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D. Y. Patil Institute of Master of Computer Applications & Management

BOOK OF ABSTRACTS

Sustainable Development Goals (SDGs): Technology and Management

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Editors

Dr. K. Nirmala Kumaraswamy
Dr. Kavita Suryawanshi
Dr. Shalaka S Parker
Dr. Priya Tiwari
Dr. Govind Kumar

D. Y. Patil Institute of Master of Computer Applications & Management, Akurdi-Pune

in association with

Indian Society for Technical Education

National Conference

On

Sustainable Development Goals (SDGs): Technology and Management

15–16 February 2024

Editors

Dr. K. Nirmala Kumaraswamy

Dr. Kavita Suryawanshi

Dr. Shalaka S. Parker

Dr. Priya Tiwari

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Contents

About the Conference

The Sustainable Development Goals (SDGs) are a collection of 17 interlinked global goals to transform our world. They were designed to be a "blueprint to achieve a better and more sustainable future for all" and part of the United Nations 2030 Agenda for Sustainable Development. They were agreed by 193 countries in September 2015. The Sustainable Development Goals work towards a world of peace and prosperity, eradicating major issues such as poverty and hunger, all while protecting the planet. In the midst of the climate crisis, this has never been more important. Each of the goals are interlinked, meaning the key to achieving one often lies within another. The goals can only be achieved if they are embedded within all each area of governance. Sustainable development means developing cities, land, businesses, and communities to meet the needs of the present, without effecting future generations' ability to meet their needs. The environment underpins each of the SDG's – they seek to improve living conditions for all, without increasing the use of natural resources. The SDG's work to protect the planet's resilience for our future generations. Thus, the present conference provides a platform for sharing Multi-disciplinary research papers that discuss the various issues related to Sustainable Development Goals such as Sustainable Energy, Financial Infrastructure, Educational Sustainability, Inclusive Growth, Environmental Sustainability, Gender Equality and sustainable Development etc.

Objectives of the Conference

- To connect Industry, Academia, and Governance on a common platform for creating the awareness on Sustainable Development Goals w.r.t Technology and Management.
- To encourage thought-provoking discussions related to Technologies and Management impact on the achievement of SDG goals.
- To share and deliberate on best practices, strategies and models developed in dealing with Technological and Business Management issues w.r.t. sustainable development.

About the Institution

D. Y. Patil Institute of Master of Computer Applications and Management is one of the premier institutes of Computer Application established during 2002 by Dr. D. Y. Patil Pratishthan's. This institute has carved-out a special niche for imparting quality education to cater to the needs of community at large. Since its inception, the institute is striving in the pursuit of academic excellence and good governance. It has Master of Computer Application (MCA), Master of Business Administration (MBA) and Ph.D. programs. D. Y. Patil Institute of Master of Computer Applications and Management, Akurdi, Pune has been awarded Best College by SPPU. Institute has been accorded an "A" grade by National Assessment and Accreditation Council (NAAC). The institution is approved by All India Council of Technical Education, New Delhi (AICTE), and Recognized by Directorate of Technical Education. The Institute has recognition of College under Section 2 (f) & 12 (B) of the UGC Act, 1956. D. Y. Patil Institute of Master of Computer Applications and Management fosters a positive environment for Teaching, Non-Teaching staff and Students to meet the emerging challenges which stimulates the desire to collaborate and change the world of Computer Technology and innovation in the Business Management field.

About the Partner Institution

The Indian Society for Technical Education (ISTE)

ISTE is the leading National Professional non-profit making Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System. Being the only national organization of educators in the field of Engineering and Technology, ISTE effectively contributes in various missions of the Union Government. The strength of ISTE is the strong base it has in technical education institutions in the country.

ISTE has an Executive Council at National level. It has active membership of more than 128500 technical teachers, 535000 student members, more than 2740 institutional members (including IITs, IISc., NITs and other leading technical institutions), 1414 faculty chapters and 1505 students' chapters at National level and 19 Sections at State Level . The major objective of the ISTE is to provide quality training programmes to teachers and administrators of technical institutions to update their knowledge and skills in their fields of activity and to assist and contribute in the production and development of top quality professional engineers and technicians needed by the industry and other organisations.

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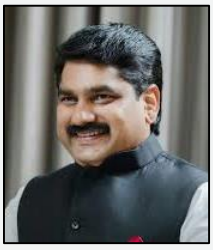

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Dr. K. Nirmala Kumaraswamy

Dr. K Nirmala Kumaraswamy is the Director of D.Y. Patil Institute of MCA and Management Pune which is featured among the Top 10 Best Colleges Managed by Women- 2021 in Women Entrepreneur Magazine in recognition of the foremost Leadership exhibited by Women Leaders. She holds two Post graduate degrees MCA and MBA and Ph.D in management. She is a Recognized Ph.D. Guide in Savitribai Phule Pune University and three students have completed their Ph.D. under her guidance in the faculty of Computer Management.

Dr. K Nirmala Kumaraswamy has 26 years of academic experience and four years Industry experience with a proven track of training and development of learning processes, administration and research. She has participated in various learning and development programs at the national and international level and the recent Experiential Learning Congress in Berlin. She has Published Research papers at national and International Level. Dr .K. Nirmala was Awarded Outstanding Academic Leader Award from Centre for Education Growth and Research (CEGR) and was also elected as Vice President of CEGR, Maharashtra State Council and National Adviser, CEGR. She is currently the Board of Studies member in Organization Management, Savitribai Phule Pune University.

Dr. Kavita Suryawanshi

Dr. Kavita Suryawanshi is a versatile Academician, currently working as a Head of MCA Department and Vice Principal of D. Y. Patil Institute of MCA and Management. She has 19 +Years of teaching experience. She has completed MCA and PhD in Computer Application. She has outstanding Academic Achievements like 13 th Merit Rank Holder in Maharashtra HSC Examination as well as 3 rd University Topper in UG degree Examination of North Maharashtra University, Jalgaon.

Moreover, she is a recognized Ph.D. Guide in Computer Management of premier university Savitribai Phule Pune University. She is the recipient of many Awards namely ‘Best Paper Award ‘in ETIT National Conference, ‘Best Researcher Award from CEGR, New Delhi, ‘Most Outstanding Paper Award’ at International Conference ICISET, International Distinguished Women Scientist Award 2021 by CPACE, United Kingdom in recognition of her foremost research contributions in the Sustainable Computing research field and lastly “Distinguished Academician Award by Asia Africa Development Council”.

She has Granted Three International Patents under Computer Science namely by the Australia Innovation Patent Act in the year 2021, by the Federal Republic of Germany in August 2022 and third patent by the Republic of South Africa in the year 2022. She has been Granted Two National patents for an invention using IOT technology by Government of India in the year 2023. Nevertheless, she has also published another Three Indian Patents on AI and IOT Technology. She is an Author of a couple of computer applications books. She has granted 08 copyrights under IPR by Copyright Office of Government of India. She has published many research papers in Scopus indexed journal. She has worked on many responsibilities like NACC Coordinator, Session Chair, Reviewer of International Journal, Resource Person, Conference Convener, NISP Coordinator, Virtual Lab Nodal Center Coordinator, Editorial Board Member etc. She has successfully carried out funded research consultancy projects.

"She believes in Consistent Untiring Efforts towards Goal Achievement"

Dr. Shalaka S. Parker

Dr. Shalaka Parker is a highly accomplished academician with a diverse set of credentials. She holds an M.A. in English from the University of Pune, earning a Gold Medal in 1997, followed by a B.Ed in 1998 where she ranked 2nd. Dr. Parker successfully completed her PGDM and MMS in HRM from UoP in 2009, ranking 3rd and 5th, respectively. She obtained her Ph.D. in Management from UoP in 2013. With over 20 years in the teaching profession, her expertise lies in Communication Skills, Soft Skills, Human Resource Management, and Organizational Behavior. Dr. Parker has made significant contributions to Educational Research, authoring textbooks, research papers, and book chapters for various publications. She serves as an Editor for IGI Global Publications.

Dr. Parker has been instrumental in innovative ventures at her workplace, including setting up Language laboratories and designing modules for English Language Learning. As the Chief Project Coordinator, she played a crucial role in establishing D Y Patil International University, Maharashtra. Her contributions have earned her two patents from the Government of India—one for a Smart Button and the other for an Academic Leadership Scorecard. Recognized for her outstanding contributions, Dr. Shalaka Parker received the "Innovative Academician of the Year Award 2019" from CEGR and the "BEST TEACHER- Global Eminence Award 2021" for her remarkable work in developing innovative educational systems. Currently, she serves as the Incharge Director at D Y Patil PGDM Institute, Akurdi, Pune, and as the Campus Incharge of the Soft Skills Department at Dr. D Y Patil Educational Complex, Akurdi and Pune.

Dr. Priya Tiwari

An accomplished and solution-oriented professional, having inclination towards research, with almost 11+ years of extensive professional experience, Dr. Priya Tiwari is Doctorate in Financial Management. She has more than 12 years of experience which include academics and corporate and proficient in Data Analysis, designing, and implementing case studies. Her area of interest is Finance, behavioural Finance, Investment and Research. She has published one patent and also a certified Yoga Trainer from Patanjali Yogpeeth. She has a Membership of the Association of IQAC Professionals. She also won consolation Prize, as a Faculty Mentor, in Financial Market Talent Search Contest 2016 by Financial Market Leadership Institute in association with N. L. Dalmia Institute of Management Studies. She is on Reviewer Board of International Publication House (i-manager) and an Editorial Board Member of Bentham Science Publication (International Publisher) for publishing a Book titled “Fintech and Block Chain). She is a member of curriculum (Syllabus) development of International Finance for Shivaji University, Kolhapur Maharashtra and also Co-Authored two books. She is Paper Setter and Examiner for Pune University and Bharti Vidyapeeth and delivered research methodology sessions for PhD Scholars of Bharti Vidyapeeth. has published Research papers in National and International Journal and Conferences. Apart from teaching she grooms students for taking up future challenges by mentoring them and helping them in solving Case studies.

Dr. Govind Kumar

Dr. Govind Kumar is an associate professor at department of management, DY patil Institute of MCA & Management, Pune. His area of teaching & research is International Business and Marketing. He has been working in academic field since 2015. He received his PhD degree from Faculty of Management Studies, Banaras Hindu University, Varanasi in 2014 whereas he had done MBA from Rohilkhand University Bareilly in 2009. He graduated in science from Allahabad University 2007. Dr. Kumar qualified UGC-NET and received Junior Research Fellowship for his research work. Subsequently Dr. Kumar has written good number of research papers and got published in ABDC and UGC-CARE listed journals meanwhile he has presented 71 research papers in various international and national conferences. Whereas Dr. Kumar organised 3 international conferences and various FDP and workshops. He also delivered lecture as Guest Speaker in National Conference organized by Sikkim Skill University, Sikkim. Dr. Kumar is deeply involved in research as well as academic.

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Preface

We are honored to present the proceedings of research paper abstracts and executive summaries for the Conference Titled "Sustainable Development Goals (SDGs): Technology and Management," contributed by esteemed delegates. We trust that these materials will prove valuable for your research endeavors.

The primary objective of this conference is to establish a forum for engaging in discourse on various matters, obstacles, prospects, and discoveries associated with research on the challenges related to Sustainable Development Goals (SDGs), Technology, and Management. The ever-evolving nature and rapid progress in these fields give rise to novel challenges and inquiries, necessitating the exchange of innovative ideas and fostering a comprehensive understanding of this significant area of study. We assure the creation of a promising outlook and a captivating environment for the future of sustainable business, as the level of assistance and passion observed has greatly surpassed our expectations. As we reach the culmination of this journey, we are filled with profound contentment and a strong sense of ambition.

