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CRITERION III

3.4Research Publications and Awards

3.4.4Details of books and chapters in edited volumes / books published per teacher during the year

(2023-2024)

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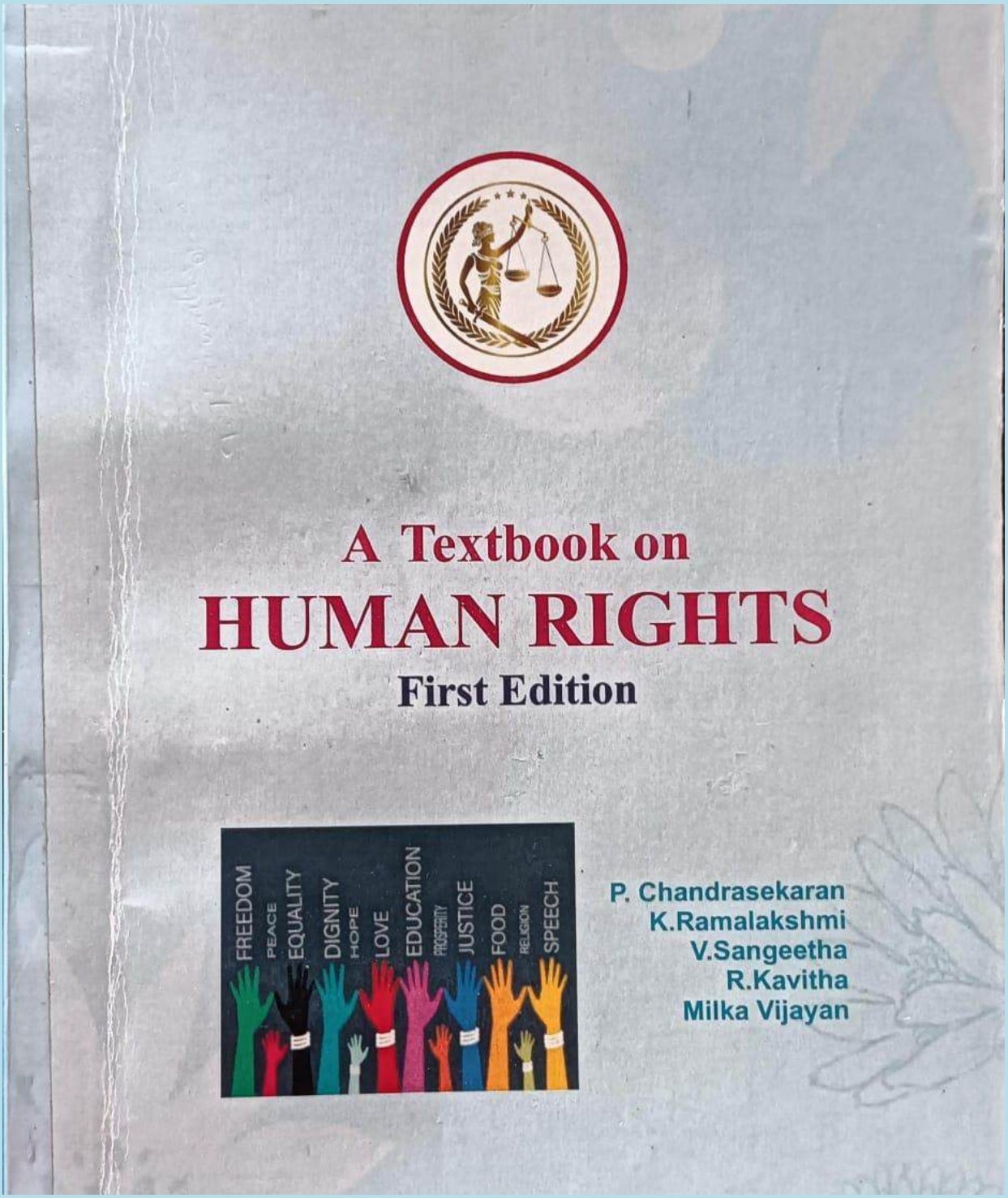

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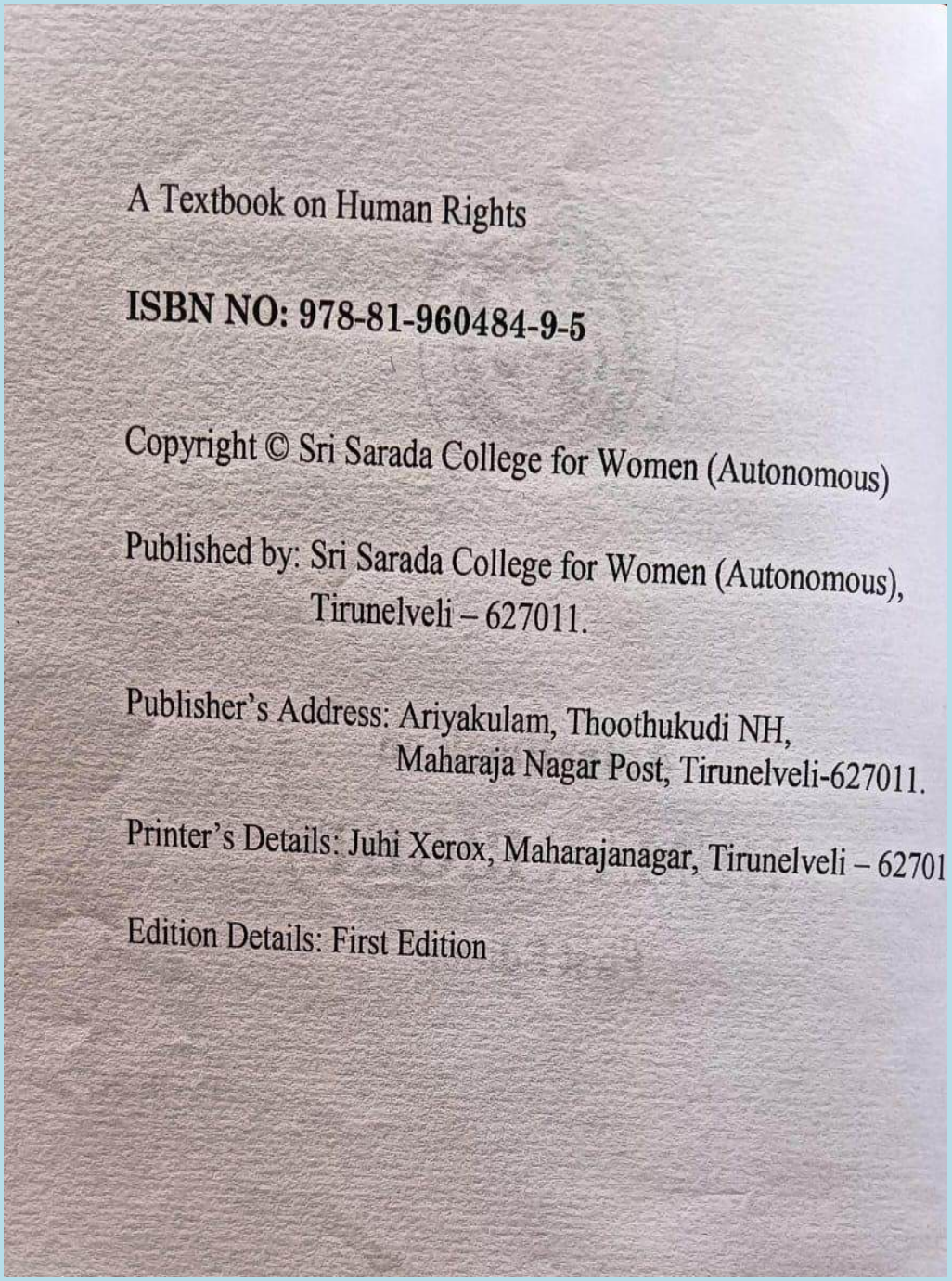

A Textbook on Human Rights

ISBN NO: 978-81-960484-9-5

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Published by: Sri Sarada College for Women (Autonomous),
Tirunelveli – 627011.

Publisher's Address: Ariyakulam, Thoothukudi NH,
Maharaja Nagar Post, Tirunelveli-627011.

Printer's Details: Juhi Xerox, Maharajanagar, Tirunelveli – 62701

Edition Details: First Edition

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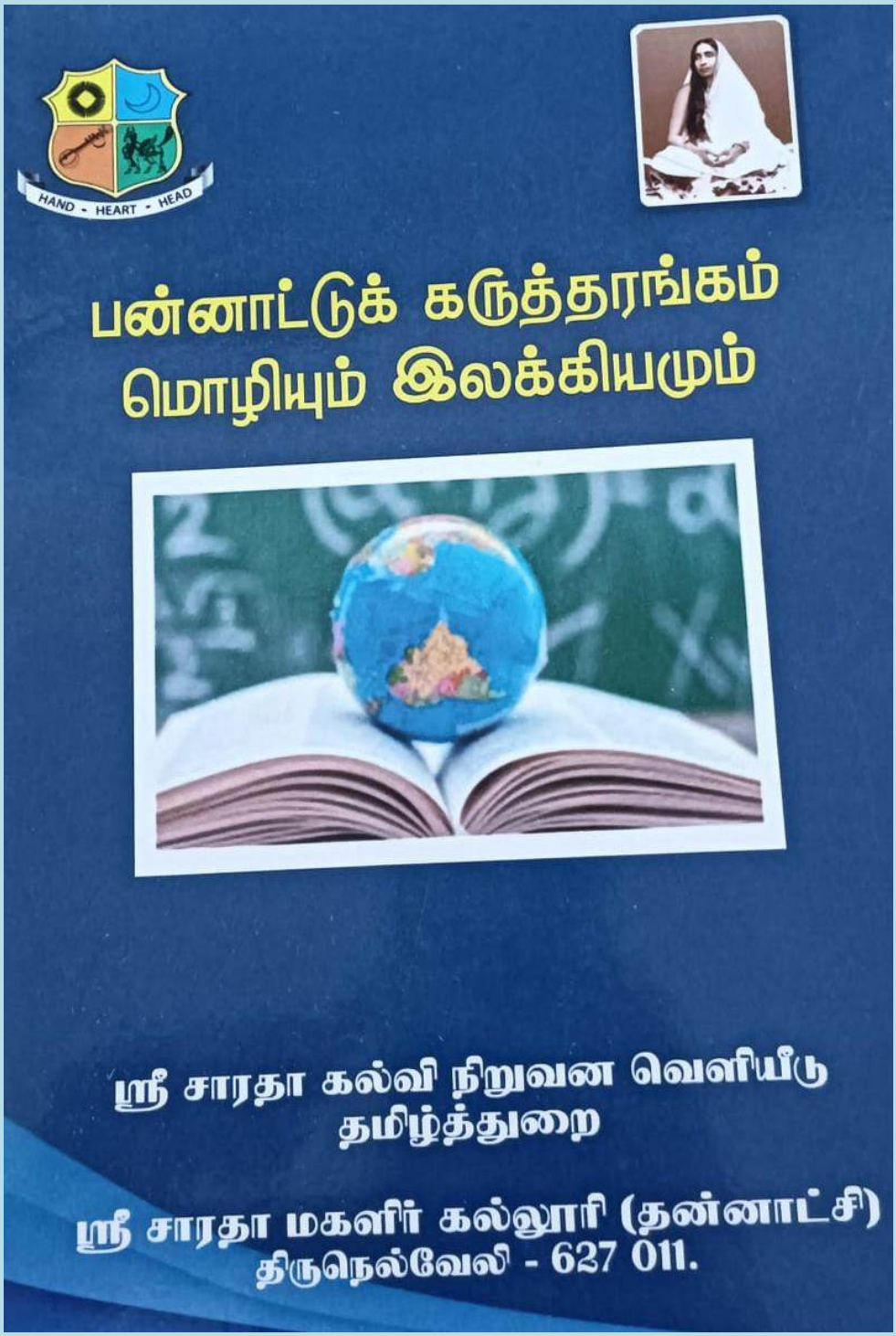

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ISBN : 978-81-960484-3-3

ஔவையாரின் குறுந்தொகைப் பாடல்களில் அகமொழிகள்

க. தனலெட்சுமி
இணைப்பேராசிரியர் மற்றும் தமிழ்த்துறைத்தலைவர்,
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முன்னுரை :

செம்மொழியாகிய தகுதி பெற்ற தமிழ்மொழி இலக்கிய வளமுடைய மொழி. வாழ்விற்கு வழிகாட்டும் உன்னத மொழி. உலகில் உள்ள பெரும்பாலான மொழிகளில் எழுத்து இலக்கணமும், சொல் இலக்கணமும் கூறப்படுகின்றன. ஆனால் தமிழில் மட்டுமே வாழ்வியலுக்கு இலக்கணம் தரப்பட்டுள்ளது. அவை அகம், புறம் என்பதாகும். "அகம்" எனும் நிலையில் காதல் வாழ்க்கையாகிய களவும், திருமணவாழ்க்கையாகிய கற்பும் கோட்பாடாக வகுக்கும் மொழி தமிழ்மொழி மட்டுமே. அவ்வகையில் "தொகை" நூல்களாகக் கூறப்படும் எட்டுத்தொகை நூல்களில் உள்ள அகநூலான குறுந்தொகையில் ஔவையாரின் பாடல்வழி தலைவன் தலைவியின் அகமொழிப்பண்பினை இக்கட்டுரையில் காணலாம்.

குறுந்தொகைச் சிறப்பு :

பதினெண்மேற்கணக்கு நூல்களில் ஒன்று தொகை நூல்கள். அந்நூல்களின் வரிசையில் ஐந்து அகநூல்களில் ஒன்றானது குறுந்தொகை. பழந்தமிழரின் அகவாழ்க்கையை எடுத்தியம்பும் இந்நூல் "நல்ல" எனும் அடைமொழியோடு அமைந்து ஆசிரியப்பாவால் பாடப்பட்ட நூல். சிற்றெல்லை 4 அடிகளையும், பேரெல்லை 8 அடிகளையும் உடையது. ஒரு பாடல் மட்டும் 9 அடிகளைக்கொண்டு, வாழ்த்துப்பாவோடு 402 பாடல்களைக் கொண்டது. 205 புலவர்களால் பாடப்பெற்றது. இந்நூலைத்தொகுத்தவர் பூரிக்கோ. அகவாழ்க்கைப் பெட்டகமாக விளங்கும் குறுந்தொகை நூலில் சிறப்பாகப் பேசப்படும்,

"யாயும் ஞாயும் யாரா கியரோ
எந்தையும் நுந்தையும் எம்முறைக் கேளிர்
யானும் நீயும் எவ்வழி அறிதும்
செம்புலப் பெயல் நீர் போல
அன்புடை நெஞ்சம் தாம்கலந்தனவே"

எனும் பாடல் தலைவன் தலைவியின் அன்பு கலந்த உன்னத வாழ்க்கையினை எடுத்தியம்புவனவாகும். மேலும் புலவர்களின் கவிப்புலமையைப் பாராட்டும் விதத்தில் பல்வேறு பாடல்கள் இந்நூலில் அமைந்துள்ளன.

