

# SOUVENIR

**2<sup>ND</sup> INTERNATIONAL CONFERENCE  
On  
SCIENCE, TECHNOLOGY AND  
INNOVATION**

**Date: 6<sup>th</sup> February 2022**

**Organised By**



**Indian Academicians and Researchers Association (IARA)**



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### IDENTIFICATION OF MUSHROOMS AS ELIXIR THROUGH A PARTIAL PRODUCT CERTIFICATION TECHNIQUE USING MEGA 11 TOOLS

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Industrial Biotechnology Department, Bharath Institute of Higher Education and Research, Selaiyur, Chennai

#### ABSTRACT

*Background and Objective:* Cancer being an abnormal group of cells which invade or spread throughout the organ/body. It is either a result of genetic mutation or gene mutation due to life style change, sometimes an involuntary exposure to environmental factors likely harmful radiations, cigarette smokes, medicines/drugs, pollution, and many more. Inherited genetic mutations play a major role in about 5-10 percent of all cancers, while the remaining 90-95 percent has their origin in environmental factors and lifestyle changes. In recent years, increased mushroom consumption has lowered the risk of cancer. Mushrooms have protective elements like folic acid, selenium, B vitamins such a niacin, riboflavin and pantothenic acid, copper, some amounts of phosphorus, zinc, potassium, antioxidants and many more bioactive compounds are used in adjuvant cancer treatments due to their anticarcinogenic or anti-tumor effects. However, are the mushrooms used in treatment safe for consumer usage?

*Methods:* Herein, we are to find if the mushrooms used are safe for usage as dietary supplements, adjuvants and their treatment process. Also, we are to use the MEGA 11 tool to identify the DNA fingerprint of the mushrooms.

*Result:* Herein, we have presented some research studies conducted in various places using the mushrooms like Ganoderma, Phellinus and Pleurotus species. This also focus on those individual bioactive compounds found in the extracts of the mushrooms and how they work together with chemotherapy to reduce cancer risk. Also, we have used the 18S cDNA sequence of our study to identify the evolutionary taxa, DNA and protein sequence of the mushrooms with the help of MEGA 11 software.

*Novelty:* The study revealed the modern adjuvant treatments used in recent years in inhibiting the cancer cell proliferation. Also, the usage of insilico tools/software to identify the species which are milled/dried/extracted.

*Keywords:* Adjuvant cancer treatments, cancer, mutation, mushrooms, prevention, species identification.

### THE DIVERSITY OF MEDICINAL FLOWERING PLANT SPECIES AND THEIR MEDICAL USES IN PHIA OAC - PHIA DEN NATIONAL PARK, CAO BANG PROVINCES, VIETNAM

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#### ABSTRACT

*Establishment of list medicinal flowering plant species in Phia Oac-Phia Den National Park based on references, studies at herbaria and investigations. 687 species of 458 genera, 143 families are recorded in Phia Oac-Phia Den National Park. Among them, 418 species are used to treat 49 diseases/medical uses (asthma, brain hemorrhage, bronchitis, burned, cancer, cirrhosis, detoxify, diabetes, diuretic, dysentery, encephalitis, eyesore, flu, fracture, galactopoietic, gastritis, gonorrhoea, haemorrhoids, headache, heart and blood pressure diseases, hemostatic, hepatitis, hurt fall, inflammatory bowel, irregular menstruation, keratitis, kidney stone, malaria, measles, mumps, nephritis, obese, oedema, otitis, paralytic, pertussis, pimple, pneumonia, rheumatism, scrofulous, sinusitis, snake bite, sore throat, sterile, syphilis, toothache, tranquillizer, urolithiasis, vaginitis).*

*Keywords: Plants, diseases, Phia Oac-Phia Den, Viet Nam.*



### A PROSPECTIVE REVIEW ON THE ANALYTICAL METHODS OF SARTAN GROUP OF DRUGS

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#### ABSTRACT

*Variation in blood pressure has been regulated by the use of angiotensin II receptor antagonists (Sartans) and diuretics (Chlortalidone, Hydrochlorothiazide etc.), while the triglycerides and bad cholesterol will be diagnosed with HMG CoA reductase inhibitors (Statins). The existing analytical methods for estimating various drugs belonging to Sartan group, forms the subject of focus for the present review paper. The review summary extends to cover the disclosed organic techniques employed for the analysis and the characterization of Sartan group of drugs.*

*Keywords: Sartan group of drugs, Analytical methods, Characterization, Organic methods.*



### ACOUSTICAL PARAMETERS OF BENZOTHAZOLYL SUBSTITUTED DERIVATIVES IN BINARY SOLVENT MIXTURES

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#### ABSTRACT

Acoustic parameters study of newly synthesised substituted derivatives of benzothiazole were carried out in the present work. Parameter like Density and ultrasonic velocities of different concentrations from 0.01M to 0.000625 M of benzothiazolyl substituted derivatives with of 75%binary solvent mixture i.e. dioxane-water, acetone-water and DMSO-water mixtures were measured at 303.15 K (30°C) by using multifrequency ultrasonic interferometer at frequency 1 MHz and 3 MHz. The density, Concentration and ultrasonic velocity ( $U$ ) were used to calculate adiabatic compressibility ( $\beta_s$ ), intermolecular free length ( $L_f$ ), relative association ( $R_A$ ) and specific acoustic impedance ( $Z$ ). The results have been interpreted in terms of solvent-solvent and solute-solvent interactions.

Keywords: Relative association, ultrasonic velocity, Density, molecular interaction.



### DESIGN AND IN SILICO STUDIES OF 2-CYANO-3-(3, 5-DI-TERT-BUTYL-4-HYDROXYPHENYL) ACRYLAMIDE DERIVATIVES OF AMINO ACIDS

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Institute of Pharmaceutical Technology, Sri Padmavati Mahila Visvavidyalayam (Women's University),  
Tirupati, Andhra Pradesh, India

#### ABSTRACT

*Aim: To design and perform in silico studies of 2-cyano-3-(3,5-di-tert-butyl-4-hydroxyphenyl)acrylamide derivatives of amino acids (C1 to C24).*

*Methodology: ChemDraw Ultra 12.0 was used to generate structure, nomenclature and SMILES notations. Molinspiration Cheminformatics, SwissADME and Osiris Property Explorer were used to predict the molecular properties, bioactivity score, ADME properties and toxicity. AutoDock 4.2 was used to perform molecular docking studies by selecting enzymes involved in the process of inflammation COX-1 (PDB ID: 1EQG), COX-2 (PDB ID: 3LN1) and 5-LOX (PDB ID: 3O8Y).*

*Results and Discussion: All the compounds C1 to C24 were predicted as drug like molecules, except compound C20. All the compounds possess good ADME properties and low toxicity. Most of the compounds were identified as bioactive protease inhibitors and enzyme inhibitors. Molecular docking studies indicated 2-cyano-3-(3, 5-di-tert-butyl-4-hydroxyphenyl)acrylamide derivatives of Aspartic acid and Methionine (compounds C8 and C17) as dual inhibitors of COX and 5-LOX enzymes.*

*Conclusion: The present investigation provided new insights into structure activity relationships in amino acid residues and identified 2-cyano-3-(3,5-di-tert-butyl-4-hydroxyphenyl)acrylamide as promising lead moiety comprising bioactive 2,6-di-tert-butyl-phenol and 2-cyanoacrylamide.*

*Keywords: Amino acids, 2,6-Di-tert-butyl phenol, 2-Cyanoacrylamide, In silico studies.*

### EFFECTS OF DIFFERENT FERTILIZERS ON GROWTH AND YIELD OF OKRA (*ABELMOSCHUS ESCULENTUS*) CV. HARITHA IN AMPARA DISTRICT OF SRI LANKA

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#### ABSTRACT

Organic agriculture techniques are the potential approach to reduce the bad effects on environment which can be eco friendly tactic and improve soil and environmental health. Okra (*Abelmoschus esculentus* L.) belongs to family Malvaceae, considered as one of the most important vegetable crop in Sri Lanka which needs good fertilizer management practices for the optimum production with less environmental hazards. Hence considering this a pot experiment was conducted during the period of January to April 2021 at the School of Agriculture, Palamunai, Sri Lanka to evaluate the different types of fertilizer over the practices of recommended chemical fertilizers in the growth and yield performances Okra. There were eight treatments as T1 (sand only-control), T2 (sand : poultry manure=1:1), T3 (sand : cow dung =1:1), T4 (sand : goat manure =1:1), T5 (sand: cow dung: poultry manure= 1:0.5:0.5), T6 (sand: cow dung : goat manure=1:0.5:0.5), T7 (sand: poultry manure: goat manure=1:0.5:0.5), T8 (sand: Department of Agriculture (DOA) recommended chemical fertilizer). Each treatments contained ten replicates and the experimental units were arranged in Randomized Complete Blocked Design (RCBD) manner. Growth and yield variables were measured and statistically analyzed using SAS 9.1.3 statistical software. It was revealed that, there were significant ( $p>0.05$ ) differences between the treatments on all the tested variables. Based on the results obtained recommended chemical fertilizer application showed statistically similar performances with poultry manure, combination of cow dung : poultry manure and combination of goat manure : poultry manure in most tested parameters on growth and yield basis. Therefore, it can be concluded that there is a potential to replace the recommended chemical fertilizers with poultry manure based fertilizer source for a sustainable organic production of okra.

### THE POSSIBILITIES OF ARTIFICIAL INTELLIGENCE IN THE FORMATION OF INNOVATIVE AND TECHNOLOGICAL FORECASTING

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#### ANNOTATION

*Artificial intelligence is increasingly penetrating into the all spheres of our life, and in the nearest future most of the technologies used will have signs of artificial intelligence. It has already been widely used in the formation of social and economic forecasts, as well as in forecasting various natural phenomena and the impact of human and industrial processes on the environmental situation. However, the issue of using artificial intelligence in scientific and intellectual forecasting has been poorly studied and it requires deeper theoretical and methodological substantiation. The purpose of the study was to find effective approaches to the use of artificial intelligence technologies in the formation of long-term forecasting of the development of science, techniques and technologies. The main method of research was to use an integrated and systematic approach to the analysis of domestic and foreign publications on the use of artificial intelligence technologies in the formation of scientific and technological forecasts and the adaptation of the most effective of them to the peculiarities of the formation of technological forecast in Russia. The structure proposed by the authors is the use of artificial intelligence technologies at the stages of scientific and technological forecasting. Description of the possibilities of using individual artificial intelligence technologies in scientific and technological forecasting are presented. The prospect of using artificial intelligence technologies in the formation of scientific and technological forecasts are shown. The novelty of the presented results is that for the first time the authors describe the possibilities of using the most appropriate and effective artificial intelligence in the formation of long-term forecasts of the development of science, techniques and technologies in Russia from the standpoint of systematic and integrated approaches.*

*Keywords: artificial intelligence, innovative and technological forecasting, technologies of artificial intelligence, stages of forecasting, effectiveness.*

### SYNTHESIZED AGRICULTURAL WASTE BASED ADSORBENT COLOCASIA ESCULENTA FOR THE REMOVAL TOXIC CHROMIUM (VI): EXPERIMENTAL AND ANALYSIS

Soibam Sangeeta and Potsangbam Albino Kumar

National Institute of Technology, Manipur

#### ABSTRACT

A low-cost abundantly available agricultural product, *Colocasia Esculenta* was chemically activated to be used for the removal of chromium ions from aqueous solutions. The activated carbon was characterized using Scanning Electron Microscope (SEM), Energy Dispersive X-ray Analysis (EDAX) and Brunauer – Emmett – Teller to study the structure, morphology and pore size distributions. Analysis were done using Intra – particle diffusion, pseudo first order and second order kinetic models and Langmuir and Freundlich isotherm models to calculate the adsorption capacities of chromium ions on the adsorbent surface. At pH 2, the adsorbent have a optimum removal percentage of 85.27% Cr (VI) ions after 2 hours. The maximum Cr (VI) adsorption capacity obtained was 5.419 mg/g. From the findings, it can be concluded that the pseudo-second-order model best describes the adsorption process. Freundlich isotherm model is more favourable with high correlation coefficient of 0.99. The results demonstrated potential application of AGT for removal of chromium ions from aqueous solutions.

