Shri Shankaracharya
Institute of Professional Studies
Managed by Shri Gangajali Education Society
Old Dhamtari Road, Sejbahar, Raipur, Chhattisgarh, India 492015
Phone : 0771-2772989, Email : raipurssips@gmail.com

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9.2.1 Number of publications in peer reviewed journals listed in SCOPUS/WOS/UGC Care and in indexed conference proceedings(external) /book chapters (external)

Research Paper Publications

Sl. No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Calendar Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal /Digital Object Identifier (doi) number		
							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
1	Nanotechnology in Environmental Application: Nanoparticles Synthesis for Water Pollution and Wastewater Treatement	Jay Shankar Sahu	Computer Application	Journal of Chemical Health Risks	2023	2251-6727	https://jchr.org/index.php/JCHR	https://www.jchr.org/index.php/JCHR/article/view/1598	Scopus
2	Application of Atanassovs Intuitionistic Fuzzy Matric for Thyroid Disease Diagnosis	Dr. Anita Singh, Priya Nanwani, Heena Praveen	Mathematics	Journal of the Asiatic Society of Mumbai	2023	0972-0766	https://www.asiaticsociety.org.in/journal/	https://www.asiaticsociety.org.in/journal/	UGC Care
3	Infectious Keratitis Detection Using Deep Learning	Jay Shankar Sahu	Computer Scince	Samdarshi Journal	2023	2581-3986	https://punjabiacademy.delhi.gov.in/doit-content/samdarshi	http://punjabiacademydelhi.com/publication/	UGC Care
4	Detection of germanium isotopes in biosynthesized Ge nanocrystals through different optical spectroscopy techniquesthrough different optical spectroscopy techniques	Mr. Devendra Kumar Golhani	Physics	Materials Today: Proceedings (Elsevier)	July 2023	2214-7853	https://www.sciencedirect.com/	https://doi.org/10.1016/j.matpr.2023.06.329	Scopus
5	Empirical Study of Stress Level of Teacher's in Government & Private Schools in Chhattisgarh	Heena Parveen, Dr. Manoj Sharma	Humanities	Journal of Namibian Studies	2023	5112-5120	Journal of Namibian Studies : History Politics Culture (namibian-studies.com)	https://namibian-studies.com/index.php/JNS/article/view/4208	UGC Care
6	A Study of Stress Level of Working Women Teachers in Schools	Heena Parveen	Humanities	Journal of the Asiatic Society of Mumbai	June, 2023	0972-0766	https://www.asiaticsociety.org.in/journal/	https://www.asiaticsociety.org.in/journal/	UGC Care
7	An Empirical Stuidy of Application of Labor Laws in Industrial Undertakings	Dr. Manoj Sharma	Management	Journal of Namibian Studies	2023	2197-5523	Journal of Namibian Studies : History Politics Culture (namibian-studies.com)	https://namibian-studies.com/index.php/JNS/article/view/4209	UGC Care
8	Complex Orchards Structure Detection Using Satellite Imagery in India	Ms. Sandhya Bhattacharya	Computer Science & Engineering	Samdarshi Journal	Aug., 2023	2581-3986	https://punjabiacademy.delhi.gov.in/doit-content/samdarshi	https://punjabiacademy.delhi.gov.in/doit-content/samdarshi	UGC Care
9	The Ethics of Personalization in Marketing: Balancing Consumer Preferences and Privacy	Dr. Ekta Mishra	Management	Shodhak: A Journal of Historical Research	2023	0302-9832			UGC Care

Book Chapters

Sl. No.	Name of the teacher	Title of the chapters published	National / International	Calendar Year of publication	ISBN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Green Marketing in the Digital Age	Dr. Ekta Sharma	National	2023	ISBN: 978-93-92239-78-6	Shri Shankaracharya Institute of Professional Studies, Raipur	P.K. Publishers & Distributors

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"Nanotechnology in Environmental Applications: Nanoparticles Synthesis for Water Pollution and Wastewater Treatment"

Sandhya Chandrakar[1*], Jayshankar sahu[2], Sangeeta Sahu[3], Shilpa Sharma[4], Kalpana Pandey[5], Madhurima Pandey[6]