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ISBN : 978-81-960484-3-3 ஸ்ரீ சாரதா மகளிர் கல்லூரி (தன்னாட்சி), தமிழ்த்துறை

தொல்காப்பியம் கவிராசமார்க்கம் - மொழி நிலையில் ஒப்பீடு

சு. அபிலாசுந்தரி,
உதவிப்பேராசிரியர், தமிழ்த்துறை
பாரத் கல்வியியல் கல்லூரி, இலத்தூர்,
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முன்னுரை :

உலகில் மனித இனங்கள் தோன்றிய போதே மொழியும் தோன்றியிருக்கும் என்று கருதலாம். ஆரம்ப காலத்தில் ஒருவர் தனது கருத்தைப் பிறருக்குத் தெரிவிக்க சைகை மொழியைப் பயன்படுத்தி, பின்னாளில் கூடி வாழ்ந்த காலங்களில் அது பேச்சுமொழியாக வளரத் தொடங்கியது எனலாம். ஒரு மொழி வரலாற்றில் இலக்கணம் எழுதப்படுவது அதாவது இலக்கணம் உருவாவது ஒரு மைல் கல்லாகும். இலக்கணம் தொடக்க காலத்தில் ஒரு மொழியின் அமைப்பை அதுவும் இலக்கிய மொழியின் அமைப்பை விளக்கும் நூலெனக் கருதப்பட்டது. அவ்வாறாக கருதப்பட்டவற்றில் தொல்காப்பியமும் ஒன்று. தொல்காப்பியம் தமிழில் கிடைத்த முதல் இலக்கண நூலாகும். இதில் தமிழ் மொழி குறித்த சொல்லாடல், தமிழ்மொழி பேசப்படும் எல்லைகள், வழக்கு, செய்யுள், பேச்சுமொழி, எழுத்துமொழி போன்ற பல்வேறான கருத்துக்கள் காணக்கிடக்கின்றது. இதே போன்று கன்னட மொழியில் கிடைத்த முதல் இலக்கண நூலான கவிராசமார்க்கத்திலும் கன்னட மொழியின் சிறப்பு, கன்னட மொழியின் எல்லை, கன்னட மொழியின் நிலைப்பாடு என்பன போன்ற கூறுகள் நிரம்பக்கிடக்கின்றது. ஆகையால் இவ்விரு இலக்கண நூல்களில் காணப்படும் மொழி நிலைகளை ஒப்பிட்டு ஆராயும் விதமாக இக்கட்டுரை அமைகின்றது.

ஒப்பீடு பொருளும் வரையறையும் :

ஒப்பீடு என்பது ஒரு மொழியில் காணப்படும் இலக்கண இலக்கியத்தை அதே காலக்கட்டத்தைச் சேர்ந்த வேறு ஒரு நாட்டின் மொழியின் இலக்கண இலக்கியங்களோடு ஒப்பிட்டு ஆராய்வது ஒப்பீட்டு முறையில் அடங்கும்.

ஒப்பீடு என்பது "ஒரே மொழியில் தோன்றிய இலக்கணங்களை எல்லாம் ஒப்பிட்டு ஆய்வது, மொழிகளுக்கு இடையே வரலாறு என்ற முறையில் நூல் வரலாறு, கோட்பாட்டு வரலாறு அல்லது மொழியியல் இலக்கியவியல் என்ற முறையில் ஆய்வது. ஒரே மொழியில் தோன்றிய இலக்கணங்களைப் பொருளடிப்படையில் ஒப்பிட்டு, வளர்ச்சி (அமைப்பு வளர்ச்சி, கோட்பாட்டு வளர்ச்சி) தாக்கம் (முந்தைய நூல்களின் செல்வாக்கு) மதிப்பீடு என்ற முறையில் ஆராயலாம்"[1] என்று செ.வை. சண்முகம் ஒப்பிலக்கணம்

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மனிதசமுதாயத்தின் வரலாற்று ஆவணமாக விளங்குவது இலக்கியங்கள் ஆகும். அப்படியான இலக்கியங்களில் முக்கியப்பங்கு வகிப்பனவாக நாவல் இலக்கியம் அமைந்துள்ளது. நாவலானது மக்கள் தங்கள் வாழ்வில் எதிர்கொள்ளும் சிக்கல்களை முன்வைப்பதாக அமைந்துள்ளது. அதிலும் தற்போதைய காலகட்டத்தில் எழுதப்பட்டு வரும் நாவல்கள் வாழ்வின் இடைநிலையில் தொழில், சாதி, இனம், பொருளாதாரம், போன்ற இன்னும் பலகாரணங்களுக்காக ஒடுக்கப்பட்டு ஒடுங்கி வாழும் விளிம்புநிலை மக்களின் வாழ்க்கைப் பதிவுகளைப் பேசுவனவாகவே உள்ளன. விளிம்புநிலை மக்களின் வாழ்வியலைப் பேசும் நாவல்கள் அவர்களின் மொழிக்கூறுகளை எடுத்து இயம்புவனவாக அமைந்திருப்பதனைக் காண முடிகின்றது. மொழியானது மனித சமூகத்தின் அனைத்து உணர்வுகளையும் வெளிக் கொண்டுவரும் ஊடகமாகத் திகழ்கின்றது. அவ்வகையில் ஆண்களாலும், பெண்களாலும் படைக்கப்பட்டு வரும் விளிம்புநிலை நாவல்களில் இடம்பெறும் பெண்மொழியானது, விளிம்புநிலைப் பெண்களின் சமூகவாழ்வினைப் பிரதிபலிப்பனவாகவே இருப்பதனைக் காணமுடிகின்றது. மலர்வதியின் காட்டுக்குட்டி, ஜீவாவின் துர்காமாதா, பாமாவின் மனுஷி ஆகிய மூன்று விளிம்புநிலை நாவல்களில் பெண்மொழி அமைந்துள்ள பாங்கினை எடுத்துக்கூறுவதே இக்கட்டுரையின் நோக்கம் ஆகும்.

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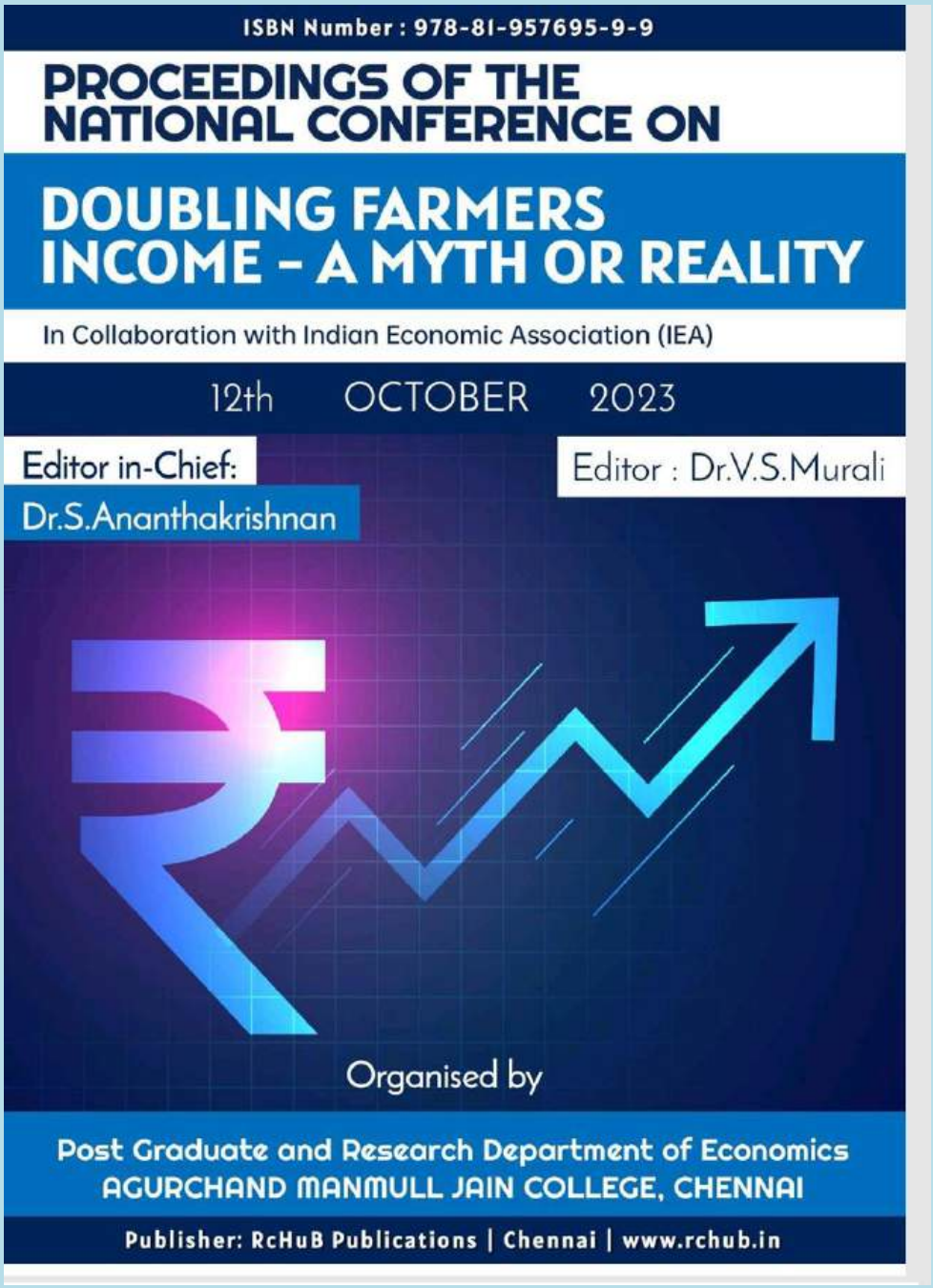

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ISBN Number: 978-81-957695-9-9 *FIRM'23*

A STUDY ON SUSTAINABLE AGRICULTURE

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ABSTRACT: The paper presents the results of a scientific design focused on controlling nutrient losses by proposing measures to control diseases in a sustainable way. This is a case study on the named aspects of farm management, sustainable farming and their tools issue. The main outcome of the study was to analyze and assess farmers' knowledge of the fertilization process and its aspects, aswell as the use of sustainable farming conditions. This study emphasized the importance of nutritional function, which is crucial for sustainable farming. Also, correlations between farmers' perceptions and their alignment were analyzed. They examined key issues related to measures for sustainable farm operations and measures to control nutrient leaching into groundwater. In general, farmers consider their farm renovations more stable than historical. They understood thegeneral concept of sustainable farming. Still, many farmers showed nutrient overflow and poor grasp of nutrient balance. Their knowledge and opinion are based on general rather than specific knowledge selected from an academic/vocational course. Farmers expressed a sense of satisfaction that some new or low-cost measures could be introduced to make the operation moresustainable and environmentally friendly, but there was still a need to abandon sustainable farming practices on a large scale. Agriculture was once understood as catering to a narrow range,local market, but it has now taken on an international role. On the one hand, Polish farmers are subjected to international competition arising from mechanization and other issues related to increasing efficiency. But they also have to deal with resource management and the environment,which requires an advanced training system in farm management. The Food and Agriculture Organization defines sustainable agriculture as "food security, environmental protection, and production that meets economic and social needs. "In rural areas" this work is complex because itinvolves not only human activities such as farm management and agricultural policies

KEYWORD: controlling nutrient losses, fertilization process,nutrient overflow mechanization, food security, farm management.

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ISBN Number: 978-81-957695-9-9 *FIRM'23*

ANALYSING THE IMPACT OF REMUNERATIVE PRICE ON FARMER'SPRODUCE

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ABSTRACT

In India, agriculture is a prominent sector and it has a huge impact on the GDP growth of the country. It is the primary occupation and backbone of the country. India is currently the world second largest producer of agricultural products like paddy, wheat ,raw jute, cotton, dry fruits, pulses, grains and numerous vegetables etc. India is ranked under the world's fifth largest producer and produces 80 percent of agriculture produce around the country. In our country to give assurance &to give remunerative prices to the farmers and for the benefit of consumers by ensuring supplies at rational prices, towards this end the Commission for Agriculture Cost and Prices (CACP) suggested the Minimum Support Price (MSP) based on guaranteed economic measure. Through the right to Minimum Support Price, the farmers can get remunerative price as provided by the constitution of India. The CCAP announced the minimum support price to 22 major agricultural commodities every year. The biggest challenge in our country is to provide remunerative prices on farmers produce because there is need to enhance budget allocations and support from state governments. The farmers rights activists and farmers organizations are feeling that MSP is not fulfilling the farmers minimum needs. Farmers have no right to fix the price for their produce. Minimum support price is life and death for most of the farmers in India, denial of minimum support price has been contributing huge effect on farmers' income and national GDP.Government or Non -governmental organizations take initiative to provide awareness about technological innovations programs and other priorities decrease the burden of the farmers and it will build inner strength in the farmers. Government needs a more comprehensive and ambitious agenda to help the farmers in fixing remunerative prices. There is a need for changing the market systemregulated market laws. Agricultural Produce Market Committee Act is not providing freedom to the farmers to fix their prices.So the government must allow the farmers to fix the price which is produced by them or consult them while fixing prices.

Keywords: Commission for Agriculture Cost and Prices (CACP), Minimum support price, Government support, Agricultural price policy, Remunerative price.

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ISBN Number: 978-81-957695-9-9 *FIRM'23*

A STUDY ON SUSTAINABLE AGRICULTURE IN INDIA

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Abstract

By 2050, the world's population is expected to be about 10 billion, according to the UN. It has been a significant global issue to feed these people. A substantial debate has been sparked by concerns that the world's food supply would not keep up with demand. Although farmers have employed a variety of strategies in the past to boost the volume of their output, these strategies have been exhausted. Agriculture of the future will need to employ fresh strategies designed to boost output and save the environment. It has been acknowledged that the most practical means of feeding the world's rapidly expanding population is through sustainable agriculture. A sustainable agribusiness is one that keeps soil fertility high while producing a lot of food while preserving the environment. This article provides an introduction to sustainable agriculture.

Key Words: Sustainable Farming, Sustainable Agriculture, Environment, Technology

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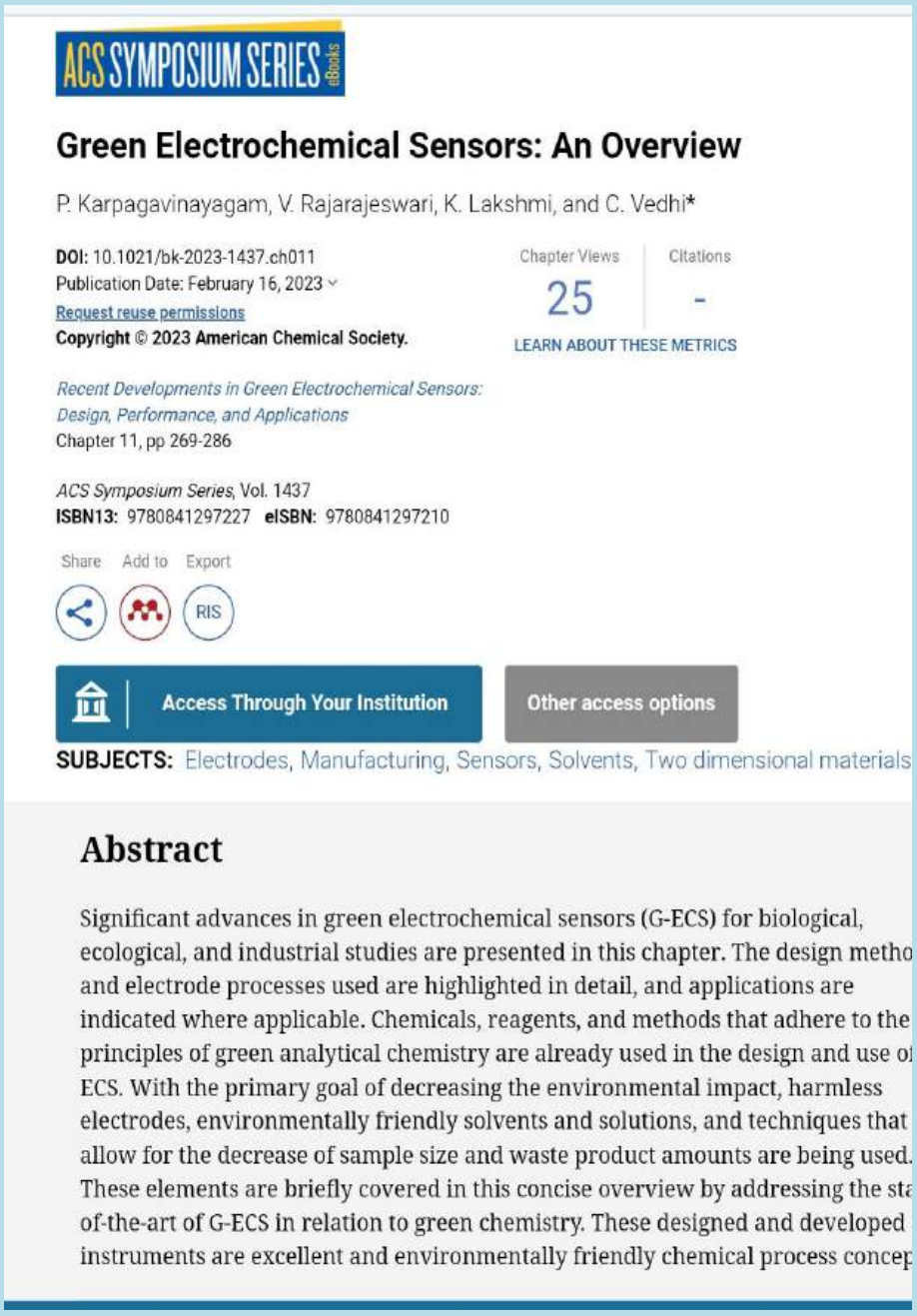