Keywords: *Colocasia Esculenta*, Chromium ions, Kinetics, Isotherms, Thermodynamics



### KINETICS, ISOTHERM AND THERMODYNAMICS STUDIES OF FLUORIDE UPTAKE BY POLYANILINE WITH DOPED CHLORIDE

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#### ABSTRACT

Fluoride though has essential benefits for health, excessive fluoride concentration in water leads to several health issues including mottling of teeth and bones etc. This study explores to study the feasibility of fluoride uptake by adsorbent polyaniline doped with chloride and identifies the adsorption parameters including adsorption kinetics, isotherm and thermodynamics. For this purpose, adsorption experiments were conducted at a various initial concentrations of fluoride, dose of adsorbents and various temperatures. Rapid adsorption during the first 5 minutes yields more than 80% uptake of fluoride on PANI-Cl-jute and reached the adsorption equilibrium within 120 minutes suggesting predominant chemical adsorption nature. With increase in initial F<sup>-</sup> concentration, F uptake increases from 0.5 – 12.5 mg/g. With varying adsorption temperature from 293 to 313 K reveals a decrease in F<sup>-</sup> uptake from 40% to 19%. The addition of heat inhibits the adsorption process revealing that the adsorption itself emits heat and thus is an exothermic reaction. Also, thermodynamics study reveals a spontaneous reaction between PANI-Cl-jute and F<sup>-</sup> below 273 K and also no significant change in the internal structures of the adsorbent PANI-Cl-jute during the adsorption process. During the study on the effect of PANI-Cl-jute dose, an increase in dose from 2 – 20 g results in an increase in F removal (%) from 30 - 48% and 10% - 27% respectively for initial concentrations 10 mg/L and 20 mg/L. However, F removal slowed down after a dose of 15 g/L due to attainment of equilibrium between F<sup>-</sup> and PANI-Cl-jute at a particular operating condition. Analysis of adsorption isotherm was conducted through Langmuir and Freundlich isotherm. The data were treated using both the non-linear and linear equation of the isotherms and showed favourable adsorption of F<sup>-</sup>. Desorption studies with a strong base could recover the adsorbed F<sup>-</sup> by 80-90% and the adsorbent could be reused until the 7<sup>th</sup> cycle effectively and thus increase its F<sup>-</sup> uptake capacity.

Keywords: Adsorption; pseudo-second-order; polyaniline; Langmuir isotherm; Freundlich isotherm; desorption.

### REVIEW: SOFT COMPUTING BASED RECENT STRATEGIES, TOOLS & TRENDS FOR THE OPTIMIZATION OF TEST SUITE

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#### ABSTRACT

Verification of the functionality of software under the constraints of user requirements may be termed as software testing that is quite challenging activity associated with the process of software development. Dynamic changes may be applied to developed software thus may lead to the regression testing that should be conducted with minimal set of test cases but it suffers from various issues i.e. test suite size, test case selection and priority wise its execution etc. In this paper, various concerns and remedies correlated with test suite optimization will be explored.

Keywords- SoftwareTesting, Test Case Optimization, Soft Computing, Regression Testing.





### A NOVEL APPROACH TO MAXIMIZE NETWORK LIFE TIME IN WIRELESS SENSOR NETWORKS BY THE USE OF AMBIENT ENERGY

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<sup>2</sup>Department of Computer Science, Gangadhar Meher University, Sambalpur, Odisha

#### ABSTRACT

*In recent years, wireless sensor networks (WSNs) have grown dramatically and made a great progress in many applications. But Lifetime of wireless sensor network (WSN) is hampered by the use of disposable battery. In order to make the WSNs prevalent in our lives, an alternative energy source is required. Presently research shows that use of ambient energy like solar, wind, water, Radio Frequency (RF) etc. concept adopted by WSN outperforms than battery-powered. In this paper, we propose a new protocol adopting slot concept in each layer of multi-based MAC protocol using solar ambient energy.*

**Keywords:** MAC, MLMAC, MLMAC-HEAP, SMLMAC-HEAP, WSN



### ANALYSIS OF THE REAL WAGE- PRODUCTIVITY RELATIONSHIP IN THE ORGANIZED TEXTILE SECTOR OF INDIA USING THE VECM APPROACH

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Assistant Professor, M.E.S College of Arts and Commerce, Zuarinagar, Goa

#### ABSTRACT

*The paper examines the wage-productivity relationship between the real wage rate and labour productivity in the organised manufacturing sector of India for the period of 1980-81 to 2018-19 using the Annual Survey of Industries data. The study aims to establish causality between the two variables in the short run and the long run. Analysis suggests that the organized textile sector of India has experienced a substantial wage productivity gap, where labour productivity have shown the accelerating trends but at the same time the real wage rate have remain stagnant during the study period. Further, the pair-wise Garner Causality test shows that in the organised textile sector of India, the causality runs in a unidirectional way from real wage to labour productivity. Further, to understand the real wage rate and labour productivity causality in short-run and long-run, the study applied the Vector Error Correction Model (VECM). The VECM results also reveal unidirectional causality from real wages to labour productivity operates in the long-term and the short-term. Moreover, any deviation in the long-run equilibrium will be corrected by 13 percent each year as per error correction term estimates. Thus, considering the positive influence of real wages on labour productivity, it would be appropriate to link wages to labour productivity in organised textile sector of India.*



### ARTIFICIAL INTELLIGENCE: A STUDY ON TECHNOLOGICAL INNOVATION TOWARDS ONLINE FASHION WEBSITES

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#### ABSTRACT

*The online fashion shopping websites is one of the growing industries among many other online markets. The fashion industries are moving towards a major technological shift due to lots of competition in the market. The new innovative tools such as Artificial Intelligence (AI), Visual Reality (VR) and Augmented Reality (AR) have developed in India to compete with global markets standards. Customer experience management is highly influenced by gaining customer satisfaction through integrated Artificial Intelligence technology for providing efficient customer service. This study emphasizes the involvement of Artificial Intelligence technology with online clothing websites such as Amazon, Flip kart, Myntra, Snap deal and Max fashion. The findings may explore the customer relationship management (CRM) services, personalization services, fit intelligent services, visual assistance are enhances from artificial intelligence tools with lead to customer satisfaction and customer preference. The research utilized non- probability judgemental sampling and snowball sampling where respondents belong to Chennai and were genuine online customers who purchase cloths from online clothing websites. The concluding observation is that there is significant relationship between age and voice assistances, intelligent searches, customer centric visual search recommendation to the customers and enhance cyber security in Influence of Artificial Intelligence towards Online Fashion Shopping Websites.*

*Key words: Artificial Intelligence technology, Customer preference, Customer satisfaction, Online fashion shopping websites and Purchase decision making.*



# ABSTRACT

## 2<sup>nd</sup> International Conference on Science, Technology And Innovation

Organized By Indian Academicians And Researchers Association

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### CHALLENGES AND OPPORTUNITIES OF HUMAN RESOURCE PROFESSIONALS IN REMOTE WORKING SYSTEM

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#### ABSTRACT

*I feel like it's almost over. The pandemic is beginning to show signs of decline because of all its strangeness and unpredictability. The normality we once knew may never return, but in reality, the worst part of this crisis seems to be behind us. This paper attempts to bring to the fore, the challenges and opportunities available for HR professionals in the new remote working norm. Secondary data is the resource for drawing up this paper.*

*Keywords: Challenges, HR Professionals, Opportunities, Post Pandemic, Remote working*



### COMBINED BLOCK CIPHER MODES TO THWART BRUTE FORCE ATTACK IN PROTECTING IIOT

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#### ABSTRACT

A set of physical devices combined with the ability to sense, store and process data with communication capability connected with internet makes up Internet of Things(IoT). These devices have penetrated into different application domains in all walks of life. These elements are specially designed for network interactive applications with physical input and output, processing and communication. The processes in Industrial IoT that is used in manufacturing the products helps to perform automation. Industry 4.0 is a revolution in reality because of these devices and their automation. This automation is achieved with the help of hardware and software components together with connectivity. These devices are ranging from a simple sensor to communicating, storing and processing units. They also transmit these data units during communication to the server or cloud data centre with the help of internet. Security attacks are widespread in IIOT. The security services required includes authentication, confidentiality and integrity. For some of the major security attacks, the available security solutions are neither comprehensive nor complete. Cipher Feed Back (CFB) mode and Output Feed Back (OFB) mode are standardized block cipher modes in cryptography. In this research work a hybrid block cipher algorithm is proposed from the existing two modes namely, OFB and CFB. The results are promising with this proposed Special Shift Block Chaining (SSBC) algorithm for IIOT eco-system.

**Keywords:** Internet of Things, cipher feedback mode, Output feedback mode, Hybrid cipher Output feedback Mode, Security.



### COMPARATIVE PERFORMANCE ANALYSIS OF SBI MUTUAL FUND IN COMPARISON WITH HDFC MUTUAL FUND

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#### ABSTRACT

*The asset management industry refers to professional fund management industry. Individual or retail investors can be considered part of this industry whenever they pool their resources and allow a professional fund manager to invest them. There are several broad types of pooled investment structures. Mutual funds are the most common and visible type. Mutual funds can assist investors in achieving their financial objectives. Mutual funds collect money from investors and invest it in a variety of assets, including the equity market, debt instruments, gold, government bonds, and similar money market instruments, depending on the type of Scheme. The present study measures the performance of selected public sector and private sector mutual fund companies and their schemes. For this Net Assets Value and their %return has been used. Data used for the study pertains from 2016-2017 to 2020-2021 and has been collected from the mutual fund website and various Journals. The study revealed that HDFC Mutual Fund has better performance as compared to SBI Mutual Fund.*

*Keywords: Investment, Mutual Funds, Public company, Private company, Net Asset Value, Returns.*



### DELIBERATING STRUCTURAL, OPTICAL AND SPECTROSCOPIC PROPERTIES OF NOVEL BARIUM TITANATE ZINC FERRITE NANOCOMPOSITE SYNTHESIZED USING LOW TEMPERATURE TECHNIQUES

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<sup>1,2</sup>Research Scholar and <sup>3\*</sup>Associate Professor, Department of Physics, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu, India

#### ABSTRACT

Low temperature synthesizing technique (<500°C) is employed for synthesizing novel Barium Titanate -Zinc ferrite nano composites, where the particle size is controllable. Two different ratios of hard and soft site composites (BTO-ZFO 80:20, BTO-ZFO 70:30) are synthesized and characterized to study their unique structural, morphological, spectroscopic and optical properties. The structural refinement studies using XRD data showed 46 % of hard phase (anorthic structure) and 54% of soft phase (Cubic Structure) for BTO-ZFO 80:20 and similarly 76% of hard phase and 24% of soft phase in the BTO-ZFO 70:30 composite respectively. The SEM and EDAX are used to identify smaller particles of 6 nm using histogram and their sample purity. Spectroscopic studies were carried out using FTIR where the formation of nanocomposites and their respective tetrahedral and octahedral phases were confirmed. The band gap energy is calculated using Tauc's plot and it is found to be 2.7757 eV, thus being a potential candidate for photovoltaic (PV) applications and other opto-electric devices.

Keywords: Barium Titanate, Zinc ferrite, Nanocomposite, Low Temperature, spectroscopic properties, Bandgap Energy, Coprecipitation, Physical Mixing.



