains eight chapters covering topics such as thelongitudesof planets, diurnal rotation, length of asolar year, jungton allocations rice and setting time of the state solareclipses, rise and setting time of planets, moon's crescent and planetary alignments. Significant to note that there were no astronomical instruments then, comprehending and



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Reconnaissance

FEATURE CREATION FOR OPTIMIZING THE COMPILATION USING MACHINE LEARNING

Dr. Siby Samuel and Mr. Sheril Thomas

Recent research has demonstrated that machine learning can automate compiler optimizations and even exceed them in some circumstances. The fact that machine learning methods frequently rely on programme summaries or features is essential to such an approach. The accuracy of the resulting machine-learned algorithm depends heavily on the quality of these features; no machine-learning technique will function well with badly selected features. However, there are theoretically an infinite number of possible features to pick from because of the size and complexity of programmes. This research creates a novel approach to automatically identify the features that enhance the machine-learning and characterize the feature space.

Keywords: machine learning, features, feature space, compiler optimization, feature

1. INTRODUCTION

A compiler converts a program's source code from a programming language into executable code and then optimizes this translation, among other tasks [1]. Our aim is to optimize, which is another word meaning maximize performance. Based on prior data, machine learning is used to forecast an outcome for a sample. It can only learn from the data we give it, and prediction using historical data is tied to optimization. There are various types of these improvements, and it is up to the user to choose the performance factors he wants to focus on for his software. Specifically, lowering the size of the code, optimizing the code area, creating programme features automatically, and improving memory access patterns [2].

There has been a lot of research interest in automating compiler optimization using machine learning. Because of the intricacy of the optimization and its interactions with the architecture and the rest of the compiler, compiler developers previously had to manually tweak their heuristics and frequently encountered challenges [3]. Tuning heuristics is a difficult undertaking because to the enormous number of variables to consider. Every time the architecture changes, all of this work could need to be done again. The amount of time and effort needed to develop a suitable optimizing compiler is turning into a severe problem given how quickly architecture is advancing. Machine learnt heuristics are appealing because, in addition to automatically adapting to a new environment, they frequently beat their human-created equivalents in actual use [4].



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GARBAGE HOTSPOTS IDENTIFICATION USING PATTERN RECOGNITION FOR URBAN AND RURAL areas

Mrs. Sukhvinder Kaur Walia, Mrs. Shradha Soni, Miss Pooja Upadhyay and Miss Khushi Tamrakar

ABSTRACT

Today the lifestyle of people in India is resulting in the production of excessive amounts of solid waste. Various initiatives have been taken by the government for cleanliness of India. In accordance with this, proper waste collection is the initial step and crucial also. Door to door waste collection is the responsibility of the municipal government. But municipalities execute collection of waste daily with the help of the insufficient staff. In the congested and narrow streets, sometimes it is not known where and in what quantity the garbage is accumulated and in the end it remains unclean. This happens even for open areas also. This paper proposes an innovative method to identify the garbage hotspots with their locations, which will help the municipal authorities to identify the areas with garbage leftovers, so that proper assignment could be done for cleaning and no area will remain unknown and untouched. This will also help in the post cleaning verification.

1. INTRODUCTION

A system to automatically estimate the spot where a photograph was taken based solely on matching the photograph to satellite imagery would have many exciting applications For example, it could serve as a tool to locate terrorists or criminals from supposedly anonymous photographs or videos, or it could allow for the easy markup of personal photographs for high-granularity location-based organization without the use of GPS.

In our formulation of the problem, we allow for human markup on the ground-based photograph, since a photograph that we are interested in locating would likely warrant a few moments of a human's time. However, we require all satellite image processing and all comparisons between the ground-based photograph and the satellite imagery to be performed automatically, since the assumption is that the database of satellite images to compare against is large.