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Green Electrochemical Sensors: An Overview

P. Karpagavinayagam, V. Rajarajeswari, K. Lakshmi, and C. Vedhi*

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SUBJECTS: Electrodes, Manufacturing, Sensors, Solvents, Two dimensional materials

Abstract

Significant advances in green electrochemical sensors (G-ECS) for biological, ecological, and industrial studies are presented in this chapter. The design metho and electrode processes used are highlighted in detail, and applications are indicated where applicable. Chemicals, reagents, and methods that adhere to the principles of green analytical chemistry are already used in the design and use o ECS. With the primary goal of decreasing the environmental impact, harmless electrodes, environmentally friendly solvents and solutions, and techniques that allow for the decrease of sample size and waste product amounts are being used. These elements are briefly covered in this concise overview by addressing the st of-the-art of G-ECS in relation to green chemistry. These designed and developed instruments are excellent and environmentally friendly chemical process concep

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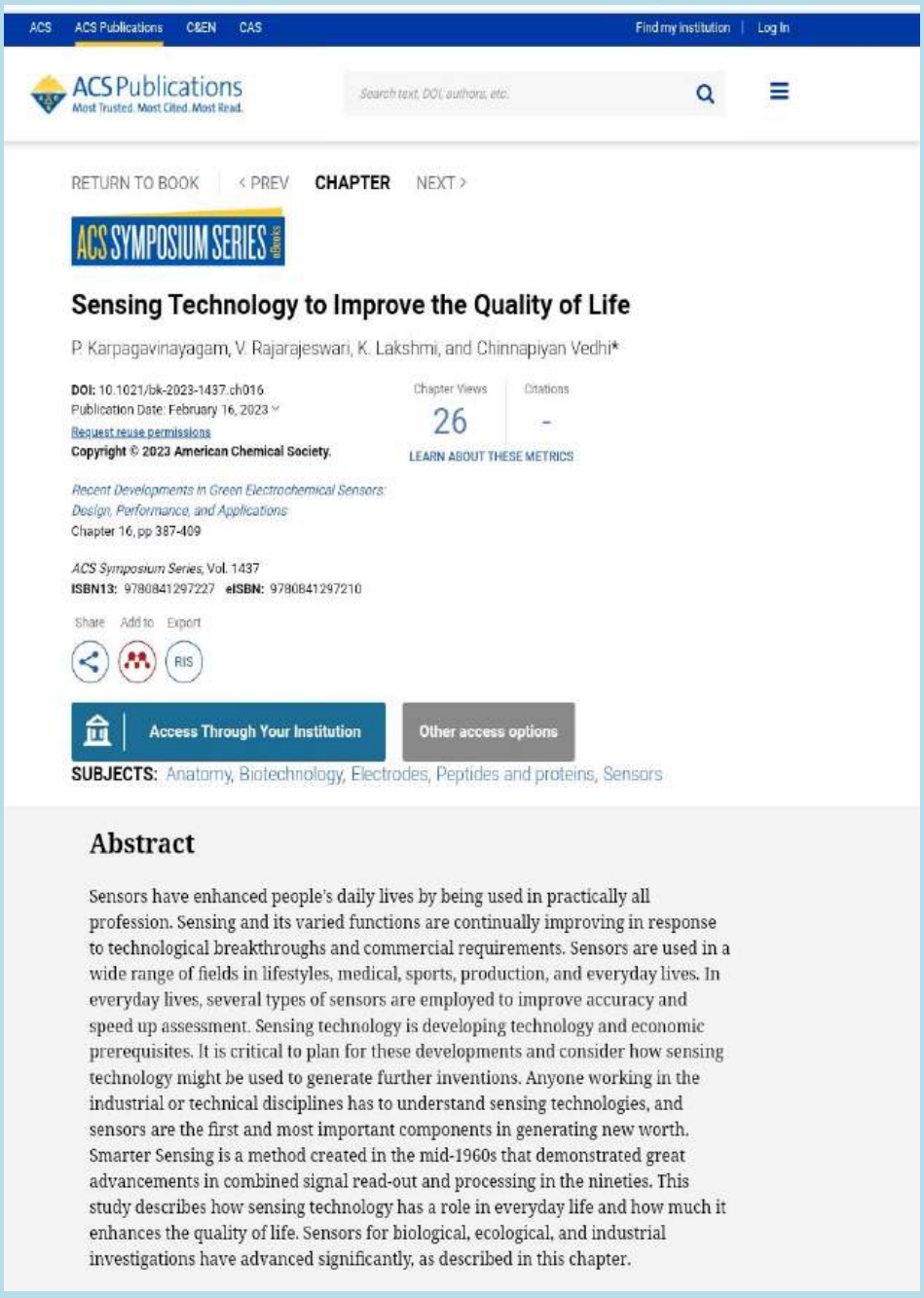

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P. Karpagavinayagam, V. Rajarajeswari, K. Lakshmi, and Chinnapiyan Vedhi*

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SUBJECTS: Anatomy, Biotechnology, Electrodes, Peptides and proteins, Sensors

Abstract

Sensors have enhanced people's daily lives by being used in practically all profession. Sensing and its varied functions are continually improving in response to technological breakthroughs and commercial requirements. Sensors are used in a wide range of fields in lifestyles, medical, sports, production, and everyday lives. In everyday lives, several types of sensors are employed to improve accuracy and speed up assessment. Sensing technology is developing technology and economic prerequisites. It is critical to plan for these developments and consider how sensing technology might be used to generate further inventions. Anyone working in the industrial or technical disciplines has to understand sensing technologies, and sensors are the first and most important components in generating new worth. Smarter Sensing is a method created in the mid-1960s that demonstrated great advancements in combined signal read-out and processing in the nineties. This study describes how sensing technology has a role in everyday life and how much it enhances the quality of life. Sensors for biological, ecological, and industrial investigations have advanced significantly, as described in this chapter.

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PROCEEDINGS OF THE INTERNATIONAL MULTIDISCIPLINARY CONFERENCE ON INNOVATION IN RESEARCH (IMCIR-2023)

TRANSFORMING HEALTHCARE SECTOR WITH BLOCKCHAIN TECHNOLOGY

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Abstract:

As several market sectors looked for methods to integrate blockchain technology's capabilities into their operations, it has recently demonstrated great versatility. Although the financial services sector has received the majority of attention thus far, a number of projects in other service-related industries, like healthcare, demonstrate this is starting to change. One of the primary advantages of blockchain technology in healthcare is its ability to provide a secure and immutable record of patient health data. With a decentralized system of records, patients have greater control over their health data and can choose who has access to it. This allows patients to share their medical records with healthcare providers as needed, without having to worry about their data being compromised. This article focuses on a variety of blockchain technology entry points for the healthcare sector. The use of blockchain technology is being investigated to enhance the security and privacy of data while retaining the interoperability of patient health information amongst healthcare organizations. Blockchain technology can help healthcare providers streamline their operations by reducing the time and costs associated with managing patient data. By leveraging blockchain-based solutions, healthcare providers can more efficiently share patient data and ensure that it is accurate and up-to-date. Exploring and classifying the advantages of blockchain technology applications in a healthcare system is the goal of this review.

Keywords: Blockchain, Consensus, EHR, Healthcare, Supply Chain Management

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AN INNOVATIVE KEY GENERATION ALGORITHM FOR ENCRYPTION AND DECRYPTION BASED ON DNA CODON PREDEFINED TABLE

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Abstract

A significant challenge is using the DNA sequence as an information carrier to conceal information. Because it is challenging to distinguish between an authentic DNA sequence and a fake one, it can be used to hide data based on some special characteristics of DNA. By using an improved method to store a large amount of data in a little piece of DNA, DNA cryptography offers security and data integrity. The suggested encryption and decryption system is based on DNA sequences A, C, and G letters for color imagery. Separate the RGB image into its R, G, and B components. Apply the encryption method first to the Red channel, and then to the Blue and Green channels as well. With a focus on the predefined DNA sequence codon predefined index, the key generation technique for a novel watermarking image encryption and decryption system is based on DNA codons for RGB images. The recipient receives both the DNA sequence and the encrypted data, which must be decrypted in order to access the original data. In this way, the transmitter and receiver's encryption and decryption algorithms will use the specified index value for the shared DNA sequence. According to the investigation, the suggested method is more resilient to particular threats and ensures data secrecy and integrity throughout data transfer.

Keywords: Cryptography, DNA Sequence, Predefined index, Secrecy

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Transforming Healthcare Sector with Blockchain Technology

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ABSTRACT:

As several market sectors looked for methods to integrate blockchain technology's capabilities into their operations, it has recently demonstrated great versatility. Although the financial services sector has received the majority of attention thus far, a number of projects in other service-related industries, like healthcare, demonstrate this is starting to change. This article focuses on a variety of blockchain technology entry points for the healthcare sector. The use of blockchain technology is being investigated to enhance the security and privacy of data while retaining the interoperability of patient health information amongst healthcare organizations. Exploring and classifying the advantages of blockchain technology applications in a healthcare system is the goal of this review.

Keywords: Blockchain, Healthcare, Applications, EHR, Supply chain management

I.INTRODUCTION:

Blockchain, a technology that has revolutionized data interchange and administration, notably in the financial industry, has taken the globe by storm. Its enormous success in several industries has raised concerns in the healthcare sector as well. Many refer to blockchain as the "solution to interoperability" and the "technology that will solve healthcare's looming challenges". Let's work to grasp the implications of blockchain for the healthcare sector one question at a time.

DISTRIBUTED LEDGER TECHNOLOGY:

Blockchain, a key element of the virtual currency known as "bitcoin," was created in 2008 by Satoshi Nakamoto, "unknown," or rather a pseudonymous person (or group). A distributed, write-once-read-only record of digital events in a chronological sequence that is shared in a peer-to-peer network is what blockchain is, technical jargon aside [1]. It maintains a database of exchanges and transactions that is accessible to authorized users who can add to it as necessary. What sets blockchain apart is that these authorized users cannot delete or edit any records, and no transaction can happen unless it has been approved by all users.

II.BLOCKCHAIN FUNCTIONS:

There are three main parts to the distributed ledger technology known as blockchain:

1. **Distributed Network:** Each network participant acts as a node in the decentralized P2P architecture, where each node holds an identical copy of the blockchain and is permitted to certify and validate digital transactions for the network.

2. **Shared Ledger:** A shared ledger is used by network users to keep track of ongoing

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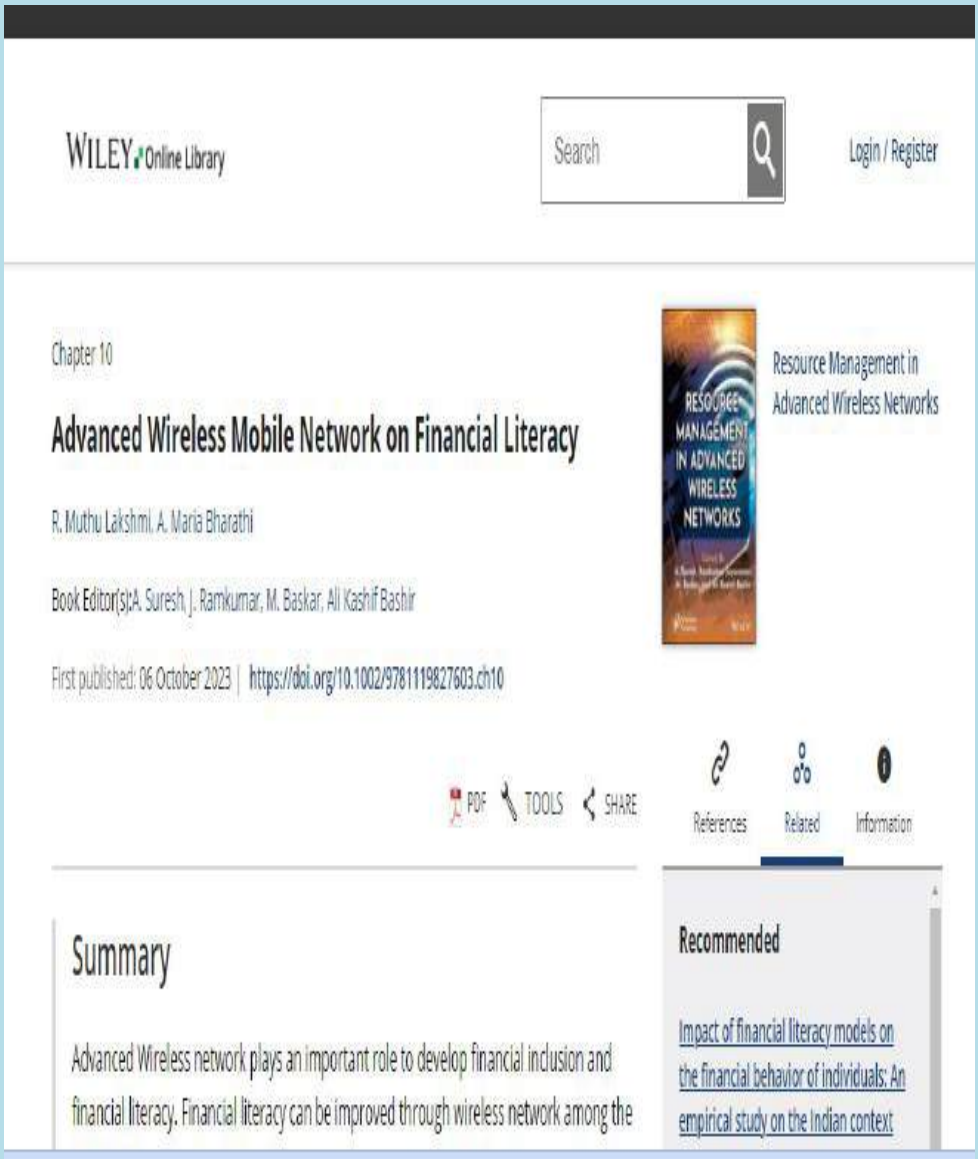