### DESIGN AND SIMULATION OF COVID DIAGNOSTIC ROOM FOR A HOSPITAL

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#### ABSTRACT

*As a result of the respiratory illness 2019-nCoV, a deadly coronavirus family (2019-nCoV) has spread around the world and become a pandemic threat. Sneezing, coughing, and speaking generate virus-containing droplets, which are then inhaled or touched. 2019-nCoV can also be spread through the air if an infected person is in a closed environment. Using conditioned air discharged from air-conditioning equipment in combination with aerosol sanitizer to treat the covid diagnostic room and eliminate the 2019-nCoV virus, this study examines the effectiveness of this approach. Alternative bed arrangements for the covid diagnostic room were considered. A transition SST k- model, consisting of four transport equations, is used in the current work to numerically simulate laminar-transitional flows. Using strong turbulence fields created in the covid diagnostic room to distribute sanitizer across the entire volume of the covid diagnostic room is effective at killing 2019-nCoV.*

*Keywords: Covid diagnostic, Ventilation, Air conditioning, CFD, Simulation*





### DOES PRESUMED TO SOCIAL MEDIA IN A MANAGEMENT AND TRANSFORMS OF ITS BENEFACTION FOR EMPLOYEE ENGAGEMENT?"

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<sup>1</sup>Research Scholar and <sup>2</sup>Associate Professor, G.D. Goenka University

#### ABSTRACT

Social media has added status and it is very significant in today's society. It is very present among the individuals and the encouragement that it has in it is astonishing. It documents to hold a wide-ranging variety of people worldwide. Furthermore, the evolution of social media platforms has pointedly transformed the mode of communication. Social media brings immediate access to info and encourages teamwork. The purpose of this study is to find the conceivable usages of Social media and to determine diagnoses for organizations. The research methodology is review of existing literature connected to social media and employee engagement. The research paper upshots display that social media are the most effective webs in building engaging employees in organisation. Social media establish strong optimistic effects on employee engagement. Industries are very active on social media nowadays and they have own accounts on different applications because it is more operative. They are present in all the most famous social media networks (Facebook, Twitter, YouTube, LinkedIn, Snapchat and Instagram) and the usages given are diverse for respectively circumstance.

Keywords: Social Media, Employee Engagement, Teamwork, Communication.



### **GIVING THE LUXURIOUS TOUCH TO THE AFFORDABILITY: A STUDY OF THE TOTAL BUDGET, THAT THE CLIENTS ARE SPENDING BEHIND VALUE ADDITION AFTER PURCHASING OF AN AFFORDABLE FLAT**

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<sup>2</sup>Associate Professor SLS PDEU, Gandhinagar

#### **ABSTRACT**

*Own house is a place where one can come out from the stress, anxiety, tension and work load. Affordable housing properties are like the eye candy for the middle class. On one side, for this middle class it is like a penny saved is like a penny earned where as on the another side they would like to decorate their affordable premises and turning it into the luxurious premises. The developers are in the dilemma that the clients are negotiating for the small amount like INR 10,000/- while purchasing their dream property in the affordable housing segment and on the other side they are spending behind the interior, furniture & home decoration with the open arm. Clients are conjuring themselves with the perceived budget of INR 4 Million or INR 5 Million for the property they are looking for and for that reason their dependency on the home loan is from 50% to 100%. Still, they are well prepared for the further expenses up to INR 1 Million for the interior & home décor, consumer durable. Sometimes, their spending after purchasing of the affordable housing is extended up to the purchasing of two wheeler or four wheeler. It is like, they could be call the client for the affordable housing but their attitude is like the client of the luxurious residential property.*



### HORMONAL FINGERPRINTS: A PROSPECTIVE SCREENING TOOL

<sup>1</sup>\*Dr. Pooja Kabra and <sup>2</sup>Dr. Vipin Pratap Singh

<sup>1</sup>M.D.S, Associate Professor and <sup>2</sup>BDS Student, SDS, Sharda University, Greater Noida

#### ABSTRACT

Dental caries is still one of the most prevalent occurring oral diseases globally which affects all age groups and is prevalent worldwide. There is a need to determine various methodologies that could prognosticate caries early. Fingerprint or the digit ratio is the ratio of the second digit (2D) to the fourth digit (4D). It can be measured by various methods using vernier callipers, radiographs, scanners. 2D:4D ratio is used as a biological marker in medicine for predicting and diagnosing many metabolic disorders like coronary heart disease and autism, whereas, in dentistry, this method is still in blooming stage, and should be mined deeper. Several studies on association of hormonal fingerprints or digit ratio have confirmed the impact of hormones on incidence of malocclusion, BMI which in turn influences the caries index and could be used as an early predictor. Hormonal fingerprints have also been associated with risks of incidence of various oral malignant and premalignant lesions.

This article aims to highlight the role of hormonal fingerprints as potential biomarkers in early diagnosis, prognosis, and early lifestyle interventions for many dental diseases but most primarily dental caries.

**Keywords:** Biological marker, 2D:4D ratio, Caries, Saliva, Malocclusion, Oral Squamous Cell Carcinoma, Taste Sensitivity



### HOW COMMUNICATION THROUGH SOCIAL MEDIA PLATFORMS PLAY SUBSTANTIAL PART IN EMPLOYEE ENGAGEMENT

<sup>1</sup>Mr. Ashu and <sup>2</sup>Dr. Deepti Wadera

<sup>1</sup>Research Scholar and <sup>2</sup>Associate Professor G.D. Goenka University

#### ABSTRACT

*The main idea of this study is to antedate the use of social media platforms in employee engagement, and communication qualities in employee engagement through social media. The methodology adopted for this study is review of existing comprehensive literature review related with Social media and Employee engagement with reference to communication. The research paper determines that up adjacent and accurate communications through social media is the best side-tracks in building prevailing frankness and depiction of employee engagement in organisation. In Social media, Communication displays compact optimistic consequences in employee engagement etc.*

*Keywords: Social Media, Communication, Employee Engagement, Commitment.*



### IMPACT ANALYSIS OF SANDWICH COMPOSITE PLATES MADE OFF HONEYCOMB AND FOAM CORES

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#### ABSTRACT

Composite sandwich materials are used in applications where high stiffness and strength to weight ratios are required. So, in boats and ships sandwich composites are suitable for many applications. Nowadays sandwich composites can be found in hulls, interior bulkheads, decking, hatches, covers, cabinetry and fittings. They are ideal for watercraft of any size, from powerboats and sailing yachts to ferries and fishing boats. Low weight of ship or boat hull structures is one of the targets in the design process. Lower hull weight enables the possibility of low fuel consumption and thus low emission of the ship. In this paper the dynamic response of composite sandwich plates made of glass fiber skins(face-sheets), and cores made of honeycomb as well as foam are subjected to dynamic impact loads of a rigid spherical indenter. Low velocity and high velocity impact tests are conducted numerically with the finite element model developed. Drop weight impact test done in a previous study is numerically simulated in this study. Also, a comparative analysis is done between 3-layer skin arrangement and 5-layer skin arrangement for the same skin thickness. Finally, the minimum thickness required to avoid complete penetration of a sandwich plate is found out.

*Keywords: Sandwich structures, honeycomb core, foam core, ballistic impact, Hashin damage criteria, numerical simulation*



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### IMPACT OF VACATIONS ON HOTEL SERVICE QUALITY AND CUSTOMER SATISFACTION

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#### ABSTRACT

Hospitality industry is customer focused and service oriented ensuring service quality being the most important task. There is a common saying “we work while others play”. In this competitive era it’s the ability of the hotel to keep the guest happy and satisfied and meet the guest expectations. Vacations are meant to spend leisure time with family, friends or for oneself. Most of the time vacations can be related with the festivities. It can be a national festival, regional festival, traditional festival, events etc. Republic Day, Independence Day, Gandhi Jayanti are the national festivals. Other festivals are- Maha Shivratri, Holi, Diwali, Baisakhi, Maha Navami, Onam, etc. Beside this more events like- Ganesh Chaturthi, Maha Saptami, Maha Ashtami etc. are also celebrated in mass number of people across India. With the pace of time Valentines’ Day, Christmas and New Year celebrations are becoming popular. Every occasion may have a different impact on hotel service quality. The length of vacations helps the individuals to plan accordingly. For example school vacations provides enough time for the families to visit a varied destinations. Keeping in mind the impact of the ongoing pandemic, the travelers are focusing on in bound vacations because they are well aware about the country’s flora and fauna. The customer’s easy reach also make them connect to the place of their choice. Earlier it was common to travel for business purposes but now the virtual meetings have taken the place. Sooner or later the normalcy may put the service sector in hospitality industry in gaining its momentum for the personalized service. To measure the business expansion, the key performance indicator used by the hospitality industry is average room rate and revenue per available room. The average room rate stood at Rs.5,458.68 in the financial year 2020 and is expected to reach Rs.6,292.85 by the financial year 2025 and the compound annual growth rate of ~2.49% between FY2021 and FY2025. The revenue per available room is going to reach Rs. 3,336.28 by FY 2025 from Rs. 1,951.34 FY 2020 [1].

Source: Indian Hotel Industry Report 2021[11]

Keywords:-Vacations, Service Quality, Festivities, Customer Satisfaction, Average Room Rate.

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### INVESTIGATING OPTICAL PROPERTIES OF NOVEL HETEROSTRUCTURE ALUMINIUM DOPED BARIUM HEXAFERRITE (AlBaM) COBALT ZINC FERRITE (CZFO) NANOCOMPOSITE

Allwin Sudhakaran<sup>1</sup>, Ashwin Sudhakaran<sup>2</sup> and \*E. Sivasenthil<sup>3</sup>

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#### ABSTRACT

The novel heterostructure  $(Al_{0.5}Ba_{0.5}Fe_{12}O_{19})_{1-x}/(Co_{0.6}Zn_{0.4}Fe_2O_4)_x$  with  $X=0.1, 0.2$  have been synthesized by using the ball mill technique. Further characterization is done using XRD, SEM, EDAX, FTIR and UV analysis. The XRD Analysis revealed successful hexagonal and spinel formation in the synthesized heterostructure composite. The cell volume and lattice parameter are calculated with the JCPDS card data. The cell volume, lattice  $a$  and  $c$  decrease with increase in the hard site concentration. Similarly, the average crystalline size calculated by Scherrer's equation also showed decrease in size of the crystal with increase in AlBaM concentration. Comparison between crystalline size and particle size is done using SEM studies. From UV analysis the band gap energy is found using Tauc's Plot which is 2.563eV for AlBaM-CZFO 80-20 and 2.285eV for AlBaM-CZFO 90-10 respectively.

Keywords: Doped Barium Hexaferrite, Cobalt Zinc Ferrite, Sol-gel Citrate, Sol-gel Auto combustion, Ball milling, Bandgap Energy.



