

பக்தி

அனுபவம்

அரசியல்

அழகரசன்

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மாரியம்மன் வழிபாடும் வட்டார வழக்காரும்

- மு. ஏழுமலை

தமிழ்ச்சமூகச் சிந்தனை மரபின் பல்வேறு பின்புலங்களைப் புரிந்து கொள்வதன் மூலம், இறக்குமதி செய்யப்பட்ட, தோற்று விக்கப்பட்ட கருத்தாக்கங்களால் கலைத்துப் போடப்பட்ட பண்பாட்டுக் கூறுகளையும், சூழ்நிலையால் கேள்விக்கு உட்படுத்தப்படாமல் விடுபட்ட பண்பாட்டுக் கூறுகளையும் அடையாளப்படுத்த முடியும். சிந்தனை, வாழ்வு முறை போன்றவற்றில் பல்வேறு பரிமாணங்களை ஏற்றுக்கொண்ட தமிழ்ச்சமூகம், பண்பாட்டளவில் சில விட்டுக் கொடுப்புகளும் அதற்குள் சமாதான கற்பிதங்களையும் ஏற்படுத்திக் கொண்டது. ஆனால் தம் வாழ்வின் இயக்கமாகக் கொள்ளப்பட்ட கருத்தாக்கங்களில் எவ்வித விட்டுக் கொடுத்தலும் சமாதான கற்பிதங்களும் ஏற்படுத்திக்கொள்ள சில மரபுகள் விரும்பவில்லை. அவற்றில் முதன்மையானது நாட்டார் வழிபாட்டு மரபாகும். கல்வியாளன், அறிஞன், ஆய்வாளன், படைப்பாளன், இயக்கவாதி என்ற சமூக அடையாளங்கள் மறக்கடிக்கப்பட்டுக் கேள்விக்கு உட்படுத்தாமல் நேரடியாகப் பெரும்பான்மையின் இணைத்து இயங்குவது நாட்டார் வழிபாட்டு மரபின் சிறப்பு. "செவ்வியல் தெய்வங்கள் மீதும் சமயங்கள் மீதும் செய்யப்பட்ட கறாரான விமர்சனங்களில் கடுகனவு கூட நாட்டுப்புறத் தெய்வங்களை நோக்கி வீசப்படவில்லை என்பது முக்கியம்" என டி. தருமராஜன் விளக்குகிறார்.



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கீடை குறுநாவல் : மேய்ச்சல் தொழில்சார்

பண்பாட்டு அடைவு

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உதவிப்பேராசிரியர், தமிழ்த்துறை

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அரும்பாக்கம், சென்னை.

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ஆய்வுச் சுருக்கம்

கி.ரா. எனும் கி. ராஜநாராயணன் அவர்கள் தமிழ் எழுத்தாளர்களில் குறிப்பிடத்தக்கவர். கரிசல் காட்டு மக்களின் வாழ்க்கை முறைகளை அம்மக்களின் மண் மணத்தோடு பண்பாட்டு அசைவுகளாகப் பதிவு செய்தவர். அப்பதிவுகளுக்கான இலக்கிய வடிவங்களாகச் சிறுகதை, நாவல், குறுநாவல், கட்டுரை, சொல்லடைவு எனும் வடிவங்களைக் கையாண்டவர். பல்வேறு இலக்கிய வடிவங்களின் மூலம் கோவில்பட்டி உள்ளிட்ட கரிசல் பகுதிவாழ் மக்களின் இயக்கத்தைப் பேசுவழக்கோடு இலக்கிய வழக்காகப் பதிவு செய்த பெருமை கி.ரா. அவர்களுக்குரியது. இந்நிலையில், 'கீடை' என்னும் குறுநாவல் மூலம் மேய்ச்சல் தொழில் சார்ந்த வழக்காறுகளை எவ்வாறு பண்பாட்டு கடைவாக்கியுள்ளார் என்பதை ஆராய்ந்த இக்கட்டுரையின் நோக்கமாகும்.

தீர்வுச்சொற்கள்

கிடை, பண்பாட்டு வெளி, வரையியல், கொச்சைக் கிடை, துண்டு, துண்டுக்காரர், கிடை மறிப்பு

தமிழ் இலக்கண, இலக்கியங்களில் ஆயர் பற்றியக் குறிப்புகள்

தமிழ்ச் சமூக வளர்ச்சியைப் பொறுத்த வரையில் நாடோடிச் சமூகம், வேட்டைச் சமூகம், வேளாண்மைச் சமூகம் என்ற தொடர்ச்சியான பரிணாம வளர்ச்சி நிலையைக் கொண்ட சமூக அமைப்பைக் கொண்டுள்ளது. இவற்றில், மனிதன் நாடோடி வாழ்க்கையைப் பின்பற்றிய காலத்தையடுத்து விலங்குகளைப் பழக்கி வளர்க்கத் தொடங்கிய காலம் ஆயர்சமூகத் தோற்றக் காலம் எனலாம். இக்காலத் தொன்மையைப் பற்றி பக்தவத்சலபாரதி அவர்கள்,

"காடும் காடு சார்ந்த இடமும் மூலம் இங்கு ஆயர் வாழ்வும் வளம்பு வேளாண்மையும் முக்கியத் தொழில்கள் ஆகும். உலகளாவிய நிலையில் மரக்கும் போது ஆயர் வாழ்வு என்பது புதிய

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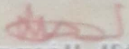
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நாள் : 21.04.2022 - வியாழக்கீழமை

சான்றிதழ் - CERTIFICATE


துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை மற்றும் தமிழ் இலக்கியத்துறைகள் 21.04.2022 ஆம் நாளன்று நடத்தப் பெற்ற பன்னாட்டு நவீனத் தமிழ்இலக்கிய மாநாட்டில் முனைவர் மு. ஏழுமலை, உதவிப்பேராசிரியர், தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை, அவர்கள் கண்டு கொண்டு கிடை குறுநாவல் : மேய்ச்சல் நொழில்சார் பண்பாட்டு அடைவு எனும் தலைப்பில் கட்டுரை அளித்தார். இக்கட்டுரை நிரணல் தமிழியல் ஆய்விதழின் சிறப்பிதழிலும் பின்னிதழிலும் (Peer Reviewed Journal - ISSN : 2582 - 9599) பிரசுரிக்கப்பட்டுள்ளது எனச் சான்றிதழ்க்கப்படுகிறது.

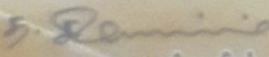
This is to certify Dr. M.ELUMALAI, Assistant professor, Department of Tamil, Dwaraka Doss Goverdhan Doss Vaishnav College (Autonomous), Arumbakkam, Chennai - 600 106 has participated in International Tamil Modern Tamil Literary Conference on April 21, 2022 organised by the Department of Tamil and Tamil Literature of Dwaraka doss goverdhan doss vaishnav college, and presented a paper entitled KIDAI KURU NOVEL : MEICHAL THOZHILSAR PANPAATTU ADIVU. This article is published in both the special issue of Pranav Tamil Research journal and pranav e-journal (Peer Reviewed Journal - ISSN : 2582 - 9599).


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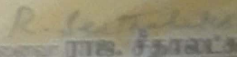
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துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை மற்றும் தமிழ் இலக்கியத்துறையால் 21.04.2022 ஆம் நாளன்று நடத்தப் பெற்ற பன்னாட்டு நவீனத் தமிழிலக்கிய மாநாட்டில் முனைவர் ம.பிரபு, உதவிப்பேராசிரியர், தமிழ்த்துறை, துவாரகாதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை - 600106. அவர்கள் கலந்து கொண்டு விதைத்தவனும் விதைகளும் புதினம் : விதைத் தழும் வாழ்வியல் எனும் தலைப்பில் கட்டுரை அளித்தார். இக்கட்டுரை பிரணவ் தமிழியல் : சிற்றப்பிதழின் சிறப்பிதழினும் மின்னிதழினும் (Peer Reviewed Journal - ISSN : 2582 - 9599) பிரசுரிக்கப்பட்டுள்ளது எனச் சான்றளிக்கப்படுகிறது.