[1*]Department of Chemistry, GD Rungta College of Science & Technology, Kohka, Kurud, Bhilai, Chhattisgarh, India, sandhyachandrakar1996@gmail.com
[1,5]Department of Applied Chemistry, University Teaching Department, CSVTU, Bhilai, Chhattisgarh, India
[2]Department of Computer Application, Shri Shankaracharya institute of Professional Studies, Raipur, Chhattisgarh, India
[3,4]Department of Engineering Chemistry, Bhilai Institute of Technology, Raipur, Kendri, New Raipur – 493661, Chhattisgarh, India
[5]Department of Chemistry, KD Rungta College of Science & Technology, Raipur, Chhattisgarh, India
[6]Department of Engineering Chemistry, Bhilai Institute of Technology, Bhilai House, Durg491001, CG, India

***Corresponding Author:** Sandhya Chandrakar
*Department of Chemistry, GD Rungta College of Science & Technology, Kohka, Kurud, Bhilai, Chhattisgarh, India, sandhyachandrakar1996@gmail.com

Keywords:

Nanotechnology, Environmental pollution, Nanoparticles, water pollution, wastewater treatment.

Abstract

Global population growth is causing an increase in energy and the material consumption, which has an impact on the environment. Increased generation of solid waste, increased air pollution from cars and factories, and contamination of surface and groundwater are a few of these effects. The integration over the previous 20 year has changed of materials with artificial nano-scales. The nanotechnology market environmental applications are growing quickly rising, demonstrating the significance of such developments in both research and practices. By manipulating the shape and size of the materials at the nanoscale, nanotechnology is an emerging technology that can help combat pollution. Through the direct use of Nanomaterials for the detection, prevention and removal of pollutants as well as through the use of superior industrial design techniques and the creation of environmentally friendly goods, nanotechnology has the potential to improve the environment. Because of their small size and high surface area, nanoparticles exhibit increased reactivity. Although this trait has a variety of advantages and uses. This review provided comprehensive details on the use of nanotechnology in pollution control, including source reduction or pollution prevention, remediation or degradation of pollutants. Examined how to synthesized nanoparticles and nanotechnology is used in control and reduction of water pollution.

Introduction

One of the numerous definitions for the term "pollution" is "the existence of a material in the environment whose chemical make-up or amount inhibits the operation of natural processes and has negative impacts on the environment and human health [1]."Pollution, a major environmental concern, has increased due to urbanization and population growth. As technology advances, new toxins emerge, posing a serious threat to human life and the environment. Industrialized nations release pollutants like carbon monoxide, heavy metals, hydrocarbons, nitrogen oxides, organic compounds, sulphur dioxide, and particulates. Acid rain is primarily caused by burning fossil fuels. Water pollution is also a concern, resulting from garbage disposal, fertilizer leaks, oil spills, herbicide use, industrial processes, and natural fossil fuel extraction [2-6].Every sector of the environment is experiencing major issues as a result of growing anthropogenic activities, whether it be in the areas of air, water, or soil, as a result of persistent and inappropriate changes made to their natural states. Environmental contaminating agents are randomly added to the environment by industrial, residential, and agricultural processes that are necessary for the human populations[7]. According to estimates from the World

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APPLICATION OF ATANASSOVS INTUITIONISTIC FUZZY MATRIX FOR THYROID DISEASE DIAGNOSIS

Dr.Anita singh

Asst.Professer, Shri Shankaracharya Institute of Professional Studies

Priya Nanwani

Asst.Professer, Shri Shankaracharya Institute of Professional Studies

Heena Parveen

Asst.Professer, Shri Shankaracharya Institute of Professional Studies

ABSTRACT

The triangular AIFM (Approximate Inference Fuzzy Model) is a mathematical tool used to model theuncertainty in a system and make decisions based on this uncertainty. In the context of thyroid disease diagnosis, the proposed triangular AIFM takes into account various symptoms such as feeling cold, depression, tiredness, gritty eyes,The Intuitionist Fuzzy Matrices of Triangular Atanassov (TAIFM) is a mathematical framework that can be used to analyze complex decision-making problems. It is particularly useful in cases where there is uncertainty or imprecision in the data. In the context of thyroid disease diagnosis, the TAIFM multi-criteria decision-making approach can be used to analyze the various parameters that contribute to the diagnosis of the disease and provide a more accurate diagnosis.