While low-level features such as SIFT have been successful at matching images up to small transformations (as in the PhotoSynth system [7]), for our problem the perspective change is so great that we would not expect these low-level features to be preserved. Indeed, experiments have shown SIFT is robust to some small levels of rotation, but certainly not to the transformation from satellite to ground. Instead, we use the geometry of large, stationary objects, since we can perform the matching using well-studied



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TOOL WISE ANALYSIS OF COVID-19 DATASET FOR MORE ACCURATE PREDICTION USING DIFFERENT CLASSIFIERS

Khushbu Gupta and Richa Vinodia

ABSILIAN Data classification is an important task to label the class of data. Classification methods Data classification methods in data mining which are able to process large datasets. The we we made it a new pandemic. Predicting the prevalence high prevalence and incidence of this disease throughout the world is crucial to helping health professionals make key decisions about the disease. So, this type of comparative professional trade is simple to predict the data. This paper presents the tools wise comparison of different classification algorithms by using different tools. The classification of wyeren classification algorithms by using agreem tools. The classification of algorithms considered in this study are KNN classifier, decision tree classifier, support vector machine classifier (SVM) and random forest classifier. Python and weka tool are wed here to compare the performance. The Covid-19 dataset is chosen for the purpose of comparison, and comparative studies of various classifiers are provided on the same dataset. Results are given as accuracy of different classifiers by using different tools. The aim of this paper is to study and compare the performance of the classifier using different tools and to find which classifier and tool performs the best. The paper presents a comparative study of classifiers and the accuracy obtained by the classifier using different tools, chooses the best out of it.

Keywords - Data mining, Classification, Covid-19 dataset, Accuracy.

Data mining is one of the most useful technique that help entrepreneurs, researchers, and individual to extract valuable information from huge sets of data. Data mining is also called Knowledge discovery in Database (KDD) [2]. Classification methods are the most useful methods in data mining which is able to process large datasets. Classification method consists of training dataset which defines testing data into different classes. It is ² recognized method which is frequently used for making decisions in different tituations. The classification process is supervised learning-based technique which is used for classifying different methods. Classification algorithm comprises of training dataset and classification rules. For classifying the testing data, data is applied to the different classification rules and then those rules determines to which class it belongs.

Classification methods are used for medical diagnosis. Classification algorithms were applied in medical datasets and it is well suited for analyzing medical data [1]. Now days are many classifiers used and every classifier performs best and produces a different



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ANEW LIGHTWEIGHT CRYPTOGRAPHIC ALGORITHM FOR ENHANCING

Mr. Amit Yadav, Mr. Swapnil Justin and Mr. Sarvagya Rai

BSIROL anew lightweight cryptographic algorithm has been discussed. It called a lightweight Cryptographic Algorithm (NLCA) which can be used for enhancing data security in cloud computing environment, voice encryption, lot services. This paper bouses on the several Cryptographic Algorithm which are used in different techniques polices as loT, cloud computing, voice encryption. It is based on symmetric cryptography. The algorithm is simple and highly secure encryption decryption. It also used Feistel and g architectural methods to improve the complexity of the encryption. The proposed algorithm compared the performance with some frequently cryptographic algorithms namely DES, AES, HIGHT, Blowfish, LED using various parameters.

Kenwords: -AES, RSA, DES, FPGA, E3LCM, MLFSR.

INTRODUCTION

Cryptography is the study of secure communications techniques that allow only the sender and intended recipient of a message to view its contents. The term is derived from the Greek word kryptos, which means hidden. It is closely associated to encryption, which is the act of scrambling ordinary text into what's known as ciphertext and then back again upon arrival. In addition, cryptography also covers the obfuscation of information in images using techniques such as microdots or merging.

In today's age of computers cryptography is often associated with the process where an ordinary plain text is converted to cipher text which is the text made such that intended receiver of the text can only decode it and hence this process is known as encryption. The process of conversion of cipher text to plain text this is known as decryption.

ADVANCED ENCRYPTION STANDARD (AES)

Advanced Encryption Standard(AES) is a specification for the encryption of electronic the established by the U.S National Institute of Standards and Technology (NIST) in AES is widely used today as it is a much stronger than DES and triple DES despite being harder to implement.

Points to remember

- AES is a block cipher.
- The key size can be 128/192/256 bits.



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ANALYSIS OF BREAST CANCER DETECTION USING DIFFERENT MACHINE LEARNING TECHNIQUES

Miss Arifa Anjum and Muskan Soni

ABSTRACT

Breast cancer is the type of tumour that occurs in the tissues of the breast. It is most common type of cancer found in women around the world and it is among the leading causes of deaths in women. Many researchers have put their efforts on breast cancer diagnoses and prognoses, every technique has different accuracy rate and varies for different situations, tools and datasets being used. According to the National Breast Cancer foundation, in 2020 alone, more than 276,000 new cases of invasive breast cancer and more than 48,000 non-invasive were diagnosed in the US. Machine learning have been used effectively in detection and treatment of several dangerous diseases, helping in early diagnosis and treatment, and thus increasing the patient's chance of survival. It is important to detect breast cancer as early as possible. The objective of this review is to present several approaches to investigate the application of multiple algorithms based on machine learning.