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நவீனத் தமிழ் இலக்கியச் சூழலில் உருவான விளிம்புநிலை மக்கள் குறித்த உரையாடல்கள், தலித் இலக்கியங்களும் பெண்ணிய இலக்கியங்களும் தமிழ் இலக்கியப் போக்கில் உருவாக்கிய மாற்றங்கள், பின் காலனியம் முன்வைத்த அடையாள மீட்பு, அலைவு உழல்வியல் குறித்த கதையாடல்கள் போன்றவற்றால் நவீன தமிழ் இலக்கியச் சூழலில் அதுவரை குறிப்பிடத்தக்க கவனம் பெறாமல் இருந்த ஒடுக்கப்பட்ட மக்களின் வாழ்வியலுக்கு, வலிகளுக்கு முக்கியத்துவம் தரப்பட்டது. இந்தப் பின்னணியில்தான் இரா. முருகவேள் அவர்களால் தமிழில் மொழிபெயர்க்கப்பட்ட 'எரியும் பனிக்காடு' முக்கியத்துவம் பெறுகிறது. 1920களில் ஏற்பட்ட கடும் பஞ்சத்தால் பாதிக்கப்பட்ட மக்களுக்கு வாழ வழி செய்வதாகக் கூறி கங்காணிகள் தேயிலை, காபி, இரப்பர் தோட்டங்களுக்கு அவர்களை அழைத்துச் சென்றனர். அங்கு அவர்கள் அனுபவித்த பல்வகை இன்னல்கள் குறித்து வால்பாறை காரமலை எஸ்டேட்டில் தலைமை

மருத்துவ அதிகாரியாகப் பணியாற்றி, அங்கு மனிததன்மையற்ற சூழல் நிலவியதைக் கண்டு, அதை எதிர்த்துக் குரல் தந்ததோடு தென்னிந்திய தோட்ட உத்தியோகிஸ்தர்கள் சங்கம் என்ற அமைப்பையும் நிறுவித் தொழிலாளர்களின் பிரச்சனைகளுக்காக துணை நின்றிருக்கிறார் டேனியல். இவர் அம் மக்களின் குரலும் அவர்கள் அனுபவித்த கொடுமைகளும் வெளியுலகத்திற்குத் தெரியவேண்டும் என்பதற்காக 'Red Tea' என்னும் நாவலை எழுதி 1969இல் வெளியிட்டார். இந்நூலை இரா. முருகவேள் அவர்கள் 'எரியும் பனிக்காடு' என்னும் பெயரில் தமிழில் மொழிபெயர்த்து 2007ஆம் ஆண்டு விடியல் பதிப்பகம் மூலம் வெளியிட்டார். இந்தத் தமிழ் மொழிபெயர்ப்பு நாவலை அடிப்படையாகக் கொண்டு தோட்டத் தொழிலாளர்களின் வாழ்வியல் குறித்து ஆராய்வதாக இக்கட்டுரை அமைகிறது.

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தேயிலை, தொழிலாளர்கள், ஆங்கிலேயர், கங்காணி, மேஸ்திரி, காங்கிரஸ்



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WORK LIFE BALANCE AMONG WOMEN EMPLOYEES DURING COVID-19

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ABSTRACT

Work life balance among women employees during covid-19 with the expansion in awareness and education identifying women empowerment there is a significant increase in the total number of working women in various areas. Ever changing market condition and competition has pressurized the enterprises to perish or perform. This has created tremendous pressure on the employees. Individual and professional life are the two aspects thought about significantly by representatives, the achievement of which requires real consideration. Different viewpoints like Work stress, socio demographic conditions, work pressure, effect of work on family life adversely influences the individual life and professional success making a discriminatory constraint for women. This can result in increased Labour turnover, high absenteeism, poor job satisfaction, continuous Organizational loss, and occupation fulfilment. There are initiatives and steps taken by the organizations and the administration. This paper based on the secondary data studies the work-life balance practices adopted by Indian organizations in providing Work life Balance among its Women Employees. An endeavour is likewise made to discover the difficulties experienced by the institutions in giving such measures to the women employees. The sources studied for this research includes different Internet sites, Journals, websites doctoral proposition, papers etc.

Keywords: Work Life Balance, Women Empowerment, Initiatives

INTRODUCTION

Ever changing worldwide oriented corporate environment has transformed work-life balance into a source of stress for individuals, organisations as well as scholars. At work and at home, women's requirements are always evolving. Organizations need to be aware of these changes. Due to their increased responsibilities in the workplace and in their personal lives, female employees face a variety of unique challenges. Businesses have been pushed to rethink work-life balance due to a widening way of life and shifting job requirements. Female employees are often disproportionately burdened in the workplace. Included are not only tasks but also the mental and interpersonal labour performed at work.

The coronavirus outbreak has exacerbated gender inequalities and contributed to increasing levels of anxiety and tension in female patients. Many women labour in vital fields like healthcare, making them susceptible to infection by the coronavirus. It's not uncommon for mothers to have to juggle multiple responsibilities, including raising children, caring for ageing parents, and finding childcare. There is a positive effect on staff morale, job satisfaction and productivity from this. There has been very little scholarly work done in India to provide a comprehensive picture of the work-life balance policies and programmes utilised by various businesses.

OBJECTIVES

1. To learn about the ways to keep a good work-life balance.



THE ROLE OF BUSINESS IN THE POST PANDEMIC ERA

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ABSTRACT

The current covid-19 pandemic has brought the global economy to a halt, resulting in an increase in unemployment, an increase in panic buying, which also contributes to an increase in demand and price, and people are concerned about their immediate surroundings as well as their physical and mental wellbeing. In order to fulfil their objectives, businesses must have a thorough understanding of consumer behaviour. In order to tackle these problems, I have suggested some strategies for securing the business, which prepares the road for economic growth.

Key Words: Business, COVID-19, Economic growth and Consumer Behaviour

INTRODUCTION

2020-2021 had already proven to be a challenging years, but as someone wise once remarked, "When the going gets difficult, the tough reinvent." The current scenario is rather bleak, with numerous businesses taking preventive steps such as restricting travel and recommending employees to work from home. The growing epidemic has sparked widespread fear, impacting both our quality of life and productivity.

People are fascinated by technology and have a significant interest in remote conferencing, which makes virtual meetings as natural as face-to-face encounters.

Corona virus has slowed the worldwide economy; it began as a catastrophe in China, and because China is the world's factory, when factories close, global businesses suffer. Companies have been harmed in three ways:

1. Supply chains have been disrupted
2. Squeeze the customers
3. Workplace restrictions

The COVID-19 epidemic, according to the UN Department of Economic and Social Affairs (DESA), is disrupting global supply chains and international trade. The movement of people and tourism flows have come to a halt as around 100 countries have closed national borders in this period.

Here are some measures to stay connected and buoyant during the pandemic:

1. Communicate transparency with your customers
2. Managing personnel and associated optimization
3. Maintaining a healthy relationship with contracted parties
4. Maintain team engagement



IMPACT OF COVID-19 ON SMALL BUSINESS OWNERS

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Abstract

The drop in business owners was the largest on record, and losses were felt across nearly all industries and even for incorporated businesses. African-American businesses were hit especially hard experiencing a 41 percent drop. Latinx business owners fell by 32 percent, and Asian business owners dropped by 26 percent. Simulations indicate that industry compositions partly placed these groups at a higher risk of losses. Immigrant business owners experienced substantial losses of 36 percent. Female-owned businesses were also disproportionately hit by 25 percent. These findings of early-stage losses to small businesses have important policy implications and may portend longer-term ramifications for job losses and economic inequality.

Keywords: Small business, entrepreneurship, self-employment, COVID-19, coronavirus, shelter in place, social distancing

Introduction

The widespread closing of stores and businesses in the United States and around the world due to the coronavirus is unprecedented. Stores, factories and many other businesses have closed by policy mandate or downward demand shifts. Many of these closures may be permanent because of the inability to pay ongoing expenses and survive the shutdown. The impact on small businesses around the world is likely to be severe. When conditioning on working roughly two days per week or four days a week, the losses are even larger (28 percent and 31 percent, respectively). Although incorporated businesses are more growth-oriented and stable, they experienced a drop of 20 percent from February to April 2020.