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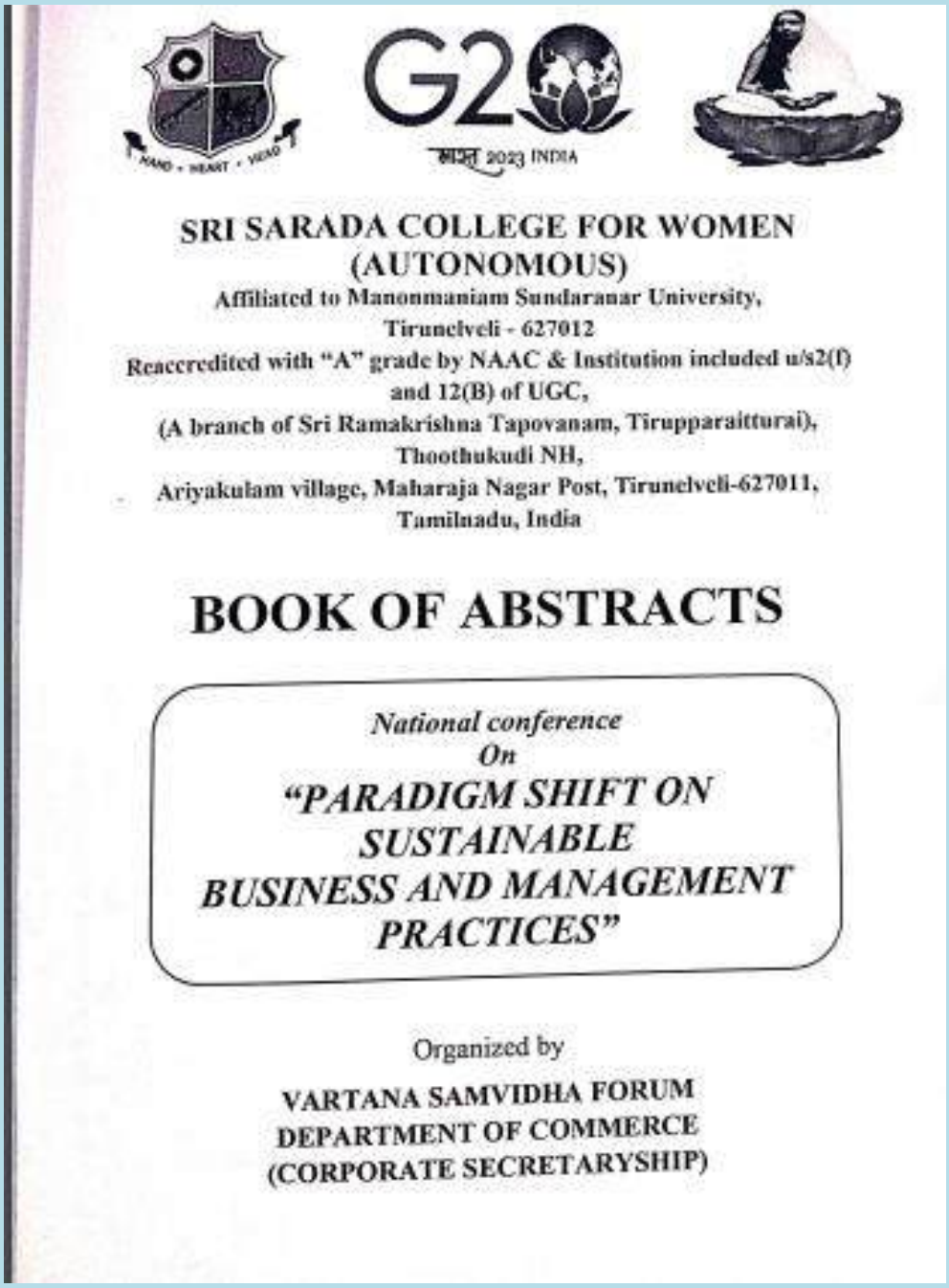

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NATIONAL CONFERENCE ON "PARADIGM SHIFT ON SUSTAINABLE BUSINESS AND MANAGEMENT PRACTICES"

THE NEW BUSINESS PARADIGM: DEVELOPING APPROACHES TO ORGANIZED TRANSFORMATION AND LEADERSHIP

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ABSTRACT

Global health issues, the ecological disaster, and evolving social ideals that are redefining personal priorities are all being witnessed by the world. The fundamental underpinnings of our society are also changing as a result of globalization and geopolitics. The way we work and live is constantly changing due to technological breakthroughs and the growth of digital natives. There's a new paradigm for organization and management on the rise, one that prioritizes transparency, flexibility, and maximizing people's potential. A new organizational paradigm that promotes cooperation, rethinks tactics, and produces inclusive, sustainable growth has been adopted by these firms. Their desire to provide value to all stakeholders while working in cooperative networks of autonomous teams that are always creating and changing is the foundation of their success. Businesses were shaped and run for decades to meet the industrial setting.

Key Words: Paradigm, Co-operation, transparency

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NATIONAL CONFERENCE ON "PARADIGM SHIFT ON SUSTAINABLE BUSINESS AND MANAGEMENT PRACTICES"

A STUDY ON INTEGRATED MARKETING COMMUNICATION PERSPECTIVE ON SOCIAL MEDIA METRICS

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ABSTRACT

Social media metrics are valuable tools to prove how effective our social media strategy is and how it can impact our overall business. Social media metrics help to track our organization's social media goals—whether it is boosting awareness, engagement, or conversions. For every goal, there should be a related metric that determines whether our strategy is hitting the mark or not. The main objective of this study is to pinpoint the weak points of our strategy and to show the value of the communication in marketing. This study comprises of both primary data and secondary data collected from various reputed journals and magazines. Various statistical tools like liker scale, Garrett Ranking and chi square analysis are used to analyse the data collected from the respondents. The major metrics related to awareness engagement and conversation is considered for this analysis. Communication helps to understand how effectively our thought is moving to budding customers through different marketing channels.

Keywords: Communication, Digitalisation, Marketing, Social Media, Technologies

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NATIONAL CONFERENCE ON "PARADIGM SHIFT ON SUSTAINABLE BUSINESS AND MANAGEMENT PRACTICES"

IMPACT OF INFORMATION TECHNOLOGY ON INNOVATIVE BUSINESS IN MODERN DIGITAL ERA

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ABSTRACT

The technology which has already proved itself in last two decades is of course the information technology (IT). It has dramatically changed the lives of the individuals and organisations. Currently online shopping, digital marketing, social networking, digital communication and cloud computing etc are the best pattern of change which came through the wave of information technology. Now, accurate business planning, effective marketing, global sales, systematic management, real time monitoring, instant customer support and long term business growth cannot be achieved at the optimum level without IT. The path of innovation in business wealth doing something diverse, smarter or better that will make a positive difference in terms of value, quality or productivity by using emerging or proved technologies of the world. This study focus on the Impact of Information Technology on Innovative business practices in modern digital Era.

Key Words: Information Technology, Innovation, Digital communication, Business.

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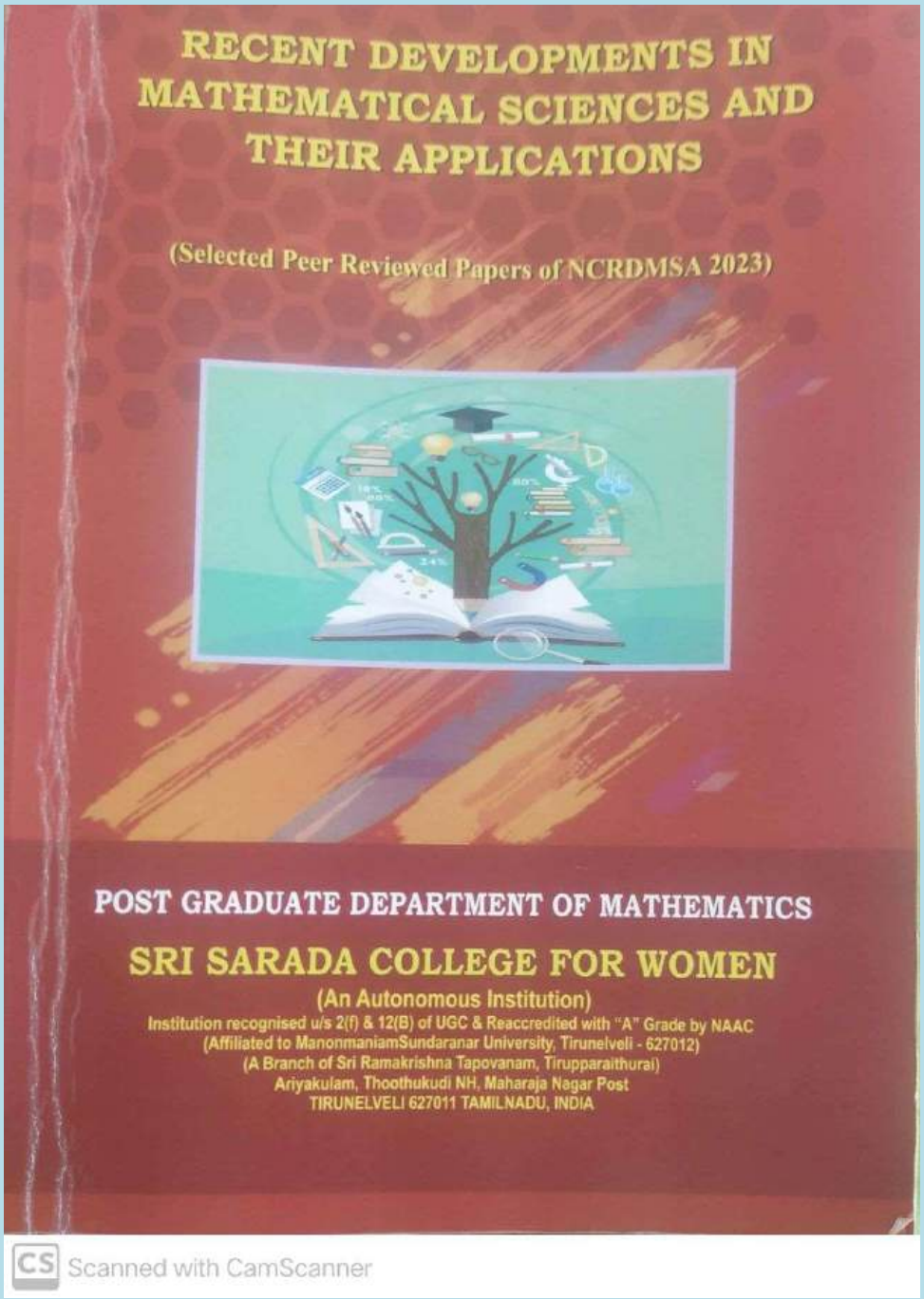

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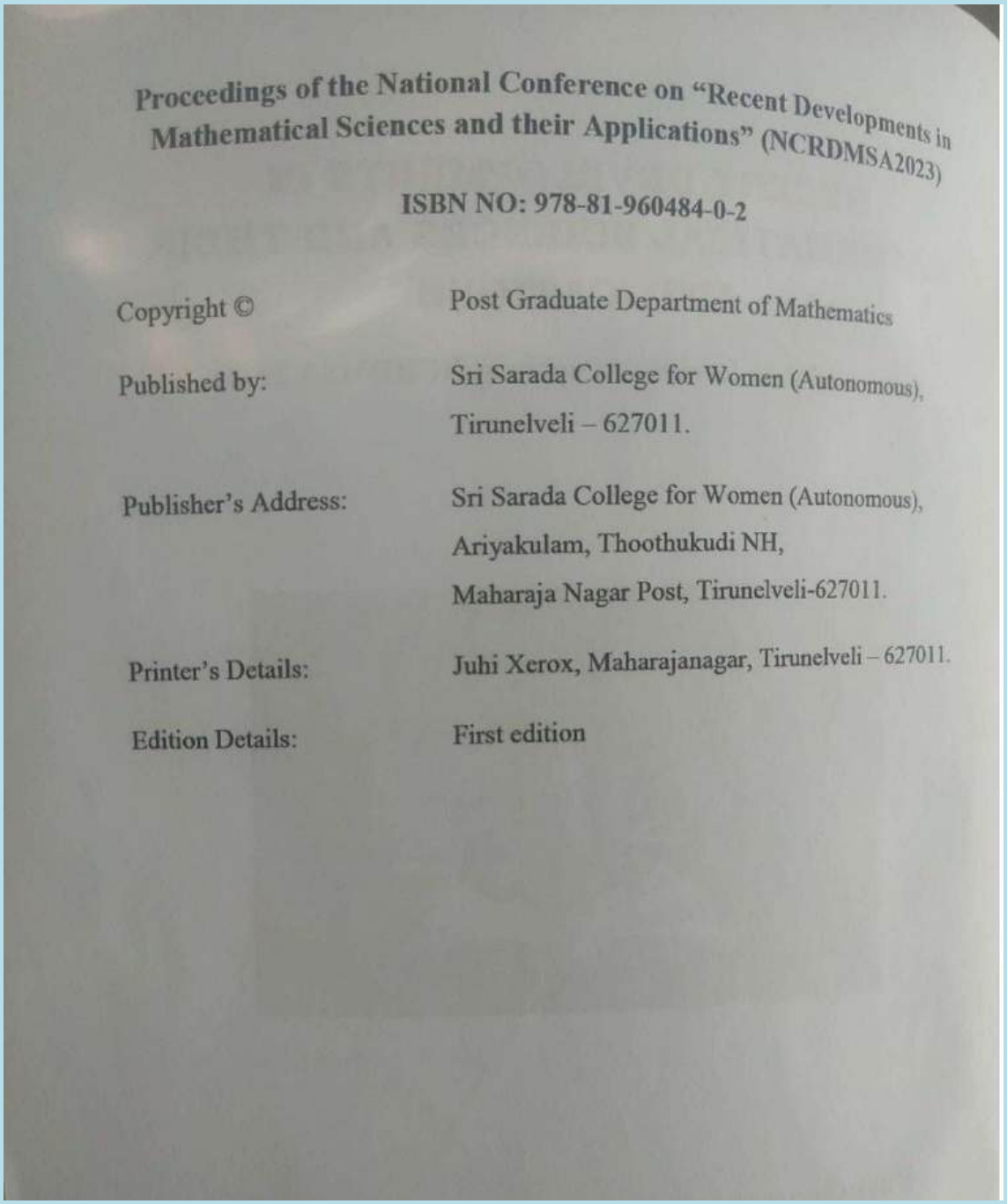

Proceedings of the National Conference on "Recent Developments in Mathematical Sciences and their Applications" (NCRDMSA2023)

ISBN NO: 978-81-960484-0-2

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Published by: Sri Sarada College for Women (Autonomous), Tirunelveli – 627011.

Publisher's Address: Sri Sarada College for Women (Autonomous), Ariyakulam, Thoothukudi NH, Maharaja Nagar Post, Tirunelveli-627011.

Printer's Details: Juhi Xerox, Maharajanagar, Tirunelveli – 627011.

Edition Details: First edition

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RESTRAINED DOMINATION NUMBER OF MIDDLE GRAPHS

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ABSTRACT

Let $G = (V, E)$ be a connected graph. A subset S is called the **restrained dominating** set of G if every vertex in V-S is adjacent to a vertex in S as well as to a vertex in V-S. The minimum cardinality of a restrained dominating set of G is its **restrained dominating number** and it is denoted by $\gamma_r(G)$. The restrained domination number of some standard graphs are already investigated while in this paper we investigate the restrained domination number of middle graphs obtained from path, star, and cycle.

Key Words: Dominating set, Restrained dominating set, Middle graph.

1.INTRODUCTION:

A vertex in a graph G dominates itself and its neighbors. A set of vertices D in a graph G is a **dominating set** if each vertex of G is dominated by some vertex of D. The **domination number** $\gamma(G)$ of G is the minimum cardinality of a dominating set of G.

The concept of restrained domination was introduced by G.S. Domke et al., [2]. A subset D is called the **restrained dominating set** of G if it is a dominating set and every vertex in V(G) − D is adjacent to another vertex in V(G) − D. The **restrained domination number** $\gamma_r(G)$ is the cardinality of the smallest restrained dominating set of G.

The concept of middle graph M(G) of a graph G was introduced by Hamda and Yoshimura in [3] as an intersection graph on the vertex set of G.

Definition 1.1:

The **Middle graph M(G)**of a graph G is the graph whose vertex set is V (G) ∪ E(G) and two vertices are adjacent if and only if either they are adjacent edges of G or one is vertex of G and the other is an edge incident with it.