Key words: Breast cancer Prediction, Machine learning, Dataset.

1. INTRODUCTION-

Breast cancer is the type of tumour that occurs in the tissues of breast. It is most common type of cancer found in women around the world and it is among the leading causes of deaths in women. It is the second largest disease that is responsible for women death [1]. Breast cancer is originated through malignant tumours, when the growth of the cell got out of control. A lot of fatty and fibrous tissues of the breast start abnormal growth that becomes the cause of breast cancer. The cancer cells spread throughout the tumours that cause different stages of cancer. There are different type of breast cancer [4] which occurs when affected cells and tissues spread throughout the body. Some of these are: -

Ductal Carcinoma in Situ (DCIS):-Is a type of breast cancer that occurs when abnormal cells spread outside the breast it is also known as non-invasive cancer [16].Invasive Ductal Carcinoma (IDC):-This is a second type of cancer also known as infiltrative ductal carcinoma [6]. This type of cancer occurs when the abnormal cells of breast spread over all the breast tissue and IDC cancer is usually found in men [8]. MixedTumour Breast Cancer (MTBC):- It is a third type of breast cancer and it is also known as invasive mammary breast cancer[11]. Abnormal duct cell and lobular Breast Cancer (LBC) which occurs inside the lobule [12]. Lobular Breast Cancer (LBC): -Is the fourth type of cancer which occurs inside the lobule [11]. Itincreases the chances of other



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CONVERSATIONAL AI CHATBOTS IN EDUCATION- A REVIEW

Anjali Jagwani

ABSTRACT

The COVID-19 pandemic has dramatically changed the educational landscape around the world, offering the premises for the rise of eLearning, where teaching is undertaken remotely on digital platforms. And remote education involves a lot of time invested in finding answers to a wide range of educational issues. AI chatbots, are built to improve student interaction and collaboration it also save time while searching for relevant information about inquiries. It has been configured in such a manner that customized learning atmosphere is generated and doubts raised by learners are cognitively responded to. This paper focus is on the current uses and impact of conversational AI or chatbots in the field of education, where they can function as service assistants or as educational agents.

Keywords: Chatbot, Education, Conversational AI, E-Learning, Educational support systems, Educational Bot, Literature Review, Natural Language processor

1 INTRODUCTION

Conversational Agent or chatbots can be defined as an AI based computer program that simulates human conversations. They are also known as digital assistants that understand human capabilities. They combine the power of machine learning and natural language processing (NLP) to understand the context and intent of a question before formulating a response. These chatbots generate their own answers to more complicated questions using natural-language responses. They learn from user behavior and provide more personalized conversations. The conversational communication skills of the chatbot technology empower them to deliver what users are looking for. Individual feedbacks assist chatbots to self-rectify in case of corrections. Individual attention to students has offered improved results. Educators can collect student data through forms and can store the information. For instance; SnatchBot is an educational Chabot that does not require coding and works according to the creator's purpose [2]. Chatbots are considered to democratize the study procedure irrespective of the language and geography of students [9].

2. SYSTEM ARCHITECTURE

Chatbot architecture is the spine of the chatbot [11]. The type of architecture for chatbot depends on various factors like use-case, domain, chatbot type, etc. However, the basic conversation flow remains the same. The critical components of chatbot architecture are composed of:



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INTERNET OF THINGS (IOT) IN HEALTHCARE TO FACE COVID-19 PANDEMIC

Mrs. Shradha Soni and Mr. Rohan Kumar

ARSTRACT

Recent global pandemic, COVID-19 has brought drastic changes to the livelihood of people from all avenues of life across the world. As normalcy is being slowly restored, it is also essentially crucial that the health and wellness of members are ensured. Instead of the manual biometric system, facial recognition can be deployed for more safety. Besides, a non-contact infrared sensor can be utilized to check for the body temperature of the individuals. If the body temperature exceeds the threshold value, intimation will be sent to the higher authorities concerning the wellness of the individual; otherwise, their presence to the organization/institution will be noted. Furthermore, using a QR scanner, the health history of each person as per the Arogya Setu app will be taken as record. The attendance checking feature has been clubbed with health verification so that every employee will mandatorily report before the system since presence for work is important to everyone. The data generated by the portal setup is recorded by the device daily which will then be uploaded into a database and stored on the Cloud. Briefly studied the significant achievements of loT with the help of a process chart, and study identify sixteen basic IoT applications for the medical field during the COVID-19 Pandemic.