Number of Business Owners

I first examine small business ownership patterns over time to determine the impacts of COVID-19. Long-term trends in the number of

2 Analysis of EMG Signals using Extreme Learning Machine with Nature Inspired Feature Selection Techniques

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MIT Campus, Anna University

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2.1 INTRODUCTION

Neuromuscular Impairment (NMI) is an ailment that affects the neuromuscular system by breaking in the communication path between the muscles and the nervous system (Reed et al. 2017). The symptoms of NMI include muscle numbness, fatigue muscles, abnormal pain sensation, atrophy in muscles, and fasciculation in



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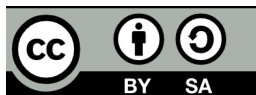
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SESSION 2

Review of *Bacopa monnieri* and its Anti-cancer activity

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ABSTRACT

Bacopa monnieri (also known as brahmi, water hyssop, *Bacopa monniera*, and *Herpestis monniera*), is a creeping perennial that has small oblong leaves and purple flowers. *Bacopa* is a plant which has great potential that is used in traditional Indian Ayurvedic medicine. *Bacopa* is commonly used for Alzheimer's disease, memory and thinking skills (cognitive function), anxiety, and attention deficit-hyperactivity disorder (ADHD). The main chemical constituents of *Bacopa monnieri* is believed to be dammarane types of triterpenoids known as bacosides. *Bacopa monnieri* has powerful compounds which possess antioxidant effects and also have anticancer properties. Bacosides, the active class compound has the effect to kill the aggressive tumor cells in brain and also inhibit the growth of breast and colon cancer cells in in-vitro and animal studies. The results are only from in-vitro and animal studies. Though there has been research from human studies is still not used as a treatment for cancer. The ethanolic extract of this plant containing bacoside A and B is responsible for the anti-tumor activity. Recent studies has shown that the chemical constituent present in the leaf extract of *Bacopa monnieri* has anti-proliferative activity and anti-angiogenic activity against different types of the cancer cells. The target cells of *Bacopa monnieri* are also involved in pathways like proteoglycans cancer, asthma, insulin resistance etc. It also has an anti-inflammatory property that helps in reducing the pro-inflammatory cytokines. These potential health benefits on *Bacopa monnieri* are promising but more research is needed to understand its full effects in humans.

Keywords: *Bacopa monnieri*, cancer, anti-inflammatory, asthma, resistance.

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They have sufficient teaching and research experience with expertise in Aquaculture and Farm Management and its significance in Fisheries Technology. They have written this book for the benefits of undergraduate and postgraduate students.

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EFFECT OF SAND DUNE PLANT EXTRACTS AS AGAINST PRIMARY FOULING MARINE ORGANISMS

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ABSTRACT:

Biofouling is a significant problem in aquatic environments, characterized by a natural process of colonization of submerged surfaces, whether living or artificial, by a variety of organisms ranging from bacteria to invertebrates. Antifouling agents used along with electrolytic systems, chemical dosing, ultrasonic, and electro chlorination processes can drastically affect marine life. Because these materials are highly reactive, they are causing serious environmental impact on the marine environment. Researchers have extensively studied the antifouling and antimicrobial properties of marine plants, including mangroves, seagrasses, seaweeds, and sand dune plants. *Ipomoea pes-caprae* extracts such as methanol, diethyl ether, acetone, chloroform, and aqueous extracts were studied for antifouling effects against primary fouling marine strains in this study. The results showed that the methanolic extract from the sand dunes plants had major activity against isolated primary marine fouling strains. We investigated the ability of these isolates to produce extracellular polymeric substance (EPS). Additionally, the interaction of sand dune extracts with intracellular enzymes can result in the release of these enzymes, thus causing damage to the bacterial cell wall.

Keywords: Antibacterial, Biofouling, EPS, *Ipomoea pes-caprae*

MECHANISM OF BIOACTIVE COMPOUNDS FROM *Sesbania grandiflora* Against C-di-GMP PHOSPHODIESTERASE OF *Pseudomonas aeruginosa*

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ABSTRACT:

Sesbania grandiflora commonly referred to as Agathi or Agasthya has potent antibiofilm activity. In the leaves of the plant Agasthya, bioactive compounds such as medicarpin, isoniazid and 4-methyloxazole are primarily found. The bacteria produce extracellular polymeric substances and leads to biofilm formation and it have the ability to cause infections includes nosocomial infections, urinary tract infections etc. Initialization of biofilm formation in *Pseudomonas aeruginosa* has been associated with high intracellular c-di-GMP (Cyclic-di-Guanosine Monophosphate) levels. Phosphodiesterase (PDE) is an enzyme with HD-GYP domain that catalyses the hydrolysis reaction of cyclic diguanylate (c-di-GMP) into GMP whereas the mutated c- di- GMP phosphodiesterase can have the ability to produce extracellular polymeric substances, proteins, DNA and virulence factors responsible for biofilm formation. In this study, Human BLAST analysis c-di-GMP Phosphodiesterase (PA4781) protein have carried out and it shows insignificant result. Hence it could be a possible drug target for UTI infection caused by *Pseudomonas aeruginosa*. The three-dimensional structure of PA4781 from *P. aeruginosa* was obtained from the PDB database, which was subjected to molecular docking against *S. grandiflora* bioactive compounds and control drug ciprofloxacin. Compounds taken for the study were screened for drug likeliness properties and ADMET properties. Molecular interaction analysis of PA4781 with medicarpin compound shows - 6.75 Kcal/mol binding energy with two hydrogen bonds when compared to control drug with - 6.86 binding energy and two hydrogen bonds respectively. The molecular docking analysis evidenced that medicarpin possess a significant amount of molecular interactions, binding energy and flexibility. Hence, our study findings suggest that medicarpin could be an inhibitor of PA4781 and may have anti-biofilm activity, which could be validated experimentally.

Keywords: Antibiofilm activity, *Pseudomonas aeruginosa*, Bioactive compounds, C- di- GMP phosphodiesterase, Molecular docking, *Sesbania grandiflora*

ISOLATION AND CHARACTERIZATION OF *Pseudomonas sp.* AND *Staphylococcus sp.* Producing Protease Enzyme AND ITS APPLICATIONS

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ABSTRACT:

Pseudomonas sp. & *Staphylococcus sp.* are bacteria that are omnipresent in nature. *Pseudomonas sp.* is an aerobic, rod-shaped, gram negative bacterium. Whereas, *Staphylococcus sp.* are a group of gram positive bacteria which are spherical in shape and facultative anaerobic organisms. Proteases, proteolytic enzymes catalyze the hydrolysis of peptide bonds among two amino acids. Properties that proteases exhibit are accordant with industrial needs. Hence the present research work is to isolate protease producing bacteria and characterize their strains and protease enzyme production. *Pseudomonas sp.* & *Staphylococcus sp.* was isolated from the soil sample collected from fish market. The extra cellular protease enzyme was produced and partially purified and used for further studies. Various sorts of nutritional and environmental factors are optimized to solve the drawbacks in submerged and solid state fermentation. The optimum enzyme production was done in the pH 8.0, temperature 40°C and substrate concentration is 1% of casein produce the maximum protease enzyme for *Pseudomonas sp.* and its specific activity found to be 5.69U/mg. Proteases act as best detergents & used in rust removal in knives and proved the same.

Keywords: *Pseudomonas sp.*, *Staphylococcus sp.*, Proteases, Fermentation.

EXTRACTION OF CHITIN AND CHITOSAN FROM PRAWN SHELL WASTE

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ABSTRACT:

Chitin is a natural polysaccharide made up of N-acetyl-D-glucosamine units linked through a β -(1, 4)-glycosidic bond and is produced by a variety of living organisms. Chitin is a major component present in the exoskeleton of arthropods cell wall of fungi and yeast. The most vital function of chitin is to provide strength and structure to the organism and protection. Chitin tries to exhibit more properties when it is converted into a chitosan. A chitosan is a linear polymer that consist β -linked D-glucosamine and N-acetyl-D-glucosamine. These are non-toxic, biodegradable and biocompatible polymers. When chitins present in shells of crustaceans are treated with an alkaline substance like, sodium hydroxide, chitosans can be obtained. Organisms like shrimp, crab, lobster, prawn, and squid also contain roughly about 14-35% of chitin. The present study was to extract chitin and chitosan from the shells of the prawn and convert these biological wastes into a useful product.