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### KINETIC AND THERMO DYNAMIC STUDIES OF THE CONTROLLED OXIDATION OF CINNAMYL ALCOHOL BY POTASSIUM PERSULPHATE IN ACIDIC MEDIUM

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#### ABSTRACT

*The quantitative conversion of alcohols to aldehydes/ketones has been extensively studied using a variety of oxidants. But there are few reports on the use of inorganic oxidants for oxidation of alcohols. Further, the kinetic and thermodynamic aspects of the oxidation of alcohols have been scarcely reported.*

*This paper reports the kinetics of the controlled oxidation of the primary unsaturated alcohol, Cinnamyl alcohol using Potassium persulphate ( $K_2S_2O_8$ ) in acidic medium. Cinnamyl alcohol is used in the preparation of perfumes. The oxidation was studied under first order kinetic conditions with respect to the inorganic oxidant and the oxidation rate was monitored by iodometric estimation of the unreacted oxidant at regular time intervals during the course of the reaction. The oxidation rate increased with [alc.] but decreased with  $[K_2S_2O_8]$ . The oxidation rate was found to be independent of ionic strength in dilute solution. A suitable reaction mechanism has been given for the oxidation process.*

*From the variation of oxidation rate with temperature (308-318K), the thermodynamic activation parameters were evaluated and interpreted in terms of the reaction mechanism suggested.*

*Keywords: Cinnamyl alcohol,  $K_2S_2O_8$ , oxidation, kinetics, ionic strength, entropy of activation, reaction mechanism*



### SOCIAL MEDIA AND CYBERCRIME: THE INTERLINK

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#### **ABSTRACT**

*Social media has become a constant in our ever-changing world. People are more connected through social media than actually. Social media has become the new age communication tool between people and various social media sites make information sharing an easy task. In short social media has become an integral part of our daily routine and an inevitable in our everyday life.*

*This article brings to light the different aspects of social media and all its uses and also talks about an important issue lurking in the shadows of social media i.e. Cybercrime. As social media advances day-by-day, cybercrime has also advanced and people are being tricked, cheated or duped every day.*

*This article also throws light on different types of cybercrimes committed daily and how people are exploited by fraudsters. It also provides information on how people can be alert and vigilant and adopt precautions to save themselves from being tricked. It also suggests methods like ethical hacking to prevent online frauds and aims at bringing awareness among people.*

*Keywords: Social Media, Cybercrime, Online Frauds, Ethical Hacking.*



### MIDLIFE AND BEYOND MOBILE MEDICAL APP IN CLINICAL PRACTICE

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#### ABSTRACT

**Introduction:** *Medial apps for healthcare has become a focal point of innovation, in particular those apps which can be used by doctors as part of prevention or treatment. This will result in improved health measures and a more efficient healthcare system*

**Aim objectives:** *To assess the role of Midlifeandbeyond app its functionality and ease to use. To assess the use of medical app in determining various risk assessment and how medical app is useful in taking decision*

**Methodology & Research design:** *Prospective cross sectional observational multicentric study was conducted at obstetrics & gynecology department of Saveetha and Stanley Medical College. After informed consent and after ethical clearance, 254 women between 40 years to 70 years were included, were perimenopause and menopause women who attended menopausal clinic. Midlifeandbeyond app developed for Indian Menopause society was used to assess Menopausal Rating scale and risk assessment for Breast cancer, Cardiovascular risk, Fracture risk and sarcopenia risk assessment. Doctors used the app were interviewed about ease of its use. Reports generated through app was saved in system and data were analysed to assess the utility of Midlifeandbeyond mobile Medical app to take decision on the management of women*

**Results:** *In the study 47.6% women were between 40-50years, 24.5% between 51-60years 27.9% of them 61-70 years Midlifeandbeyond app was used with ease and data were saved in 100%. Menopausal symptoms were analysed by app were Somatovegative symptoms in 55% of women, Psychological symptoms in 16.5% and Urogenital symptoms in 28.4%. Risk assessment analysed by app were Breast cancer risk were low in 52% of women, Medium in 44% and high in 4%, Cardiovascular risk less than 10% in 12%, less than 20% in 44%, between 20-30% in 28%, 30-40% risk in 14% and more than 40% in 2% of women. Osteoporosis risk low in 24% medium risk in 58% and high risk in 18%. Sarcopenia risk was negative in 68% and positive in 22%. Treatment decision taken by risk assessment were counselling in 26% of women, medication given in 52% and 22% referred to specialist*

**Conclusion:** *Midlifeandbeyond app was user friendly to assess peri and postmenopausal health issues and by assessing various risk assessment it will prevent preventable disease*

**Keywords:** *Midlifeandbeyond app, Menopause, Menopause rating Scale, Risk Assessment, Medical mobile app*

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### MOLECULAR IDENTIFICATION OF FUNGAL STRAINS USING 16S RRNA SEQUENCING AND A COMPARATIVE ASSESSMENT OF THEIR EFFICIENCY ON REDUCTION OF BIOLOGICAL OXYGEN DEMAND IN TEXTILE INDUSTRY EFFLUENT

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#### ABSTRACT

Textile industry effluents contain considerable volumes of dyes, chemical oxygen demand (COD), biological oxygen demand (BOD), total suspended solids (TSS), organic and inorganic chemicals, all of which, if not managed appropriately, can cause threats to the environment.. Many treatment technologies are already in use, but due to their drawbacks standard biological treatment methods are acceptable. The objective of the present study was to isolate and conduct molecular identification of fungal strains and assess the reduction in biological oxygen demand (BOD). Using the pour plate technique, two microbial strains were extracted from textile industry contaminated soil and textile industry effluent. Based on their molecular analyses, the isolates were identified as *Aspergillus flavus* and *Aspergillus aculeatus*, and they were deposited at the National Center for Biotechnology Information (NCBI) under accession numbers (MZ544387) and (MZ569631), respectively. They were tested to see if they could reduce high amounts of biological oxygen demand (BOD) from textile industry wastewater. According to the findings, *Aspergillus flavus* and *Aspergillus aculeatus* have a good ability to reduce BOD levels from textile industry effluents, with percentages ranging from 82.64% to 95.10% and 84.93% to 96.77%, respectively. The isolated fungi have been shown to be promising candidates and can used in reduction of BOD concentration in textile industry effluent.

Keywords: Textile industry effluent, fungi, *Aspergillus flavus*, *Aspergillus aculeatus*, BOD, NCBI, sequencing

### JOURNEY FROM BRAND ELEMENTS UP TO BRAND IMAGE

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#### **ABSTRACT**

*Branding is the Key of Success. Brand can promote culture and Image both. Brand creation gives birth to some brand realities. Brand elements can work as a starting point. Brand element may impact to brand reality. Brand attachment start developing brand affection. Brand attachment can be focal interest creator for brand Managers. Brand contact is the place which work as covering unit between brand and customer. Brand Inter action is the key of success. Brand Promotion can work as instrumental point. Brand Promotion can promote Brand value. Brand Value has also got relationship with social sites. Brand contact can be having three modern dimensions. Brand variables may have interdependence with each other. The relationships may have significance or non significance. Present research has a purpose to develop simultaneous relationships of operating variables of Branding which can impact Brand identity and Brand Image.*

*Keyword: Brand Elements, Brand attachment, Brand contact, Social site, Brand identity, Brand Image*



### PERFORMANCE COMPARISON OF STANDARD TOPOLOGY BASED ROUTING PROTOCOLS IN VANETS

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#### ABSTRACT

Day to day the number of vehicles on roads increasing drastically and results in more congestion and hence number of accidents. Intelligent Transportation Systems initiates the vehicular ad-hoc networks, in which vehicles are equipped with a number of sensors, computing devices, camera, radar etcetera and are capable of communicating the information among other smart vehicles and roadside units and guarantees improvement of traffic conditions and safety. IEEE802.11p protocol can be used to link vehicles to the internet with or without existing infrastructure. Here routing of packets is a challenging task as the nodes are mobile. The objective of this paper is to illustrate the working of existing standard topology based routing protocols like DSDV, OLSR and AODV with simulation results in terms of packet delivery ratio, end to end delay and jitter delay for different node densities of network. Simulations are carried out using NS3 and SUMO.

Keywords — VANET, MANET, DSRC, DSDV, OLSR, AODV.



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### PHYTOCHEMICAL SCREENING OF NELATANGEDU, SENNA ALEXANDRINA L. BY FTIR AND GC-MS

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#### ABSTRACT

*Senna alexandrina* leaves and pods are utilized in seasonal medication since precedent days. In ancient lore, healthful herbs play a major role within the hindrance and treatment of microorganism diseases. The pods and leaves extracts of this plant contain anthraquinone glycosides that have a major laxative result. Within the gift study, the phytochemical screening of bush plant extracts was met out by FTIR and GC-MS. The NIST Ver. 2.0 of 2005 library was referenced for the detection of the compounds and their bioactivity was assessed supported by Duke's Phytochemical and Ethnobotanical Databases. The detection of different compounds like alcohols, phenols, acid, alkanes, primary and secondary amines, and amides, sulfones, sulfonyl chlorides, fluorides, ethers, esters, and anhydrides were confirmed from the spectra of FTIR analysis. The GC-MS analysis offer completely different peaks bearing on thirty-four phytochemicals possessing different medicinal values. These compounds were reportable to point out totally different biological activities like a metastatic tumor (pancreas, pharynx, prostate), Nephroprotective, laxative, inhibitor, neuroprotective, growth (Breast, lung, prostate), and curative (Pesticides, poison gas).

**Keywords:** *Senna alexandrina*, phytochemical compounds, FTIR, GC-MS.



### **POLITICAL LEADERS OF INDIA AND POLITICAL PARTICIPATION ON TWITTER: A CASE STUDY OF CAA PROTEST**

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GD Goenka University

#### **ABSTRACT**

*The viability of social media platforms gives sufficient space for the political leaders to engage people in active discourses. These political leaders on Twitter act as echo chambers which reinforce and foster politicized narratives and popularized themes of discourses. Twitter has been used as an effective tool by the political parties to influence people and to initiate political perspectives on different issues. Content analysis is used as a method of research to analyze and understand the content and the context of narratives widely proposed by the political leaders with reference to CAA protest. In this paper, the tweets of major political leaders during the time of CAA Protest have been manually collected, coded and analysed to understand their role in active engagement in social media. This study also analyses tweets to identify the key political players, major themes of twitter narratives and digital discourse of political parties with reference to CAA Protest.*

*Keywords: Political Leaders, Citizenship Amendment Act, Twitter Narratives, CAA Protest*



### SATELLITE IMAGE CLASSIFICATION USING MACHINE LEARNING TECHNIQUE

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#### ABSTRACT

Satellites are used to monitor the earth's surface. During the day millions of images are taken by satellites. To analyze a large amount of data manually is a tedious task. An automatic classification technique is required that classifies the images into different classes. Machine learning techniques are extensively used for the classification of satellite images. In this study, we proposed a classification system that classifies the satellite images with high accuracy. In this paper, the features were extracted from the satellite images using the Higher-order Local Auto Correlation method. The EuroSAT dataset was used to train and test the model. The performance of the proposed system was evaluated by accuracy and F1-score. The experimental results showed good and remarkable results. Further, the results were improved by using different SVM kernels.

*Keywords: Image classification, HLAC, object detection, Remote sensing, satellite image, SVM.*





### STRUCTURAL ANALYSIS, OPTICAL PROPERTIES AND ANTIBACTERIAL ACTIVITY OF NANOSTRUCTURED $ZnAl_2O_4$ SYNTHESIZED BY AUTO-IGNITION COMBUSTION TECHNIQUE

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#### ABSTRACT

Nanocrystalline  $ZnAl_2O_4$  is efficiently synthesized through modified auto-igniting combustion technique. The XRD analysis revealed that the sample exhibits Cubic structure with  $Fd3m$  space group. The as prepared sample is phase pure and the average crystallite size is determined as 15 nm. Various structural information such as Crystallinity, Interplanar spacing, Strain and Dislocation density of the prepared sample is calculated from the x-ray diffraction data. The crystallite size confirmation is done by Hall-Williamson plot and Modified Scherrer method. The particle size obtained from XRD and TEM show that the sample is nanocrystalline in nature. The structural confirmation by analysis of the Fourier transform infrared spectrum and the optical properties are studied using UV-Vis spectrum. The UV-Vis spectrum show high UV absorbance and moderate visible absorbance which make the material a suitable candidate in the fabrication of UV filters and sensors. The material also shows anti-bacterial effect against Gram negative (*E-coli*) and Gram positive (*Klebsiella sp*) bacteria. This less human toxic nanomaterial having bactericidal properties is emerging as a prospective research field, exploring the enhanced properties of the material in nanoscale.

Keywords: Nanocrystalline; auto-igniting combustion technique; optical band gap; Antibacterial activity



### **SYNTHESIS OF BIO FERTILIZER USING FISH WASTE AND ITS UTILIZATION - AN ECO-FRIENDLY APPROACH**

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#### **ABSTRACT**

Mindless usage of chemical fertilizers and spraying pesticides to increase yields have made farming a commercial exercise profiting only some private companies rather than small farmers. Application of chemical fertilizers to increase the food production slowly robs the soil nutrients, harm the soil fauna and microbes and cause side effects to the consumers. Fish processing industry is one of the important sectors that generate large amounts of waste by processing and also through fish markets. The disposal of this fish waste material poses a big problem. Addressing this issue would also solve the problem of pollution and waste disposal. Hence this study aims to determine biochemical components - carbohydrates, aminoacids, fatty acids, minerals – calcium and zinc present in fish waste, to analyse nutrients present in soil before and after addition of fish manure, to synthesize an eco-friendly biofertilizer using fish waste and test its efficiency on the germination and growth of balsam plant – *Impatiens balsamina* and the growth of the plant were compared with that of the same plants that were grown using chemical fertilizer and commercially available fish waste fertilizer. The results of the study revealed that the maximum growth of the plant was recorded using synthesized bio fertilizer than that of chemical fertilizer and commercially available fish waste fertilizer.