The national response to the call for papers has been motivating the authors and we are glad to announce that total 105 Abstract received out of which Seventy Five papers have been selected across the country, out of which Forty One from Technology perspective and Thirty Four from Management Perspective. The review process has been exceedingly robust. Our sincere gratitude and appreciation go to all the reviewers who have contributed to upholding the exceptional standards of the articles. We also express gratitude to all the track chairs for maintaining high standards in evaluating the tracks. Additionally, our heartfelt thanks extend to the members of the organizing team for their diligent efforts.

We express our hopes that all attendees of the Sustainable Development Goals (SDGs): Technology and Management conference will have a highly productive and enjoyable time during the event.

Dr. Kavita Suryawanshi
Conference Convener

Dr. K. Nirmala Kumaraswamy
Conference Chairman

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PART A

INFORMATION TECHNOLOGY

A Study on Changing Paradigm in Higher Education and Student's Satisfaction towards E-learning

*Himanshu Mathur**

ABSTRACT

Changing is the rule of life. There are some periods when we have to change them according to need. COVID-19 has brought a lot of changes in the lifestyle of human beings and also affects their working life. Before COVID-19 people were used to go outside, interested in social meetings, and there was no fear of life. But the time, when COVID-19 took its entry, it changed things. Now people are following social distancing, don't like to go outside, and are also not interested to go restaurants and now they are locked in their homes only. This crisis period has had a negative impact on our economy but many have found out the way of doing work. Many companies are following the work-from-home method which was early adopted only in the IT sector and now, the education sector has also come in this category. The Government uses a combination of IT and education for the sake of the interest of students and started online classes. This study is done to know the impact and effectiveness of online and find out whether the students are satisfied or not. 37 students have been taken as samples from colleges and universities and a questionnaire method was used for the purpose of getting information. Convenience, time saving, communion, e-notes, software issues and other factors related to online classes were used for analyzing the satisfaction level of students regarding online classes. The result shows that online classes are helpful in saving time but it is not better in comparison to traditional class methods based on survey. Online classes were not at par with the above-said factors and most of the factors of the study were on the negative side of online classes.

Keywords: Covid-19; Education; Online Class; E-Learning; Student Satisfaction.

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Review of Footprints of Artificial Intelligence in Achieving UN's Sustainable Development Goals

Reshma Ladda and Babasaheb Sonawane***

ABSTRACT

Artificial Intelligence (AI) are renovating the world, changing healthcare system, food Industry, Education, Ecosystem. This perspective explains some of the AI-powered applications that can speed up the achievement of United Nations' Sustainable Development Goals. Artificial Intelligence and Machine Learning are the essential tools for Sustainable goals as well as for many growing industries now a days. Almost in all sectors there is impact of Artificial intelligence and Machine Learning like 'Autonomous Driving', 'Health Care sector', 'Automobile Industry', 'Precision Agriculture', 'Smart Home', 'Education' and 'Industry 4.0' We are going to deliver review paper on Role of Artificial Intelligence in achieving all Sustainable Development Goals. The review paper mainly focuses on what are the Sustainable Development Goals, criteria to achieve these goals and the role that Artificial Intelligence can play here along with its significance and impact on Sustainable Development Goals.

Keywords: Artificial Intelligence; Machine Learning; Sustainable Development Goal; Cognitive Healthcare; Industry 4.0.

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A Conceptual Overview of Machine Learning & its Applications

Jyoti Pandhare, Shahin Bhaldar** and Ashlesha Deole****

ABSTRACT

These days, machine learning is at the forefront of technological development. Machine learning, a branch of artificial intelligence, focuses on developing software systems that can improve and learn from their experiences on their own without explicit programming. The fact that machine learning is consuming us in one way or another is what excites us about it. Various applications such as driverless cars, spam email filtering, Google search, Google translate, and speech recognition rely on machine learning in one way or another. This conceptual overview concludes by highlighting the critical role that machine learning plays in influencing the state of technology today and in the future. Recognizing its fundamental ideas and extensive applications

Keywords: Machine Learning; Artificial Intelligence; Cognitive Intelligence; Deep Learning; Data Mining; Cognitive Science.

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AI in Education: Personalized Learning for Diverse Student Needs

*Hemalata Chavan**

ABSTRACT

The traditional "one-size-fits-all" education system assumes that all students have the same learning styles, abilities, and interests, leading to a lack of engagement and motivation in students who don't fit into this approach to education. This education system has been widely criticized. Global education systems are moving toward a more personalized and student-centered approach. Innovations such as artificial intelligence (AI), and machine learning (ML) are reinventing the traditional teaching tools and changing the future of conventional teaching and learning. Artificial Intelligence in Education has developed new solutions for teaching and learning for various situations. Artificial intelligence in education is not about replacing human teachers with humanoid robots as teachers, but about using artificial intelligence to help teachers and students and make the education system better and more efficient. Artificial intelligence, with its data processing and pattern recognition capabilities, is proving to be a powerful for creating adaptive and personalized learning experiences. This revolutionizes the way educators assess, incorporate and respond to the diverse needs of students. The objective of this paper is to organize the vast literature on the use of AI for Personalized Learning for Diverse Student Needs.

Keywords: Personalized Learning; Artificial Intelligence.

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Exploring the Indian Software Industry: Reviewing Present Realities, Challenges and Upcoming IT Trends: A Literature Overview

Ajay Bhosale and Sajid Alvi***

ABSTRACT

Since 1991-1992, significant government assistance has propelled the exports of IT/ITes units reaching a total value of Rs.3,522,770 crore by 2018. Presently, India's software industry is a cornerstone, providing services to various sectors for smarter and more efficient product development and aiding the government in delivering cost-effective, intelligent services. Contributing 7.5% to India's GDP in the fiscal year 2023, the IT-BPM sector has played a pivotal role in the country's socioeconomic development and is poised to be the driving force of modern India. Despite the challenges of cyber security, workforce shortages, and evolving laws, recent technological advancements and global demand for digital solutions are propelling the industry's rapid growth. Noteworthy trends, such as the surge in remote work and swift adoption of AI and ML are evident, highlighting the industry's resilience. Successfully navigating these changes and capitalizing on emerging trends will determine the intricate yet promising trajectory of India's software industry and shape its future landscape. The paper examines the current conditions, obstacles, and developing patterns of the software industry in India. Through the literature review we aim to unfold the dynamics which define the industries current state, identify the challenges and anticipate the trends which are shaping its future.

Keywords: Software Industry; Industry Dynamics; Emerging Technologies; IT Trends; Challenges.

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Effects of 5G Technology

Shahin Bhaldar and Jyoti Pandhare***

ABSTRACT

Fifth Generation (5G) Technology is a new generation of mobile networks in wireless communication. The 5G network is a promising technology that, through continuous communication, revolutionises and connects the worldwide world. This article presents evaluations in the realm of mobile communication technologies. Multiple problems were encountered at each development, which were captured with the use of next-generation mobile networks. Among all previously existing mobile networks, 5G enables high-speed internet access for everyone, anytime, anywhere. 5G is distinct due to unique characteristics such as connecting people and controlling gadgets, objects, and machines. The 5G mobile system will provide varied degrees of performance and capabilities, creating new user experiences and connecting new enterprises. As a result, it is critical to understand where the company can capitalise on the benefits of 5G. It was discovered in this research report that considerable.

Keywords: 5G; Millimeter Wave (mmW); Massive Multiple Input and Multiple Output (MIMO); Small Cell; Mobile Edge Computing (MEC); Beamforming; Machine Learning

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Review of Data Mining Techniques to Predict Teachers Teaching Performance in Higher Education

Suwarna Mulay and Shubhangi Potdar***

ABSTRACT

Education plays a vital role in our life. Education system in India has turned up significantly as the New Educational Policy-2020 has been introduced at higher education sector. Recently, the New Education Policy (NEP)-2020 is started implementing in India at PG level to compete with foreign universities. As the number of colleges, higher education institutions and universities are increasing rapidly, it is important for them to impart quality education for their sustainable development. Students can have various options for getting education according to their choices and requirements. AI has a major role in this new education system. Data mining technology shows a potential approach towards the new higher education system. Teachers are the main pillars of the education system. Quality of the education can be maintain by providing perfect knowledge to students using innovating teaching pedagogies which can be possible by adapting recent technologies. Data mining technology can be significantly used to improve teaching learning process by analyzing teachers' teaching performance. Classification, clustering, regression and association rule mining are the data mining techniques which can be implemented on teacher dataset to predict their performance. The aim of this literature review paper is to study various data mining tools and algorithms that are used to determine teachers' teaching performance.

Keywords: AI; Association Rule Mining; Classification; Clustering; Data Mining; NEP-2020; Regression.

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Smart Health Care Systems for Sustainable Wildlife Conservation: Trends and Techniques

Madhavi Shamkuwar and Jayesh Katkar***

ABSTRACT

Today, technology has greatly enhanced animals lives and thereby ensuring the conservation; contributing to the country's and world's eco system development. Animals have become primal as a result of the numerous benefits. Today, technology is extremely vital in animal's life because it not only it is responsible in individual health care but also contributes significantly to the maintenance of ecosystem across globe. The UN sustainable goals 'Life on Land' addresses the crucial issues and thus the paper entails the use of IoT as potential technology to assist animals in living healthier lives in healthier societies. Internet of Things has become a significant trend in the market because it is a modern and highly complex technical application. IoT is everywhere, and it's employed in a variety of applications. It is crucial in a variety of sectors, including banking, medical science, and security. IoT is used to find patterns in medical data and has strong illness prediction skills. Medicine's future is taking shape right before our eyes, thanks to advancements in digital healthcare technologies such as AI, 3D printing, VR/AR, nanotechnology, and robotics. Not the other way around, we need to become familiar with the latest innovations in order to handle the control of technology. Medicine's future depends on collaborating with technology and clinicians to embrace changes in the healthcare industry, ensuring that we remain relevant for years to come.

Keywords: Carrot2; Citation Gecko; Bibliometric Analysis; IoT; Machine Learning; Smart Health Care Systems.

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Review Paper towards a Mutual Understanding in Artificial Intelligence through Machine Learning

Ashlesha Deole, Snehal Varhadi** and Swapnal Nagawade****

ABSTRACT

In the past ten years, the use of "artificial intelligence" and "machine learning" has grown in popularity. In science and the media, both terms are commonly used, sometimes synonymously and other times with distinct meanings. Our goal in this work is to define the contribution of machine learning to artificial intelligence, as well as to shed light on the relationship between these terms. After a thorough analysis of pertinent research, we offer a conceptual framework that makes clear how machine learning is used to create (artificial) intelligent agents. Therefore, our goal is to offer greater terminological clarity as well as a foundation for future research and (interdisciplinary) discussions.

Keywords: Artificial Intelligence; Machine Learning; Deep Learning; Explainable Machine Learning; AI Challenges.

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The Emergence of Digital Twin Technology in Healthcare Sector: Opportunities and Challenges

Gauri Khire, S.P. Singh** and Suhasini Itkar****

ABSTRACT

The integration of digital twin technology into the healthcare sector marks a life-changing era, revolutionizing patient care, treatment planning, and overall healthcare management. This research paper explores the emergence of digital twins in healthcare, investigating the opportunities and challenges associated with these innovative applications. We investigate into the possible benefits of digital twins, including personalized medicine, patient-specific modeling, and enhanced health monitoring. The creation of digital twins to represent individual patients, united with real-time data integration, promises to optimize treatment plans and initiate precision medicine further. However, this innovative technology comes with its set of challenges. Issues patient privacy, and regulatory compliance demand careful consideration, especially in an environment where the ethical use of health data is paramount. Understanding the interoperability requirements for integrating digital twins with existing healthcare systems is also crucial for successful adoption. Undoubtably Digital twins have significantly improved patient outcomes, healthcare efficiency, and overall system flexibility. This paper contributes to the growing body of knowledge, nurturing a deeper understanding of the opportunities and challenges presented by the emergence of digital twins in the healthcare domain.