Chemical methods like deproteinization, demineralization, decolorization for chitin, and further deacetylation for chitosan were used to extract the same from prawn shells. FTIR analysis of chitin and chitosan were also carried out to identify the functional groups present in it. India generates approximately 9.5 million tons of shell wastes per year. The whole idea is to recycle these wastes and make use of these as fibers, biofilms, affinity chromatography column matrix, plant disease resistance promoter, anti-cancer agent, wound healing promoting agent, antimicrobial agent, preservation of fruit, cosmetics and in pharmaceuticals, instead of dumping them and piling up the waste.

Keywords: Chitin, Chitosan, Exoskeleton, FTIR , Biopolymers.

BIOACTIVITY OF SECONDARY METABOLITES FROM *Coccinia grandis*

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ABSTRACT:

Secondary metabolites from plants offer a unique source of pharmacologically significant compounds with therapeutic properties. *Coccinia grandis* commonly known as “ivy Gourd” is a perennial creeper belonging to Cucurbitaceae and native to central Africa, India and Asia. The fruit is edible and the plant is a source of various phytochemicals such as saponin, flavonoids, glycosides, polysaccharides, xyloglucan, taraxerol, carotenoids and cryptoxanthin. The various parts of this plant are recognized in the medical formulations of indigenous systems of siddha and unani medicine, thereby gaining interest towards extensive research. This review is to focus on the secondary metabolites extracted from leaf, flowers and fruits of *Coccinia grandis* and their potential role as antioxidant, anti-inflammatory, antimicrobial, antidiabetic and hepatoprotective activity.

Keywords: antidiabetic, anti-inflammatory, antimicrobial, antioxidant, *Coccinia grandis*, secondary metabolites.

BIOSORPTION OF PESTICIDE CHLORPYRIFOS BY HALOPHILIC BACTERIAL *Halomonas elongata* - STRAIN GAD3 *Trigonella foenum-graecum* AND ITS ASSESSMENT IN PLANT

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ABSTRACT:

Pesticides are widely used in agriculture to control major insect pests. Though pesticides have efficiently killed the pests from infecting production crops and yielded better crop quality they were found to affect soil fertility. It not only affects soil fertility but also causes severe soil and water pollution making the land and water unusable for future generations. Chlorpyrifos is one of the major pesticides which are used to control insects including termites, beetles etc. The widespread use of these pesticides is hazardous to the environment and also toxic to mammals, thus it is essential to remove the same from the environment. Halophilic microorganisms are those that thrive well in environment of high salinity. Metabolites from halophilic microorganism have been known to have several industrial importances but their ability to alleviate salt stress is less explored. In the present study, halophilic microorganism isolated from salt evaporation tank, SIPCOT, Ranipet, Vellore, Tamilnadu has been studied for plant growth promoting factors and biosorption of pesticide Chlorpyrifos. It has been identified that out of five organisms designated as GAD1 to GAD5, the organism GAD3 (*Halomonas elongata*) showed maximum biosorption activity and act as better plant growth supporting factors such as ammonia utilization, nitrogen fixation and phosphate solubilisation. These kinds of organisms with dual role can be considered as an efficient candidate in combating pesticide infection and also promoting plant growth.

Keywords: Biosorption, Chlorpyrifos, Halophiles, Pesticides, Salt evaporation tank

BIOSYNTHESIS OF SILVER NANOPARTICLES USING *ASPERGILLUS TERREUS* AND THEIR ANTIBACTERIAL POTENTIAL ON COTTON FABRICS COATED WITH SILVER NANOPARTICLES

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ABSTRACT:

some promising results all over the World to cope-up with present day challenges of agriculture.

Keywords: hydroponics, hydroculture, soil-less culture.

ISOLATION AND CHARACTERIZATION OF ANTIOXIDANT AND ANTIMICROBIAL COMPOUND FROM MANGO GINGER. RHIZOME

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ABSTRACT:

Mango ginger (*Curcuma amada* Roxb) rhizome have long been known to possess various medicinal properties. *C.amada* is a plant of the Ginger family *zingiberaceae* and is closely related to Turmeric. It has been widely studied for its antimicrobial property along with other medicinal properties such as anti-oxidant, cytotoxicity, anti-inflammation, Platelet aggregation inhibitory activity, Cholesterol lowering activity. Well known medicinal plant in ayurvedhic and unani medicine in India. The present study aims to comparing the different extracts of *C. amada* Roxb for its various properties. Results reveal that the extracts of Mango ginger rhizome as antioxidant antimicrobial properties. The crude extract helps in preventing thrombosis. The structure of the partially purified compound amadaldehyde was identified by FT-IR and NMR spectroscopy.

Key words: Anti-inflammation, Antioxidant, Curcuma amada roxb, Cytotoxicity

BIO PRESERVATION OF FOOD PRODUCTS USING BACTERIOCINS PRODUCED BY LACTIC ACID BACTERIA ISOLATED FROM DAIRY PRODUCTS

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ABSTRACT:

The main threat to food business that makes the food unfit for human consumption is food spoilage. This study aimed to evaluate the bio preservative activity of bacteriocin which is an antibacterial protein in various food products. The partially purified bacteriocin was

produced by lactic acid bacteria (LAB) isolated in Mann Rogosa Sharpe (MRS) agar from dairy samples. The preservative effect was observed through pH analysis, palatability and plate count. The result showed that the isolates of *Lactococcus* sp. inhibited the spoilage of desired food product. The bio preservative effect of bacteriocin was observed based on low colony counts in total plate count agar. The study result showed that bacteriocin produced by *Lactococcus* sp. can be successfully used as bio preservative for food products. Hence, they may be used as an alternative to the commonly used preservatives in response to consumer demand for natural products. In future studies, bacteriocin on interaction with nanoparticles synthesized from chitosan can be employed for greater efficiency of antimicrobial activity and preservation.

Keywords: Bacteriocin, Bio preservation, *Lactococcus* sp., Dairy products.

ISOLATION, CHARACTERIZATION AND ANTIMICROBIAL POTENTIAL OF *Streptomyces* sp. FROM SOIL AND A STUDY ON THE ITS ANTIBACTERIAL ACTIVITY AGAINST CLINICAL PATHOGENS

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ABSTRACT:

A total of 39 diverse *Streptomyces* colonies was isolated from soil samples acquired from various sampling sites. The isolates were screened for their ability to produce antimicrobial substance. Upon primary, secondary and tertiary screening, the isolate that possessed maximum antibacterial activity against both Gram positive and Gram negative microorganisms was selected. Solvent (ethyl acetate) extraction of metabolites from the fermentation broth of the best isolates was carried out. The potential isolate was morphologically, physiologically and biochemically characterized based on Bergey's manual of determinative bacteriology and International *Streptomyces* Project (ISP). Scanning Electron Microscopy (SEM) analysis showed spiral sporophore of the isolate with smooth surfaces. Minimum inhibitory concentration (MIC) of the compound obtained by solvent extraction was compared with the MIC of the standard antibiotics against various clinical pathogens and its synergistic effect with the antibiotics was studied. The ethyl acetate extract

OP 64

Production of Indole acetic acid using Agro residues by soil microbes

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ABSTRACT:

Recently, Scientists have found plant growth regulators, which allow them to control plant development and a variety of growth-related activities. A variety of crops have benefited from the introduction of certain microbes in terms of plant growth. Plant growth promoting mechanisms (PGPR) are microbes that protect roots from infections while also increasing food availability, lowering ethylene levels inside the plant, and increasing the production of stimulatory substances like plant growth regulators. One of the most important natural growth regulators for plants is indole-3-acetic acid (IAA). To gain access to more nutrients in the soil, IAA enhances root growth and morphology. Okara is the bland pulp left over after pure seed soybeans are filtered in the process of manufacturing soymilk. Okara is highly sensitive to putrefaction as a food due to its high nutrition and water content. It's almost entirely utilised to feed household animals and poultry. As a result, a considerable amount of okara is at risk of contaminating the environment on their route to be disposed of. Okara, a high-tryptophan soy bean waste, may aid in the formation of IAA. The current study focuses on the ability of *Bacillus* sp. to produce IAA utilising okara as a substrate, paving the way for the usage of agro-based materials.