The proposed triangular AIFM for thyroid disease diagnosis provides a precise and flexible approach to decision making in the context of medical diagnosis. It has the potential to improve the accuracy of diagnosis and lead to better treatment outcomes for patients.

KEYWORDS: Fuzzy Matrix, Atanassovs Intuitionistic Fuzzy Matrix(AIFM), Triangular- AIFM, Thyroid Gland Diseases Diagnosis.

I. INTRODUCTION

The pharmacy field is one of the most infatuation and profitable application areas for the theory of fuzzy set. Intuitionistic Fuzzy Matrix (IFM) is a mathematical concept introduced by Professor Atanassov. It is a type of fuzzy set theory that combines intuitionistic fuzzy sets with matrices to form a new type of mathematical structure, the intuitionistic fuzzy matrix. The concept of intuitionistic fuzzy sets was introduced to capture the uncertainty in human reasoning, where a certain element can belong to a set with a degree of membership as well as a degree of non-membership. The combination of this concept with matrices allows for the representation of complex information and data, including multi-attribute information. Intuitionistic Fuzzy Matrix (IFM) is a mathematical tool proposed by Atanassov, which combines the concepts of fuzzy sets and intuitionistic fuzzy sets. It extends the traditional fuzzy matrix to handle uncertainty and vagueness in data analysis. The intuitionistic fuzzy matrix provides a more flexible way of representing and processing uncertainty compared to classical fuzzy matrices.

In the medical field, the intuitionistic fuzzy matrix can be applied in various applications such as medical diagnosis, treatment planning, prognosis, and drug design. For example, it can be used to develop an intuitionistic fuzzy decision-making system for medical diagnosis, where the uncertainty and vagueness of the diagnosis data can be accurately reflected. Additionally, the intuitionistic fuzzy matrix can be used to assess the effectiveness of treatments, where the degree of uncertainty and vagueness in the treatment data can be taken into account.

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Infectious Keratitis Detection Using Deep Learning

Harsha Nishad[1], Anand Tamrakar[2*], Jay Shankar Sahu[3]

[1]Department of Computer Science & Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, India, email: harsha.nishad@ssipmt.com

[2]Assistant Professor, Department of Computer Science & Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, India, email: a.tamrakar@ssipmt.com

[3]Assistant Professor, Department of Computer Science, Shri Shankaracharya Institute of Professional Studies, Raipur, India, email: jay1985sahu@gmail.com

***Corresponding Author's Email:** a.tamrakar@ssipmt.com

Abstract

The common ocular emergency of infectious keratitis (IK) need for rapid and precise care. The objective of this research was to develop a deep learning (DL) system based on slit lamp pictures to automatically detect and classify viral keratitis. The development and evaluation of six model of Deep Learning algorithms for the categorization of infectious keratitis. With an accuracy of 0.735, a recall of 0.680, and a specificity of 0.904, the EffecientNetV2-M model outperformed two ophthalmologists in terms of classification abilities. The results revealed that the proposed DL method, based on slit lamp images, might perform well in the categorization of normal corneas and various kinds of infectious keratitis. This study demonstrates the Deep Learning model's potential to assist ophthalmologists in diagnosing infectious keratitis and enhancing diagnostic precision and efficacy.

Keyword: - Infectious keratitis, slit lamp image, automatic classification, deep learning.

Introduction

Infectious keratitis (IK) is the main cause of corneal blindness in both developed and developing nations, and corneal opacity is the fifth-leading cause of blindness globally [1]. The primary characteristic of IK is local opacity and roughness caused by pathogen development in the cornea, and each pathogen exhibits distinct traits during growth [2]. Infectious keratitis (IK) can be divided into three different kinds based on the pathogens that cause it: bacterial (BK), fungal (FK), and viral (VK) [4–6]. Once a corneal infection starts, it may spread quickly and result in permanent vision loss like corneal scarring, ophthalmologists, and ocular perforation [18]. In order to prevent or limit the spread of the infection, early detection and prompt medical intervention are essential. The current gold standard for the detection of IK is corneal scrape culture, but there are drawbacks, including the potential for corneal damage, the low positive rate of culture, and the lengthy diagnostic cycles [8,9]. In order to aid in diagnosis, new techniques like polymerase chain reaction (PCR) [10–12] and confocal microscopy [13] have also been applied in clinical settings. However, these techniques call for expensive hardware, intricate processes, and skilled technicians. Currently, ophthalmologists must combine their personal experience to discern the visual characteristics of corneal lesions in order to make the initial diagnosis of IK. The most popular ophthalmologic test for assessing IK's appearance is slit lamp microscopy. IK development is frequently documented and tracked using slit lamp images [14]. Even for seasoned corneal experts, distinct IK can be challenging to identify due to the diversity of pathogens and the similarity of lesion manifestations. Generally speaking, there is still a need for a quick and precise diagnosis method to help direct the management of infectious keratitis in clinical practice. Artificial intelligence (AI) technology has advanced quickly in recent years, and its most cutting-edge uses are now in health. Deep learning (DL) research from recent studies has shown