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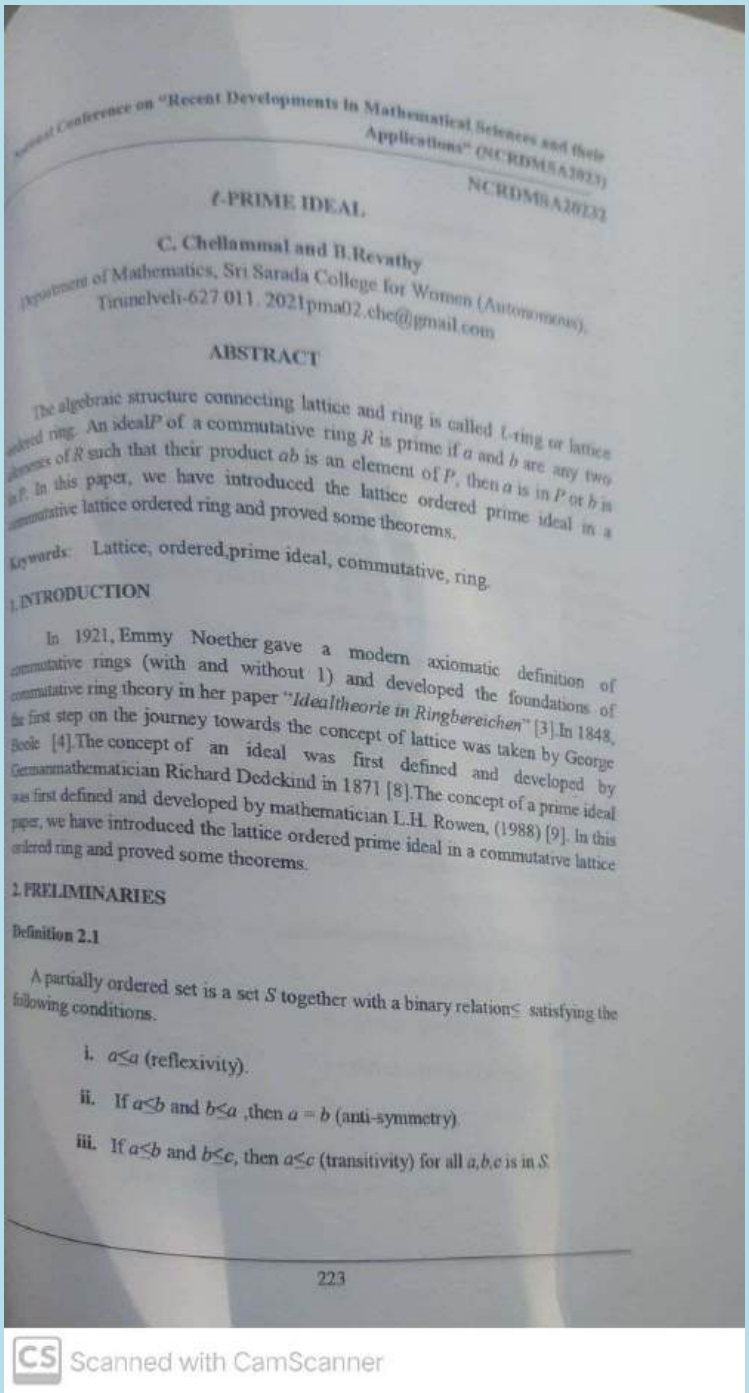

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ℓ-PRIME IDEAL

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ABSTRACT

The algebraic structure connecting lattice and ring is called l-ring or lattice ordered ring. An ideal P of a commutative ring R is prime if a and b are any two elements of R such that their product ab is an element of P, then a is in P or b is in P. In this paper, we have introduced the lattice ordered prime ideal in a commutative lattice ordered ring and proved some theorems.

Keywords: Lattice, ordered,prime ideal, commutative, ring.

1.INTRODUCTION

In 1921, Emmy Noether gave a modern axiomatic definition of commutative rings (with and without 1) and developed the foundations of commutative ring theory in her paper "*Idealtheorie in Ringbereichen*" [3].In 1848, the first step on the journey towards the concept of lattice was taken by George Boole [4].The concept of an ideal was first defined and developed by Germanmathematician Richard Dedekind in 1871 [8].The concept of a prime ideal was first defined and developed by mathematician L.H. Rowen, (1988) [9]. In this paper, we have introduced the lattice ordered prime ideal in a commutative lattice ordered ring and proved some theorems.

2.PRELIMINARIES

Definition 2.1

A partially ordered set is a set S together with a binary relation $\leq$ satisfying the following conditions.

i. $a \leq a$ (reflexivity).

ii. If $a \leq b$ and $b \leq a$,then $a = b$ (anti-symmetry).

iii. If $a \leq b$ and $b \leq c$, then $a \leq c$ (transitivity) for all a,b,c is in S.

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ABSTRACT

Let G= (V, E) be a graph. An inverse dominating set $D' \subseteq V(G)$ is hop dominating set of G, if for every $v \in V\text{-}D'$, there exists $u \in D'$ such that $d(u,v)=2$. The minimum cardinality of a hop inverse dominating set is called a hop inverse domination number and is denoted by $\gamma'_h(G)$. In this paper, we determine the hop inverse domination number of some graphs. Some general properties satisfied by this concept are studied.

Keywords: Inverse dominating set, Hop dominating set, Hop inverse dominating set.

1.Introduction

Domination in graphs is one of the fastest growing areas in Graph theory.Many authors contribute several interesting domination parameters to nurture the growth of this research area. An excellent treatment of several topics in domination can be found in two books [4, 5] written by Haynes et al. The following are some basic definitions and results to discuss further.

Let G=(V,E) be a non trivial connected graph where V is the set of vertices and E is the set of edges of G. The distance between two vertices u and v of a graph G is the length of the shortest path joining u and v in G and is denoted by d(u, v).

A set $D \subset V$ is a dominating set of G if every vertex $v \in V - D$ is adjacent to some vertex in D. A dominating set D is said to be minimal if no subset of D is a dominating set of G. The minimum cardinality of a **dominatingset** of G is called the **dominationnumber** of G and is denoted by $\gamma(G)$.

S.K. Ayyaswamy et al. defined a new domination parameter called hop domination number of a graph. The definition is as follows: A set $S \subset V$ of a graph G is a **hop dominating set** of G if for every $v \in V - S$, there exists $u \in S$ such that $d(u,v) = 2$. The minimum cardinality of a hd-set of G is called the **hop dominate on number** and is denoted by $\gamma_h(G)$.

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FUZZY SEMI- SUPER DISTRIBUTIVE LATTICE

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ABSTRACT

Ajmal and Thomas defined a Fuzzy lattice as a Fuzzy algebra and characterized Fuzzy Sublattices. An Fuzzy partially order set is called an Fuzzy lattice on if for any both Fuzzy Supremum and Infimum of exists. In this paper, we have defined Fuzzy semi- super distributive lattice and some results proved.

KEYWORDS: Fuzzy, Lattice, Distributive, Semi, Super.

1.INTRODUCTION

Zadeh(1965)[7], first of all introduced the concept of Fuzzy set. The concept of Fuzzy group was introduced by Azriel Rosenfield [2]. The concept of Fuzzy algebraic structures have been growing rapidly. Yuan and Wu [6] applied the concept of Fuzzy sets in Lattice theory. The concept of fuzzy sublattice was introduced by Ajmal [1]. Ajmal and Thomas defined a Fuzzy lattice as a Fuzzy algebra and characterized Fuzzy Sublattices. In this paper, we have defined Fuzzy semi- super distributive lattice and some results proved.

2. PRELIMINARIES

Definition: 2.1.

Let L be a Fuzzy lattice and $\mu(a)$, $\mu(b)$ in L. Thus $(\mu(a), \mu(b))$ is called a Fuzzy modular pair if

$\mu(c) \vee \mu(a \wedge b) = \mu(c \vee a) \wedge \mu(b)$, for all $\mu(c) \leq \mu(b)$ in L

(i.e) $\mu(c) \vee [\mu(a) \wedge \mu(c \vee b)] = \mu(c \vee a) \wedge \mu(c \vee b)$, for all $\mu(c)$ in L.

Definition: 2.2.

A Fuzzy lattice L is called a Fuzzy distributive lattice, if

$\mu(a) \vee \mu(b \wedge c) = \mu(a \vee b) \wedge \mu(a \vee c)$, for all $\mu(a)$, $\mu(b)$, $\mu(c)$ in L.

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National Conference on "Recent Developments in Mathematical Sciences and their Applications" (NCRDMSA2023)
NCRDMSA202326

MEAN LABELING IN ZERO DIVISOR GRAPHS

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ABSTRACT

Let $G = (V, E)$ be graph. If R is a commutative ring, then $a \neq 0 \in R$ is said to be a zero divisor if there exists $a, b \in R, b \neq 0$ such that $ab = 0$. A Graph G with p vertices and q edges is called a mean graph if there is an injective function $f: V \to \{0,1,2,\dots,q\}$ such that each edge uv is labeled with $\frac{f(u)+f(v)}{2}$ if $f(u)+f(v)$ is even and $\frac{f(u)+f(v)+1}{2}$ if $f(u)+f(v)$ is odd. If the resulting edge labels are distinct, then f is called a mean labeling of G. In this paper, we proved the mean labeling for some zero divisor graphs.

Keywords: Zero divisor, commutative, ring, mean labeling, graph.

1. INTRODUCTION

Graph labeling is an assignment of integers to the vertices or edges or both subject to certain conditions. The concept of graph labeling was introduced by Rosa in 1967 [5]. A useful survey on graph labeling by J.A. Gallian (2014) can be found in [2]. The concept of Zero divisor graph was introduced by D.F. Anderson and P.S. Livingston[1] in (1999). A Zero divisor graph is an undirected graph representing the zero divisors of a commutative ring. It has elements of the ring as its vertices, and pairs of elements whose product is zero as its edges. Somasundaram and Ponraj [4] have introduced the notion of mean labeling of graphs. In this paper, the existence of mean labeling is investigated for some zero divisor graphs.

Definition 1.1.

A Graph G with p vertices and q edges is called a mean graph if there is an injective function $f: V \to \{0,1,2,\dots,q\}$ such that each edge uv is labeled with $\frac{f(u)+f(v)}{2}$ if $f(u)+f(v)$ is even and $\frac{f(u)+f(v)+1}{2}$ if $f(u)+f(v)$ is odd. If the resulting edge labels are distinct, then f is called a **mean labeling** of G.

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INVERSE DOMINATION NUMBER OF CENTRAL GRAPH

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ABSTRACT

A set D of vertices in a graph G is a dominating set if every vertex not in D is adjacent to at least one vertex in D. Let D be a minimum dominating set of G. If V-D contains a dominating set say D' of G then D' is called an inverse dominating set with respect to D. The minimum cardinality of an inverse dominating set is inverse domination number. The graph obtained by subdividing each edge of G exactly once and joining every pair of vertices of given graph G which were non-adjacent in previous is called central graph. In this paper we found inverse domination number of central graph for some well-known graphs.

Keywords: Domination, Inverse domination, Central graph.

1.INTRODUCTION:

The concept was defined by Cockayne and Hedetniemi. A set D of vertices in a graph G is a dominating set if every vertex not in D is adjacent to atleast one vertex in D. Let D be a minimum dominating set of G. If V-D contains a dominating set say D' of G, then D' is called an inverse dominating set with respect to D. The inverse domination number $\gamma'(G)$ of G is the order of a smallest inverse dominating set of G. The graph obtained by subdiving each edge of G exactly once and joining every pair of vertices of given graph G which were non-adjacent in the original graph is called central graph.

2. INVERSE DOMINATION NUMBER OF CENTRAL GRAPH FOR PATH:

Theorem 2.1:

Let $n \geq 4$ be a positive even integer. The inverse domination number of central graph for path $C(P_n)$ has consecutive dominating number, $\gamma_{id}(C(P_n)) = \frac{n}{2}$

Proof:

Let $n \geq 4$ be even integer. Let $V(P_n) = \{v_1, v_2, \ldots v_n\}$. Let $E(P_n) = \{e_1, e_2, \ldots e_{n-1}\}$.

Now, $V(C(P_n)) = V(P_n) \cup C$

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A STUDY ON K-REGULARITY OF BLOCK FUZZY MATRICES

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ABSTRACT

On k-regularity of Block fuzzy matrices in fuzzy matrices was introduces by A. R. Meenakshi and P. Jenita. In this paper the conditions for k-regularity of a block fuzzy matrix of the form $M=\begin{bmatrix} A & B \\ C & D \end{bmatrix}$ with the diagonal A and D are k-regular. We extended the proof to some lemma and theorem.

Keywords: Block Fuzzy Matrices, right k-regular, left k-regular

1.INTRODUCTION.

Let Fbe a fuzzy algebra over the support [0,1] with max-min operations $(+,\cdot)$ defined as $a+b=\max\{a,b\}$ and $a\cdot b=\min\{a,b\}$ for all $a,b\in[0,1]$. Let F_{mn} be the Set of all $m\times n$ fuzzy matrices over F. In short F_n denote F_{nn}. For $A\in F_n$, A^T, $R(A)$ and $C(A)$ denote the transpose, row space and column space of A respectively. $A\in F_{mn}$ is said to be regular if there exists X such that $AXA=A$. In this paper we extended the proof of some lemma and theorem.

2.PRELIMINARIES

Definition 2.1[3]

A matrix $A\in F_n$ is said to be right k-regular if there exist a matrix $X\in F_n$ such that $A^kXA=A^k$ for some positive integer K. X is called a right k-g inverseof A. Let $A_r\{1^k\}=\{X/\{A^kXA=A^k\}$

Definition 2.2[3]

A matrix $A\in F_n$ is said to be left k-regular if there exist a matrix $Y\in F_n$ such that $AYA^k=A^k$, for some positive integer k. Y is called a right k-g inverseof A.Let $A_l\{1^k\}=\{Y/\{AYA^k=A^k\}$

Lemma 2.3[1]

For $A,B\in F_n$, $R(B)\subseteq R(A)\Leftrightarrow B=XA$ for some $X\in F_n$, $C(B)\subseteq C(A)\Leftrightarrow B=AY$ for some $Y\in F_n$.

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TURING PATTERN IN THE TREATMENT OF SKIN DISEASE (VITILIGO)

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ABSTRACT

In this paper, we tell about in what way Mathematics can be used to help to treat Vitiligo. Skin pigment loss in patches is a symptom of the illness Vitiligo. With time, the discoloured regions typically grow larger. Any area of the body's skin can be impacted by the disease. The lips and hair may also be impacted. When Turing studied the behaviour of a system involving the interaction of two diffusible materials, he discovered that such a system is capable of producing a spatially periodic pattern even from a random or nearly uniform initial state. Turing suggested a theory in which the interaction of two homogeneously distributed substances results in stable patterns during morphogenesis. These patterns show geographic variations in the two substances concentrations. Through their encounters, chaos would become order. In this we introduce in what way Turing pattern and reaction-diffusion systems help to treat Vitiligo.

KEY WORDS: Turing pattern, Reaction-Diffusion system, Vitiligo

INTRODUCTION:

The English mathematician Alan Turing developed the idea of the Turing pattern, which explains how random patterns in nature, like stripes and spots, can develop organically and on their own out of a homogeneous, uniform state. The initial symmetry of embryos can be disrupted, according to Alan Turing's reaction-diffusion theory, by the interaction of two diffusible molecules, whose interactions result in the formation of patterns. The reaction-diffusion theory offers an effective framework for the development of self-organized patterns. A condition called vitiligo results in patches of skin losing its color. With time, the discolored regions typically enlarge. Melanin typically controls the color of skin and hair. Cells that make melanin die or cease functioning, which causes vitiligo. Here, we discuss how reaction-diffusion systems and Turing patterns can be used to cure Vitiligo.

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T ANTI FUZZY IDEALS IN NEAR-RINGS

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ABSTRACT

In 1965, Zadeh introduced the concept of fuzzy sets. In 1977, G.Pilz introduce the notion of a near ring. In this paper we introduced the definition of T Anti fuzzy ideals in near-rings. Also, we proved some results in T Anti Fuzzy Ideals.

KEYWORDS: T fuzzy Ideals, Near-rings, Fuzzy Sub near-rings.

1. INTRODUCTION

S.Abou-Zaid introduced the notion of a fuzzy sub near-ring and studied fuzzy ideals of a near-ring and many followers discussed further properties of fuzzy ideals in near-rings. In this paper we introduced the notion of anti T-fuzzy ideals of near-rings, and some properties proved.

2. PRELIMINARIES

In this section, we review some elementary aspects that are necessary for this paper.