Keywords: *Bacillus* sp, Okara, IAA

OP 65

Molecular interaction investigation of protease (Mpro) with pharmacokinetics and toxicological properties as an effective alternative for the treatment of COVID-19

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ABSTRACT:

The chronic respiratory disease caused by coronavirus 2 is currently a global health concern (COVID-19). A precise treatment or proper therapy is still absent, and research for proper drug/vaccine development for illness control is ongoing around the world. Coronavirus replication occurs when a polypeptide is converted into a functional protein, which is accomplished by the important enzyme Main protease (Mpro). As a result, finding natural and effective Mpro inhibitors could be a safe and viable method to controlling COVID-19. By docking, the influence of bioactive chemicals identified in Eucalyptus and Corymbia species essential oil on Mpro is evaluated in this in silico study. AutoDock was used to study the molecular docking of the key seven essential oil molecules (citronellol, alpha-terpineol, eucalyptol, d-limonene, 3-carene, o-cymene, and alpha-pinene) with Mpro, and the characteristics were analysed using PreADMET and Biovia Discovery Studio visualizer. The computed properties of 6LU7 (Mpro) with Eucalyptus and Corymbia volatile secondary metabolites, such as binding energy, hydrophobic contacts, and hydrogen bond interactions, indicated its potential as a covid-19 treatment alternative. Eucalyptol has the lowest binding energy of the docked chemicals without being toxicity. This study found that the essential oil of Eucalyptus and Corymbia species, particularly eucalyptol, can be employed as a possible inhibitor of COVID-19 as well as a treatment for it. As a result, more research was needed to see if it could be used in medicine.

Keywords: COVID-19; AutoDock; Eucalyptus; Corymbia; Molecular interaction analysis; Mpro

OP 66

Biosynthesis of Copper-Oxide Nanoparticle Using Leaf Extract of *Plectranthus amboinicus* and its Antibacterial activity

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ABSTRACT:

The present investigation determines the biological synthesis and characterization of Copper oxide nanoparticles from an aqueous extract of *Plectranthus amboinicus* and assessing its effects on antimicrobial activity against the pathogens. In this method, *Plectranthus amboinicus* copper oxide nanoparticles were synthesised and characterized by FT-IR, UV-Vis, and antimicrobial activity was determined using the disc diffusion method. The leaf extract of *P.amboinicus* acts as reducing, capping, and as a stabilizing agent is simple, cost-effective and the resultant nanoparticles are highly stable and reproducible. *P.amboinicus* is one of the plants composed of many phytochemicals and is used to synthesize CuO NPs. The synthesized CuO NPs have been found to have maximum absorbance at a wavelength of 379.8nm. The FT-IR for CuO NPs showed that there was a strong peak at 615.94 cm which is not found in the pure leaf extract of *P.amboinicus* was considered to be the major indicator for the formation of the CuO NPs. Therefore, it is possible to synthesize CuO NPs using CuSO₄·5H₂O as a precursor and leaf extract of *P.amboinicus* as a reducing agent. The antimicrobial activity of *Plectranthus* mediated copper oxide nanoparticles were tested against selective pathogens and maximum zone of inhibition was observed in *Acinetobacter baumannii* and *Klebsiella pneumoniae* with a maximum inhibition zone of (25±1 mm).The green synthesized copper oxide nanoparticles have got antimicrobial activity against selective microorganisms and they can be effectively used as a good antimicrobial agent.

Keywords: Nanoparticle, Synthesis, Antimicrobial

OP 67

Review: Advanced Nanomedicine Approaches for Management Of Diabetes Mellitus

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ABSTRACT:

Nanoscience is an emerging technology which is making life easier nowadays. Nanotechnology is applied for the development of vaccines, diagnostic tools, regenerative medicine, drug delivery carriers, antibacterial tools and wearable devices. It is also studied for the treatment of cancer, Alzheimer's disease, central nervous system disorders, ischemic and haemorrhagic stroke, coronary artery diseases and so on. Nanomedicine also helps in treating diabetes mellitus, which is of major concern world wide due to the increasing changes in the lifestyle including low physical activity and unhealthy diet. Recent advancements in nanotechnology support the development of encouraging replacements to the conventional techniques used to monitor or treat diabetes mellitus. Constant glucose monitoring can be carried out by nano sensors. Quantum dots can be used in breath sensors to diagnose diabetes based on acetone levels. Nanoparticles can also function as carriers to aid the oral delivery of insulin drug while replacing the painful subcutaneous injections. pH sensitive dextran nanoparticles favour smart and self-regulated release of insulin *in vivo*.

Keywords: Nanotechnology, Nanomedicine, Diabetes Mellitus, Treatment, Drug Delivery, Glucose Monitoring, Diagnostics.

OP 68

Nanotechnology In Vaccine Development

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ABSTRACT:

The unique properties of objects in the nanotechnology that function as a unit within the overall size range of 1–1,000 nanometres. The engineered elements including nanoparticles, nanoemulsions or nanotubes. Though the progress of conventional vaccines, improvements, there is not an efficient vaccine for many diseases due to concerns about low immunogenicity of the toxicity, instability and the need for multiple administrations of the vaccines and of the available ones, some could not produce a long-term immunity. The mentioned problems to overcome, nanotechnology has recently been incorporated into vaccine development. It increasing the plays an important role in vaccine development nanocarrier- based delivery system that offer an opportunity to increase the cellular and humoral immune responses. Vaccination has greatly improved among human health. Their potential adjuvanticity, capability of the stimulation of both immune responses, more stability in environmental conditions, possible targeted vaccine delivery and the need for low quantity of proteins, etc.,.The main reasons that this area has gained many interests. Different nanoparticles have been shown great promises for the production of new vaccines and drugs. Nanostructures can be used to more effectively manipulate or to deliver immunological active components to target sites. The use of vaccine formulation in nanoparticles allows not only enhanced immunogenicity and stability of antigen, but also in targeted delivery and slow release. The nanoscale size materials such as liposomes, inorganic nanoparticles, emulsions have gained attention as potential delivery of vehicles for vaccine antigen, which can both stabilize vaccine antigens and acts as *adjuvants*. This advantages is attributable to the nanoscale particle size, which facilitates uptake by antigen-presenting cells (APCs), then leading to efficient antigen recognition and presentation. Modifying the nanoparticle surfaces with different targeting permits the delivery of antigens to specific receptors on the cell surface, thereby stimulating selective and specific immune responses. This review provides the main nanostructures that could be act as a delivery vehicle in vaccine delivery.

Keywords: Nanovaccines, Vaccine development, Nanoparticles, Vaccine Delivery.

OP 69

A review on effective inhibition of food microorganisms using green synthesized nanoparticles

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ABSTRACT:

Food plays a vital role in our day-to-day life, by providing nutritional support for the body. Based on the nutritive values, food is broadly classified into groups such as carbohydrates, fats, proteins, vitamins and minerals. Nowadays, preventing of foodborne pathogens is a paramount task. Bacteria-related foodborne diseases are very common, and causes food poisoning or spoilage. Although the antibiotics are used to resist the gene in the microbe, but the continuous use of these antibiotics created the favourable environment for the multiplication of multi-drug resistant microbes with such genes. So, with the help of nanoparticles these microbes are inhibited has they serve as an antimicrobial agent e.g., silver and copper nanoparticles. Nanotechnology is the rapidly growing field that manufacture the nanoscale materials size range from 1-100 nm. These nanoparticles have electrical, magnetic, optical, physical and chemical properties that has numerous applications in food processing, agriculture, and medical field. Nanoparticles are classified in to different types according to their morphology, size, physical and chemical properties. The advantage of a "green" approach for nanoparticle synthesis is that it is biocompatible, non-toxic, and environmentally friendly. This review shows the effective inhibition of food microorganisms using nanoparticles as an antimicrobial agent.

Keywords: Antibiotics, Antimicrobial agent, Food, Microorganisms, Nanoparticles.

OP 70

Evaluation of the antimicrobial activities of ethanolic floral extract of *Solanum trilobatum*

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ABSTRACT:

The plants that possess therapeutic properties are exerting beneficial pharmacological effects, generally designated as medicinal plants. *Solanum trilobatum* is a herbal medicinal plant which belongs to the family of Solanaceae. The phytochemical constituents were qualitatively analysed and GC-MS analysis were performed to identify the different chemical components present in the flower extract. The ethanolic floral extract was prepared and the anti-microbial activity against bacterial pathogens (*Pseudomonas*, *Klebsiella*, *E.coli*) and fungal pathogen (*A.niger*, *A.flavus*) were evaluated. The results clearly shows that the ethanolic floral extract of *Solanum trilobatum* could be used as a antimicrobial agent against infections.