**Keywords:** Fish waste, Bio fertilizer, Chemical fertilizer, Commercially available fish waste fertilizer, Soil nutrients, Balsam plant.



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### SYZYGIUM CUMINI SEED HUSK POWDER AS AN EFFECTIVE PHOTOCATALYST FOR THE DEGRADATION OF HYDROXYNAPHTHOL BLUE DYE

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#### ABSTRACT

*The present study involves the degradation of Hydroxynaphthol blue dye using Syzygium Cumini seed husk powder as a green and cost effective photocatalyst. The Syzygium Cumini seed husk powder was characterized by various investigative techniques including Fourier Transform Infra-red (FT-IR) spectroscopy, Scanning Electron Microscopy (SEM), X-ray powder diffraction (XRD) and Brunauer-Emmett-Teller (BET). The Photocatalytic efficiency of Syzygium Cumini seed husk powder was investigated for the degradation of Hydroxynaphthol blue dye using visible light irradiation. The recyclability of Syzygium Cumini seed husk powder was also studied for the degradation and the results obtained have been discussed.*

*Keywords: Photocatalyst, Hydroxynaphthol blue dye, Recyclability.*

*Abbreviations: SCSHP = Syzygium Cumini seed husk powder*



### THE ROLE OF HUMAN RESOURCES IN HOSPITALITY SECTOR

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#### ABSTRACT

*Human resource management (HRM) is considered as the most tactical and logical approach to the management of an organization's most Privileged assets – the employees who are employed there contribute to the achievement of the objectives of the business. · · Human resource management (HRM) is the application of the policy and procedures that directly involve the employees working in the task group. These policies include recruitment & Selection, maintenance, personal development, training and career development. · Human Resource Management (“HRM”) is a way and means of management that links people-related behavior to the tactic of a business or organization.*

*The term “the hospitality industry” refers to organizations and businesses which have their core business in the provision of food, drink, leisure, business facilities and accommodation to people away from their homes. The hospitality profession is the oldest of the humane professions and they are responsible in making a guest, client, customer or resident invited and comfortable. The component sectors in the hospitality industry are Hotels & motels, Restaurants, Guest houses, cafes & snack bars, Night-clubs and Public houses*

*Firms in hospitality sector require highly effective personnel and HRM departments. This is mostly required by the hospitality operators who must possess the relevant and the required skills because above all, they are in the people business and the type and the level of service they deliver to their customer depend highly on the quality of the workforce they have employed, It is therefore required that people who are employed in the Hospitality Industry must have adequate knowledge, skills and qualities so that the firms can succeed and develop not only within the country but also across the Globe for maintaining the customer value. Therefore Human Resource Management is very important and the assistance it can provide to hospitality sector by attracting, training, motivating and retaining valuable workforce is eminent.*

*Keywords: Human Resources Management, Hospitality Sector, Business tactic, customer value.*



### THE FUZZY-LOGIC ALGORITHM FOR PREDICTION OF LITHOSPHERE POLLUTION WITH PETROCHEMICAL SLUDGE

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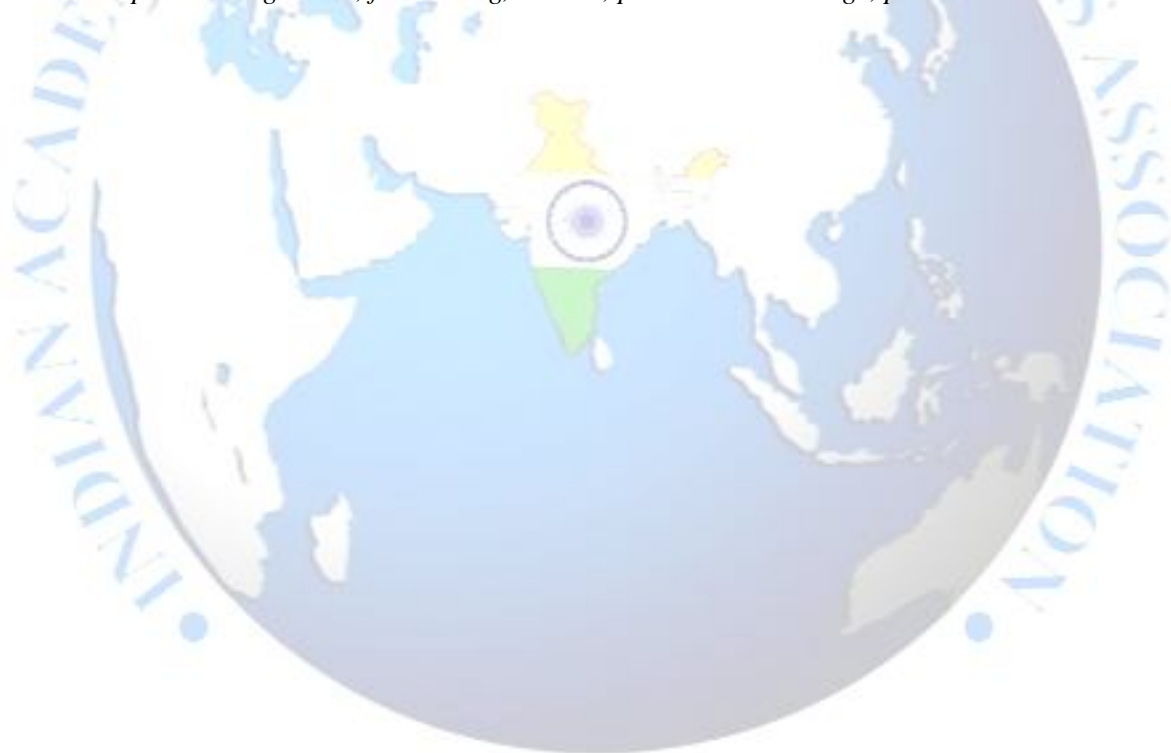
#### **ABSTRACT**

*Multi-scenario forecasting of pollution migration processes is carried out on the basis of information obtained at the stage of pre-project analysis. It includes analysis of survey results and forecast of the movement of polluted effluents in soils.*

*The proposed algorithm takes into account the semantics of each specific analytical problem being solved for the process-structural computerized analysis of various scenarios for the release of petrochemical sludge into the environment and the transition from the resulting fuzzy set to the only clear ecological zoning of oil-contaminated lands.*

*The purpose of this work is to develop an algorithm for multi-scenario forecasting and situational modeling using fuzzy logic of lithosphere pollution by petrochemical sludge.*

*Key words and phrases: algorithm, forecasting, method, petrochemical sludge, pollution*



### DIAGNOSIS OF INFECTIOUS BRONCHITIS VIRUS (CORONA VIRUS) BY HEMAGGLUTINATION USING TRYPSIN

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#### ABSTRACT

**Background:** Avian infectious bronchitis virus (IBV) is a corona virus which infects chicken, causing the associated disease; infectious bronchitis (IB). The main purpose of this study is to diagnose the IBV by inducing hemagglutination. The study was aimed to diagnose the infectious bronchitis virus caused in poultry using embryonated chicken eggs. The objectives of the study are a standard HA test of IBV will be a useful laboratory method that can be adopted as a cost effective for sero monitoring the commercial layer poultry population within a short period of time.

**Materials and Methods:** A trypsin - induced hemagglutination (THA) assay was standardized to diagnose IBV in Allantoic fluid of embryonated eggs. Hemagglutination of trypsinized AF was reported to be efficient, specific, sensitive and economical to perform in our routine diagnostic practices.

**Results:** Trypsinized AF could be stored at -65°C for more than 3 weeks without any lose of hemagglutinating activity of virus HA inducing capacity of trypsin on infectious bronchitis virus was found to be effective and very specific in its ability to elicit HA activity of IBV. Hence the presence study will be advantageous over other methods and quite useful for protein serological assay.

**Keywords:** Allantoic fluid, Bronchitis virus, Hemagglutination, Trypsin

### A REVIEW ON RHEUMATOID ARTHRITIS - CAUSES, SYMPTOMS, AND THE OVERVIEW OF THE TREATMENT

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#### ABSTRACT

*Inflammation of one or more joints, causing pain and stiffness that worsens with aging, is the state of Arthritis or Joint Inflammation. Numerous types of arthritis exist, each resulting from wear and tear, infections, or underlying diseases. Patients suffering from this condition may experience pain, swelling, reduced range of motion, and stiffness. Medication, physiotherapy, or surgical treatment can help relieve the symptoms and improve quality of life. Rheumatoid Arthritis (RA) is one such type of arthritis where an individual's immune system attacks his or her own tissues, including joints. The immune system can also infect internal organs in severe cases. Joint linings become swollen and painful due to RA. During the course of chronic inflammation associated with rheumatoid arthritis, bone erosion and joint deformity can occur. Although treatment can help, but this condition can't be cured. DMARDs are anti-rheumatic drugs that can be used to manage most cases.*

*Keywords: arthritis, DMARDs, inflammation, joints, rheumatoid arthritis (RA)*



### A STUDY OF INVESTORS' PERCEPTION ON THE PREFERENCE OVER TAX SAVINGS OPTIONS

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#### ABSTRACT

*The tax saving season starts from 1<sup>st</sup> April for both salaried and businessmen. As a smart investor, one should look for tax saving investments, which not only provides the benefit of tax exemption but also help earn tax-free income. With the plethora of investment options available for investors for tax saving, it becomes increasingly difficult to choose a right option. However, for most of the investors the tax planning is a let's-do-it-later affair. Tax saving is the legitimate way to save the tax out go and every income tax assessee should exercise the option to increase their wealth. The paper aims to analyse the investors' perception towards tax saving options from most popular 80C and 80 (CCD) 1B from Gujarat region. The tax saving options considered are Tax saving fixed deposit, National saving certificates, public provident fund, Tax saving mutual funds, Life insurance, national pension system (NPS), pension policies and Sukanya Samriddhi Yojana (SSY). The study revealed that life insurance, PPF and fixed deposit are the most preferred investment options and NPS and SSY are the least preferred options for tax saving.*





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### STATISTICAL INTERPRETATION OF HEAVY METAL DISTRIBUTION IN MAGDALLA AREA OF TAPI ESTUARY, SURAT

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#### ABSTRACT

*The speedy industrialization and unregularized anthropogenic activities have severely threatened the natural environment. Among the different types of pollutants dispersed in water bodies, heavy metals are one among of the major pollutants that could pose a serious threat because of their toxicity, extended persistence, bioaccumulation and biomagnification characteristics. During the present investigation Mercury (Hg), Cadmium (Cd), Lead (Pb), and Zinc (Zn) were assessed in the water, sediment, and fish (*Boleophthalmus dussumieri*) from Magdalla area of Tapi estuary in order to monitor the status of the estuary with reference to these metals. The assessment of heavy metals was done using Atomic Absorption Spectrophotometer (AAS). Heavy metals were distributed in the order  $Pb > Zn > Cd > Hg$  in water whereas the order was  $Zn > Pb > Cd > Hg$  in sediment and fish. The distribution of heavy metals mercury, cadmium, lead and zinc in three levels were in order sediment > fish > water from the sampling site. The investigation showed elevating level of heavy metals in environment. Thus, a serious interpretation and steps are required to control industrial and manmade pollution which has depreciated the estuary. Mann-Whitney test revealed statistically significant difference in the average value of only mercury in water and sediment whereas significant differences in the average concentration of mercury, lead and zinc was found in the fish between two years. Kruskal-Wallis test showed a strong significant difference in the distribution of heavy metals in water, sediment and fish ( $p < 0.05$ ). The study showed increased concentration of heavy metals in the sediment which can be harmful for the aquatic ecosystem. A continuous monitoring and serious remedial measures are required to control industrial as well as anthropogenic pollution in the estuary.*

*Keywords: heavy metals, water, sediment, fish, bioaccumulation*

### SYNTHESIS AND CHARACTERIZATION OF CARBAZOLE CONTAINING PYRIDOPYRIMIDINE-SUBSTITUTED SULFONAMIDE DERIVATIVES

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#### ABSTRACT

Heterocyclic compounds are biologically active molecules in the development of new medicinal agents due to their essential roles in vitamins, enzymes, and nucleic acids. The synthesis and characterization of carbazole containing pyridopyrimidine-substituted sulfonamide derivatives (3a-c) were studied. The obtained structures are confirmed based on IR, <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra and the results obtained from the elemental analysis have been consistent with the composition of the newly synthesized compounds.