Keywords: Digital Twin; Healthcare; Personalized Medicine; Health Monitoring; Patient Privacy.

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A View of AI-based Teaching and Learning Systems: Current Trends, Challenges and Future Directions

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative technology with great potential for enhancing teaching and learning experiences. This systematic literature review aims to provide an in-depth analysis of the existing research on AI-based teaching and learning systems. Through a comprehensive search in major academic databases, a diverse set of articles were selected and examined. The review explores various AI techniques employed in educational contexts, their applications, benefits, challenges, and future directions. The findings contribute to a deeper understanding of the current state of AI-based teaching and learning systems, shedding light on potential advancements and areas requiring further research.

Keywords: Artificial Intelligence; Learning; Teaching; Techniques.

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Innovation in Healthcare by Implementing IoT Application to Achieve Sustainability: A Study from Indian Perspective

Kavita Suryawanshi, Manjiri Chavan** and Yogeshwari Yawalkar****

ABSTRACT

This study explores the transformative potential of IoT applications in healthcare, focusing on key aspects such as security, privacy, and interoperability standards. Longitudinal studies are advocated for assessing the enduring impact of IoT on patient outcomes, complemented by an in-depth analysis of ethical considerations and healthcare disparities. The research underscores the significance of human-device interaction, predictive analytics, sustainable infrastructure, and blockchain technology for enhanced data security. Within the context of Indian healthcare, the study highlights the paramount importance of IoT adoption in addressing unique challenges, fostering environmental consciousness, and building a resilient healthcare ecosystem. Emphasizing a holistic, multidisciplinary approach, the study aligns with the goal of driving innovation in healthcare, ensuring sustainability, and achieving improved health outcomes.

Keywords: IoT Applications; Healthcare Innovation; Sustainability; Security; Privacy; Interoperability; Longitudinal Studies; Ethical Considerations; Healthcare Disparities; Human-device Interaction; Predictive Analytics; Sustainable Infrastructure; Blockchain Technology; Indian Healthcare; Environmental Consciousness; Multidisciplinary Approach.

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A Summary Study on Recent Emerging trend in Computing Technology: Edge Computing

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ABSTRACT

In current era there is rapid involvement and usage of internet i.e data. Every living and non-living is almost completely dependent on it. Due to this extensive consumption internet and data, different troubles has been faced like bandwidth trouble, security issues with related to data, response speed has been reduced tremendously. To make system, devices and machine smart like IOT where huge amount of data is being needed. To some exit solution of the following problems mentioned is Edge Computing. It works like the optimizer for devices and web application. Edge computing also works well to reduce latency in computing system. Edge Computing is a very strong emerging techno in terms of data processing, data storage. In this research paper will give us an insight view of Edge Computing technology, comparison with traditional cloud computing, data processing and list out the applications can be benefited with this emerging technology.

Keywords: Data Processing; Edge Computing; Security; Technology; Application Related to Edge Computing.

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Virtual and Augmented Reality for Revolutionizing Immersive Learning for Learners

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ABSTRACT

Online Education systems have grown exponentially in the last four decades or from COVID to meet the demands of online quality education for all. We spend a lot of time looking at screens these days. Computers, smart-phones, and televisions have all become a big part of our lives. Virtual reality (VR) and augmented reality (AR) are two technologies that are changing the way we use screens, creating new, exciting interactive experiences and increasingly relevant in the teaching and learning processes. Virtual reality uses a headset to place you in a computer-generated world that you can explore. Augmented reality, on the other hand, is a bit different. Instead of transporting you to a virtual world, it takes digital images and layers them on the real world around you through the use of either a clear visor or smart-phone. Virtual reality (VR), augmented reality (AR), and 3D technologies have become applicable in all sectors that integrate education processes. These technologies have helped learners globally to internalize complex issues, apply knowledge to problem-solving, and engage with diverse cultures in the natural sciences, social sciences, and humanities. Both of these technologies safe and effective for learners of all ages and imperative for learning.

Keywords: Education; Virtual; Augmented; Reality; Learners; Imperative; Technology.

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Sustainable Shifts: Exploring the Future Landscape of Green Consumerism and Environmental Responsibility

Saumitra Sawant and Gayatri Nayak***

ABSTRACT

The profound escalation of carbon emissions poses a formidable threat to ecosystems worldwide, precipitating deleterious consequences on nature at a global scale. In safeguarding our environment, it becomes imperative for individuals and, notably, producers to embrace sustainable practices. Our existence is intricately interwoven with the myriad benefits derived from the environment, compelling us to reciprocate with a solemn duty to preserve and protect it. As an academic researcher, staunchly advocate for the pivotal role of environmental responsibility. This entails an inherent commitment to conscientious consumerism and the deliberate selection of products that champion sustainability. The onus is on us, without delay, to embark on a trajectory of conscientious practices and assume a mantle of responsibility for the environment. The symbiotic relationship between environmental well-being and the overall health of our planet underscores the urgency of our collective efforts. The time is ripe for resolute action—now or never—to ensure a sustainable future for our planet. In the ever-evolving tapestry of consumer behavior, a paradigm shift towards sustainability emerges as a critical trajectory. This research delves into the dynamic landscape of green consumerism, scrutinizing the multifaceted dimensions of environmental responsibility; this study navigates through the intricate interplay between consumer choices, industrial practices, and their collective impact on the environment. With an emphasis on the future, our investigation encapsulates the evolving trends in sustainable shifts, examining the factors that drive and impede the adoption of eco-conscious practices. The study employs a comprehensive methodology, amalgamating qualitative and quantitative approaches to discern patterns and nuances in consumer attitudes, preferences, and purchasing behavior. By dissecting the intricate web of green consumerism, this research aims to provide nuanced insights for policymakers, industries, and consumers alike. It not only identifies the existing challenges in fostering environmental responsibility but also proffers potential strategies for a more sustainable future. As a researcher committed to advancing knowledge in the realm of sustainability, this study serves as a timely contribution to the ongoing discourse on safeguarding our planet for future generations.

Keywords: Sustainable; Green Consumerism; Environmental Responsibility.

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Enhancing Product Recommendation Efficiency through Association Rule Mining in the Era of Data-driven Electronics

Sujata Patil, Varsha Thakare** and Nikita Bhamare****

ABSTRACT

Due to an increase in the number of electronic gadgets and their applications which generate huge amount of data in day to day life. In Data science to find meaningful information from this data Association Rule Mining can be used. Association rules are used to find relations, pattern and structures in data sets. They are used to finding meaningful patterns and trends from independent and dependent data. In order to increase the performance of the product recommendation, association rule mining techniques need to be used. The characteristics of association rule mining are support, confidence and frequent item sets. The association rule mining process uses these characteristics to find a strong association rule. By setting reasonable minimum support, it can increase the efficiency of an algorithm which uses association rule mining.

Keywords: Association Rule Mining; Support; Confidence; Frequent Item Sets; Data Science.

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Towards a Sustainable Future: A Comprehensive Analysis of Green Computing Strategies and Technologies

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ABSTRACT

As the global demand for computing power continues to rise, there is a growing need to address the environmental impact of information technology. This paper aims to provide a thorough examination of sustainable and green computing strategies and technologies, with the overarching goal of contributing to a more environmentally friendly future. The paper explores various approaches, including energy-efficient hardware design, and environmentally conscious data center management. The study delves into the current state of green computing initiatives, highlighting successful implementations and assessing their impact on reducing carbon footprints. Additionally, it investigates emerging technologies and innovations that hold promise for furthering the goals of sustainability in the computing industry Furthermore, the paper discusses the challenges and barriers hindering the widespread adoption of green computing practices. This paper also describes the various impacts of digitalization on the environment. This research study provides awareness of Green initiatives and various benefits of Green Computing for reducing environmental impact due to use of computing and computing services

Keywords: Sustainable Computing; Green Computing; Carbon Footprint Reduction; Renewable Energy Integration.

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Harmonizing Sustainable and Green Computing with IoT for Enhanced Environmental Monitoring

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ABSTRACT

As the global demand for computing resources and Internet of Things (IoT) devices continues to escalate, there is a growing imperative to address the environmental impact of these technologies. This research paper explores the intersection of Sustainable and Green Computing with IoT and Environmental Monitoring, aiming to forge a path towards eco-friendly and resource-efficient solutions. The first part of the paper explores into Sustainable and Green Computing practices, low-power hardware, and renewable energy integration to mitigate the carbon footprint of computing infrastructures. Emphasizing the importance of sustainable practices in data centers, cloud computing, and edge computing, the research examines ways to optimize resource utilization and reduce electronic waste. The second side of this study focuses on the integration of IoT devices for environmental monitoring. By leveraging the power of interconnected sensors and actuators, the IoT provides a strong platform for real-time data collection and analysis in diverse environmental contexts. The paper explores case studies and applications of IoT in environmental monitoring, ranging from air and water quality assessment to biodiversity conservation. The synergy between Sustainable and Green Computing and IoT is then explored, illustrating how the combination of energy-efficient computing practices and IoT technologies can lead to comprehensive solutions for sustainable development. The research highlights the role of smart, interconnected devices in creating intelligent environmental monitoring systems that enable informed decision-making for ecological preservation and climate change mitigation. Through a comprehensive review of existing literature, case studies, and emerging technologies, this paper aims to contribute to the discourse on creating a more sustainable and environmentally conscious digital future. By fostering collaboration between the fields of Sustainable Computing and IoT-driven Environmental Monitoring, the research endeavors to lay the groundwork for innovative solutions that balance technological advancement with ecological responsibility.

Keywords: Sustainable Computing; Green Computing; Internet of Things (IoT); Environmental Monitoring; Renewable Energy; IoT Sensors; Climate Change Mitigation; Biodiversity Conservation; Smart Environmental Solutions; Carbon Footprint Reduction; Edge Computing; Eco-conscious Technology.

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Integrating ICT in Sustainable Development: Challenges and Opportunities

*Jaymala Chaudhari**

ABSTRACT

The integration of Information and Communication Technologies (ICT) in sustainable development has emerged as a crucial tool for tackling global challenges like poverty, climate change, and resource depletion. This paper explores the potential of ICT in driving sustainable development while acknowledging the challenges and opportunities associated with its integration. We review existing literature, analyze the benefits and drawbacks of ICT applications in various sectors, and propose potential solutions to overcome implementation hurdles. The paper concludes by emphasizing the need for a holistic approach that leverages ICT's strengths while mitigating its risks, paving the way for a more sustainable future.

Keywords: ICT; Sustainable Development; Challenges; Opportunities; Solutions; Environmental Impact; Policy; Digital Divide; Education; Governance.

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An Observation of India's Strategies towards Digital Literacy

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ABSTRACT

Computer skills are predominantly required to perform various types of task because of the fastest growth of the corporate world. The top management always need smart and efficient employees. It provides huge information and simplifies searching process. As the quote says "Always keep yourself updated otherwise you will be outdated". It is also very obvious that 70% of our population is from rural areas and 30% from urban areas. The urban students get good digital skills because they have more access to computer as compared to rural students. Despite having experience, people can't utilize the computer efficiently. Computer Literacy doesn't focus only on gaining the basic knowledge of computer. Moreover it is the skill that has to be learnt how to use the system more effectively and efficiently. However Computer literacy courses focused on adopting basic conceptual knowledge about how computers worked by using different techniques such as word processing, spreadsheet and e-mail etc. Learners must be able to enhance the technical, analytical and thinking skills to solve any complex problem. For that teaching strategies have to be applied in addition to the basic commands or instructions. The learners are basically of two types: one who can acquire the skills only by learning the commands and are known as "traditional approach of learning" and the other one need to be trained properly with some strategies. According to a study the job opening around the world for advanced digital skill is tens of millions where as there is a huge shortage of qualified people to fill the position. The reason of this gap is not that the people are illiterate but in real the people are literate with a very low digital skill having only conceptual knowledge. The relationship and scope of each type of literacy i.e. digital literacy, media literacy, and information literacy needs clear definition. As compared to urban areas, the rural areas have a very low computer literacy level. The Computer literacy workshop should be held at some campus in rural areas so that the digital literacy rate will increase. Important skills must be learnt in every school either it is private or government.