Keywords: *Solanum trilobatum*, Phytochemical, Antimicrobial, Infection

OP 71

Isolation and characterization of bio-surfactin producing bacteria

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ABSTRACT:

Oil spillage were so common in many fields which also leads in contaminated soil. Soil polluted land filling that contains bacteria produce a broad spectrum of biosurfactants. Biosurfactant as an efficient biological surface-active agent may provide an alternative solution for the removal of heavy metals from industrial wastes. The biosurfactant has more potential efficiency in the process of remedying natural resources. Surfactin, iturin and fengycin are widely studied biosurfactants. The present study were to characterize the biosurfactant producing bacteria from the soil samples collected from the petrol bunk and automobile workshops. Biochemical characterization of isolated samples, determination of biosurfactant producing organism by oil spreading activity, drop collapse assay, oil spreading activity and biofilm formation.

Keywords: Biosurfactants, Drop collapse assay, Oil spreading activity and Biofilm.

OP 72

Textile dye decolourization using bacterial strains

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ABSTRACT:

Due to rapid industrialization, including dye pollution, several of the most important environmental problems are diagnosed internationally today. The dye is clearly visible in the water, which affects the clarity of the water and the solubility of the gas in lakes, rivers and water bodies. During the dyeing process, approximately 10-15% of the dye is misplaced in the wastewater. Coloured wastewater from the textile industry is one of the most visible signs of water pollution. Azo compounds represent the most important and most diverse group of man-made dyes and are used in a wide variety of industries such as textiles, food, cosmetics and paper printing. Due to their xenobiotic properties, they are often difficult to biodegrade. However, extremely versatile microorganisms have developed accelerator systems for decolorizing and mineralizing group dyes under specific environmental conditions. There are many strategies to remediate commercial wastewater containing dyes, including chemical and physical processes, but they are often very expensive and are no longer environmentally friendly. Various physical and chemical techniques can be employed to remove contaminants, including adsorption, chemical precipitation, flocculation, photolysis, chemical oxidation and reduction, electrochemical remediation, and ion pair extraction. However, these techniques are inefficient, expensive, and produce toxic intermediates, so they are no longer widely applicable. Therefore, the organic degradation of dyes is a satisfactory method considering that microorganisms are required. Since very few intermediate toxic compounds are produced, this method has been tested to be cost-effective and green. Organic techniques include dye degradation, absorption and accumulation by means of microorganisms, fungi, yeast and algae. Several studies have shown that microorganisms with genes encoding azoreductases, laccases and peroxidases can destroy the amines and aromatics of down dyes, the exact application of dye degradation.

Keywords: Azoreductases, Dye decolourization, Dye pollution.

OP 73

A Limelight on The Commercial Potential of Natural Dyes Towards Sustainable Development

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ABSTRACT:

Industries use complex organic compounds called dyes for coloring their products, those that can be of natural and synthetic. Broad application of dyes in industries include dyeing of textiles, paper, leather and other materials. Natural dyes obtained from plants, seashells, coccid insects and microbial dyes were the only coloured pigments available for humans before the invention of synthetic dyes in the year 1856. But these natural dyes account for about only 1%, due to their brief shelf life and incompatibilities in commercial extraction and application. It has been estimated that the cost of natural dye will rise to \$5 billion by 2024 which accounts for 11% worldwide. The natural dyes are organic compounds such as indigo and saffron (from dried stigmas of plant *Crocus sativus*) extracted from plants, from animals such as mollusks or shellfish, and minerals such as clay, ochre and malachite. Moreover, due to their non-toxic and biodegradable nature, they are used in cosmetics, natural fiber textiles, in food and pharma industry as natural colorants. In textile industries, natural dyes are used for dyeing along with mordants. Commonly used mordants are metallic salts, which has affinity for both the colouring matter and the fibre and natural mordants such as lemon juice, tamarind pulp can also be used. Red colour in textile are most commonly obtained from plants such as *Rubia tinctorum* (queen of natural dyes), *Caesalpinia sappan*, *Morinda citrifolia* etc. One of the major applications of natural dye from *Bixaorellana L.* is its use as tracking dye in gel electrophoresis and indigo dye as a pH indicator. Although many natural dyes from plant and microbial sources such as naphthoquinones from dried root of *Lithospermum erythrohizon*, anthocyanins, usnic acid from lichens, betalains, carotenoids, melanins, flavins, monascins, violacein and phycocyanin have already been identified, their commercial application is only limited when compared to the synthetic dyes. Indians are considered to be pioneers in the art of natural dyeing, identifying more than 450 plant sources, that can yield dyes. Even though there is large amount of plant resources for dyeing, only very small have been exploited so far. Natural dyes are not commercially succeeded like synthetic dyes due to the lack of availability of technical expertise in dye extraction processes, from their sources. Because of the adversities in extraction procedures, use of natural dyes has diminished for many generations but they must bloom in order to obtain a sustainable environment. Hence, we would like to focus on the various sources of natural dyes and unleash its potential by designing methods that could revive and reclaim their commercial production and application towards sustainable development.

Keywords: Biodegradable, Natural dyes, Non-toxic, Pigments.

OP 75

Extraction of chitin and chitosan from Cephalopoda , Brachyura and its application.

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ABSTRACT:

Natural biopolymers have several advantages, including the availability of replenishable agricultural or marine food resources, biocompatibility, and biodegradability, which leads to environmental safety. Biopolymers is also found in the extracellular matrix of sponges, mollusks, nematodes, arthropods, and fungi, among other invertebrates. It is a common component of protective or supporting extracellular matrices that cover the tissue that makes it or the entire organisms body. Chitosan is chitin is said to be the second most abundant natural biopolymer on the planet after cellulose, and it is found in arthropods, crustaceans, fungi, and yeast. Chitosan is a chitin derivative that is formed when chitin is deaminated. Demineralization, deproteinization, decolourization and deacetylation are the major steps involved in chitin and chitosan isolation and production followed by characterization by Fourier Transform Infrared spectroscopy. The purpose of this study is to prepare bioplastics, and its solvents absorption capacity, tensile strength, and biodegradability determination.

Keywords: Biopolymer, Bioplastic, Chitin, Chitosan, Sustainable environment.

OP 76

Secretagoin Protein in Diabetes

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ABSTRACT:

Secretagoin is an EF hand Ca²⁺ binding protein first identified by Wagner et al. (1998) in pancreatic islet β cells while working with insulinoma cells. They have identified a unique mRNA sequence that encoded a novel Ca²⁺ binding protein related to human and murine calbindin and calretinin and named it as “Secretagoin (SCGN)” since it facilitates the release of insulin. Sequence analysis of this proteins showed that it has six tandem repeats of an EF hand with a molecular weight of 32 KDa. Since its discovery several works have been performed in this protein which revealed its plentiful biological functions. The protein SCGN is involved in potassium –chloride stimulated calcium flux and cell proliferation. The role of SCGN in release of stress hormone corticotrophin is utilized in treating stress related ailments such as depression, burn or post traumatic stress disorder and chronic stress reaction caused due to pain. They are used to interdict neurodegeneration in Alzheimer’s disease. In addition, they are also used as markers for brain trauma. They were also found reduce excess circulation of insulin, bad cholesterol, LDL, fat mass and lipid accumulation in liver. These findings of SCGN as Insulin binding protein provide a new therapeutic potential against diabetes.

Keywords: Calbindin, Calretinin, Insulinoma, Murine, Secretagoin

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CANCER GENETICS

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Introduction:

As early as Boveri's discovery that cancerous cells have chromosomal mutations, the disease was believed to be the result of genetic changes in the cells themselves. Molecular and genomic



Bioremediation of Tannery Effluent Contaminated Soil: A Green Approach

18

Tamil Selvan Silambarasan,
Manickam Dakshinamoorthi Balakumaran,
Subramaniam Suresh, Velramar Balasubramanian,
Muthusamy Sanjivkumar, Balasundaram Sendilkumar,
and Ramamurthy Dhandapani

Abstract

Water contamination is an important concern for our daily life and the earth's environment, especially terrestrial and marine systems. The largest toxic wastes are released from tannery industries. A greater concentration of heavy metals is found in tannery effluents such as

chromium, lead, cadmium, nickel, copper and zinc. However, the cost and performance of effluent treatment are high. Therefore, the effluent is directly released by the tannery industries to water reservoirs and agricultural areas. Algal technology is a sustainable method to remove heavy metals and other contaminants released from the tannery industries. Algal and plant-based effluent treatment is more effective and highly economical. The microalgae are used to remove hazardous chemicals and heavy metals from effluent contaminated soil. This chapter provides the complete information about the advantages of using microalgae and plant-based phytoremediation for the decontamination of effluents released from tannery industries.