tremendous promise for using clinical images to identify common diseases [15]. The classification and recognition of medical images using the convolutional neural network (CNN) as its representative method has been shown to be very successful [16]. The automatic classification of medical images can enhance patient outcomes through early detection and therapy, as well as decrease the workload of physicians and increase the effectiveness and repeatability of screening processes. Despite the fact that there are more than 200,000 ophthalmologists in the

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Detection of germanium isotopes in biosynthesized Ge nanocrystals through different optical spectroscopy techniques

Devendra Kumar Golhani [a,b,*], Ayush Khare [a], B. Gopal Krishna [c]

[a] Department of Physics, National Institute of Technology, GE Road, Raipur, Chhattisgarh 492010, India
[b] Shri Shankaracharya Institute of Professional Studies, Raipur, Chhattisgarh 492015, India
[c] SOS in Electronics and Photonics, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh 492010, India

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ABSTRACT

The current work aims to investigate the isotopic effect in biosynthesized Germanium nanocrystals (Ge NCs) through Raman and IR absorption spectra. By treating bulk germanium crystal with microorganisms in a weak magnetic field, Ge NCs with great chemical and isotopic purity are produced on its surface. Using various techniques, including X-ray diffraction, photoluminescence spectroscopy, micro-Raman spectroscopy, and FTIR spectroscopy, the structural and optical characteristics of the synthesized Ge NCs are studied. The PL, Raman, and IR peaks of synthesized material, which are recorded at various time intervals, are seen to have shifted. The PL peak shift of fabricated material is seen as a result of the quantum confinement effect. Raman and IR absorption spectra analysis, which are conducted at room temperature reveals the possible presence of germanium isotopes. It is observed that the phonon absorption peaks of synthesized germanium NC material shift to longer wavelengths with increasing average atomic mass of germanium. The observed optical properties of the synthesized Ge NCs have provided great help to study the change in structural and optical properties of the synthesized Ge crystal.
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Selection and peer-review under responsibility of the scientific committee of the International Symposium on Semiconductor Materials and Devices – 2022.

1. Introduction

Semiconductor nanocrystals (NCs), also referred to as quantum dots, are the focus of the current study. There have been many remarkable application-oriented advancements in the synthesis, characterization, and development of these special materials [1,2]. The quantum confinement in semiconductor nanocrystals (NCs) drastically affects their optical properties. There is a great deal of interest in these materials since the fundamental semiconductor NCs of silicon and germanium, although they do not emit light in their bulk forms, have outstanding luminescence characteristics at the nanoscale [3].

The semiconducting properties of Si and Ge make them prominent materials in the micro/optoelectronics industry. As they emit light in the visible region, Si and Ge NCs are regarded as the best materials for optoelectronic applications [4–7]. These characteristics may result in a variety of technologically significant applications, including LEDs, PV technology, and the field of biomedicine [8–11].

Germanium furthermore has the benefit of being a non-toxic, green material that is favourable to the environment, which enables it to replace hazardous semiconducting materials in optoelectronic research for optical lighting and display applications [12]. Strong quantum confinement mechanisms at the nanoscale are the cause of its effective luminescence at room temperature [13]. The impurity content of the material has a significant impact on the characteristics of germanium. Also, the isotopic composition of the material affects different processes deeply, but it has not received much attention in studies [14,15]. Recently, there are many developments in the process of synthesizing individual isotopes of the basic semiconductors (Si and Ge).