Keywords: Internet of things (IoT), COVID-19, Information technology applications, Healthcare, Smart hospital

1. INTRODUCTION

Internet of things (IoT) provides the connectivity of physical objects with the Internet, and information can be sent or received through the Internet. The IoT concept has evolved into and from different technologies like sensors, machine learning, real-time analysis, and embedded systems. Its implementation in hospitals and healthcare section making hospitals smart with a new concept and other devices controlled by fixed or Wireless Internet. Smart devices can capture data and share it in daily life to accomplish the required task. Various sensors, medical devices, artificial intelligence, diagnostic, and advanced imaging devices are central to IoT implementation in the medical field.

In the present pandemic situation, all the countries, including India, are fighting with COVID-19 and still looking for a practical and cost-effective solution to face the problems arising in several ways. Researchers in physical sciences and engineering are attempting to take such challenges, to grow new theories, to describe new study problems, to generate various solutions accordingly. This brief review has a motive to



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PREDICTION OF A CRICKET MATCH WINNER USING MACHINE LEARNING ALGORITHM

Mala Das and Simran Patel

ABSTRACT

Winning is the goal of any sports. Cricket is one of the most watched sports now a days. With the progression in innovation and addition in sports, predicting the result of a match has turned out to be so basic . Winning in cricket depends on various factors like home crowd advantage, player's performance captain winning percentage run rate weather condition, performance against the specific team and the current form of the team and player .During the past few years a lot of research paper have been published which measure the player's performance and their winning prediction. In this paper we are predicting the result of any cricket matches using machine learning concept such as supervised learning to predict the winning team . Therefore we are using supervised learning algorithms to predict the outcome of the game and it will help the team to learn and analyse where actually the team is going wrong and the area of improvement .So in this paper we are using four types of machine learning algorithm and as well as comparing with each other in order to get the bestresults.

Keywords: Supervised Machine Learning, Logistic regression, Support Vector Machine, Decision Tree, Naïve Bayes Classification model.

1. INTRODUCTION

Sports is a field in which each and every person is keenly interested so to make this field more interesting and exciting for all statistical analysis is used. Cricket is one of the most famous and played among all the sports in all over the world. There are among 106 member states of the ICC (International Cricket Council) according to ICC there are around 1.5 billion of a fans. Cricket is played in three major formats i.e. T20, WORLD CUP, IPL (Indian premier League). In this research paper we predict the outcome of thematch.

Overview

Cricket is a game which consists of two teams and each team consists of 11 players. The outcome of the match can be winning, lose or tie. The result of this game is very unpredictable. This game is very popular in all over the world. The prediction of the outcome of a cricket match is very important for online traders and sponsors. They invested a huge amount to predict the outcome of the match. We can predict the match between two teams based on various factors like home crowd advantage, player's performance, captain winning percentage, run rate, weather condition, performance



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GRAPHOLOGICALLY ONLINE EVALUATION: IDENTIFY THE CONFIDENCE LEVEL BY USING CHATBOT

Ms. Mala Das and Ms. Aishwarya Lokhande

ARSTRACT

In the era of online teaching and evaluation, where all the activities related to studies are done online including classes, assignments, tests and also examinations etc. are done online. The most important task is online evaluation of answer sheets sent by the students in the form of pdfs and images. The online evaluation sometimes becomes very stressful for the evaluators. The main concept behind this paper was to provide mental relief to evaluators who undergo different levels of stress during online evaluation. In this paper, we proposed an intelligent Graphological Chabot to analyse the handwriting of a student. In this paper handwriting analysis is done on the basis of graphology (pressure, spacing, movement, formation of character, and structure of characters). This Chatbot analyses the handwriting sample and classifies that with an already stored writing pattern and provides the result in several ways such as confident, fully confident, partial confident, not confident and nervous. The chatbot gives the result in the form of text or emoil femoticons.