Keywords: Efficiency; Training; Strategies.

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The Impact and Emerging Trends of Artificial Intelligence

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ABSTRACT

Artificial intelligence (AI) is the capability of machines to upgrade human mind, together with reasoning and learning from experience. Artificial intelligence has been used in PCs and laptops for years, however it's miles now applied to many other products and services. Computers would be deemed "intelligent" if they could in some way solve problems in the real world by learning from their mistakes and growing independently. Thus, the AI systems are more generic (rather than specific), can "think" and are more flexible. Both humans and technology produce significantly more data these days than can be assimilated, interpreted, and used to make sophisticated judgments. Artificial intelligence forms the basis for all computer learning and is the future of all complex decision making. This paper examines features of artificial Intelligence, introduction, definitions of AI, history, applications, growth and achievements. The world community has acknowledged AI as a burgeoning technology. A few different industries are also enforcing AI. For instance, in finance, AI allows with forecasting and supports hedge-fund investment decisions. Predictive analytics (or forecasting) applies synthetic intelligence using machine getting to know and statistical techniques to make predictions about future activities primarily based on previous statistics. For example, you can use forecasting to predict product sales, customer demand, or even stock prices. One popular example of predictive analytics is Amazon's product recommendations engine (also known as "Customers who bought this item also bought"). It uses past purchase data from millions of customers to recommend products based on the users' preferences.

Keywords: Intelligence; Decision; Reasoning; Emerging Technology; Forecasting.

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Accident Detection from Surveillance Videos using Deep Neural Network and Alert Messaging System

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ABSTRACT

In India, accidents happen every second, which is the main cause of death. The reason for more than 85% of accidental deaths is not the accident but rather the delay in providing medical help to the person injured in an accident. An injured person in an accident could be left unattended for a very long time on highways where traffic is extremely light and moving quickly. So, developing a system to enhance accident detection using convolutional neural networks from surveillance videos is necessary. The proposed system has two parts: accident detection from the surveillance videos and alert messages passed to the authorities regarding the accident news. The main objective of the proposed system is to develop a system that can detect an accident from surveillance videos. Each frame of a video or image is given to a deep learning convolutional neural network model, which will be trained to classify between accident and non-accident video or image frames. The developed system is compared with the basic models of Convolution Neural Network (CNN), CNN 2D, VGG-16, and Basic ResNet. The proposed system experiments with the best accuracy compared with other existing methods. After that, it is notifying the nearest police station and hospital for emergency help.

Keywords: Deep Learning; CNN; RESNET; VGG16; CNN2D.

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A Conceptual Review of Sentiment Analysis and Opinion Mining using Machine Learning

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ABSTRACT

Sentiment analysis and opinion mining have gained significant attention in recent years due to the growing influence of user-generated content on the internet. This study examines the application of various machine learning (ML) techniques for analyzing sentiments and opinion- mining tasks. The objective of this comprehensive review is to find out the most accurate and efficient models that can automatically classify and analyze sentiments expressed in textual data. Various machine learning algorithms are employed and evaluated based on their performance metrics such as accuracy and precision. The dataset used consists of real-world text data collected from social media platforms, product reviews, and online forums. The findings indicate that Bayesian Rough Decision Tree (BRDT) achieved the exceptionally highest values of accuracy and precision. BRDT achieved an accuracy of 99.625% and a precision of 99.9%, while Decision Tree (DT) achieved an accuracy of 98.95% and a precision of 99.3%. On the other hand, Logistic Regression (LR) and K-Nearest Neighbour (KNN) demonstrated comparatively lower accuracy scores of 75.56% and 69.81% respectively. Among all the evaluated techniques, KNN exhibited the lowest precision score of 68.14%. Overall, ML techniques prove to be proven to be valuable in sentiment analysis and opinion mining.

Keywords: Sentiment Classification; Machine Learning; Sentiment Analysis; Opinion Mining; Social Media.

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Object-oriented Programming Unveiled: Features, Advantages and In-depth Analysis of Constructors and Destructors in the Evolving Software Landscape

Varsha Thakare, Sujata Patil** and Nikita Bhamare****

ABSTRACT

This paper delves into the burgeoning significance of object-oriented programming (OOP) in the context of the growing software industry and the evolving landscape of software engineering. As OOP gains prominence in real-world software development, this study focuses on comprehensively exploring the essential features that are deemed mandatory for a nuanced understanding of this programming paradigm. The paper meticulously examines the core concepts of object-oriented programming, shedding light on its distinctive features, advantages, and disadvantages. A particular emphasis is placed on the intricate aspects of constructors and destructors, key components that play a pivotal role in OOP. Through an in-depth analysis, this paper aims to contribute valuable insights into the multifaceted realm of object-oriented programming, offering a foundation for practitioners and researchers navigating the ever-advancing field of software engineering.

Keywords: Object-oriented Programming; Software Engineering; Programming Paradigm; Features of OOP; Advantages and Disadvantages; Constructors; Destructors; Software Industry; Future Trends.

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Achieving an SDG Goals Related to Building and Infrastructure for GHG Emission Reduction though Technology Adoption on Our Way to the Net Zero Target Achievement!

Kishore Mahamunkar and Sajid Alvi***

ABSTRACT

The UN's Sustainable Development Goals (SDGs) are a universal call for an action to end all forms of poverty, fight inequalities and importantly tackle climate change. Buildings are not only a crucial piece of a structure – they embody both the physicality and the process by which they are created, holding 39% of the global GHG. Hence, journey stemmed from material selection (Embodied carbons), Environmental Product Declaration (EPD), Buildings LCA (Life Cycel Assessment) and thereby the green buildings presents an opportunity for achieving the Net Zero Target, but it's not devoid of the Software tools and techniques. The paper highlight the present development in the field of technology and its adaptation in the context.

Keywords: LCA; EPD; Materiality; Embodied Carbon; Green Buildings; Software; BIM; OpenLCA; Circular Building.

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Medical Image Classification for Disease Detection using Deep Learning

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ABSTRACT

With the advancements in medical imaging technologies, a large volume of medical image data is generated through X-rays, MRIs, CT scans, ultrasound, OCT scans, etc. This data can be used to develop automated disease detection systems to assist healthcare professionals. In traditional machine learning, classifiers use manually extracted features to classify specified classes. For medical image classification, we have developed a VGG16-based CNN model that allows the neural network to learn intricate patterns and features that might not be easily extractable by traditional machine learning algorithms. The image datasets used are brain tumor and lung cancer datasets. The brain tumor images are classified into four classes (diseases: Glioma, meningioma, pituitary, and No tumor), and lung cancer images are classified into three classes (diseases: Benign, malignant, and normal). Performance parameters such as accuracy, recall, precision, and F1-score are calculated. The experimentation is also carried out with transfer learning CNN models (e.g., ResNet-18) using the training dataset of brain tumors and Lung cancer from scratch. The accuracy obtained for four-class brain tumor classification using the implemented VGG16- based CNN model with 100 epochs is 94.10%, and for three-class classifications of lung cancer with 100 epochs is 97.87%.

Keywords: Medical Image Classification, Deep Learning, Transfer Learning, Accuracy, Recall, Precision, Convolutional Neural Network, Disease Detection

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The Role of Digital Technologies in Achieving Inclusive and Sustainable Industrialization SDG9 in India: A Techno-economic Assessment

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ABSTRACT

This research paper delves into the role of digital technologies in achieving inclusive and sustainable industrialization, aligning with Sustainable Development Goal 9 (SDG9), in the context of India. The primary objective was to conduct a techno-economic assessment of digital technologies in enhancing India's industrial sector's sustainability and inclusivity. The methodology employed a quantitative approach, analyzing data from Annual Industrial Surveys by the Ministry of Statistics and Programme Implementation, Government of India, using the Statistical Package for the Social Sciences (SPSS) for data analysis. The key findings revealed a significant positive correlation between digital technology adoption and improvements in industrial productivity, environmental sustainability, and economic viability. The results showed that digitalization leads to increased productivity, higher return on investment, and resource efficiency improvements. Furthermore, the adoption rates of digital technologies varied across different industrial sectors, with services and manufacturing sectors adopting more rapidly than heavy industries. The study also highlighted an increase in skilled employment opportunities in industries post-digital technology integration. These findings have profound implications for policymakers, industry stakeholders, and academics, suggesting that digital technologies are not only economically viable but also crucial for achieving sustainable industrial practices. The research fills a significant gap in the literature by providing a comprehensive techno-economic analysis of digital technologies in the Indian industrial sector, contributing to a global narrative of sustainable industrialization.

Keywords: Digital Technologies; Sustainable Industrialization; SDG9; Techno-Economic Assessment; India's Industrial Sector; Environmental Sustainability.

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Cyber Security in Unified Payment Interface (UPI): Ensuring Secure Digital Transactions

Snehal Varhadi, Ashlesha Deole** and Swapnal Nagwade****

ABSTRACT

In the digital age, when the younger generation is cashless and uses UPI payments, intermediaries are included. However, many people are dealing with fraud. The Unified Payments Interface (UPI) has become a crucial platform for easy and convenient fund transfers in India due to the quick expansion of digital transactions. This study examines the cyber security issues surrounding UPI transactions and suggests ways to improve the security of online payments. The study starts off by looking at the core ideas behind UPI and how widely it has been used in different types of financial transactions. It then examines the possible cyber security risks that users and financial institutions involved in UPI transactions may encounter. The impact that common threats like malware, phishing, and unauthorised access have on the confidentiality and integrity of financial data is emphasised.

Keywords: UPI Payments; Cybercrime in UPI Payments; Cyber Security; Challenges of Cyber Security.

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A Case Study of UPI Fraud Victim from Private Sector Bank in India

Prashant Wadkar and Shivaji Mundhe***

ABSTRACT

As the adoption of digital payment systems grows rapidly in India, concerns regarding the security and integrity of these platforms have become increasingly prominent. This research paper presents a detailed case study focused on a victim of UPI (Unified Payments Interface) fraud within the private sector banking domain in India. The study aims to investigate the specific circumstances surrounding the fraudulent incident, shedding light on the modus operandi, vulnerabilities, and challenges faced by both the victim and the banking institution. The research employs a qualitative approach, utilizing interviews, surveys, and document analysis to gather comprehensive data. The victim's experiences, perceptions, and actions during and after the fraudulent incident are examined, providing valuable insights into the emotional and financial repercussions of UPI fraud. Additionally, the study delves into the response mechanisms employed by the private sector bank, scrutinizing their effectiveness in addressing and mitigating the aftermath of the fraud. Key areas of investigation include the identification of loopholes in the UPI security framework, the role of customer awareness and education in fraud prevention, and the effectiveness of the bank's fraud detection and resolution mechanisms. The paper also explores the broader implications of UPI fraud on customer trust and confidence in digital payment systems, offering recommendations for enhancing the security infrastructure and risk management strategies within private sector banks. The findings of this research contribute to the growing body of knowledge surrounding digital payment security in India, offering valuable insights for both financial institutions and policymakers. By understanding the intricacies of UPI fraud and its impact on victims, stakeholders can work collaboratively to fortify the security measures of digital payment platforms and create a more resilient and secure financial ecosystem in the country.

Keywords: Cyber Security; Unified Payments Interface (UPI); Cyber Security; Cyber Security Awareness; Pre and Post Situations of UPI Payment Frauds; Role of NPCI in UPI; Role on RBI in UPI; Artificial Intelligence; Machine Learning.