It was shown that the variation in the isotopic composition significantly affects some important properties of silicon and germanium. The difference in nuclear mass directly affects vibrational phenomena, i.e., phonon frequencies and all phonon-related properties. These include lattice constant, thermal conductivity, electronic band gaps, localized vibrational modes, self-diffusion, thermoelectric power, the luminescence of impurities in these

* Corresponding author.
E-mail address: dkgolhani@gmail.com (D. Kumar Golhani).

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Empirical Study Of Stress Level Of Teacher's In Government & Private Schools InChhattisgarh

Sheetal Sharma[1], Heena Praveen[2] and Manoj Sharma[3]
Dalvinder Singh Wadhwa[4]

[1] Shri Shankaracharya Institute of Professional Management and Technology, Raipur
[2,3] Shri Shankaracharya Institute of Professional Studies, Raipur

Author Emails
sheetalsharma@ssipmt.com
hennapraveen@ssips.com
manoj.sharma@ssipmt.com
dalvinder.ssipmt@gmail.com

Abstract

The study investigates the stress levels of school-employed women instructors in Raipur, using a normative survey approach. The sample consisted of 60 teachers from three government and private schools. The research found a significant relationship between teachers' salaries and stress levels. The study also revealed significant differences in stress levels and distance traveled to their workplaces. Additionally, stress among teachers and interpersonal conflict among instructors were found to differ significantly. The findings highlight the need for improved training and support for female teachers in the field.

Introduction

Teaching is increasingly attracting women, particularly at the school level, due to the numerous demands placed on it. Despite their competence, female teachers often struggle to balance their career and personal life, leading to increased stress and worsening mental health. They often use inadequate or inefficient coping mechanisms to cope with stressful life events, which can lead to a lack of effective support for their children. Therefore, it is crucial for female teachers to develop effective coping mechanisms to manage their stress and improve their mental health.

Importance of study

According to Howard & Johnson (2004) and Kyriacou (2001),

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A STUDY OF STRESS LEVEL OF WORKING WOMEN TEACHERS IN SCHOOLS

Heena Parveen

Assistant Professor (English), Shri Shankaracharya Institute of Professional Studies, Raipur CG

Dr. Manisha Jain

Pragati College, Raipur (C.G.)

ABSTRACT

The incidence of stress is usually high for human service profession, including teachers (Kyriacou, 2001). Stress describes negative feeling resulting from work that may include anger, frustration, tension and/or depression that threaten a professional's sense of well-being (Howard & Johnson, 2004; Kyriacou, 2001). Survey data suggests that teaching is considered a _high stress 'profession, where approximately one quarter of schoolteachers view teaching as extremely stressful (Kyriacou, 2001). The teacher's everyday activity is based on social relations and teachers has to control colleagues, students and their parents 'emotional behaviour in addition to their own. The consequence of stress are damaging for teachers, students and the education field in general. During the school years, stress can lead to a higher frequency of absenteeism (Griffith, Steptoe, & Cropley, 1999) and may lead teachers to retire early, leaving the profession and reducing the number of competent teachers available to teach and serve the children.

The present research is intended to study the stress level of working women teachers in schools. For this research Raipur city is selected. The research method applied for the present study is Normative Survey Method'. 60 teachers from 3 government and 3 Private schools of Raipur city are taken as sample for the present study. The questionnaire used for survey in this research were self-made and were checked by guided the researcher's guide. The results show that, There was significant difference found between salary of teachers and the level of stress. There was significant difference found between level of stress and traveling to reach their place of work. There was significant difference found between personal conflict among teachers and stress of teachers. There was significant difference found between class size and stress in teachers. There was significant difference found between level of stress in teachers and lengthy courses.

INTRODUCTION

Teaching profession attracts more women especially at school level. In the present context, teaching is said to be a stressful profession as it involves many demands especially for a women teacher. The women teachers have to play many roles that of a teacher, mother, daughter and wife because of their ability people have confidence to rely their children under their care. In trying to bring about a balance at home and in her workplace, she encounters numerous problems which lead her to stress and affect her mental health in a gradual manner. When encountered with stressful events of life all individual draw upon certain coping styles aiming to choose the one appropriate to situation they faced. Women teachers whose coping responses are limited or ineffective suffer from stress that can result in emotional exhaustion, physical health problems, and low levels of job satisfaction, leading to burnout and its consequences: cynicism, depersonalization of students, and professional attrition (Austin, Shah, & Muncer, 2005). In this study the investigator felt the need to find out the level of stress of women teachers of secondary schools and the ways they cope with their stressful situation. Women teacher's mental health is essential for both personal and professional wellbeing (Babu & Fathima, 2017). So, it is essential to study the stress level and mental of women teachers of secondary schools.