Keyword: Graphology, Chatbot, Artificial Neural Networks, Convolutional Neural Networks, Classification, Image Processing.

INTRODUCTION

We know that every individual's handwriting has a character of its own and this entirely depends on the uniqueness of the writer's personality. Identifying the state of mind of a student during an online examination provides a great help to the examiner/evaluator who is going to evaluate the answer sheet of that student. After analysing the writer's mental status evaluator will fairly evaluate that person. This time there are various techniques available to analyse handwriting of a person. But in this paper we are going to provide a new technique, intelligent chatbot, which will is based on Artificial Intelligence. This new technique, intelligent chatbot, which will is based on Artificial Intelligence. This new technique, intelligence that of graphology. Graphology is the Art of Handwriting Analysis. In this paper we are providing an algorithm for a chatbot to analyse the handwriting of a student. Chatbots are special agents that respond with the user in natural language like human does. Chatbots are also known as Natural Dialog Systems or a Chatterbot. A chatbot communicate similarly to instant messaging. A Chatbot performs automated tasks; these chatbots are available live in various chat platforms. Chatbot works on Natural Language Processing (NLP) which provides the machine with the Power that allows communication between machine and the user, using human natural



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CLASSIFICATION TECHNIQUES IN RECOMMENDATION SYSTEM

Mr. Amit Kumar Yadav and Mr. Swapnil Justin

The purpose of the recommendation program is to generate recommendations for the products in which user may be interested depending on different factors. These programs predict a product that consumers are likely to buy or may interested in. Companies like Netflix, Amazon, etc. These recommendation system help their users identify the right product to purchase or use. These systems have access to user-specific profile features and specific items such as locations and product descriptions and other information. The mendation system uses huge amount of these type of information and then detects similarities between user and product and then search for similarities between users and other products to recommend them. Both users and services provided have benefited from these types of programs. The quality and process of decision making has also improved through these types of systems. In today's world full of information where the number of decisions are made so rapidly, there is a need to filter, prioritize and present relevant information in order to reduce the problem of mass information, which will help users to make quick decisions based on suggestions received from system. Recommendation systems solve this problem by searching for a large amount of dynamic information to provide users with personalized content and services. This paper explores the various features and strengths of the various predictive methods in recommendation systems to serve as a research campus and practice in the field of recommendation programs.

Keywords: Recommendation system, cold start, decision making.

I. INTRODUCTION

As we all are moving forward in life we are getting enriched with the more and more information which also creates a problem of "information overload" which is getting serious day by day. The way information resources are being stored has undergone qualitative changes and the increase of unstructured data which leads to difficulties in gathering useful information. Recommendation system helps users to pick products of their interest from the vast collection of products available. Recommendation system collects information related to the user and products used or interested in or reviewed by them then recommend them a product using algorithm and available data. Now a days recommendation system are quite popular among various e commerce websites where they uses user information and user behavior related information to predict the interest of flomer and suggest them certain product. This will not only serve for users but also helps organization to increase the sales of certain products. Recommendation system can



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Reconnaissance

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ENHANCING TEACHING - LEARNING PROCESS THROUGH EDUCATIONAL DATA MINING CLUSTERING METHOD BY APPLYING K - MEAN ALGORITHM

Kajal Mahawar

ABSTRACT

Educational Data Mining (EDM) develop methods and applies techniques from statistics, machinelearning and data mining to analyze data collected during teaching and learning process. EDM usesvarious technical methods for studying teaching learning process among students, clustering is one of them. Clustering means to finding data points that naturally group together and can be split a fulldataset into categories or sub categories. Clustering helps in education by classifying the studentaccording to their academic performance. Lack of deep knowledge of EDM in higher

Educational system may prevent system management to achieve quality objectives. Clusteringmethodscanhelpbridging this knowledge gaps in higher education system. On the basis of need, clustering has different types of algorithms for cluster formation, in which K-MEAN algorithm worksoncentroids (partition method) of cluster formation. This paper focuses on new NEP 2020 key aspectof "extensive use of technology" by analyzing performance of the learner activity using EDM.In this, a dataset named, 'performance of the learner process activity' is calculated by using K-MEAN algorithm.