Definition 2.1. An algebra $(R, +, \cdot)$ is said to be a near-ring if it satisfies the following conditions:

i. $(R,+)$ is a (not necessarily abelian) group

ii. $(R,\cdot)$ is a semigroup

iii. For all $x, y, z \in R$, $x\cdot(y+z) = x\cdot y + x\cdot z$.

Definition 2.2. A subset I of a near-ring R is said to sub near-ring if $(I,+,\cdot)$ is also near-ring.

Proposition 2.3.

A subset I of a near-ring R is a sub near-ring of R if and only if $x - y, x\,y \in I$ for all $x, y \in I$.

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HOP DOMINATION NUMBER OF CENTRAL GRAPHS

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ABSTRACT

Let G = (V, E) be a graph. A set S⊆V(G) is a hop dominating set of G if for every v∈V - S, there exists u∈ S such that d(u,v) = 2. The minimum cardinality of a hop dominating set of G is called a hop domination number of G and is denoted by $\gamma_h(G)$.The central graph C(G) is obtained by subdividing each edge E in G exactly once and joining all the non-adjacent vertices of G. In this paper we found hop domination number of central graphs for some well-known graphs.

Keywords: Dominating set, Hop domination,Central graph.

1. INTRODUCTION:

Domination in graphs is one of the fastest growing areas in graph theory which has wide applications in Engineering and Science. There are more than 300 domination parameters available in the literature. For more details on domination refer [4, 5].Harary et al. introduced the notion of 2-step dominating sets in [2]. S.K.Ayyaswamy et al.[3, 7] initiated the study on a new domination parameter related to distance called hop domination number of a graph. Pabilona and Rara have published recently some new results on total and connected hop dominating ets under some binary operations on graphs [8, 9]. Henning and Jafari Rad haveobtained recently some probabilistic bounds on hop domination number of a graph [6]. In this paper, we compute the hop domination number of Central graphs for some special families of graphs such as Bistar, Double star, Wheel graph and ect.,

2. HOP DOMINATION NMBER OF CENTRAL GRAPH FOR A WHEEL GRAPH:

Theorem 2.1: For a wheel graph, $\gamma_h(C(W_n)) = 2 \forall n > 4$.

Proof:

Let $V(W_n) = \{v_0, v_1, \ldots, v_{n-1}\}$ where v_0 is a centre vertex of W_n and v_i, $1 \le i \le n-1$ be the vertices of C_{n-1}.

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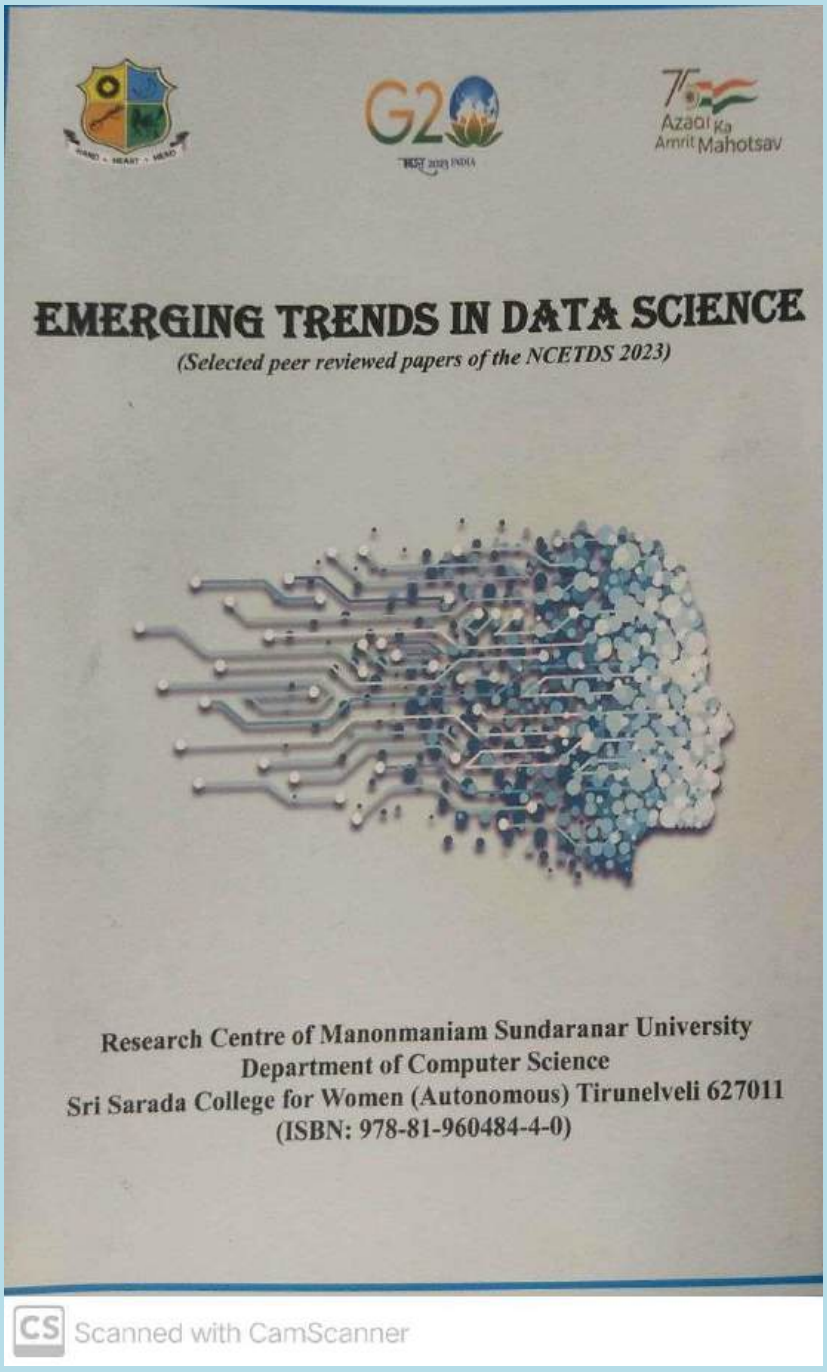

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Published by:
Sri Sarada College for Women (Autonomous)

Publisher's Address:
Sarada Nagar, Ariyakulam, Maharajanagar post, Tirunelveli-627 011.

Printer's Details: Amirthalakshmi Press, Tirunelveli.

Edition Details: First edition

ISBN: 978-81-960484-4-0

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NCETD

BREAST CANCER PREDICTION USING MACHINE LEARNING ALGORITHM

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ABSTRACT

Breast cancer is a significant public health issue affecting millions of women worldwide. earlier breast cancer is detected, the better the chances of successful treatment and improved surv rates.Mammography is the most common screening method for breast cancer, but it can be challengi to interpret, leading to missed diagnoses and delayed treatment.Therefore, the development of accura and efficient machine learning models for breast cancer prediction using mammography images ca significantly improve breast cancer diagnosis and management.CNNs can learn complex patterns an features from mammography images, making them suitable for breast cancer prediction.Additionally they can automatically extract relevant features from the images, reducing the need for manual featur engineering, which can be time-consuming and error-prone.One of the challenges is the limite availability of labeled mammography datasets, which can limit the model's performance.

Keywords: Color map, Ultrasound, BreastCancer.

INTRODUCTION

Breast cancer is the most commonly diagnosed cancer and the leading cause of cancer-relate deaths among women worldwide.In 2020, it was estimated that breast cancer accounted for 30% of al new cancer cases in women.While mammography is the most effective screening tool for breast cance its sensitivity, and specificity can vary, leading to missed diagnoses and unnecessar biopsies.Therefore, developing accurate and efficient methods for breast cancer diagnosis is critical i improving patient outcomes and reducing mortality rates.Machine learning techniques, especially deep learning algorithms like CNNs, have shown promising results in medical image analysis tasks including breast cancer prediction.CNNs can automatically learn and extract features from mammography images, making them suitable for breast cancer diagnosis.Additionally, deep learning algorithms can identify subtle patterns and features in mammography images that may be missed by human observers, increasing diagnostic accuracy.However, developing accurate CNN models for breast cancer prediction requires a large, high-quality dataset with diverse images and corresponding labels.Collecting such datasets can be challenging, and their limited availability can limit the performance of the model.

EXISTING SYSTEM

Breast cancer prediction is an important area of research in medical data analysis.There are several existing systems and models developed using Python to predict breast cancer based on differe

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NCETDS-05

ARTIFICAL INTELLIGENCE BEHIND THE NEW ERA OF SOCIAL MEDIA

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ABSTRACT

Social media has become an essential part of our daily lives, with billions of users accessing various social media platforms every day.Artificial Intelligence (AI) has played a significant role in the new era of social media, change the way to interact and communicate.In this study, explore the various algorithms used in social media platforms, their benefits, and their limitations.Social media platforms have become an integral part of modern society, with billions of users accessing them every day.Artificial Intelligence (AI) has played a significant role in the new era of social media, transforming the way interact and communicate.In this study, explore the various algorithms used in social media platforms, their benefits, and their limitations.Social media algorithms are powered by AI, machine learning, and data mining techniques.These algorithms determine the content that appears on a user's feed and offer personalized and efficient services.Different algorithms are used in social media platforms, including content-based filtering, collaborative filtering, neural networks, and natural language processing algorithms.AI-powered algorithms have revolutionized social media platforms, making them more personalized and efficient.They can process vast amounts of data in real-time, analyses user behaviour, and provide better search results.Personalization and enhanced user experience are some of the key benefits of AI in social media.However, AI algorithms also have some limitations, such as bias, privacy concerns, and lack of transparency.AI algorithms can be biased based on the data they are trained on, leading to inaccurate recommendations or results.Privacy concerns arise as AI algorithms require access to personal data to work, and there is a lack of transparency in how AI algorithms operate and make decisions.In conclusion, artificial intelligence has transformed social media platforms, making them more efficient, personalized, and enhancing the user experience.However, AI algorithms still face limitations that need to be addressed.Overall, AI has revolutionized the social media landscape and will continue to shape the future of social media.

Keywords: AI, Social Media, Algorithms, Personalization, Efficiency, User Experience, Bias

INTRODUCTION

Social media platforms have become an integral part of our daily lives, providing a medium for communication, information sharing, and entertainment.With billions of users worldwide, social media has transformed how to interact with each other, businesses, and the world around us.Artificial Intelligence (AI) has played a critical role in the new era of social media, powering the algorithms that

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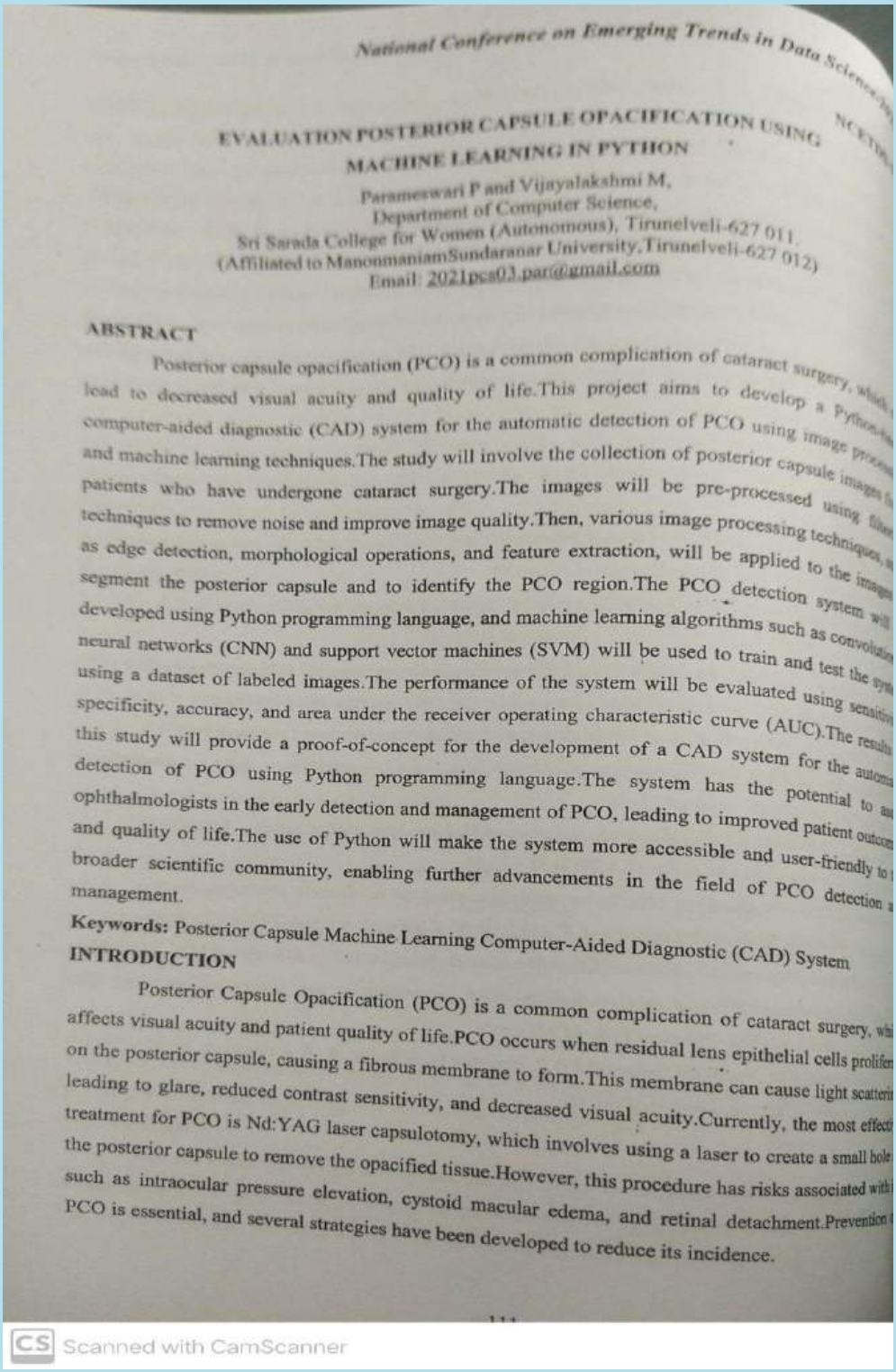

EVALUATION POSTERIOR CAPSULE OPACIFICATION USING MACHINE LEARNING IN PYTHON

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ABSTRACT

Posterior capsule opacification (PCO) is a common complication of cataract surgery, which lead to decreased visual acuity and quality of life.This project aims to develop a Python-based computer-aided diagnostic (CAD) system for the automatic detection of PCO using image processing and machine learning techniques.The study will involve the collection of posterior capsule images from patients who have undergone cataract surgery.The images will be pre-processed using filtering techniques to remove noise and improve image quality.Then, various image processing techniques, such as edge detection, morphological operations, and feature extraction, will be applied to the images to segment the posterior capsule and to identify the PCO region.The PCO detection system will be developed using Python programming language, and machine learning algorithms such as convolutional neural networks (CNN) and support vector machines (SVM) will be used to train and test the system using a dataset of labeled images.The performance of the system will be evaluated using sensitivity, specificity, accuracy, and area under the receiver operating characteristic curve (AUC).The results of this study will provide a proof-of-concept for the development of a CAD system for the automatic detection of PCO using Python programming language.The system has the potential to assist ophthalmologists in the early detection and management of PCO, leading to improved patient outcomes and quality of life.The use of Python will make the system more accessible and user-friendly to the broader scientific community, enabling further advancements in the field of PCO detection and management.

Keywords: Posterior Capsule Machine Learning Computer-Aided Diagnostic (CAD) System

INTRODUCTION

Posterior Capsule Opacification (PCO) is a common complication of cataract surgery, which affects visual acuity and patient quality of life.PCO occurs when residual lens epithelial cells proliferate on the posterior capsule, causing a fibrous membrane to form.This membrane can cause light scattering leading to glare, reduced contrast sensitivity, and decreased visual acuity.Currently, the most effective treatment for PCO is Nd:YAG laser capsulotomy, which involves using a laser to create a small hole in the posterior capsule to remove the opacified tissue.However, this procedure has risks associated with it such as intraocular pressure elevation, cystoid macular edema, and retinal detachment.Prevention of PCO is essential, and several strategies have been developed to reduce its incidence.