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An Empirical Study Of Application Of Labor Laws In Industrial Undertakings

Sheetal Sharma, Dalvinder Singh Wadhwa, Manoj Sharma

[1,2]Shri Shankaracharya Institute of Professional Management & Technology, Raipur, India
[3]Shri Shankaracharya Institute of Professional Studies, Raipur, India
Author Emails
a) sheetalsharma@ssipmt.com
b) dalvinder.ssipmt@gmail.com
c) manoj.sharma@ssipmt.com

Abstract

This paper investigates the implementation of labor laws in industrial undertakings in Chhattisgarh, using a survey approach with 572 respondents. The research focuses on five factors: wages and remuneration, work conditions, health, safety and welfare, equality of treatment and social security. The study also examines the satisfaction level of workers regarding the application of labor laws in public and privateindustrial undertakings.

Keywords: Industrial undertakings, Social Security, mplementation, Labor Laws.

Introduction

India has experienced significant economic growth since the 1990s, with a 9% increase in growth over thepast two years. However, the manufacturing industry still contributes less than 15% of the GDP and employs less than 15% of the labor force. This contrasts with East Asian nations like Korea, China, and Thailand, where rapid manufacturing development has led to widespread employment and poverty alleviation. In India, manufacturing employment falls under the informal sector, characterized by poor wages. Labor law is a collection of legislation, administrative decisions, and precedents that addresses public law issues

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Complex Orchards Structure Detection Using Satellite Imagery in India

Nisha Dwivedi[1], Dr. Chaitali Dutta[2]*, Sandhya Bhattacharya[3]

[1]Department of Computer Science & Engineering, SSIPMT, Raipur, India, email: Nisha@ssipmt.com

[2]Associate Professor, Department of Computer Science & Engineering, SSIPMT, Raipur, India, email: chaitalib.dutta@ssipmt.com

[3]Assistant Professor, Department of Computer Science, Shri Shankaracharya Institute of Professional Studies, Raipur, India, email: bhattacharya.sandhya78@gmail.com

Corresponding Author's Email: bhattacharya.sandhya78@gmail.com

Abstract—To reduce fruit spoilage and perform optimized harvesting techniques, the creation of reliable orchard detection is required. It is difficult to separate specific terrain classifications, such as perennial crops, from other vegetation types, such as orchards and vineyards, using only spectral data. However, most of these classes have unique spatial features that are clearly visible in imagery with very high spatial resolution. We solve these challenges using a deep convolutional network that allows us to identify orchards in the area. In this study, I used a Mask R-CNN and Yolo v5 framework to apply semantic segmentation that helps to identify orchards in images. A total of 20000 high-resolution satellite images were used to train the model to identify Apple, Coconut, Mango, and Orange orchards in various states of India.

Keywords— Deep Learning, Satellite Image, Agriculture, Image Processing

I. INTRODUCTION

For agricultural studies, remote sensing has shown to be an invaluable tool, Satellite RGB Imagery is especially helpful for identifying, defining, and categorizing agricultural locations. Additionally, it allows for monitoring changes in these sites over time, locating possible plantation sites, and aiding decision-making capabilities. By replacing manual digitizing with automatic mapping procedures, remote sensing techniques provide reliable information on agricultural operations and aid in updating regional databases. Furthermore, it is a valuable aid in identifying orchards and accurately positioning fruit trees individually. These benefits make remote sensing an effective and efficient method for agricultural analysis.

The development of automatic and robust methods for analyzing large landscapes has become a crucial agricultural research problem. Recent advancements in deep learning-based computer vision research have led to high accuracy in object recognition, classification, and counting tasks. To perform real-time detection and segmentation of orchards, this work develops a multilayer convolutional neural network (CNN)]. Accurate orchard detection is critical for in-field automation in agriculture, as it enables further work such as yield estimation and mapping.