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Exploring the Synergy: Information Technology Advancements and Innovative Computer Applications in the Digital Age

*Pranita Manjare**

ABSTRACT

The relentless evolution of information technology (IT) has ushered in a transformative era, profoundly impacting every facet of our lives in the digital age. This research paper embarks on a comprehensive exploration of the dynamic interplay between IT advancements and groundbreaking computer applications.The paper commences with a nuanced examination of the landscape through an insightful literature review, delving into the historical progression of IT and identifying pivotal milestones in the development of computer applications. It establishes a foundation by reviewing existing studies, spotlighting key technologies such as artificial intelligence, cloud computing, and cyber security, laying the groundwork for the subsequent analysis.The paper elucidates the profound impact of these advancements on various domains, uncovering a spectrum of applications that epitomize the transformative potential of synergizing technology.The narrative unfolds with a dedicated exploration of the latest IT advancements, scrutinizing their implications on computer applications across diverse sectors. The study not only highlights the efficiency gains brought about by these advancements but also underscores the emergence of novel applications that redefine user experiences and industry standard.As the analysis deepens, the paper addresses challenges and limitations encountered during the exploration, providing a balanced perspective on the complexities inherent in the dynamic landscape of IT and computer applications. The implications of the findings resonate across industries, emphasizing the need for a nuanced understanding of the synergy to harness its full potential. In conclusion, this research paper contributes to the discourse surrounding IT and computer applications, offering insights that not only capture the current state of affairs but also pave the way for future research and development in the ever-evolving digital age.

Keywords: Artificial Intelligence; Cyber Security; Cloud Computing; Digital Age.

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Evolution of Technology with Outcome Based Education in Higher Education to Restoring Suitability Development

Sapna Sharma, Hemangi Kolhe** and Hemangi Kolhe****

ABSTRACT

Education along with equitable quality is the primary right for everyone. Education is a lifelong learning process**.** Primary purpose of educational is to expand the current sources of knowledge by presuming formulated solution to different problems. Sustainability Development is the mean through which we understand current feasible requirement is meet or not. Where in education with Outcome Based is one of the effective standard in modern educational system? An outcome is a process to evaluate what level of learning student has received at the end of the course. With the involvement of the technology with OBE has sharpen modern educational experiences. Technology has radically changed the way how learning must be carry. With the help of technology smart and modern educational system has led to more creative and interactive way of learning with following key features: Flexible Learning, Collaborative Learning, Personalized Level of Learning impact and may more.

Keywords: Education; Outcome Based; Formulated Solution; Technology; Sustainability Development; Learning.

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Advancing Maize Crop Sustainability: AI-enhanced Detection and Mitigation of Fall Armyworm Infestations for Optimal Production

Monica Shinde and Kavita Suryawanshi***

ABSTRACT

The fall armyworm (Spodoptera frugiperda) poses a significant threat to crop yields, particularly in maize, causing substantial reductions annually. Originating from Southeast Asia, the new generation migrates to East Asia, contributing to the global challenge of pests affecting maize crop. Streamlining the monitoring and implementation of effective management measures requires innovative, real-time detection methods. Recent years have seen maize crops under siege from fall armyworms, leading to noteworthy yield losses. This study focuses on automating the diagnosis of plant pest infestations through computer vision and artificial intelligence. The goal is to leverage technological advancements for infestation in maize, enabling timely recommendations and enhancing crop yields. Digital technology, particularly convolutional neural networks (CNNs) and transfer learning, has emerged as a promising solution for just-in-time crop pest infestation detection. When addressing these challenges in maize crop management, the chosen algorithm delivers impressive outcomes. Our developed model accurately identifies the larval stage of FAW (S. frugiperda) with a training accuracy of 56%. Achieving an average classification accuracy of 82% on clear FAW images and a 32% rate of false positives, the model underscores the potential of utilizing advanced technologies to combat fall armyworm infestations and bolster overall maize crop sustainability.

Keywords: FAW; Maize Crop Management; Digital Technology; Computer Vision and Artificial Intelligence, Maize Crop Sustainability.

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An Examination of the Fundamental Properties of Concrete using Recycled Glass

Lakhvinder Singh, Ajay Vikram** and Abhilash Thakur****

ABSTRACT

The unrestricted consumption of natural resources like sand, stone and immense use of cement in the construction process has a ruinous effect on environmental sustainability. Currently lots of the experiments done by the researcher to reusing the waste materials in building industry. In view of this, researchers in a variety of fields are looking for ways to reuse materials, as an alternative to natural resources. The current ground situation of scrap waste glass (WG) to landfills is also not offering an environmental friendly management for the WG, due to the non-biodegradable form of the WG. The applicability of WG use in construction is environmental friendly to reduce carbon emission. The numbers of excellent experts have been already conducted properties of concrete containing WG. This review aims to deliver, the effects of WG in concrete as a replacement of inert matrix ingredients are examined, to identify the fluctuation in the properties, benefits, mechanisms, and current researcher progress and environmental benefits are the main aspects of this review. In addition, the review helps in future researcher guidelines for WG to improve its execution as well as optimum use of natural resources.

Keywords: Waste Glass (WG); Fresh and Hardened; Concrete; Sustainability; Environment Issue.

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Enhancing Industry 4.0 Capabilities: A Comprehensive Analysis of Artificial Intelligence and Machine Learning Integration for Smart Organization

Anamika Dixit and Rupali Sonar***

ABSTRACT

The Fourth Industrial Revolution, commonly known as Industry 4.0, continues to revolutionize traditional Organizations paradigms by integrating advanced technologies for improved efficiency and productivity. This research paper presents a comprehensive analysis of the integration of Artificial Intelligence (AI) and Machine Learning (ML) in the context of Industry 4.0, focusing on its trans-formative impact on organizational processes and operations. Our study delves into the key components of smart organizations, exploring the ways in which AI and ML technologies contribute to the creation of adaptive, data-driven systems. We investigate the deployment of AI algorithms for predictive maintenance, quality control, and demand forecasting, showcasing their potential to optimize production workflows and reduce downtime. Furthermore, this research evaluates the role of machine learning models in real-time data analytics and decision-making within smart organizations environments. We discuss the challenges and opportunities associated with implementing AI-driven solutions, emphasizing the need for robust cyber security measures and ethical considerations in the era of intelligent automation. Through an in-depth analysis of case studies and empirical data, this paper provides insights into the tangible benefits and potential obstacles organizations may encounter when integrating AI and ML into Industry 4.0 frameworks. The findings contribute to the growing body of knowledge on the practical applications of AI and ML in smart organizations, offering valuable guidance for industries seeking to enhance their capabilities in the evolving landscape of the Fourth Industrial Revolution.

Keywords: Industry 4.0; AI; ML; Smart Organization; Real-time Data Analytics; Case Studies; Cyber Security; Fourth Industrial Revolution; Organizational Processes.

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Industry 4.0 and its Impact on Enhancing Warehouse Sustainability

Vaishali Sharma and Anuj Kumar***

ABSTRACT

Sustainability is the need of an organization to sustain in the fast-paced world, however in reference to Industry 4.0 will be a game changer in logistics sector. Nowadays, warehouses serve as more than just storage facilities for commodities - they are also becoming exhibits for sustainability. Warehouses of today incorporate cutting-edge LED lighting, motion sensors, and sophisticated insulation systems. This paper focuses on how industry 4.0 technologies help to create a sustainable environment in the warehousing sector. Industry 4.0 with advanced technology is transforming modern day warehouse into smart warehouse and making them more sustainable and eco-friendlier and eventually leading to carbon footprint reduction. The objective which would be fulfilled with the secondary research done using research papers, articles, journals would be how technology is leading to sustainability in the warehouse sector and how the future sustainability would look like.

Keywords: Industry 4.0; Sustainability; Sustainable Warehousing; Warehouse Management; Future of Sustainable Warehousing.

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Technological Revolution towards Sustainable Business Organization: Industry 4.0

*Nilima Thakur**

ABSTRACT

Industry 4.0 is the technological revolution with the launch of digital India campaign in 2015. Industry 4.0 transformations work alongside machines in new and highly productive ways. Never before has Innovation occurred in such short period of time. There are several key trends acting together…. Business Designs, manufacturing and supply chain (MSC) of products has been reinvented. Successful organizations are the ones who adapt to these trends and discover how to treat them as opportunities. Initiatives also look to develop symbiotic collaborations between the user (people) and the technology (tools). Speed accuracy and compatibility of 4.0 tools with creativity and innovation thrive to win-win position of workforce & bottom line adaptation (user). Innovation in business can lead to higher performance, but the process isn't automatic and it does not necessarily require above average levels of investment. Seventy percent of US CEOs are anticipating changes to their innovation capabilities. The definition of innovation has challenged its R&D and opportunity of new technologies, MSC status of products and services but also business processes and business models. The most successful companies combine an integrated process and a supportive culture to create a sustainable business organizations. Money simply cannot buy effective innovation. Patents generally don't drive profits. Less than 15% of companies are High-Leverage Innovators and distinguish themselves not by the money they spend, but in having a very good innovation in Business/Project management system. Under United Nations seventeen SDG's we are talking about the 9th goal for Industry 4.0 towards innovation and infrastructure revolution. This paper aims to unpin the challenges and opportunity faced in fourth industrial revolution with respect to three pillars Social, Economic and Environment (SEE) of empowerment. There are reasons why today's digital transformations are reinvented, not merely a prolongation of the Third Industrial Revolution but rather the arrival of a Fourth and the distinct one: towards speed, accuracy and scope, of global business impact in manufacturing powered by digital transformation. The speed of current breakthroughs has no historical precedent but vast amount of data come across the business in real time around the clock. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace with AI at the heart allowing manufacturers to analyse predict and understand. Moreover, it is disrupting almost each nook and corners of industry 4.0, the breadth and depth of revolution is herald not by single technology but seamless integration of tools and systems of production, manufacturing management, and governance rather manpower and human capital as well with respect to the SEE? (Society, Economy & Environment)

Keywords: Technological Innovation; Digital Revolution; Fourth Industrial Revolution; Sustainable Governance; Sustainable Business; Industry 4.0; Industrial Economy.

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Integrating Industry 4.0 Principles in Education 4.0: Transforming Learning for the Digital Era 4.0

Vanita Patil and Sonali Pawar***

ABSTRACT

Before 21st century education was static means lectures were conducted in classroom and instructor delivers content based on that students were rewarded but now in digital era of 21st century and advancement of technology industry 4.0 combines traditional education with the ICT enabled tools like Block chain, Internet of Things, Artificial Intelligence etc. which ultimately gives practical approach to the education which eventually results in a great learning outcome. Education 4.0 also help to qualified professionals who are ready for globalized and digital driven world. The aim of this paper is to show the role of fourth industrial revolution in education 4.0 and how it is advantageous for not only students but for staff, management and administrator.

Keywords: Industry 4.0; Education 4.0; Education 4.0 Stakeholders; Components.

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PART B

MANAGEMENT

Sustainable Development Goals (SDGs) and Environmentally Sustainable

*Shradha Goel**

ABSTRACT

The world economies have unified in their efforts to achieve the goals of sustainable development. As we all are aware that environmental sustainability is essential for preserving the plant's natural resources, protecting ecosystems, mitigating climate change, promoting human health and well-being, and achieving long-term social and economic development. Developing countries are facing the issue of environmental deterioration. Environmental sustainability is a core component of the Sustainable Development Goals (SDGs). By integrating environmental sustainability into the SDGs, the global community acknowledges the interconnectedness of environmental issues with social and economic development. It emphasizes the need to pursue a balanced and integrated approach to ensure a sustainable future for both current and future generations.

Keywords: Mitigating Climate Change; Environmental Deterioration; Sustainable Development Goals (SDGs); Environmental Sustainability.