Keywords: carbazole, sulfonamide, pyridopyrimidine



### IN SILICO STUDY OF THE EFFECT OF THYMOQUINONE ON METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

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#### ABSTRACT

*Staphylococcus aureus* is a bacterium that have developed several resistance mechanisms, and cause infections ranging from the mildest to the most serious; mainly caused by strains resistant to methicillin (MRSA). These same strains emerge following the acquisition of new genes in their genome. These genetic changes give them the ability to resist antibiotics, especially  $\beta$ -lactams, either by modification of the target or by the production of  $\beta$  lactamase.

An interesting alternative to prevent this resistance is the use of many polyphenols that have antibiotic activity against *S. aureus*. The latter have been used for their ability to treat certain bacterial infections without harming the human body. The most widely used class of polyphenols are flavonoids. Here we used thymoquinone, which has been studied for its beneficial effects, including its antibacterial activity and its ability to inhibit MRSA infections in different ways. This study is done in silico (docking), to understand the interaction between thymoquinone and its target protein on the bacterium *S. aureus* -PBP2a-. Thymoquinone gave binding energy of -8.0193 Kcal/mol, which suggests the stability of the complex and would explain the possibility of inhibiting PBP2a by thymoquinone. This opens, therefore, the way to undertake in vitro studies and confirm the action of thymoquinone, but also to use it in the medicinal industry.

**Keywords:** MRSA, docking, thymoquinone, PBP2a, inhibition.

### APPLICATIONS OF DIFFERENTIAL EQUATIONS IN SCIENCE AND ENGINEERING FIELD

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#### **ABSTRACT**

*The importance and need of differential equations in engineering and in other core science field through their applications in various engineering disciplines and various types of differential equations are motivated by engineering and scientific applications. Theory and techniques for solving differential equations are applied to solve practical science problems.*

*Keywords: Differential equations, Applications, Partial differential equation, Heat equation.*



### ASSESSMENT OF AUTOTRONICS SERVICING SKILLS NEEDED BY AUTOMOBILE STUDENTS IN TECHNICAL COLLEGES IN ENUGU STATE

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#### ABSTRACT

*The study was carried out to assess the autotronics servicing skills needed by automobile technology students in Technical Colleges in Enugu State. Survey research design was used for the study. The population for the study consists of 42 respondents comprising 9 Automobile technology technical teachers in Government Technical College Enugu, 9 Automobile technology teachers in Government Technical College Nsukka, 12 industrial technologists in ANAMCO Enugu and 12 industrial technologists in Innoson Motors, Enugu. A 22 item structured questionnaire was used as instrument for data collection. Three research questions and three null hypotheses were formulated. Cronbach alpha method was used to determine the reliability coefficient of the instrument which yielded 0.78. Frequency count and weighted mean was used to analyzed the data for answering the research questions while t-test statistics was used to test the hypotheses of no significant different at 0.05 level of significance. 7 items were agreed on research question one, 7 out of 8 items were agreed on research question two while all the 7 items was agreed on research question three by the correspondents from the technical colleges and industrial technologists on the skills needed by the students on autotronics servicing. It was recommended that automobile technology teachers should be sent for further training in autotronics technologies in order to acquire more knowledge/competencies and transmit to leaner. Autotronics laboratory should be provided with machines and equipment for practical training at Technical College levels. Emphasis should be made on these deficiencies in the curriculum by curriculum planners to take care of technological changes that are taking place in the automobile industry globally. Government and members of society should equip the technical colleges with modern tools, machines, equipment and qualified personnel for effective teaching and learning. practical's. Students should be sent to the automobile industries in order for them to learn and experience those practical skills needed by the automobile industries that can enable them gain employment in such industries and also self-employed.*

*Keywords: Technical College; Autotronics, Automobile Technology, Servicing Skills, Technical Education*

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### EFFECTIVENESS OF WITHANIA SOMNIFERA, AZADIRACHTA INDICA AND OCIMUM SANCTUM TINCTURES FORMULATED INTO DOSAGE FORM: A CURRENT STIPULATION IN HERBAL MEDICINE

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#### ABSTRACT

*In current scenario, herbal drugs have taken a jump up. The reason behind this is herbal ingredients are natural and there are very less chances of side effects with high pharmacological effect. Ingredients are chosen which are compatible with each other and have common target sites. Withania somnifera, Azadirachta indica and Ocimum sanctum are widely used and most trusted herbal products. Gastrointestinal and ingestion are most common disorder which is followed by diabetes and these disorder risk to weak immune system and later cause bacterial and fungal infections, as these herbs have common antidiabetic, anti-inflammatory and antimicrobial effect. They cure the root cause of the disorder and provide strength to the body. At present, lozenges of these ingredients are not formulated till now and not present in the market. As polyherbal lozenges ensure that all the phytochemicals give maximum therapeutic effect and provide broad spectrum relief. Lozenges allow the drug to stay in a body for a longer period of time and increase retention time of the drug which leads to increase the bioavailability of the active compounds present in the herbs. Multiple issues will be targeted with this combination therapy with single dose intake. The goal of the study is to formulate such type of dosage form with ayurvedic herbs which provide maximum pharmacological effect and can treat many diseases with a single dose without causing any harmful effect to patient when administered in the body.*

*Keywords: Polyherbal lozenges, Herbal drugs, Antidiabetic, Anti-inflammatory, Antimicrobial effect.*



### ASSESSMENT OF PEBRINE DISEASE IN MUGA SILKWORM

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#### ABSTRACT

Assam, a state in the Northeastern part of India is known for its lustrous golden silk known as Muga silk. It is the pride of Assam. Muga culture has been in practice from time immemorial. Although having a glorious history, the growth of Muga culture is not satisfactory. Disease of the silkworm is a key factor that acts as a hindrance in the development of the sericulture industry. Pebrine is the most dreaded and most infectious disease that causes heavy crop losses and thus results in significant impact on the economic parameters of Muga culture. Some rearers had to abandon sericulture due to the repeated occurrence of Pebrine disease. Pebrine is caused by the *Nosema* spp, a microsporidian species. The transmission of the disease occurs horizontally and vertically and spreads the infection in *Antheraea assamensis* silkworm colony and to their progeny. Rapid and accurate detection of the disease at an early stage can not only help the farmers involved in this industry but also can act as an catalyst in the growth of the rural economy of the countries.

*Keywords: Sericulture, Muga, Pebrine, seed, mother moth*



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### EVALUATION OF *IN-VITRO* ANTI-INFLAMMATORY ACTIVITY OF ETHANOLIC EXTRACT OF *SENNA SINGUEANA* (DEL). LOCK

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#### ABSTRACT

The present investigation was carried out to evaluate the anti-inflammatory property of *Senna singueana* by two different methods, namely membrane stability assay and protein denaturation assay. Five different experimental concentrations (100, 200, 300, 400 and 500 µg/ml) were used in this study. Action is observed in a dose-dependent manner. In the protein denaturation method, 500 µg/ml of the selected extract showed maximum protection (78.06%) and the standard drug provided 81.14% protection. Similarly, in the membrane stability test, the extract selected at a concentration of 500 µg/ml showed maximum protection (74.09%) and the standard drug provided 91.05% protection. In addition, the hypotonic heat hemolysis test showed maximum protection (69.34%) at a concentration of 500 µg/ml. We conclude that the ethanolic extract of *Senna singueana* shows potent anti-inflammatory activity at different concentrations compared with the standard drugs of Diclofenac sodium and aspirin. In addition, phytochemical analysis of *Senna singueana* revealed the presence of saponins, flavonoids, tannins, anthracene, phenols, amino acids and sugars. It is shown that these phytochemicals are responsible for maximum protection from protein denaturation, and membrane stability testing. Future work will focus on anti-inflammatory activity using in vivo models.

Keywords: *Senna singueana*, Diclofenac sodium, Aspirin, Human red blood cells, inflammation and membrane stabilization.





### ENVIRONMENTAL STRESSORS

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#### **ABSTRACT**

*Environment is important to all living beings because they depend on the environment for their existence. Environment can satisfy the needs of human beings on one hand can also cause stress on the other hand. Ivancevich and Matteson (1987) define stress as “the interaction of the individual with the environment”. Environmental stressors refer to the stressors that are found in our surroundings. Everyday routine life is full of environmental stressors. The main objective of this paper is to analyse the various environmental stressors. An attempt is also made to identify the stress experienced by respondents due to these stressors and also the strategies adopted by them to manage these environmental stressors. Students studying post-graduation in management studies are the respondents of the study. Result reveal that all the respondents have experienced environmental stressors. Noise, Crowding, Air Quality, Colour and Light, Natural and Manmade disasters, Climate, Pollution and Biological stress are the environmental stressors experienced by the respondents. The respondents adapt two strategies to cope up with environmental stress. First strategy is problem focussed coping wherein the efforts taken by individuals or group tries to directly address the problem. The second strategy is emotion focussed coping where the individual takes efforts to control the psychological response to the stressor.*

*Keywords: Environmental Stressors, outcomes, environmental protection*



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### GENOTYPIC DIFFERENCES IN EFFECT OF CADMIUM ON GERMINATION AND ULTRASTRUCTURAL CHANGES OF CELL MEMBRANES IN ROOT CORTICAL CELLS OF PIGEONPEA (*CAJANUS CAJAN* (L.) MILLSPAUGH)

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#### ABSTRACT

The effect of Cadmium (Cd) representing 0.02, 0.04 and 0.06 mM on seed germination, relative growth index, tolerance index and ultrastructural characteristics of root cortical cells in 6-day old seedlings of three cultivars of pigeonpea (*Cajanus cajan* (L.) Millspaugh) LRG30, LRG41 and ICPL85063 were evaluated. Results show that no prominent variation were noticed in per cent seed germination of the metal treatment, the values gradually decreased with the increasing concentrations of externally supplied Cd. Relatively lower per cent seed germination in cultivars LRG41 and ICPL85063 than LRG30 in all the Cd treatments. The relative growth index and tolerance index of the roots and shoots of the pigeonpea cultivars, LRG41 and ICPL85063 exhibited lower values when compared to LRG30. The LRG30 appears to possess better tolerance mechanisms. The transmission electron microscopic studies of root cortical cells revealed extensive changes both at the cellular and organellar level in three pigeonpea cultivars, LRG30, LRG41 and ICPL85063 exposed to various concentrations of Cd. Damage to the cell membranes was observed in treated seedlings and it was indicated by the folded and complete disintegration of plasma membrane from cell walls. And also there was thickening of cell walls with cadmium deposits in the cells.

Keywords: Cadmium, pigeonpea, plasma membrane, relative growth index, tolerance index, transmission electron microscopy.