Precise tree localization is also essential for fruit production forecast and vital when mapping out production strategies. Automated tree counting offers significant advantages in industrial oversight and can provide essential insights for agriculturalists, profoundly influencing both marketing approaches and farming methods. Various image processing methods have been tested for automatic tree-level detection and delineation, mainly focusing on applications in dense forest. However, these approaches are not ideal for fruit trees that are typically less dense than forests. detecting individual fruit tree species based on differential edge and curvature geometry (crisp) or image threshold and area growth tests based on tree morphological parameters have limitations, including a lack of full automation and awareness of other artifacts in the field of vision [14]. The paper presents an implementation of the deep learning based Mask R-CNN algorithm, for identifying orchards and counting the number of trees present. The method relies on semantic edge or border detection, where irrelevant edges are discarded, and only the unique edges of interest are detected. CNN, known for its ability to learn spatial features in different network layers, has been extensively applied in remote sensing applications. This method provides a more reliable and efficient means of analyzing orchards and automating in-field processes

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THE ETHICS OF PERSONALIZATION IN MARKETING: BALANCING CONSUMER PREFERENCES AND PRIVACY

Dr. Apoorwa Mishra, Associate Professor and Head of Department of Management, Shri Shankaracharya Institute of Professional Management & Technology, (Affiliated to Chhattisgarh Swami Vivekananda Technical University,Bhilai) Raipur, Chhattisgarh

Dr. Ekta Mishra, Assistant Professor, Department of Management,Shri Shankaracharya Institute of Professional Studies, (Affiliated to Pt.Ravishankar Shukla University ,Raipur) Raipur, Chhattisgarh

ABSTRACT

Personalization has become an increasingly popular marketing technique, allowing businesses to tailor their messages and offerings to individual consumers. However, personalization raises a number of ethical considerations around consumer privacy, discrimination and bias, transparency and consent, and manipulation and control. This research paper will explore the ethical considerations of personalization in marketing and how businesses can balance the benefits of personalization with the need to protect consumer privacy and avoid discriminatory practices. The paper will examine the role of data collection and usage in personalization, the importance of transparency and informed consent, and the potential for personalization to be used for manipulative or coercive purposes. The paper will conclude with recommendations for businesses and policymakers on how to navigate the ethical challenges of personalization in marketing.

Keywords: Personalization, Ethical Considerations, Loyalty

1. INTRODUCTION

Personalization has become a ubiquitous marketing technique, used by businesses across industries to tailor their messages and offerings to individual consumers. From personalized emails to targeted advertising, businesses are harnessing the power of data and technology to create personalized experiences for consumers. While personalization can offer many benefits, such as increased engagement, higher conversion rates, and improved customer loyalty, it also raises a number of ethical considerations. This research paper will explore the ethics of personalization in marketing and the challenges that businesses and policymakers face in balancing consumer preferences and privacy.

One of the primary ethical considerations of personalization is the collection and usage of personal data. In order to create personalized experiences, businesses must collect large amounts of data on individual consumers, including their browsing history, purchase behavior, and demographic information. This raises concerns around privacy and data protection, as consumers may not be aware of how their data is being collected and used. Additionally, the use of personal data in marketing raises questions around transparency and consent, as consumers may not have given explicit permission for their data to be used in this way.

Another ethical consideration of personalization is the potential for discrimination and bias. Personalization can create echo chambers, where consumers are only exposed to information and offers that confirm their existing beliefs and preferences. This can perpetuate stereotypes and limit consumers'

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Green Marketing in the Digital Age

Dr. Ekta Mishra and Dr. Apoorwa Mishra

Abstract

Green marketing, also known as sustainable marketing is the promotion of environmentally-friendly products and services. In the digital age, with the rise of e-commerce and online research, consumers have more access to information about the environmental impact of products and services. This has led to an increase in demand for sustainable and eco-friendly options. Additionally, the use of social media and online reviews has made it easier for consumers to share their experiences and opinions about green products and services, which can influence the purchasing decisions of others. However, implementing green marketing strategies also presents unique challenges, such as lack of standardization, higher costs, consumer skepticism, limited appeal and limited distribution. Companies must navigate these challenges in order to be successful.

The main aim of green marketing is to promote environmentally-friendly products and services in a way that is both ethical and beneficial for both companies and consumers. Some specific objectives of green marketing include educating consumers, helping companies to comply with government regulations, improving a company's reputation, encouraging customers to choose eco-friendly products and services, creating new market opportunities and reducing the ecological footprint.

Social media platforms, such as Facebook, Twitter, and Instagram, have made it easier for companies to connect