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Innovation & Technological Advancements and its Impact on Future Strategy & Management of Organisations

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ABSTRACT

Technological systems can free up human resources to focus on more strategic and creative aspects of management and devote their time to decision-making, innovation, and problem-solving by removing routine and mundane tasks. Technology provides management with sophisticated tools such as predictive analytics, allowing for data-driven decision-making. Organisations may use AI algorithms to analyse large datasets, detect patterns, and make accurate predictions. This not only improves decision-making accuracy, but also allows organisations to keep ahead of industry trends and prepare for future issues. Management must invest in adaptive learning programs that facilitate skill development and build a culture of continuous learning to ensure the workforce's relevance in an technology driven workplace. As AI systems become integral to decision-making, establishing ethical guidelines, Cyber security and ensuring responsible AI usage becomes an essential managerial responsibility and strategic management planning. The rise of AI can lead to job displacement in certain sectors, necessitating a proactive approach by management to address workforce transitions, reskilling initiatives, and socio-economic implications in global workforce dynamics. As AI becomes ubiquitous, governments worldwide are formulating regulations and policies to govern its ethical use. Management must stay abreast of evolving regulatory compliances with ethical standards and understanding of the intersection between AI, employment, and socio-economic factors.

Keywords: Technological Advancements; Management Impact; Predictive Analytics; Ethical AI Usage; Workforce Development; AI Algorithms.

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Evolution of Business Ethics in India

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ABSTRACT

You cannot make someone be ethical, as you might make someone do a calculation or sell a product. However, you can help lead and guide people to ways of thinking and responding to situations that will foster their ethical behavior. According to Wikipedia, business ethics is a form of applied ethics that examines ethical principles and moral or ethical problems that arise in a business environment. Some of the objectives of ethical issues in business are to obtain willing acceptance of rules, regulations etc., to impart an element of certainty, to develop among employees a spirit of tolerance, to create an atmosphere of respect for human relations, to increase the working efficiency and morale of employees, to comply with laws, ethical codes and policies of organisation. Religion and culture can encourage ethical behavior in business. It is proposed that there is a profound interrelationship between religion, business ethics and economic activity in India. It is a shared perception that a business cannot be run ethically under present- day conditions and so most of the businessmen might be following the unethical practices in business. The main cause for such misperception by the common man about ethics in business is the ambiguity regarding the meaning of the word "Ethics" itself. As we are witnessing that India is emerging as global economic business partner, it is essential to understand ethical business infrastructure in the current scenario. This paper further elaborates on the evolution of business and its consequences on doing business with Indian companies.

Keywords: Business Ethics; Ethical Behavior; Ethical Codes.

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Investigating Sustainable Consumption: A Systematic Literature Review

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ABSTRACT

Sustainable consumption is a complex and multidimensional concept that involves the interactions among consumers, producers, and public policies. This paper aims to provide a comprehensive review of the literature on sustainable consumption, covering its definitions, dimensions, drivers, barriers, and impacts. The paper adopts a systematic approach to identify and analyze relevant articles from various academic databases. The paper also proposes a conceptual framework that integrates the different aspects of sustainable consumption and highlights the gaps and challenges for future research. The paper contributes to the advancement of knowledge on sustainable consumption by synthesizing the existing literature and offering directions for further studies. Sustainable consumption is a critical aspect of addressing environmental challenges and promoting a more sustainable future. This abstract presents a comprehensive review of the literature on sustainable consumption, exploring key findings and insights. The review highlights the challenges associated with sustainable consumption, including intensifying household consumption, reliance on unsustainable energy sources, and class differences in consumption patterns. It emphasizes the need for a comprehensive approach that considers both individual behavior and systemic factors, taking into account consumer behavior, company practices, and public policies. The review underscores the significance of a business focus in sustainable production and consumption, encompassing conceptualization, policy frameworks, implementation, and progress maintenance. Effective communication strategies, such as shared frameworks, diverse perspectives, and targeted approaches, are identified as crucial in promoting sustainable consumption. The role of government interventions and policies in shaping sustainable consumption practices is also highlighted, along with the incorporation of the United Nations Sustainable Development Goals as a guiding framework. The review further explores sustainable consumption in specific contexts, such as food and fashion, emphasizing the importance of tailored strategies and understanding consumer segments. Additionally, the role of information technology and consumer knowledge in driving sustainable consumption is recognized. The abstract concludes by emphasizing the need for further research to explore the impact of eco-friendly product attributes, investigate long-term behavior change, and address gaps in the existing literature. By addressing these research gaps and implementing evidence-based policies and strategies, sustainable consumption practices can be advanced, contributing to environmental preservation and societal well-being.

Keywords: Sustainable Consumption; Literature Review; Challenges; Potential Solutions; Individual Behavior; Systemic Factors; Business Focus; Communication Strategies.

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Experiential Study on the Impact of Case-based Learning Method on Student Engagement, Learning Motivation and Learning Performance among BBA Students of MUCC, Pimpri

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ABSTRACT

Purpose: The purpose of this paper is to observe the impact of case study-based learning method on student's engagement, learning motivation and learning performance among BBA students of MUCC, Pimpri.
Design/methodology/approach: The research paper is analysed with structural prototypical. The analysis is completed with the application of the dimension prototypical and the structural prototypical.
Findings: The conclusions exposed that case study-based learning method develops student engagement, and a substantial and positive relationship between case-based learning method and all four aspects of engagement, i.e. behavioural, emotional, cognitive, and agentic engagement, was experiential statistically. According to the findings, case-based learning method primes to an understanding of concepts cultured in class and the development of skills among students and outcomes in the enhancement of learning motivation. Additionally, it is proposed by the outcomes that the effect of student engagement on learning performance differs with respect to its different aspects. By means of amongst all the four aspects, only agentic engagement was found to be statistically significant in establishing the association with the learning performance of the students.
Research limitations/implications: The results relating to the impact of student engagement's aspects on learning performance of the students overlay the technique for forthcoming research. The contemporary study holds implication for the arena of educational research and accentuates the importance of integrating case-based teaching method among the BBA graduate's education curriculum in directive to certify the application of effective learning strategies.
Originality/value: In interpretation of the limited theoretical literature in the Asiatic framework, the present study extends the findings and examined the impact of case-based learning on student's engagement, student's learning motivation and the role of such engagement in enhancing learning performance of MUCC BBA students.

Keywords: Student Engagement; Learning Performance; Case-based Learning Method; Learning Motivation.

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Enhancing Sustainable Development Goal Awareness among Management Students: A Comprehensive Analysis

Ramesh Jadhav, K. Nirmala** and Ganesh Pathak****

ABSTRACT

In this study, the researchers have performed a critical investigation for gauging the management students' levels of awareness regarding the Sustainable Development Goals (SDGs) of the United Nations. The study was performed out of an interest in learning the levels of awareness within the students, regarding sustainability and sustainable business practices and data was acquired from the samples through the methodology of simple random sampling. Post analysis of the data using statistical tools, the researchers found that there was an increase in the level of awareness regarding SDGs within the students and the study can be useful for policy makers in producing a new generation of management professionals who can advance the objectives related to sustainability of the country.

Keywords: Sustainability; Sustainable Business Practices; Management Education; SDG Goals; Employability.

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The Future of E Commerce: Emerging Technologies Shaping Online Retail Experiences

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ABSTRACT

This research paper explores the dynamic landscape of e-commerce, delving into the transformative impact of emerging technologies on online retail experiences. The study examines key technological trends, including artificial intelligence, augmented reality, virtual reality, and blockchain, and their role in redefining the way consumers interact with online platforms. By analyzing the integration of these technologies, the paper sheds light on their potential to enhance personalization, improve user engagement, and streamline operational processes within the e-commerce ecosystem. The research also investigates the challenges and opportunities associated with the adoption of these technologies, emphasizing their role in shaping the future trajectory of e-commerce. As online retail continues to evolve, understanding the implications of these emerging technologies becomes crucial for businesses seeking to stay competitive in the rapidly changing digital marketplace.

Keywords: E-commerce; Emerging Technologies; Artificial Intelligence; Augmented Reality; Virtual Reality; Blockchain; Online Retail; Personalization; User Engagement; Future Trends.

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The Factor that Impact the Adoption of Mobile Technology by Kirana (Grocery) Shops in Pune City Area

Gaurav Ray and Sanjit Kumar Dash***

ABSTRACT

Globalization, computerization and free trade are becoming very old concepts now. Today we talk about Industry 4.0, block chain, Artificial Intelligence and so on. There is one very different concept of Democratization of Technology, that changes life of all. One form of this concept is mobile phones in the hands of the poorest of poor people and their capability to transact online using mobile applications- Apps. The transactions can be of very small values and there is no need of rounding of figures to complete the transaction. A payment of Rs. 17.70 can be done through your mobile and there is no problem of lower denomination change. The UPI payment system has transformed the way people transact in India. The retail sector is no exception to this change. Till recent times technology has not touched this sector of great importance. This has led the authors to look into the aspect of adoption of mobile technology while handling a Kirana Shop. The topic is of importance as it deals with our day-to-day life requirements. The high-tech malls are booming in India but the 13.38 million Kirana shops cannot be still replaced for so many reasons. Now obvious question comes to the mind that how a Kirana shop can compete with the high-tech malls and what can be the technology platform for them as a weapon to combat the existential battle. This study is an attempt to find the factors controlling the adoption of mobile technology platform for the Kiran Shops to be competitive.

Keywords: Mobile Technology in Retail; Retail Technology Management; Kirana Shop and App; Adoption of Mobile Technology; Grocery Shop Apps; Mobile Apps for Kirana; Mobile Technology for Grocery Shop.

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E-commerce Last-mile Delivery Challenges and Issues in the Indian Tier 2 and Tier 3 Cities from the User's Perspective

Dhruv Verma and Smriti Asthana***

ABSTRACT

India has seen consistent development in e-commerce in recent years; the COVID-19 pandemic has largely contributed to this trend. Urban and Tier 2 and Tier 3 cities are greatly impacted by last-mile logistics related to e-commerce. Through e-commerce, companies may stay open twenty-four hours a day, seven days a week, providing partners and customers with access to goods and services whenever they need them. The exponential growth of e-commerce is driving consumer expectations for more flexible and faster delivery. As a result, both established and new delivery models need to adjust to more affordable options that combine orders intelligently, optimize delivery routes, and make use of advanced analytics and artificial intelligence. Failing to do so could put these delivery models' sustainability in jeopardy in a demanding and changing delivery environment. This research paper aims to identify the challenges present in the E-commerce last mile delivery concerning tier 2 & tier 3 cities along with user perspective in India. There is already existing literature available in the context of urban last-mile delivery but there exists a research gap when looked at from the perspective of Tier 2, Tier 3 users. Stratified random sampling of 1145 individuals has been done to collect primary data and Scopus-indexed journals, 15-20 research papers and the internet have been referred to for secondary information and literature review. This research paper will help managers to identify the key issues and challenges and to focus on these issues for the successful implementation of last-mile delivery in the tier 2, and tier 3 cities of the country.

Keywords: E-commerce; Growth of e-commerce; Last-mile Delivery; Challenges; Opportunities.

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E-commerce: It's Impact on Customer Behavior

Swapnal Nagwade, Ashlesha Deole** and Snehal Varhadi****

ABSTRACT

The main goal of the paper is to take quantitative describing the actuality of online shopping in the case of the India in order to explain the development of online shopping and its impact on customer behavior. The paper made on the relevant literature and at the same time examines customer behavior by questionnaires. Furthermore, the future development of online shopping will be measured and deep comparison of customer behavior between different countries. This paper support the research questions that including recent trends and various issues in online shopping, and principle factors for customer behavior. Also, the result of the study shows that online customer trust and perceived risk have strong impacts on their purchasing decisions. Customer `s trust, privacy concerns, security concerns are the major factors for using Online shopping, the trust on websites influence to the purchasing decision of any customer. More specifically, the empirical result suggests how the E-commerce companies make marketing strategies according the research data and analyzing result.