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Keywords

Microalgae · Cyanobacteria · Bioadsorption · Plant · Heavy metals · Phytoremediation · Tannery

18.1 Introduction

Nature has given the earth four spheres: biosphere, lithosphere, hydrosphere and atmosphere. These all domains are essential for sustaining and preserving a better environment. Unnatural amounts of chemical contaminants have been generated by rapid industrialization and



Patient Monitoring in Healthcare IoT: A Research perspective of Security and Privacy Challenges, Threats and Solutions.

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Abstract

The Internet of Things (IoT) transformed the healthcare business in allowing patients, medical equipment and healthcare professionals to communicate and interact with one another. Consequently and established on data collected from linked items, enhanced healthcare and continuous monitoring of patients are possible. This permits medical practitioners to accumulate data and without any intervention, decision-making principles are applied to enable early therapeutic participation. In healthcare IoT, this article discusses the importance of IoT healthcare systems in delivering enhanced patient care established on treatment of patients and observation. Sadly, the safety risks connected with connecting these devices to the Internet are often neglected by medical companies. The healthcare IoT system has significant security and privacy issues because of the large quantum of equipments and the network's dynamic nature, as the system is frequently subjected to attacks and threats that may affect the system. This paper offers an overview of the IoT in healthcare and its security and privacy concerns. At last, it proposes a Physical Unclonable Function (PUF) authentication system to deal with the numerous privacy and security concerns. This study also aims to examine security concerns in various levels of IoT and make recommendations in order to guarantee privacy and security.

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1. Introduction

The IoT is a web of physical technology like automobiles, gadgets, hospitals and buildings that could be accessed via internet [1]. Innovative technologies are being created to aid and enhance healthcare's present structure, thanks to growing advancements in internet and computer devices [2]. Healthcare is a type of medical service that involves the organization of audiovisual and information content as well as the handling of medical archives. The IoT integration done in health

monitoring methods are difficult due to its large volumes of data collected and the need for security to protect from hackers regarding the patients' personal information [3]. In this current age, patients are monitored using IoT devices on a 24/7 basis [4]. Even though these gadgets are little in size, they possess an ability to monitor those patients utilizing it. The patient could be watched distantly during an emergency and appropriate steps are performed. These gadgets can identify irregularities and give emergency assistance



AUTHORS PROFILE



Dr. A. Meenakshi is currently working as an Associate Professor and Head of the Department, in the Department of Computer Science and Engineering, Kamaraj College of Engineering and Technology, Virudunagar. She has 22 years of teaching experience in computer science. She has completed **here** M.C.A degree in Computer Applications from Madurai Kamaraj University, M.E(CSE) , from Anna University, Chennai and Ph.D (in information Communication Engineering), from Anna University, Chennai. She has published decades of publications in national and international journal and around 20+ papers in national and International conferences. Her area of interests include Big data analytics, Machine learning.



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in the International Conference on Machine Learning and Smart Technology
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FOMENTING LANGUAGE LEARNING AND CHALLENGES IN TECHNOLOGY LEARNING IN COVID-19 PANDEMIC

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SRM Institute of Science and Technology, Kattankulathur, Chennai*

Abstract

The contemporary modern world has seen enormous changes in every field. The field of education also rejuvenated after the pandemic of corona especially in India. The learners or the students have no choice than adapting to the new normal and started to learn the new form of education. In connection with this, online tools started to occupy to develop and enrich one's language learning. At the same time, it became a challenge for both the teachers and learners as they require a lot of time to adept to this new learning and methodology. The challenges put forth the new ideas and readiness to accept the new changes. This paper deals with the various English language learning tools and the challenges faced by the learners and the teachers of English during Covid-19 pandemic.

Keywords: Pandemic, Challenges, enrichment, learning, technology

Introduction

No learner in the world would be successful without accepting the new changes in one's life. The contemporary learners would always welcome new challenges and they are willing to see new developments in every field. Learning is the continuous process which does not have any connection with one's age. Education in India has seen so many changes as it looks for providing equal opportunities for every learner. But, the pandemic of Corona brought million opportunities and challenges to learners as well as to the teachers. At one side, the teachers have to jump to online teaching from traditional teaching and on the other side, the learners are clueless about the development in learning their subject. Sudipta states that "The present era is the age of Information Communication Technology .Due to the advent of ICT & IT, life has become easier. During the last few decades, there has been a tremendous growth in the use of ICT in all fields such as industries, businesses, societies, lives of people and education" (2015). The learners are also relying more on the teachers which make the teachers to make the class more interesting and easy to

LIFE IS MEANINGLESS: AN ABSURDIST APPROACH OF IRAIANBU'S SAAGAVARAM

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Abstract

Life is a journey where it has both beginning and an end. It is evident that every living thing which has come to the world has to leave one day as it signifies the birth and death. The quest for finding what is death continues to haunt many of us as it leads to absurdity. The absurd way of life transforms the thinking of human and allows us to realize the importance of living happily and leaving the world peacefully. Dr.Iraianbu's Saagavaram transmits the idea of being eternal and how eternity can make the life meaningless after the search for a world where there is no death for Nasikethan. He represents the absurdist thinking of finding truth about the death and he understands the essentiality of attaining mortality through this novel. This paper deals with an idea of absurdism and how

meaningless life lead to destruction when a human looks for winning over death.

Keywords

Absurdism, Meaningless, Death, Immortality, Birth

Introduction

"It's weird how when you lose who you love in life, everything you do becomes meaningless, as if you were living for them."

- Islam Bakli

Dr.V.Iraianbu IAS is born in Tamil Nadu and has been working as a civil service officer for so many years. He is a writer, motivational speaker, social activist and educator. Being a civil service officer, he has inspired many youngsters through his powerful speeches and he contributes a lot for the motivating the youngsters to achieve great in their life. Though he works in government



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Challenges in Learning English Online in the Twenty First Century

- V. Mainar

Abstract

The contemporary modern world has seen enormous changes in every field. The field of education also rejuvenated after the pandemic of corona especially in India. The learners or the students have no choice than adapting to the new normal and started to learn the new form of education. In connection with this, online tools started to occupy to develop and enrich one's language learning. At the same time, it became a challenge for both the teachers and learners as they require a lot of time to adept to this new learning and methodology. The challenges put forth the new ideas and readiness to accept the new changes. This paper deals with the various English language learning tools and the challenges faced by the learners and the teachers of English.

Introduction

“Online learning is rapidly becoming one of the most cost-effective ways to educate the world's rapidly expanding workforce.”

-Jack Messman

No learner in the world would be successful without accepting the new changes in one's life. The contemporary learners would always welcome new challenges and they are willing to see new developments in every field. Learning is the continuous process which does not have any connection with one's age. Education in India has seen so many changes as it looks for providing equal opportunities for every learner. But, the pandemic of Corona brought million opportunities and challenges to learners as well as to the teachers. At one side, the teachers have to jump to online teaching



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The organizers appreciate her / his participation at the conference.