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A FRAME WORK FOR BUILDING TIMESHEET PREPARATION

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ABSTRACT

The project timesheet helps to track, record, and organize essential information related to the project and generate accurate billables.It helps to capture data regarding the project timeline on a daily, weekly, biweekly, or monthly basis and analyze it to understand how the project is progressing.A project timesheet template records the time an employee invests in multiple projects and tasks.The timesheet entry system is simple to use and provides a comprehensive user experience.The client can now keep track of the total time spent by employees on each ongoing project or milestone.It can also now keep a record of all its staff members' working hours every week and analyze the progress and performance of every staff member independently.The client wanted us to develop a timesheet entry system in Salesforce that allows each user to insert the time spent on different projects, programs, and milestones.

Keywords: Timesheet, Project, Client, HR document,Sales force..

INTRODUCTION

Timesheets are designed for weekly reporting.The start date is always set to the first working day of the week as per your working calendar and the end date to the last day of the week (Sunday).Timesheets work perfectly when you have a similar set of projects or tasks that you work on every week because this set of tasks can be copied from one week to another.Data from timesheets is saved online and, of course, can be found among the rest of the system's spent time entries.When a user adds spent time data for a particular week (of the timesheet) in other parts of the application, it automatically appears in the timesheet. The timesheet is locked, and no additional rows can be added.No data can be added or edited.ALL spent time data from the timesheet (including those that the manager was unable to see, as previously mentioned) receives the attribute "locked" and cannot be edited.However, time spent outside of the timesheet can still be tracked.This means that it is an important part of the configuration of an application and part of the approval process that a manager has a filter on their homepage or another dashboard for "unlocked" data from the past.He would need to check this filter regularly to make sure no spent time entries were added after the approval of the timesheet.At the moment of approval or rejection of a timesheet, a user can add a note for his action.This note can be visible only in a list of timesheets.

EXISTING SYSTEM:

Manual spreadsheets are prone to errors.An employee could enter incorrect time entries, make copy-and-paste mistakes, unknowingly overwrite, and so on.Additionally, since Excel or other

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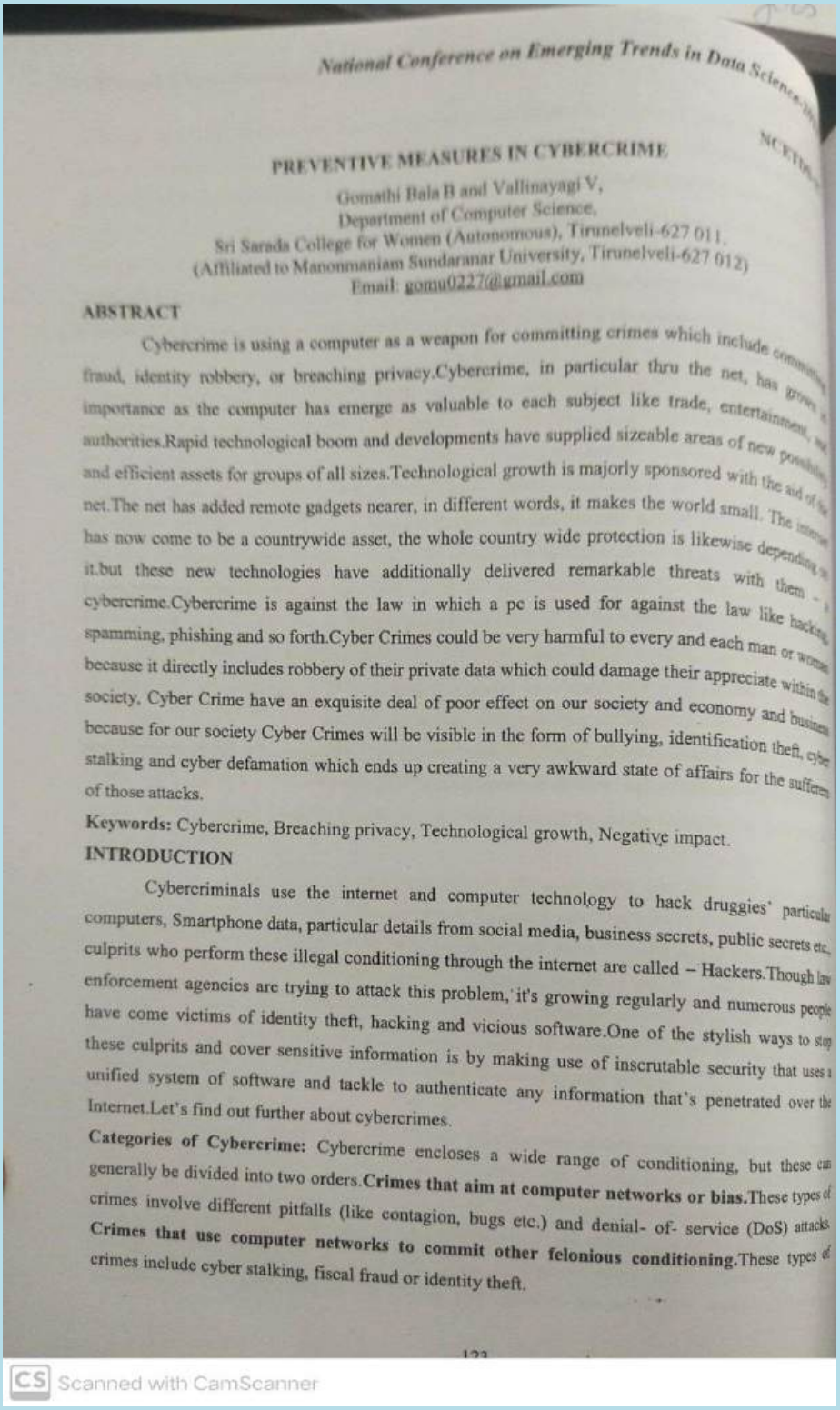

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PREVENTIVE MEASURES IN CYBERCRIME

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ABSTRACT

Cybercrime is using a computer as a weapon for committing crimes which include committing fraud, identity robbery, or breaching privacy.Cybercrime, in particular thru the net, has grown in importance as the computer has emerge as valuable to each subject like trade, entertainment, and authorities.Rapid technological boom and developments have supplied sizeable areas of new possibility and efficient assets for groups of all sizes.Technological growth is majorly sponsored with the aid of the net.The net has added remote gadgets nearer, in different words, it makes the world small. The internet has now come to be a countrywide asset, the whole country wide protection is likewise depending on it.but these new technologies have additionally delivered remarkable threats with them - a cybercrime.Cybercrime is against the law in which a pc is used for against the law like hacking, spamming, phishing and so forth.Cyber Crimes could be very harmful to every and each man or woman because it directly includes robbery of their private data which could damage their appreciate within the society. Cyber Crime have an exquisite deal of poor effect on our society and economy and business because for our society Cyber Crimes will be visible in the form of bullying, identification theft, cyber stalking and cyber defamation which ends up creating a very awkward state of affairs for the sufferers of those attacks.

Keywords: Cybercrime, Breaching privacy, Technological growth, Negative impact.

INTRODUCTION

Cybercriminals use the internet and computer technology to hack druggies' particular computers, Smartphone data, particular details from social media, business secrets, public secrets etc., culprits who perform these illegal conditioning through the internet are called – Hackers.Though law enforcement agencies are trying to attack this problem, it's growing regularly and numerous people have come victims of identity theft, hacking and vicious software.One of the stylish ways to stop these culprits and cover sensitive information is by making use of inscrutable security that uses a unified system of software and tackle to authenticate any information that's penetrated over the Internet.Let's find out further about cybercrimes.

Categories of Cybercrime: Cybercrime encloses a wide range of conditioning, but these can generally be divided into two orders.**Crimes that aim at computer networks or bias.**These types of crimes involve different pitfalls (like contagion, bugs etc.) and denial- of- service (DoS) attacks. **Crimes that use computer networks to commit other felonious conditioning.**These types of crimes include cyber stalking, fiscal fraud or identity theft.

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NCETDS-21

CHALLENGES AND POTENTIAL SOLUTIONS IN BLOCKCHAIN TECHNOLOGYAPPLICATIONS

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ABSTRACT

Blockchain technology has gained tremendous popularity in recent years due to its potential to create secure and decentralized networks.Blockchain is a distributed ledger technology that enables secure, transparent, and tamper-proof data storage and sharing.Despite its many benefits, the technology faces several challenges, including scalability, interoperability, regulatory concerns, and energy consumption.In this article, discuss the structure, features, and applications of blockchain technology, as well as the challenges it faces and potential solutions to these challenges.

Keywords: Blockchain, Structure, Applications, Challenges, Solutions

LINTRODUCTION

Blockchain technology has emerged as a game-changing technology that enables secure and transparent data storage and sharing.Blockchain networks are decentralized, meaning that they are not controlled by any single entity, and are built on a distributed ledger system that ensures the security and immutability of the data stored on the network.While blockchain technology has the potential to transform many industries, it also faces several challenges that must be addressed before it can be fully adopted.Blockchain technology is a distributed ledger technology that enables secure and transparent data storage and sharing.It was first introduced in 2008 by an anonymous individual or group using the pseudonym Satoshi Nakamoto in a paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System".Since then, blockchain technology has evolved beyond Bitcoin and is now being used in various industries, including finance, healthcare, logistics, and more.

At its core, blockchain technology is a decentralized system that operates on a network of nodes, where each node contains a copy of the ledger.Transactions are recorded on the blockchain in the form of blocks, and once a block is added to the chain, it cannot be altered or deleted.The consensus mechanism used by blockchain networks ensures that all nodes on the network agree on the state of the ledger, making it secure and tamper-proof.One of the most significant benefits of blockchain technology is its ability to create trust without the need for intermediaries such as banks or government agencies.Transactions can be conducted directly between parties, reducing transaction costs and increasing the speed of transactions.Blockchain technology is also highly transparent, allowing anyone to view the transactions stored on the blockchain.

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STUDY ON ARTIFICIAL INTELLIGENCE APPLICATIONS NCETDS-24

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ABSTRACT

This area of computer science focuses on teaching computers how to behave like people.Game playing, expert systems, neural networks, natural language processing, and robots are all examples of artificial intelligence.Currently, No computer system is fully intelligent (that is, are able to simulate human behavior).The area of playing games has seen the most advancements.The most advanced computer chess systems can currently defeat humans.Neural networks are now the most popular branch of artificial intelligence since they are successful in a variety of fields like voice recognition and natural language processing.Several programming languages are referred to as AI languages since they are virtually solely employed in AI applications.The two most popular are Prolog and LISP.The use of artificial intelligence is increasing.

Keywords: Data mining, Epistemology, Ontology , Optimization.

INTRODUCTION

The definition of artificial intelligence is the creation of computer programmes that use analogous methods to solve complex problems.It is that area of computer science that researches and creates software and hardware with intelligence.The field was established on the premise that intelligence, or the sapience of Homo sapiens, can be so precisely described that it can be artificially reproduced.From antiquity, myth, literature, and philosophy have all addressed the philosophical questions raised by this, including the nature of the mind and the morality of constructing artificial beings.Although there has been a lot of optimism surrounding artificial intelligence, there have also been some stunning setbacks.It now plays a crucial role in the technological sector, doing the grunt work for many of the most challenging issues in computer science. Reasoning, information, planning, learning, communication, perception, and the ability to move are the main issues (or objectives) of AI research. AI contains every detail and regulation pertaining to a strict problem domain.It provides these to the inference engine in a form that is useful to it.The specifics may be included in the system in the form of background information.That laws comprise both manufacturing laws pertaining to expert systems as well as heuristics and general rules of thumb.That the subject matter expert provides to help the system locate answers. The the shell or interface engine is a programme that searches the information base for the pertinent data and then infers new data using standardised processing and analytical techniques.

ARTIFICIAL INTELLIGENCE BRANCHES

Genetic Engineering is centred on the mechanisms that enable programmes to do precise actions and

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DEEP LEARNING ALGORITHM USED ON FOREST FIRE DETECTION

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ABSTRACT

In this paper, a new system for detecting fire using Convolutional Neural Networks (CNN). Detection of fire can be extremely delicate using styles of smoke detectors installed in thestructures.They're slow and bring hamstrung due to their primitive design and technology.This paper critically analyses the compass of Artificial intelligence for detection andtransferring cautionary withvideotape from CCTV footage[1].This design uses tone-erected dataset containing videotape frames with fire.The data is also pre-processed and use CNN tomake a deep learning model.The test set of the dataset is given as input for validating the algorithm andtrials are noted.Thedesign focuses onbuildinga cost-effective andlargely accurate machine that can be used innearly any use case of fire detection.

Keywords: Fire Detection, CNN, Deep Learning, CCTV, Object Detection.

INTRODUCTION

Fire can make major hazards in thisexcited world.Allstructures and vehicles used in public transportation have fireprevention and fire protection systems due to the accelerated number in the fire incidents.Also,output of theenterprises conducts a mock fire drill in everycircumstance per the month tocover theirworkers from the fire.This would help them to understand what to do or what not to do when a fire situation happens.timbers are one of the main factors in balancing ecology.It'sveritablydangerous when a fire occurs in atimber.Butmost of the time, the detection oftimber fire happens when it spread over a wide region.occasionally, it couldn't be possible to stop the fire.As a result, the damage to theterrain is more advanced than predictable.The emigration of largequantum of carbon dioxide(CO2) from thetimber fire damages theterrain.There are different types of fire detectionstyles used by the Government authoritiessimilar as satellite monitoring,palace monitoring using detectors,optic cameras, and so on.There are some otherways used for firerepression.The major bone is burning the dry areas or like in Canada they're using flying water tanks for firerepression.In middle east countries, theserudiments sweep down and burnt them in a certain unfuelled place.But, in Australia, theygive fire in these areas andstay until it dies without making any peril to the wildlife or humans.The ground-based systems use several staring black and white video cameras are used in fire detection which detects the smoke and compares it with the natural smoke.The main benefit of using this system is high temporal resolution and spatial resolution.So that, the detection is easier (Eric den breejen, 1998)[3].But these mechanisms still have some drawbacks in detecting the early stage of the fire.So, it is highly important to introduce a system to detect fa ire early as possible.

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ARTIFICIAL INTELLIGENCE & ROBOTICS-SYNTHETIC BRAIN IN ACTION

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ABSTRACT

Artificial intelligence is a proposition.It's the development of computer systems that are suitable to perform tasks that· would bear mortal intelligence.exemplifications of these tasks are visual perception, speech recognition, decision- timber, and restatement between languages.The base object in this referenceis the agent who is the" actor " taking birth in the software and climaxing itself in the tackle body.The connection between those two is that the control of the robot is a software agent that reads data from the detectors decides what to do next and also directs the effectors to act in the physical world.The end of this paper is to give introductory, background information on two arising technologies artificial intelligence (AI) and robotics and their compass in India.therefore, a first major point of these two disciplines is product diversity.In addition, it's possible to characterize them as disruptive, enabling and interdisciplinary.

Keywords: AI, Neural Networks, Deep Learning, Machine Learning, DecisionMaking

INTRODUCTION

Numerous experimenters now feel that the thing of mimicking the mortal capability to break problems and achieve pretensions in the real world the so- called strong AI is neither likely nor desirable because a long series of abstract improvements is needed AI systems are generally bedded within larger systems- operations can be set up in videotape games speech recognition, and in the data mining business sector. The field of robotics is nearly linked to that of AI, although definitional issues pullulate.Giving AI motor capability seems a reasonable description, but utmost people would not regard a voyage-bullet as a robot indeed however the navigation and control ways draw heavily on robotics exploration.AI and robotics are likely to continue to creep into our lives without us really noticing. Unfortunately, numerous of the operations appear to be taking place amongst agencies, particularly the service that don't readily respond to public concern, still well- articulated or allowed

ALGORITHMS AND GENETIC PROGRAMMING

An algorithm .is a sequence of conduct to perform some task. One branch of algorithm proposition, inheritable programming, is presently entering important attention.This is a fashion for getting software to break a task by lovemaking arbitrary programs and optingthe fittest in millions of generations. Khan elaborates inheritable algorithms use natural selection, shifting and crossbreeding within a pool of sub-optimal scripts. Better results live and worse bonès [4] bones allowing the program to discover the stylish option without trying every possible combination along the way.