Keywords: E-commerce; Online Shopping; World Wide Web; Customer Behavior; Privacy and Security; Customer Trust.

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The Role of Marketing Management in SDGs - Sustainable Consumption

Vaibhav Satkar, Navnath Dighe** and Sudam Shinde****

ABSTRACT

This research paper explores the pivotal role that marketing management plays in fostering sustainable consumption practices and contributing to the realization of Sustainable Development Goals (SDGs). As consumers' awareness of environmental and social issues grows, the paper investigates how marketing strategies can influence and shape consumer behaviour towards more sustainable choices. by analysing case studies, industry trends, and the impact of marketing campaigns, the study aims to provide insights into the positive correlation between effective marketing management and the promotion of sustainable consumption patterns. Furthermore, the paper examines the potential of marketing initiatives to address specific SDGs, such as poverty alleviation, gender equality, responsible production, and climate action. Through a comprehensive review of relevant literature and empirical evidence, this research aims to contribute to a deeper understanding of how marketing management can act as a catalyst for sustainable consumption practices, ultimately fostering a more sustainable and equitable world.

Keywords: Marketing Management; Sustainable Consumption; Sustainable Development Goals (SDGs); Environmental Marketing; Social Responsibility; Consumer Behavior; Corporate Sustainability; Ethical Marketing.

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Financial Literacy and Inclusion: A Crucial Nexus for Sustainable Development

*Swati Chauhan**

ABSTRACT

Financial Inclusion (FI) has been recognized as a catalyst for seven out of the 17 sustainable development goals. The G-20 has demonstrated its dedication to promote FI worldwide and has formulated elevated principles to guide this commitment. Studies in the literature found that financial literacy (FL) plays a crucial role to make informed financial decisions, diminish the barrier to enter in to financial system and promote inclusivity. The objective of this study is to see the nexus between financial inclusion and financial literacy through existing studies, further study will take the case of Madhya Pradesh where recently District financial inclusion Index has been launched to understand the status of FI and its comparison with national financial inclusion index (FII). Further study will also analyse the strategy document viz. National Strategy for Financial Inclusion (NSFI) 2019-24, and National Strategy for Financial Education (NSFE) 2020-25 launched by Reserve Bank of India (RBI) and National Centre for Financial Education (NCFE) respectively. By elucidating the interconnected dynamics of financial literacy and inclusion, the study aims to contribute valuable insights for policymakers, financial institutions, and stakeholders committed to advancing sustainable development goals.

Keywords: Financial Inclusion; Financial Literacy; Sustainable Development Goals; NSFI; Financial Inclusion Index.

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A Critical Study of Behavioural Factors Affecting Mutual Funds Investors in Sangli District

Vilas Patil, Priya Tiwari** and Vinayak Gramopadhye****

ABSTRACT

There has been an increasing volatility and fluctuations in the stock markets during the past few years and these markets are largely exposed to tremendous macro-economic shifts that affect markets on a global scale. A new emerging field known as Behavioural Finance attempts to better understand and explain how investors are largely affected by emotions and perceptive errors in their decision-making process while investing. Psychological work suggests that investors fail to behave in such a way in many situations. People are limited in their abilities and capabilities to solve complex problems, especially financial investment decision making. Behavioural factors play a pivotal role in determining the investment decisions. The present study attempts to analyse the mutual funds investment decision making of investors of Sangli district in order to frame a model regarding investment decision making.

Keywords: Behavioural Finance; Volatility and Fluctuations; Behavioural Factors; Investment Decision Making.

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Personal Financial Planning Behaviour: A Systematic Review of Literature with Bibliometric Analysis of Keywords

Ritu Kasliwal and Bhushan Pardeshi***

ABSTRACT

Primary intent of the study is to find existing trends and emerging themes in publications on 'financial behaviour' with reference to financial planning through bibliometric analysis and propose the scope for future research. A most distinguishing theme is the effect of financial literacy, education, capability and efficiency on financial behaviour during financial planning and decision making of individuals and its influence on financial satisfaction and wellbeing. The major areas which require financial planning are spending, saving, borrowing, investment, trading, risk management and taxation are relatively under researched except retirement planning. The review and further analysis of identified literature indicate that there is a significant requirement of awareness, education and motivation to individuals to have appropriate financial plans for financial wellbeing and satisfaction in the long run. The individuals are required to understand the limitations of existing financial situations, accept the reality and take responsibility for their future financial welling. Since, the financial landscape is changing very fast, further studies can be conducted to understand the awareness and knowledge among individuals about innovative financial products & services as well as availability of certified financial planners / advisers. This would support the financial institution and policymakers to plan for greater financial inclusion.

Keywords: Financial Behaviour; Behavioural Finance; Financial Planning, Bibliometric Analysis; Scopus; VOSviewer, Systematic Review.

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The Role of AI: Transforming the Landscape of Indian Financial Services

Anuradha Patil, Abhishek Raidas** and Priyanka Dhoot****

ABSTRACT

AI has now become a transformative force reshaping daily operations and customer experiences in the FS sector globally. This research paper delves into the rapidly evolving landscape of artificial intelligence (AI) adoption within the Indian financial services (FS) industry. This study, conducted through an amalgamation of primary and secondary research methodologies, provides a comprehensive overview of the current AI landscape in Indian financial institutions. Primary data allowed us to assess the dynamics of the Indian financial services (FS) industry, encompassing banking, insurance, non-banking financial companies (NBFCs), payments, and asset and wealth management. This comprehensive analysis focused on various aspects, including the adoption and implementation of AI, the industry's expectations, challenges, and concerns related to AI. Secondary research involved a thorough analysis of academic journals, industry reports and leading business publications. Research study resulted in the creation of AI use cases which were subsequently utilized to create a roadmap for AI strategy, adoption, and implementation, scale up and subsequent innovation.

Keywords: Artificial Intelligence; Financial Services; Indian Financial Institutions.

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E-commerce and Financial Apps Connectivity with People

Arun Prasanth R. and Deepan R.***

ABSTRACT

Traditional commerce originated when the barter system was established millions of years ago. When there was no money available, the barter system describes exchanging items for other goods instead of money. This is where conventional trade began, and it continues to this day, involving the exchange of both money and commodities. Over the past few years, e-commerce has experienced tremendous growth, and as technology advances, it will only continue to undergo rapid transformation. Customers of today want shopping to be simple, safe, and convenient. Furthermore, because the e-commerce industry is always changing, companies are always looking for new ways to draw in customers and win their loyalty.

Keywords: Traditional Commerce; E-commerce; Barter System; Technology Advancement; Companies with their e-commerce Platforms; Financial App.

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Benefits of Improving Training and Development Strategies for Employees

*Sunanda Pandey**

ABSTRACT

In this dynamic business environment, it has become a great challenge for the companies to provide adequate training & development to the new and existing employees. It has become mandatory in almost all the organizations to train & develop their employees in order to meet the current expectations of the business, further in this paper various strategic initiatives related to training & development will be discussed. Along with it the discussion related to history, activities of training & development and the various measures that show the value of training will be done. The main aim to write this paper is to cover the importance and need of training & development along with its evolution and impact on employees that leads them and the organization towards success.

Keywords: Training; Development; Skills; Strategy; Learning.

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Employee Retention – An Art of Reducing Voluntary Employee Turnover

Sonam Poptani and Subhash Suryawanshi***

ABSTRACT

The paper focuses on the art of reducing voluntary employee turnover outlining the strategies and approaches of retaining employees. High employee turnover could consequently affect the organization's sustainability and productivity. Maintaining a pleasant workplace culture and maintaining productivity in the face of voluntary turnover has made employee retention a significant task in modern organizational management. This study examines several tactics and methods meant to stop the loss of talented individuals. With an emphasis on work-life balance, leadership, engagement, remuneration, career advancement, and creating a positive work environment, this study explores the complex factors that affect workers' decisions to stay.

Keywords: Employee Retention; Empowerment; Employee Engagement; Work Life Balance; Career; Employee Turnover; Employee Satisfaction.

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Artificial Intellect in the HR Space

Pratiksha Ramesh Ghadage and M. Sathiya***

ABSTRACT

Artificial Intelligence (AI) is completely revolutionizing the human resources industry. AI is the imitation of human intelligence with human-like thought processes. Another acronym for it is machine learning. AI in HR provides employees with opportunities to increase their level of involvement at work. The successful use of AI in an organization is an innovative technological advancement. At the United Nations established norms on sustainable development, an advanced artificial intelligence robot, attended the panel and fielded questions from the audience. AI is revolutionizing so many sectors at such an alarming rate. Hiring managers may now choose from a variety of AI solutions, such as simple recruitment tools, intermediate apps, and sophisticated AI solutions. When used in combination or separately, these technologies improve the ability of human resources to forecast a candidate's likelihood of success with the organization in the future. The results of this study will shed some light on the advancements in artificial intelligence and its consequences for human resources. This research paper's primary objectives are to examine AI applications and assess their effects on human resources. In human resources, AI is a creative approach that may aid in handling numerous sorts of tasks easily namely recruiting, retaining, and so on, this paper aims to provide an overview of artificial intelligence's application in human resources, discuss the challenges faced by the organization in implementing it effectively, and offer recommendations for improving the technology's performance in this domain.

Keywords: Artificial Intelligence; Human Resources; Challenges; Tools; Machine Learning; Recruitment.

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Analyse the Contribution of Unbiased Recruitment on Fostering an Environment of Equality and Collaboration

*Reshma Ketkar**

ABSTRACT

An organization's ability to attract and retain top personnel is essential to its success. Recruiters must exercise greater discretion in their hiring practices as the labor market becomes more competitive and the range of skills available expands. This is because poor hiring decisions can have long-term negative effects, such as high training and development costs to reduce the likelihood of poor performance and high turnover, which in turn affect employee morale, the ability to produce high-quality goods and services, and the ability to retain organizational memory. Hiring judgements made using objective information rather than subjective observations are known as unbiased recruitment. This study aimed to discuss the effect of biases in recruitment, elucidate the principles of bias-free hiring, investigate the impact of unbiased recruitment on fostering an environment of equality and collaboration with special reference to Pune and explain strategies for minimizing biases while recruiting in Pune companies. The information gathered for this study was organized according to the principles of descriptive and empirical research. 100 respondents served as the primary sample, which was drawn via convenience sampling. Pune was chosen randomly as the study's location. To gather the primary data for this quantitative inquiry, a well-designed and well-structured survey questionnaire was created and disseminated by email and social media. Secondary data was gathered through a range of books, papers, magazines, journals, and websites. The data were analysed using statistical tools, such as percentages, tabular, and graphical methods. The hypothesis was assessed using the Chi-square test. Theoretical framework was developed on how unbiased recruitment has an impact on fostering an environment of equality and collaboration which is based on four principles of bias-free hiring.

Keywords: Unbiased Recruitment; Environment; Equality; Collaboration; Objective Information.

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Exploring How Students View the Integration of Group Psychology in Human Resources Strategies

Vijayakumar Mani, Dharshini S.**, Logeshwaran G.S.*** and Sneha K.*****

ABSTRACT

Human resources strategies revolve around comprehensive planning and implementation of efforts to successfully manage an organisation's workforce. These techniques encompass a variety of disciplines, including recruiting, staff development, performance management, and employee relations. The study is to integrate the awareness of human resource practices. Successful HR strategies in line with the new AI technologies help to recruit, retain, and develop talented workers, which improves overall organisational performance and success. Psychology has a considerable impact on human resources because it provides insights into individual and group behaviour, motivation, and interpersonal dynamics in the workplace. The major objective of this study is to explore the knowledge about the student's perspective in psychology in line with human resources. The method of sampling used to collect data is Convenience Sampling. Convenience is a type of nonprobability sampling that involves the sample being drawn from the part of the population that is close to hand. The sample size of the study is 125 respondents.