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Mr. Basavaraj C Gawanalli
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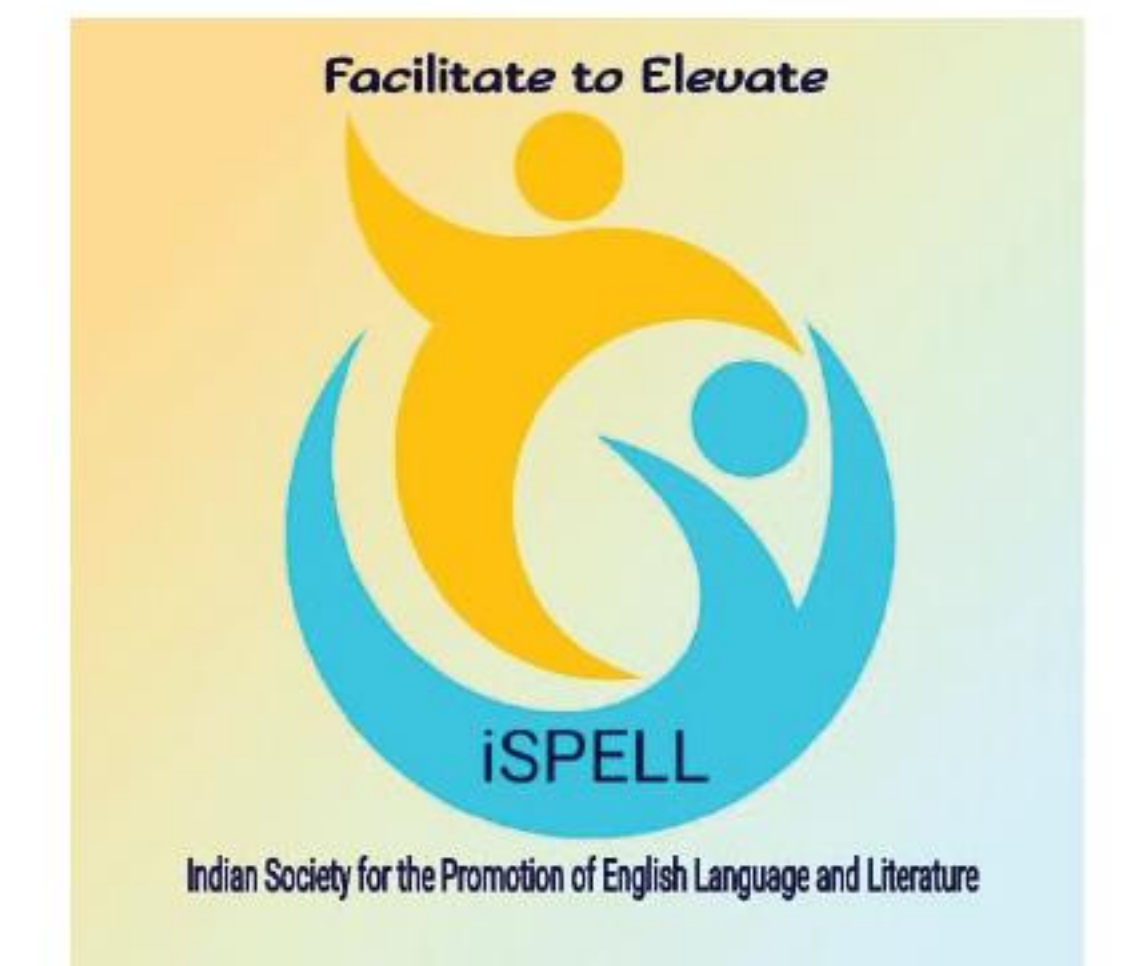
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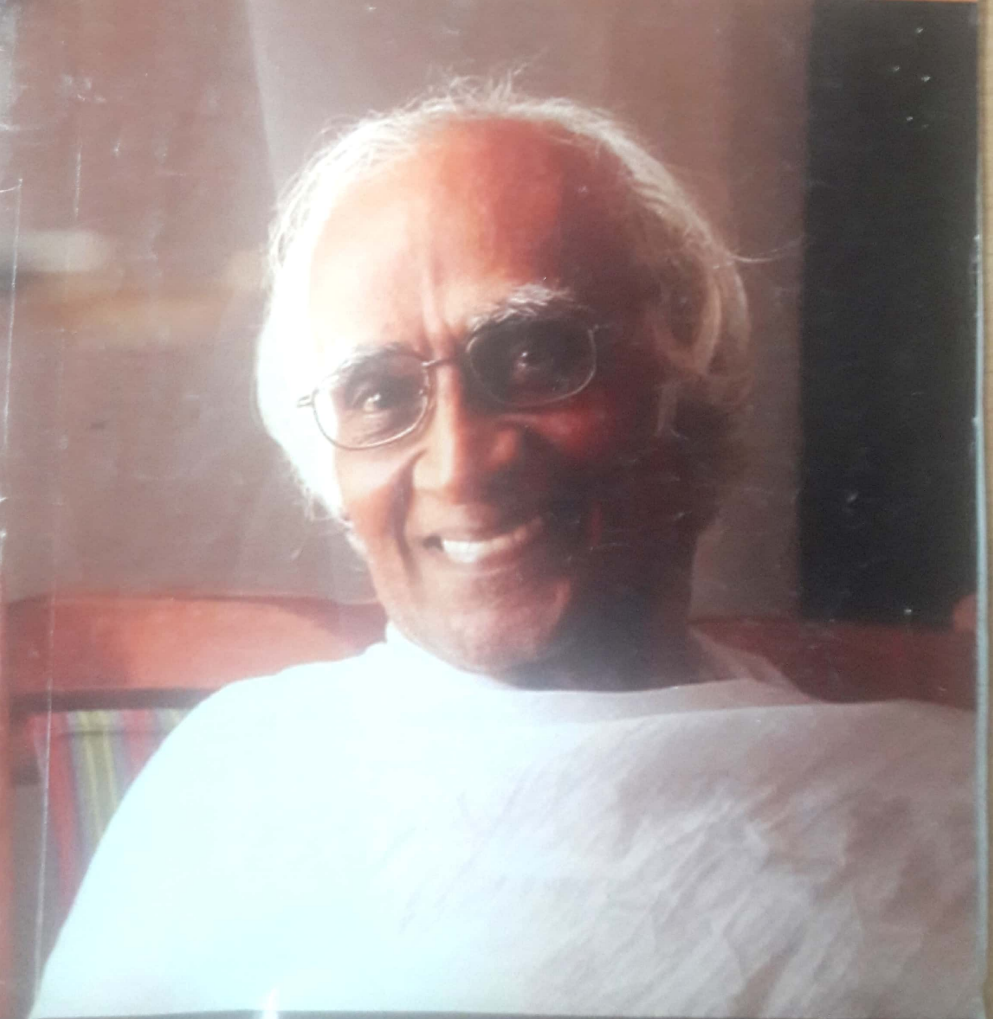
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“என்னுடைய மக்கள் பேசுகிற பாஷையில் அவர்கள் சிந்திக்கிற யுகை இயலில் அவர்கள் வசிக்கிற சூழ்நிலையில் என்னுடைய சிருஷ்டிகள் அடைய வேண்டும் என்று நினைக்கிறவன் நான். அவர்கள் கவாசிக்கிற சூழ்நிலையில் என்னுடைய சிருஷ்டிகள் அடைய வேண்டும் என்று நினைக்கிறவன் நான். அவர்கள் கவாசிக்கிற காற்றின் வாடை, அவர்கள் மிகக்கூடு விளையாடி நடந்து சிரிக்கிற என் கவிதை மண்ணின் வாசமென்றால் அப்படியே என் எழுத்துகளில் கொண்டு வந்தவிட வேண்டும் என்பது என் தீர்மானம். இந்த மண்ணை நான் அவ்வளவு ஆசையோடு சூழ்க்கிறேன்.”

கி.ராஜநாயகன்

தமிழ் மொழியின் இலக்கிய ஆளுமையகிகள் வரிசையில் தமிழ்நாட்டின் பெருவாழ்வியின் மூலம் திகைக்க இடம் தேடிக்கொடுப்பவர் கி.ரா. என்று அழைக்கப்படும் கி.ராஜநாயகன். தமிழ்மொழியின் 1980-ம் ஆண்டில் வெளிவந்த கொண்டுகூத்த படைப்பிலக்கியத்தை மனம் மறந்து கொண்டுவந்த கி.ரா. அவர்களுக்கு ஒரு குறந்தையான இடம் உண்டு. அங்கு எழுதினார். 1970-களில் உருவான கி.ரா. படைப்புகளைப் படித்த கி.ரா. அவர்கள் அங்கே அங்கே மூலக்கவிதை மண்ணின் வாசமென்றால் அப்படியே என் எழுத்துகளில் கொண்டு வந்தவிட வேண்டும் என்பது என் தீர்மானம். இந்த மண்ணை நான் அவ்வளவு ஆசையோடு சூழ்க்கிறேன். கி.ரா. என்றால் மிகையானது.