### EFFECT OF BIO ORGANIC FERTILIZER WITH REDUCED USE OF CHEMICAL FERTILIZER ENHANCED THE PRODUCTIVITY OF CROP: A REVIEW

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#### ABSTRACT

*Extreme use of chemical fertilizers presents prospective threats to soil quality as well as Extending use of chemical manures has detrimentally impacted the atmosphere as well as natural microbial variety in the soil as well as consequently reduced soil fertility as well as plant quality. The use of chemical Manure is the most commonly accepted rule in the expansion of intensive farming nowadays. Nevertheless, the continued prolonged usage of chemical fertilizers has actually led to numerousunpredictedproperties. Additionally, countless lots of synthetic nutrients that are packed into dirt annually are not captivated by plant life. Regarding 50 percent N, as well as 90 percent P, have been reported as runoff from crop fields as well as an escape into the environment or water resources, resulting in the production of greenhouse gas in water systems. Eutrophication and salinization in the soil. The application of bio fertilizers having a mix of useful microbes in a formula with a minimized amount of chemical plant food was believed to be a lot more reliable compared to the stand-alone application of bio fertilizers or chemicals. Application of natural modifications as well as decrease of not natural fertilizer is economically possible and environmentally audio approaches to developing sustainable agriculture. Chemical/Synthetic plant foods use high temperatures, high pressure, as well as stimulants to 'fix' or change molecular nitrogen right into responsive nitrogen which is the type that can be readily made use of by plants. Organic fertilizer on the other hand as implied in their name usage biomaterials as the source of micro as well as macronutrients called for by the plants. Hence while chemical fertilizer are more concerning the addition of brand-new responsive nitrogen from the ambiance, natural fertilizer count greatly on recycling the nitrogen in the atmosphere as well as the addition of new reactive nitrogen by plants. This research checked the impacts of bio-organic manure addition, with the reduced application of chemical manure, on physical as well as soil hydraulic buildings. The use of bio-organic manure with reduced chemical manure can enhance the physical as well as hydraulic residential properties of harvested soils.*

**Keywords:** Organic fertilizers, Microorganisms, Micro nutrients, synthetic fertilizers, nutrients, crop, atmosphere,

### BRAIN TARGETING THROUGH INTRANASAL DELIVERY

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<sup>1,3</sup>Research Scholar and <sup>2</sup>Assistant Professor, Amity Institute of Pharmacy, Amity University, Noida, Uttar Pradesh, India

#### ABSTRACT

*Delivery of therapeutics to central nervous system in the treatment of psychiatric and neurodegenerative disorder like Parkinson's disease, Alzheimer's disease is a rigorous task due to presence of blood brain barrier and cerebrospinal fluid barrier. Most of the drug do not pass through BBB that's why different delivery system have been developed among them intranasal delivery has gained emerging interest as nasal cavity is in close proximity with the brain and it also contain nerves which provide direct delivery to the brain, it is a non-invasive method with better patient compliance, no first pass metabolism, high absorption and permeability. The objective behind this study is to provide better understanding of the anatomy and physiology of the nose, mechanism responsible for nose to brain delivery, factors, and strategies to overcome the blood brain barrier, formulation approaches.*

*Keywords: Nasal cavity, Mechanism, factors, Strategies for enhancing nasal permeation*



### REVIEW ON BRAIN GATE - AN EXPERT TO CURE THE INABILITY

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#### ABSTRACT

*Brain gate is a neuroprosthetic device which is a mind to movement system that allows a quadriplegic man to control a computer using his thoughts. This system helps mainly to those who have lost the control of their limbs and other bodily functions such as patients with spinal cord injury. Thus by this method they can able to move their arms by commanding the computer using their thoughts. Here a neuro chip is used which collects the signal from the brain and analyse it through the computer. Its main role is, it converts the intention of a user into computer command and it also used to control a robot arm. It is one of the innovative inventions of biotechnology combined with neuroscience. It is based on brain computer inter face technology. The principle behind is, neural interface system is that which intact with brain functions. It has wide range of applications and has an important advantage of controlling remote devices and to operate motorised wheel chair.*

*Keywords: Braingate, Mind to movement, Robot arm, Neural Interface system, Neuro chip.*



### APPRAISAL AND IMITATION OF SURFACE PROFILES DOWN STREAM OF A HEAD SLUICE

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#### ABSTRACT

*The flow rate in a natural stream may vary considerably during different periods of the year. Therefore, it becomes essential to create a reservoir to retain the surplus water during the periods of floods and/or high flows in the river. The water thus conserved may be diverted for constructive purposes through head works. Hence, a canal head regulator is needed not only for diverting water but also for regulating the water supplies into an off taking canal whenever required. The primary objective of the present investigation is to simulate the water surface profile under different flow conditions. The waterway of the head regulator should be sufficient to pass the required discharge into the canal with designed pond level. Moreover, studies were even carried out for half supply depth in the canal with liquid level condition. The hydraulic calculations were performed under various flow conditions viz., High Flood Conditions and Pond Level conditions will enable the level of jump formation. Accordingly, the cistern dimensions were arrived. In the present investigations, the simulation methodology was carried out using two different turbulence models viz.,  $k-\epsilon$  and  $k-\omega$ . The simulation results were observed to have good agreement with the analytical estimations.*

*Keywords: head regulator, high flood level, pond level, turbulence models, UDF*



### EVALUATION OF WETTABILITY OF SELF ETCH ADHESIVE INCORPORATED WITH GREEN SYNTHESIZED TiO<sub>2</sub> NANOPARTICLES-AN INVITRO STUDY

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#### ABSTRACT

**Background:** The invention of universal adhesives has simplified adhesive protocols in dentistry. Self-etch adhesives have decreased bond strength and also produces secondary caries due to microleakage. In an attempt to enhance wettability and antimicrobial property of self-etch adhesives, TiO<sub>2</sub> nanoparticles were incorporated. The contact angle of adhesives is a predictor of bonding ability and the restoration's sustainability. Wettability is commonly determined using contact angle of solution.

**Aim:** The aim of the study was to evaluate wettability of self-etch adhesive incorporated with TiO<sub>2</sub> nanoparticles.

**Materials and methods:** Green synthesized TiO<sub>2</sub> nanoparticles(n-TiO<sub>2</sub>) were prepared from Piper longum extract. Twenty extracted human teeth were taken. Labial enamel sections were prepared using hard tissue microtome. The Ossila goniometer was used to measure contact angle. Control and experimental TiO<sub>2</sub> incorporated self-etch adhesives were dispensed using a micro-syringe over the sectioned tooth specimen and contact angle of bonding agent with tooth specimen was obtained. Statistical analysis was done using SPSS software version 23. Mean and standard deviation values were obtained and Student's independent t test was done for comparison between study groups.

**Result:** There is no statistical difference in wettability between conventional self-etch adhesive and TiO<sub>2</sub> incorporated self-etch adhesive. However the mean values of contact angle for experimental group is lower compared to the control group.

**Conclusion:** It can be concluded that incorporating TiO<sub>2</sub> nanoparticles into self-etch bonding agent can be beneficial. Further invivo studies are needed to validate the findings for clinical relevance.

**Keywords:** Contact angle, Self etch adhesive, Titanium dioxide nanoparticle, wettability.

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### EFFECT OF YOGA PRACTICE ON HAPPINESS AMONG COLLEGE WOMEN POST COVID-19 PANDEMIC

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#### ABSTRACT

COVID-19 affected people of almost all ages, gender and area making us to live in a constant state of fear and loneliness confining us to our homes. The age considered as a stage where we want to experience freedom and independence; college life is such a platform to the youngsters. Everyone wants to enjoy this phase to their best and hold loads of hopes with the same. But pandemic and worldwide lock shattered this hope of the student. Therefore this study focused on the happiness level of women college students from Affiliated colleges of Alagappa University, Karaikudi area, who were subjected to Yoga for 8 weeks period and how yoga introduction changed the happiness level in the subjects was studied using Oxford Happiness Questionnaire. The pre-test and post-test scores were evaluated using t-ratio test and the score of 20.57\* was found in the experimental group post training which was greater than the required table value of 2.147 hence the study was found significant.

Keywords: Happiness, Oxford Happiness Questionnaire, pandemic and women





### A STUDY ON E-HRM TECHNIQUES IN IT COMPANIES

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#### **ABSTRACT**

*The goal of the project was to assess current and new concepts of ELECTRONIC HUMAN RESOURCE MANAGEMENT (E-HRM) in the IT companies in Chennai. It was determined to assess the effectiveness of the programme. Because of the Personnel Department's excellent foundation, E-HRM and HRIS are becoming more popular. The project was completed in four stages which comprised goal-setting, questionnaire design, data collection, and reporting. The project also includes an analysis and findings section. The information gathered was extremely useful because it provided deep understanding of the employee's expectations on how E-Human Resources Development should be implemented to put to use. It allowed employees to express their valuable suggestions more easily. The Questionnaire featured questions that were used to test and evaluate employee awareness of the Human Resources Development Department's various functions.*

*Key words: E-HRM, HRIS, Development, Effectiveness.*



### ELECTRICAL AND OPTICAL PROPERTIES OF SOL-GEL SYNTHESIS OF NANOSTRUCTURED PD-DOPED $\text{SnO}_2$ THIN FILMS

**Dipak Ashok Zope**

Shri J. J. T. University Rajasthan Jhunjhunu

#### **ABSTRACT**

*The sol-gel process was used to make multiple-layer tin dioxide thin films from a chloride-based inorganic salt. Optical and XRD tests were performed on the multilayered films. The films' carrier concentrations were computed and investigated. In the presence of methane gas, a comparative investigation of several multilayered films of both undoped and Pd-doped  $\text{SnO}_2$  thin films was carried out to evaluate the viability of using it as a room temperature sensor for methane gas.*

*Keywords:  $\text{SnO}_2$  thin films; XRD; Absorption spectra; UV-Vis spectrometry; Methane sensing*



### ENVIRONMENT AND HABITAT ASSESSMENT OF THE SLUM DWELLERS IN KOLKATA, INDIA

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#### ABSTRACT

Kolkata's slums are rich in diversity which is obscured by poverty, mainly consisting of migrants from rural, outskirts and adjoining states in search of livelihood and other purposes, who came to the city and started living in vacant places wherever available. Though, almost every other literature that talks about development and inclusion, usually focusses on inclusion of the rural and poor population into the mainstream system and stress has been given on strategies in the same direction, slums have not received much attention. They are the ones to be in the margin and therefore, are subject to more sufferings. Slums in the urban center of Kolkata are overcrowded and have no basic amenities which gives rise to city pollution. They are the most polluted regions of any urban centre. In fact, other city pollution like air pollution, affect the slum dwellers lives more apart from their own surroundings. The focus of this paper is to highlight the plight of this vulnerable section of the population and the gap in the policy measures which have not been able to achieve their goal of uplifting this section. It is based on available secondary data from several sources, depicting the status of urban slums in general and Kolkata slums in particular.

Keywords: Externalities, Environment, Pollution, Slums, Urbanization,

JEL Classification: F64, H55, I0.



# ABSTRACT

## 2<sup>nd</sup> International Conference on Science, Technology And Innovation

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### DIGITAL ADAPTATION OR DISRUPTION: THE WAY AHEAD!

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#### ABSTRACT

*The paper takes us through the transformation which had been done by the computer technology in human life as well as in businesses & on the top of it mobile technology came as a booster to all these particularly in the last decade. All these have led to different myths in the minds of the people at large. The myth that the digitalization being fully disruptive. It has its own aftereffects on businesses. The 2<sup>nd</sup> myth here is that it will take the place of physical completely & digital requires 360 degree complete change legacy systems. The authors had gone through the various latest prevailing industry trends on these myths and had attempted to clarify the ingrained myths with the reality in the market with live examples of the industry. To give an impact of the digitalization examples like Aeroflot (a Russian company) which was worst in its performance at one point in time had come to one of the best airline after its digitalization adaptation.*

*Keywords: Digital adaptation, Digital disruption, Technology up gradation.*



### IMPACT OF AI ON MARKETING

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#### ABSTRACT

*There's no doubt that AI is already changing how businesses operate, whether through task automation, insight generation, or other use cases. The experts agree that AI is a complex field, and that it's important to view AI objectively and to separate science fiction from fact. Every business is concern about the emerging technologies and their usage that how they impact society. Artificial intelligence and machine learning, as a dominant discipline which is treated as an amazing tool. This is the fastest moving technology that an organization ever tracked in terms of its impact on their activities and market space. AI is not a magic solution for the core problems in the business. In marketing, AI used to bridge the gap between data science and execution. After introducing AI in business, marketing became more complex because it is very difficult to utilized technology to enhance customer's experience. This paper is focused the marketing scenario in business housed after adopting AI techniques.*

*Keywords: AI, marketing tools, opportunities, and challenges in Marketing*



### COMPARATIVE STUDY ON EYE AND HAND CO-ORDINATION BETWEEN RIGHT- AND LEFT-HAND CRICKETERS

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#### ABSTRACT

**Introduction:** Eye-hand coordination (also known as hand-eye coordination) is the coordinated control of eye movement with hand movement and the processing of visual input to guide reaching and grasping along with the use of proprioception of the hands. This includes activities like writing, cutting, and catching and throwing a ball. The dominant hand is not really a choice because it is not a conscious decision that we make as children. Reaction time is the amount of time it takes to respond to a activity.