Keywords: EDM, clustering, K-means, NEP2020, learnerprocessactivity.

1. INTRODUCTION

Educational data mining is a research area with a collection of computational and psychologicaltechniques and research approaches for understanding how students learn. New learning methodsand tools have opened up chances to collect and analyze student data, to find patterns and trends inthose data, and to make new record and test hypotheses about how students learn. Educational datamining research uses various technical studentsbasedontheirlearningdifficultiesandinteractionsuchashow andhow much they use mean methodforanalyzing a learner activity dataset is calculatedbyusing kapplicationcanhelp both teacherandstudentto enhancetheeducation quality.



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COMBATING THE THREAT OF FAKE NEWS WITH MULTIFACETED DETECTION TECHNIQUES

Mrs. Saroj Junghare and Ms. Sakshi Singh

ABSTRACT

The proliferation of fake news on social media and online platforms poses a significant challenge to a well-informed society. This false information can manipulate public opinion, erode trust in institutions, and even have real-world consequences. To address this issue, this paper explores various techniques for detecting fake news. The work analyzes two primary approaches: linguistic cue analysis and network analysis. Linguistic cues examine the text itself, identifying patterns in language use, rhetorical devices, and factual inconsistencies that often characterize fake news. Network analysis delves into the social media landscape, uncovering suspicious user behavior, website reputation, and the spread of information. Furthermore, the paper discusses the potential of combining these approaches into a robust hybrid model. This fusion leverages the strengths of both techniques, enhancing the accuracy and effectiveness of fake news detection. By implementing these multifaceted techniques, we can empower users to navigate the information landscape more critically and combat the spread of misinformation.

Keywords: Fake news detection, Networks, online platforms.

1. INTRODUCTION

In the world of technology we get information about anything through internet and social media. Social media is a very important or we can say a very main source or medium of news and information. But sometimes we get wrong information and fake news on it and this can get us in big trouble. Several studies show that fake news has created a significant influence in the 2016 US presidential election[5]. Spreading fake news on social media and internet are very common now days, especially at the age of COVID-19. False information about COVID-19 is growing exponentially. Due to the lockdown and work from home conditions during COVID-19 pandemic, Twitter witnessed a 30% rise in daily average usage[1]. It is not affecting the mental health of the people but also the physical health. The COVID-19 pandemic has sickened more than 176 million people globally and claimed the lives of more than 3.8 million people worldwide. During the era of COVID-19 we all are not only fighting with the virus but fake-news and misinformation also. Negative false information about COVID-19 during pandemic is giving people anxiety and fear. The public gets influenced in a negative way through these fake news.



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Netiquettes: Promoting a Respectful Digital Culture in the Age of Digital Transformation

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Abstract

The pace of globalization and the advancement of industry 4.0 are rapidly propelling us into a new era, referred to as the digital transformation age. This era not only encompasses technological and scientific aspects, but also touches upon social, cultural, and spiritual aspects of society. Despite the numerous benefits of the internet, there are issues that arise such as limited access and impolite behaviour that disregards the established ethics and etiquette that the Indian society values. Therefore, it is essential to utilize netiquette or digital ethics when using the internet. Essentially, netiquette provides guidance on how to behave in accordance with the normative rules that govern the internet environment. It is a mandatory aspect that internet users must consider and abide by, as it serves as a code of ethics within the internet community. Furthermore, the Indian legal system also outlines regulations that govern online behaviour, communication, and transactions. Violating these regulations results in sanctions and helps in creating an atmosphere of internet othics or digital netiquette, thereby building a courteous digital culture in the digital transformation age. Therefore, this paper discusses the impact of the digital transformation era on the daily lives of people in India, highlighting the growth of digital culture while noting a decline in polite and ethical behaviour due to easy access to the internet and social interactions. It underscores the significance of educating individuals on ethical behaviour and responsible internet use and advocates for more effective socialization and education on etiquette in social media. To shape a cultured and ethical community, the study recommends revising the ITE Law and utilizing the four pillars of digital literacy, digital skills, digital culture, digital ethics, and digital security. The methodology employed in this research is both qualitative and descriptive, with a focus on the importance of netiquette in the digital age and the establishment of clear guidelines for internet ethics to promote ethical behaviour online.

Managing for the Future: General Management Principles and Applications