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CROP YIELD PREDICTION USING MACHINE LEARNING TECHNIQUES

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ABSTRACT

Farming is the pillar of the Indian economy nowadays.More than 70% of Indians have taken up as their main occupation, day by day, for a specific crop; the former are not getting aproper yield as well as profit due to environmental conditions such as soil quality, weather,heavy rainfall, drought, seed damage, fertilisers, and pesticides.Farmers are unable to produce a high yield, so using historical agricultural data records, it can predict crop yield using machine learning techniques such as linear regression; comparative analysis is done with decision trees and KNN algorithms; and model performance is computed.

Keywords: Linear Regression, Decision Trees, KNN.

INTRODUCTION

Agriculture is the main criterion in the Indian economy because India is entirely agricultural.Because of the overall development in the field of agriculture, modernization should be implemented in agriculture. Consequently, the Indian economy grows. As a result, the work should improve crop production and maximize profit. So that the government can take actions on food risk management, policies, and today's farmers face so many challenges that they must over come. To study and achieve good performance, a good model for predicting crop yield must be built using machine learning algorithms such as linear regression, Descion trees, and Knearest neighbour. Our system achieves a machine learning and use the linear regression algorithm for prediction,it is a linear model that behaves a linear relationship between the dependent and independent variables by fitting a linear equation to given dataset. Its statistical processes. Linear regression is a supervised machine learning algorithms where outputs are continuous and slop is constant.The key point is assuming that connection between input variables and output variables the result should be linear.in this model input variables are known and target variables needs to predict, thus input variables supports to determine the target variables and also some uncertainties may remainin results. The predicted outcomes support the input variables.

LITERATURE SURVEY:

The authors[1] persist to research the environmental parameters that affect the crop yield and related parameters. Here a multivariate Regression Analysis is applied for the same. A sample of environmental factors considers a period of 10 years. The System is applied to find the relationship between explanatory variables like AR, AUC, FPI and hence the crop yield as a response variable and R2 value clearly shows that, the yield is especially hooked into AR, AUC and FPI are the opposite two.

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CRYPTOSYSTEM FOR SECURED E-LEARNING AND EDUCATIONAL DATAMINING

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ABSTRACT

Today's education system takes place through all the available channels and one of the significant means is the digital learning (e-learning). Large amounts of data are available for the students as well as teachers to access the digital data online.Today security of the data became an important concern in the society and at the education sector level.Further needs to extract the precise data and improve the existing education system through e-learning by using Educational Data Mining.In this paper will focus on the securityof the online education resources and the extraction of the data based on the student's level byusing the mining techniques that will be helpful for the students.

Keywords: AES, Cryptography, E-learning, EDM, Encryption, KDED,Threats and risks.

INTRODUCTION

In ancient times, education was limited within a small range of society and that education system was depending only on the traditional system of teachings and the students truly learned and focused on the subject and disciplinary principles taught in the class.In traditional education, have data as well information but it is kept on the papers.Today's education is modernized with the latest technologies and the system which are using is digital.This transformation from traditional education to the modern education system is E- learning.E-learning is globalization of education; people from anywhere can learn. Fundamentally, e-learning is a new way of providing knowledge to people to interact with web-based systems, which is the need of the current world.To subordinate the sharing and recycling of learning resources in different e-learning system, numerous e-learning standard formats including SCORM, IMS, LOM and AICC etc.recently have been proposed by several international organizations.For successful e-learning technology have to focus on the two major challenges: firstly, collectand extract the data by using the Educational Data Mining techniques and secondly, maintain the online education system secure, by minimizing information loss and providing security tothe stored data by using cryptographic techniques.By integrating the standard cryptographicalgorithms and data mining techniques can overcome the key challenges like maintaining the data online, and to secure data with authenticity, integrity.

DATA MINING

Data mining is defined as discovering hidden knowledge, models and procedures from the volumes of huge databases [4].Education is changing, more than at any time since the introduction of

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STUDY ON DATA SCIENCE IN APPLICATION AND BENEFITS

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ABSTRACT

Data science is an interdisciplinary field that uses scientific approaches, data mining techniques, machine-learning algorithms, and big data to extract knowledge and insights from a variety of structural and unstructured data.Large datasets of relevant information about patient demographics, treatment plans, outcomes of medical exams, insurance, etc.Are produced by the healthcare sector.Data scientists are interested in the data gathered by Internet of Things (IoT) devices.The massive amounts of fragmented, structured, and unstructured data generated by healthcare systems can be processed, managed, analysed, and assimilated with the help of data science.To obtain true findings, this data needs to be managed and analysed effectively.The article reviews and discusses the data preparation, data mining, data cleaning, and data analysis procedures used in healthcare applications.In addition to highlighting the benefits and outlining the frameworks and methodologies employed, the article also provides an insight into the state and future prospects of big data analytics in healthcare and suggests workable solutions.Big data analytics and data science can offer useful information and support in making strategic decisions.

Keywords: Big data· Data analytics· Data mining· Healthcare.

INTRODUCTION

There is a huge opportunity to analyse and study the vast amounts of clinical data generated by the health care sector, including patient Electronic Health Records (EHR), prescriptions, clinical reports, information about the purchase of medicines, data related to medical insurance, investigations, and laboratory reports [2].Machine-learning algorithms can be used to aggregate and evaluate the vast amount of data effectively.Better decision-making can lead to higher-quality patient care by analysing the specifics and discovering trends in the data.It can be useful to comprehend the trends.to increase life expectancy, early disease detection, early identification of disease at an early stage, and required treatment at a reasonable cost [3].Health It is possible to utilise Information Exchange (HIE) to obtain clinical data from several distinct acquire all the infrastructure and technologies necessary to utilise big data, which can increase revenue and profits and improve healthcare networks, and stand out to reap significant benefits [4, 5].In the next ten years, data mining techniques could lead to a transition away from traditional medical databases and towards a knowledge- and evidence-rich healthcare environment.

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FRAUD DETECTION USING MACHINE LEARNINGAND DEEP LEAR

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ABSTRACT

Frauds are notoriously dynamic and devoid of patterns, making it difficult to sp technology developments are used by fraudsters to their advantage.They Millions of d due to the breach of security measures.One method of tracking fraudulent transactions data mining tools to examine and find odd activity.Transactions.Several machine learni including k-nearest neighbour (KNN), random forest, and support vector machines (SV deep learning techniques, including autoencoders, convolutional neural networks (C boltzmann machine (RBM), and deep belief networks, are benchmarked in this pap European (EU), Australian, and German databases will all be uutilised.

Keywords: Credit card, fraud deduction, machine learning, deep learning, vector machin

INTRODUCTION

Several con artists have discovered ways to take advantage of credit card payments ever since they were introduced.Victims and rob them of their credit card deta make fraudulent purchases.This results in a significant number of fraudulent purchas order to identify these fraudulent transactions and prevent them from happening ag eCommerce platforms are working together.They are working to catch the fraudsters learning and deep learning techniques before the transaction is authorised.One of the topics of this decade is machine learning, which is a subset of artificial intelligence.Many looking to spend money on machine learning toEnhance their offerings.In order to enabl to carry out tasks without hard coding, machine learning combines a number of comp with statistical modelling.Learning would take place using the "training data" an model.The knowledge of past experiences can be used to make predictions or take a neural networks are used in machine learning techniques, which includes deep learnin approaches include convolutional neural networks, deep belief networks, auto-enco neural networks, and restricted Boltzmann machines.A fully trained NN would be distinct relationships throughout the entire data set. There are a number of difficul detection In this analysis, the extremely unbalanced datasets are exceedingly chall effective models in an application where only a small portion of the supplied data is addition, overlapping patterns and noisy data cause further issues.Most significantly models must take into account and react to the changing dynamics of frauds.

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NCETDS-32

ONLINE COMPLAINT REGISTRATION USING VISUAL FORCE

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ABSTRACT

The virtual grievance enrolment network is one of the most recent productivity enhancement tools, and it is widely used by all of them whenever booking complaints through an operator and analyzing complaints that have been made or are pending is required.Our network is based on the Salesforce platform, where people's issues can be registered and resolved by various levels of authority.Also, flexibility is provided to people, who can easily resolve their issues by communicating with the higher authorities over the internet.Our websites act as a bridge between the people and the government officers, in that the people directly register their complaints with the government officers via the internet.The absence of paper movements allows complaint operations to move at a rate never before imagined in manual mode.The website allows people to register complaints and automatically schedules and prompts operators to source complaints to concerned departments.

Keywords: Virtual, complaints, network, resolve, register, website.

INTRODUCTION

A complaint structure is a set of procedures used to address complaints and resolve disputes.Complaint systems in the US have undergone several innovations, especially since about 1970 with the advent of extensive workplace regulation, Notably in many countries, conflict channels, and systems have evolved from a major focus on labor-management relations to a much wider purview that includes unionized workers and also managers, non-union employees, professional staff, students, trainees, vendors, donors, customers, etc.There is also a major need to collect, review and understand the nature of conflict management and complaint systems around the world.Studies and citations are needed about how complaint systems work for women as well as men, Research is needed as to how systems work for many different national groups, for people of different socio-economic classes, different ages, and different religions, and especially for contract workers and immigrant workers, in every country.Studies are needed for labor complaint systems in health care, faith-based organizations, schools, political organizations, in schools, in political organizations, in the military, and in many specialized occupations.Studies are needed about important specialized issues like free speech.

EXISTING SYSTEM

In the existing system, people must go to the office for any help.The users can post their problems but cannot get the details of the problems and some other services.This system doesn't have

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ENHANCED AVAILABLE BANDWIDTH ESTIMATION TECHNIQUE

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ABSTRACT

This paper presents a unique probing scheme, a rate adjustment algorithm, and a modified excursion detection algorithm (EDA) for estimating the available bandwidth (ABW) of an end-to-end network path more accurately and less intrusively.The proposed algorithm is based on the well-known concept of self-induced congestion and it features a unique probing train structure in which there is a region where packets are sampled more frequently than in other regions.This high-density region enables our algorithm to find the turning point more accurately.When the dynamic ABW is outside of this region, and readjust the lower rate and upper rate of the packet stream to fit the dynamic ABW into that region.This appropriately adjust the range between the lower rate and the upper rate using spread factors, which enables us to keep the number of packets low, and are able to measure the ABW less intrusively.Finally, to detect the ABW from the one-way queuing delay, present a modified EDA from PathChirps' original EDA to better deal with sudden increase and decrease in queuing delays due to cross-traffic burstiness.For the experiments, anAndroid OS-based device was used to measure the ABW over a commercial 4G/LTE mobile network of a Japanese mobile operator, as well, as real test bed measurements were conducted over fixed and WLAN networks.Simulations and experimental results show that our algorithm can achieve ABW estimations in real time and outperform other state-of-the-art measurement algorithms in terms of accuracy, intrusiveness, and convergence time.The performance of a multimedia application is directly affected by bandwidth availability.One of the most important Qualities of Service characteristic is ABW at a wireless route and it can be demarcated as the least unused capacity of links instituting a network route.Now there have been many bandwidth estimation techniques are available in the literature to increase network performance.

Keywords: Probe rate model, queuing delay, Execution detection algorithm, 4G/LTE network.

INTRODUCTION:

Ad hoc networks are a temporary, decentralized, infrastructure-less, quick, and easy way of networking used in a situation where it is difficult to set up networks through cabling. Now a day, several applications generate multimedia data like live videos, audios, animated, graphics, and live communications etc., all these applications necessitate the backing of guaranteed services by the network. Providing QOS in wireless ad hoc networks has attained much attention in recent years. QOS assimilate through some efforts like controlling admissions aimed to render guarantee to the applications

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National Conference on Emerging Trends in Data Science-2021

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IMPACT OF INTERNET OF THINGS IN DATA MINING MODELS

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ABSTRACT

The Internet of Things (IoT) is a recent innovation and a technology that is now advancing quickly. Any of the devices used in daily life that are connected to the Internet can be connected with the IoT. The IoT will have a significant impact on people's lives.IoT systems generate enormous amounts of very accurate, trustworthy, and useful data. It's challenging to collect the relevant information from a vast collection of big data. The IoT framework is made smart enough to enable features and applications that are useful thinks in large part to data mining. The availability of data mining tools, applications, and facilities is the most crucial component of IoT. This paper provides a thorough review of the crucial role played by the internet of things in data mining models.

Keywords: Data mining, Internet of Things, Multi-layer Data Mining Model, IoT Architecture.

INTRODUCTION

The Internet of Things (IoT) is a network topology that links everything with operating systems, detectors, and network access in accordance with predetermined procedures that allow data collection and transfer of these entities.This includes physical objects, software, homes, cars, and other products.More attention must be placed on IoT in everyday activities, including how to get medical services, wearable computing, devices, and cars.The Internet of Things' (IoT) main goal is to advance communications technology so that it can recognise and respond to user needs more quickly.Industry experts believe the Internet of Things (IoT) to be very relevant, and estimates of data extraction can be coupled to IoT to separate information from concealed information.As a result of recent developments in networking and sensing technology, the Internet of Things (IoT) has expanded quickly.Although the web-based interactions with each thing seem to be very difficult, the Internet of Things will soon have a significant impact on people's lives.Together with social ideals and the capacity to glean sensitive information from openly available data, the IoT is prized for its ability to collect vast amounts of data.The Internet of Things is a collection of parts and operations that result from various operations.

DATA MINING

Data mining, also known as "Knowledge Discovery in Databases (KDD)," is the process of analysing sizable datasets of pattern extraction that are authentic, valid, worthwhile, and defendable.The data mining approach includes the gathering of data, pre-processing, integration, extraction techniques, and examination/simulation of outcomes.Exploring information is a methodical process.A sensitive method for looking through and analysing enormous amounts of data in order to uncover additional

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A NEW DISCRETE WAVELET-BASED TECHNIQUE FOR REDUCING NOISE IN MEDICALIMAGES

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ABSTRACT

The quality of the medical images is significantly impacted by noise.Because medical imaging does not provide us with useful information for a diagnosis due to its excessive noise level.Essentially, a medical diagnosis is made based on information that has been presented that is normal or aberrant.In this study, a wavelet-based noise reduction technique for medical images is described.Using the multiscale and directional filter banks, perform the wavelet transform in two dimensions.The wavelet transform offers a high degree of directionality in addition to the benefits of multiscale and time-frequency localization.Gaussian noise is added to our samples to check the wavelet transform's effectiveness at decreasing noise, and a threshold value is produced for the wavelet coefficients of the noisy image.The experimental outcomes of the suggested algorithm are then contrasted with those of the wavelet transform.Comparing the results of the suggested algorithm to those of the wavelet transform and discovered that they were acceptable.

Keywords: Filter, Gaussian Noise, Multiscale, Threshold, Transform

1. INTRODUCTION

The medical imaging system offers comprehensive information on the structure and operations of human organs.ultrasound, MRI, CT, and other common conventional medical imaging techniques are used for expert diagnoses.Nevertheless, these images frequently lack internal information and are of low quality.Medical practitioners and researchers favor picture super-resolution processing technology for medical diagnosis due to hardware and existing imaging technology limitations.

Typically, medical images feature severe sorts of noises and poor contrast.A significant problem in many image processing and computer vision issues is the suppression of noise in medical images distorted by Gaussian white noise.Because it can distinguish between the image signal and the noisy signal, picture reducing a noise using discrete wavelet transform is a well-established field in image processing.One of the key elements affecting the quality of medical images is noise.

The diagnosis of diseases, particularly cancer diseases, may be inaccurate due to high noise in medical imaging.It is common knowledge that the medical diagnostic procedure is crucial in determining the cause of this type of disease; it primarily depends on the normal or abnormal data provided by medical imaging.As accurate diagnosis relies on high-quality medical images, it is important to reduce the impact of noise on these kinds of images.In order to strengthen and recover any

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