Keywords: Human Resources; Psychology; Business Decisions; Groups; AI.

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The Impact of Soft Skill on Employee Behaviour and Work Performance with Reference to the Hospitality Industry at Nashik

Sarita Dhawale and Sayali Ware***

ABSTRACT

This research paper investigates the significant impact of soft skills on employee work performance within the context of the thriving hospitality industry in Nashik. Soft skills, encompassing interpersonal, communication, and emotional intelligence, play a pivotal role in shaping employee conduct and productivity. The study employs a comprehensive framework to explore the intricate dynamics between soft skills, employee behaviour, and work performance, shedding light on their interdependencies and implications for the hospitality sector in Nashik. Through a combination of quantitative and qualitative research methods, the paper aims to provide valuable insights for industry practitioners and policymakers, facilitating the enhancement of workforce effectiveness and organizational success in this unique regional context.

Keywords: Soft Skills; Employee Performance; Communication; Emotional Intelligence.

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Sustainable Talent Acquisition: A Machine Learning Approach for Accelerating Recruitment and Internal Talent Mobility

Sarah D'souza and Mark D'souza***

ABSTRACT

In today's dynamic workforce landscape, the efficient selection of candidates that align seamlessly with job requirements is critical for streamlining recruitment processes and optimizing internal talent mobility. This research paper explores the development and implementation of a Machine Learning Model (MLM) intended to expedite the hiring process by precisely choosing resumes that closely correspond with job descriptions (JDs). The Model aims to improve productivity, decrease the time spent screening candidates, and ease talent mobility within an organization. The research delves into the technical aspects of the model's design, including data pre-processing, feature engineering, and the choice of machine learning algorithms. It evaluates how well the model addresses a range of skill levels, sectors, and job requirements, ensuring broad applicability across organizational needs. The study also explores an in-depth overview of the challenges linked to conventional resume screening techniques, stressing the arduous nature of the procedure and the possibility of human biases. Furthermore, the findings focus on how well the model handles a range of candidate profiles and job requirements. It evaluates the model's scalability, accuracy, and dependability in a range of organizational settings and industries, highlighting its adaptability to changing hiring requirements. In conclusion, this study contributes to the expanding field of HR technology by offering an innovative way of evaluating resumes, emphasizing talent mobility within organizations and accelerating the hiring process. It aims to guide HR professionals, recruiters, and organizational leaders in leveraging technology to create more agile and responsive talent management processes in today's competitive and fast-paced business environment.

Keywords: Automation; Candidate Screening; HR; Job Description; Machine Learning; Recruitment; Talent Acquisition.

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Sustainable Practices of Selected Companies in India with Respect to Employment of Differently Abled Individuals

Girija Paranjpe and Prasanna Deshmukh***

ABSTRACT

The employment of differently abled individuals has always been a point of concern, not only in India, but in countries across the world. The sustainability development goals refer to equal opportunities and reduced inequalities for all individuals in all paths of life. The paper focuses on selected companies in India, which have taken initiatives in employing the differently abled individuals. Indian government has also promoted employment of divyangjan to provide them equal opportunities as of people without any disabilities by reserving a quota of 3% to 5% in companies from different sectors. Research has shown that the companies are promoting hiring for differently abled individuals. They are the untapped talent pool for the growth and development of the company. Other sustainable practices include reducing barriers during the employment such as transportation, trainings, support on the job and many more. Also, training the employees without any disabilities on the challenges faced by differently abled employees can support in their inclusion in the workforce. This paper also focuses on the practices followed by the selected companies in reducing the inequalities focusing on the disability. It will also analyse the challenges faced by differently abled individuals as well as companies in employment and retention.

Keywords: Employment of Differently Abled; Sustainable Practices; Reduced Inequalities.

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The Impact of Soft Skills Development on Long-term Career Sustainability in the Ever-evolving Workplace Landscape

Viral Ahire and Ganraj Mane***

ABSTRACT

In the contemporary workplace, characterized by constant evolution, the acquisition and refinement of soft skills have emerged as indispensable elements for long-term career sustainability. Soft skills, encompassing interpersonal communication, emotional intelligence, adaptability, and problem-solving, play a pivotal role in navigating the ever-evolving professional landscape. This research explores the profound impact of soft skills development on individuals' ability to thrive amidst technological advancements and shifting organizational paradigms. The study examines the correlation between soft skills acquisition and career resilience, emphasizing the role of adaptability and emotional intelligence in fostering personal and professional growth**.**

Keywords: Soft Skills; Career Sustainability; Workplace Dynamics; Adaptability; Emotional Intelligence; Professional Development; Organizational Change.

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The Study of Policy for Revival of Micro, Small and Medium Enterprises (MSMEs) during the Covid-19 Pandemic

*Anjit Jha**

ABSTRACT

The outbreak of COVID-19 has had a profound impact on not only the Indian economy but also the global economy. Among the different economic activities, micro, small, and medium enterprises (MSMEs) have been severely affected. This article aims to assess the contribution of MSMEs to the Indian economy and identify the challenges and issues faced by this sector before and during the pandemic. Various descriptive statistics were employed to measure the impact of MSMEs, while correlation and co-integration were used to analyze the relationship between the variables such as the number of MSMEs, investment amount, employment, and output. The pandemic has been a significant shock for MSMEs, and there is a strong positive correlation among the variables. Johansen's co-integration analysis showed a long-term co-integrating relationship. In light of the extensive chaos caused by COVID-19, the government needs to establish a continuous monitoring system and take urgent relief measures to boost the confidence of the MSMEs sector. The promotion of e-market linkage and an increase in fiscal stimulus for this sector should be prioritized. The Government of India should take various steps to improve Indian MSMEs and achieve the goal of a Self-reliant India.

Keywords: Covid 19; Indian Economy; MSMEs; Revival Strategies.

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Students' Performance Prediction: An Application of Educational Data Mining

Pradnya Bapat and Shriram Zade***

ABSTRACT

Technology becomes necessary for our daily life. Technology plays very important role now days in every field. The powerful technology of recent days is Data mining. Data mining is the method to taking out meaningful information from large data. Data Mining is useful in many fields. As Education is the significant sector, this technique works likewise important in Education field. There are various data mining techniques such as Clustering, Classification, and Predication etc. This paper explains the concept of Educational Data Mining. The highlight is given on various data mining techniques available for students' performance prediction. This paper shows the effective use done by past researchers to predict students' performance.

Keywords: Educational Data Mining; Student Performance; Data Mining; Classification; Prediction.

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Returns Experience on an E-commerce Website: A Customer's Perspective

Menakshi Naskar and Smriti Asthana***

ABSTRACT

The usage of the e-commerce platforms has increased over the past few years due to availability of internet and smooth flow of online transactions. In the urban areas, online purchase has become a part of the daily lifestyle of the many households. The e-commerce platform is expanding their categories, which will not only include clothing, furnishings but also provide services like grocery shopping and purchase of medicines. This took place and became more popular during the pandemic in the year 2020, whereas during the lockdown period people used to purchase all sort of necessities through online platforms, and all they required was internet and bank accounts to make online purchases. Although, vast majority of people use ecommerce websites in India which led to success of the ecommerce business. There is also downfall of such websites faced by the customers. Therefore, this paper aims to analyse the reasons behind the dissatisfaction caused to the customer while purchasing products online. A survey has been conducted with well-structured questionnaire using stratified random sampling and it include response from various parts of India, includes Delhi NCR, Kolkata, Dehradun, to find which category of products have been most returned by customers, which website is more suitable and which ecommerce platform has the history of most return products.

Keywords: E-commerce Returns; Reverse Logistics; Customer Satisfaction; Ecommerce Industry.

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Decoding Government Support to Women Entrepreneurship in India

*Arti Tiwari**

ABSTRACT

The nation's industry and economy have grown significantly as a result of the rising number of women who are entrepreneurs. Women-led business enterprises are playing an important role in society by creating employment opportunities in the country, bringing in demographic change and inspiring the next generation of women entrepreneurs. Government has come up with a new vision to promote sustainable development of Women Entrepreneurs in India. Start-up India initiative is committed to foster Women Enterprises through various government development schemes for MSME'S so as to create enabling environment for women in India thereby creating a network and community partnership among various stakeholders in India. The objective of the paper is to shed light on the contributions of women entrepreneurs in the economic development of India. This paper also fills a critical knowledge gap by understanding the length and breadth of government of India's existing support to entrepreneurs through a variety of central and state government schemes. It shares insights on ecosystem needs that remain under served and shares recommendations on making all entrepreneurship schemes more accessible and effective for women entrepreneurs.

Keywords: Start up India; MSME's; Women Entrepreneurs.

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Building a Skilled Nation: The Transformative Role of Higher Education

Prasad Shaligram and Shivaji Mundhe***

ABSTRACT

Skill India - The main goal of this program was to create opportunities, space, and scope for the development of the talents of the Indian youth and to develop more of those sectors which have already been put under skill development for the last so many years, and also to identify new sectors for skill development. This program was aimed at providing training and skill development to is also known as the National Skills Development Mission of India. It was launched by the Ministry of Skill Development and Entrepreneurship. The objective is to empower the youth of the country with adequate skill sets that will enable their employment in relevant sectors and also improve productivity. The present research paper highlights the scope and objectives of skill India movement in higher education.

Keywords: Higher Education; Skill India; Skill Development Program.

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Empowerment of Youth in Agriculture and Achieving Sustainable Development Goals (SDGs)

Ajit Dalvi, Sunil Dhanawade** and Shruti Gondkar****

ABSTRACT

What comes to your mind when you think of farming or Agriculture? Maybe food or farmers. If you google or search about Indian farmers or any pictures about Indian Agriculture, You will always see the negative side of farming. You might see a farmer who is looking up at the sky, waiting for rain or waiting in the barren land. We look farmer in the negative perspective that he will be in debt, name with suicides and wearing a torn cloths etc. All these things are commonly perceived. But the fact is, the farming sector is still called the backbone of the Indian Economy. More than 70 percent of the total population of India, depending on farming directly or indirectly. But there are negative views that if you are doing agriculture as an occupation, you can't settle in life. But reality is completely different. Let's understand that human civilizations like Mesopotamia, Indus Valley, Egypt, etc. started by farming. Before that human beings were wandering from place to place in search of food, hunting etc. When human mankind settled at one place doing agriculture by sowing seeds, growing crops, and then big civilizations settled. But it's surprising that in the current era, our perception is completely different. As in agriculture we can't settle in life. The future of agriculture holds significant opportunities and challenges, and the role of youth in shaping the industry is crucial. To achieve Sustainable Development Goals (SDGs) youth need to be empowered in agriculture. There are multiple opportunities and ways for youth in agriculture, like Technology Integration, Sustainable Agriculture, Innovation and Entrepreneurship, Global Food Security, Education and Skill Development, Policy Advocacy, etc. In this research paper, youths are randomly selected as respondents. With respect to title and objectives, responses were collected to understand the views of youths about agriculture and what roles they can play in the development and growth of Indian Agriculture and a Nation.

Keywords: Agriculture; Youth; Civilization; Sustainability; Food Security; Entrepreneurship; Advocacy.

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Dr. Shalaka S Parker

She is a highly accomplished academician with a diverse set of credentials, holds an M.A. in English from the University of Pune, earning a Gold Medal in 1997, followed by a B.Ed in 1998 where she ranked 2nd. She has successfully completed her PGDM and MMS in HRM from UoP in 2009, ranking 3rd and 5th, respectively. She obtained her Ph.D. in Management from UoP in 2013. With over 20 years in the teaching profession, her expertise lies in Communication Skills, Soft Skills, Human Resource Management, and Organizational Behavior.

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