**Methodology:** In this prospective study 30 subjects will be recruited from A.C.S Medical College based on inclusion and exclusion criteria. All the subjects will be explained and written informed consent will be obtained from all participants. The subjects are divided into Group A and B, where Group A consists of 15 right hand batsmen and Group B consists 15 left hand batsmen. Before and after 10 days daily training activity, both the groups are tested with eye-hand co-ordination test.

**Result:** On comparing Pre-test and Post-test within Group A & Group B on Alternate Hand Ball Toss Test score and DART Throwing Scoring Test shows highly significant difference in Mean values at  $P \leq 0.001$ . Hence Null Hypothesis is rejected.

**Conclusion:** The study confirms that when the both right- and left-hand cricketers, had significant changes in hand eye co-ordination. The right-hand cricketers are found to have significant hand eye coordination than left hand cricketers.

**Keywords;** Wall Toss Test, Dart Test, Cricket, Hand-Eye Co-Ordination.

### ANALYSIS OF THE UNDERLYING CORD BETWEEN AIR POLLUTION AND CARDIO-VASCULAR DISEASES

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#### ABSTRACT

*In the past decades, air pollution has been one of the trending topics for various studies and analysis. It has been hazardous and critically acclaimed with loss of human life. Non-communicable diseases are one of the most serious leading problems in the world, in particular cardiovascular and respiratory diseases. Cardiovascular diseases stand out with chronic and harmful effects when it is associated with air pollution. Globally, air pollution has reached to a point where it needs to be controlled via measures and policies. Exposure of fine particles and ambient air pollution particles are closely related to cardio-diseases. Cardiovascular disease damages the heart and coronary organs leading to failure and strokes. Short-term and long-term exposure of the fine particulate matters in the air affects the cardio-organs in a negative way. Hence, particulate matter PM2.5 and ozone gas are key air pollutant that is highly under studies, about its effects and its relation to cardiovascular diseases. About 65% of the deaths in the world are due to air pollution and cardiovascular diseases. Dysfunction in the neurological system and vascular dysfunction are among the major adverse impacts of air pollution. Hence, it has been evident that there is a correlation between air particulate matter and cardio-disorders.*

*The focus of this paper is to explore this underlying cord between these two catastrophes with an aim to suggest measures to restrain them at least to a minimum. From the analysis of this paper, it has been evident that cardiovascular diseases and air pollution has correlation and acute exposure to environmental pollutants such as particulate matter and gaseous matters such as carbon monoxide, nitrogen oxides, sulphur dioxide are analogous to cardio-morbidity and mortality. Adverse cardiovascular events and air pollution clearly demonstrates the relation between the two, i.e., higher air pollution leads to higher cardiovascular diseases and decrease in the former results in the decrease of the latter. Improving the air quality through various modern techniques and mechanisms will surely upgrade the air quality and help in reducing the after effects. Elevating the understanding of biological mechanisms will improvise the standard of health.*

*Keywords: - Air, Cardio, Diseases, particulate, Pollution, Vascular*

### A STUDY ON PROBLEMS FACED BY WOMEN ENTREPRENEURS IN PANJAB

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University School of Law, Rayat Bahra University Mohali, Panjab, India

#### ABSTRACT

*This study endeavors to examine problems of women entrepreneurs faced in Punjab. In order to conduct this study, a sample of 200 respondents has been gathered from state of Punjab for this purpose. Fourteen statements were formulated for respondents and factor analytical model has been utilized to get the meaning inferences. The factor analytical model has clubbed these fourteen statements into five factors. These Five factors are like problem of obtaining finance, problem of demand estimation, competition from big manufacturers, problems of product pricing, local disadvantages, lack of training. This study concluded that these problems can be solved by providing training to women entrepreneurs through using latest technology in the area of managing women entrepreneurs. Women entrepreneurs should lay more emphasis on improving quality improvement because quality is the need of the hour. This is only possible by using latest technology along with modern human resource management practices.*

*Keywords: Women entrepreneurs, problems, Punjab*





### VALUE EDUCATION FOR STRESS MANAGEMENT- A DISCUSSION

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#### **ABSTRACT**

*The power of life lies in thought. Thought is the key to our mental attitude and actions. Happiness is the all-time universal desire of all human beings. Peace generates happiness in human life. A stressful life lacks peace of mind. We can have a calm and composed mind when we follow a value system. When the mind is peaceful, we have the power to see the pinnacle of unpolluted cognizance. Higher Education in present days witnessed engulfed materialistic values; the stress level among the students and teachers accumulates in a different dimension. However, the education system must evolve a new positive moral value, which could effectively be built into undergraduate and post-graduate curricula. Otherwise, the national goal of democracy, socialism, humanism, and secularism could not be achieved. Value education incorporates social education but encompasses beyond the way an individual deals with his powers and potentialities and his relationship with other people and the community in general. It is much concerned with ruthless holistic personal development and generating a positive attitude towards other fellows, and understanding; what to do and what not to do.*

*This paper attempts to give an overview of value education. Further, it also tries to incorporate the rationale and philosophy of value in human society. Moreover, the paper also describes the role and importance of value education for the overall development of human beings.*

*Keywords: Value Education, Spirituality, Morality, Ethical.*



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### INSILICO QUEST TO FIND POTENTIAL HITS AGAINST TETRAACYLDISACCHARIDE 4 – KINASE (LPXK) OF PSEUDOMONAS AERUGINOSA

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#### ABSTRACT

The biosynthetic lipid an enzyme tetraacyldisaccharide 4 –kinase LpxK is one of the potential un explored antibacterial drug targets. *Pseudomonas aeruginosa* infection can cause pneumonia, urinary tract infection and the management of *Pseudomonas aeruginosa* infection is critical in multidrug resistance, hospital-acquired bacteremia and ventilator-associated pneumonia. The current rational study describes the exploiting various techniques of computer aided drug discovery and design approaches like comparative metabolic pathway analysis (Metacyc), data mining from database of essential genes (DEG), homology modeling, molecular docking, pharmacophore based virtual screening in identifying novel potential lead compounds against the *Pseudomonas aeruginosa* LpxK. The top virtual hits from the study STOCK6S-69933, STOCK1N-21750, STOCK7S-13214, STOCK6S-81859 and STOCK1N-22425 can act as templates framework for synthesis of novel LpxK inhibitors and that can hold a key in the management of serious *Pseudomonas aeruginosa* infection.

Keyword: *Pseudomonas aeruginosa* infection, tetraacyldisaccharide 4 –kinase LpxK, lipid A biosynthesis, computer aided drug discovery and design, metabolic pathway analysis and virtual hits



### EARLY PREDICTION AND CLASSIFICATION OF HEART DISEASE USING MACHINE LEARNING

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#### ABSTRACT

*For doctors or practitioners, heart disease prediction is critical since it aids in precise decision-making for the development of heart patients. The heart is one of the most vital organs in the human body. It aids in the cleansing and circulation of blood throughout the body. The method of machine learning is commonly employed to comprehend the symptoms of cardiac patients. Machine learning is an analytical method that is utilised when a task is huge and difficult to programme, such as converting medical records into knowledge, predicting pandemics, and analysing genomic data. In this paper, we give a review of the literature on heart disease prediction, as well as different machine learning techniques for heart disease prediction, such as decision trees, Nave Bayes algorithms, and logistic regression.*

*Keywords: Machine Learning, Heart Disease, Prediction, Decision tree, Heart Patients, Regression*



### A CRITICAL EXAMINATION OF EFFICIENCY NATIONAL HEALTH MISSION IN CHHATTISGARH

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#### ABSTRACT

*The National Health Mission (NHM) was launched by the government of India in 2013 subsuming the National Rural Health Mission and National Urban Health Mission. National Health Mission (NHM) has several components to engage the community, such as Mitranin (ASHA) for improving health seeking behavior of the women and Jeevan Deep Samiti (JDS) commonly known as the Rogi Kalyan Samitis (RKS) to increase public participation in the management of public sector facilities. Village Health Sanitation and Nutrition Committees (VHSNC) in the rural areas and Mahila Arogya Samiti (MAS) in the urban slum areas are also formed for encouraging involvement of the community in identifying health problems and facilitating the implementation of various health programmes. This paper examines the efficiency of NHM in chhattisgarh.*

*Keywords: National Health Mission, Community, Chhattisgarh*



### A SURVEY ON LEPROSY ELIMINATION PROGRAM IN CHHATTISGARH

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#### ABSTRACT

*Leprosy is a disease, which still strikes fear in the societies as a mutilating, disfiguring, contagious and incurable disease. Because of the horrifying nature of the physical disfigurement and since no cure was discovered until the 20th century, leprosy has, for centuries, been a highly stigmatizing disease. Though leprosy is not a disease of the poor, yet it affects poor to a much greater extent because of their social and economic vulnerability. The stigma attached to leprosy has been the major cause of hiding or late reporting resulted in high basile load in the community and high prevalence of MB cases. When leprosy is completely curable with MDT (multi drug therapy), still then Chhattisgarh have highest prevalence of leprosy in the country, Chhattisgarh is the only state which has not achieved elimination stage. This study shows the prevailing condition of Leprosy elimination in Chhattisgarh.*

*Keywords: Leprosy, Elimination, Disease*



### DEEPER INSIGHT INTO HAIR DYES

**Shikha Baghel Chauhan**

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#### **ABSTRACT**

*Hair dyes are one of the most widely used cosmetic products utilised by men and women available in the form of conditioners, lotions, powders to enhance their appearance by changing the colour. Modern Hair dyes are present in the form of oxidative and non-oxidative dyes and they were further classified on the basis of duration of retention over hair are: permanent, temporary, semi-permanent and demi-permanent. Around 90% of marketed products are of oxidising nature. This article provides insight on various aspects of hair dyes starting from classification, difference between each category, chemicals used in permanent dyes, mechanism involved in colouring, potential hazards or risk associated with these and regulatory aspects. Although different chemicals are involved in the preparation but para-phenylene diamine being a main ingredient is major cause of dermatitis and other allergic reaction.*

*Keywords: Oxidative Hair dyes, Composition, Mechanism, Para-phenylenediamine*



### CONSUMER PERCEPTION ABOUT HAIR SHAMPOO

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#### ABSTRACT

*Hair shampoo usage has significantly increased among Indian consumers especially after the introduction of small-sized shampoo sachets. However, the majority of the Indian consumers are price-sensitive and use basic level personal care products including shampoos. The urban Indian consumers are brand conscious and buy shampoos to address specific problems like dandruff, hair fall, dry scalp, etc. Cheaper floral perfume shampoos in low-cost sachet packing are popular in rural areas. In this context, the present study tries to examine the consumer perception of Indian consumers towards hair shampoo. This study tries to understand the consumer perception of Indian consumers concerning hair shampoo. The study also tries to analyze the buying behaviour of consumers and find out the major factors that influence consumers' buying decision of hair shampoo. Major findings of this study are that packaging plays an important role in the purchase of hair shampoos. The study found that smell of the shampoo is an important element for consumer preference towards hair shampoo. It was found out that majority of the respondents wanted their shampoo to be sulfate and paraben-free shampoos. This study found that a vast majority of the respondents preferred to have a medium level foam formation shampoo. It was found that 80% of the respondents use conditioners regularly or occasionally after using hair shampoos. The researchers conclude that it is evident that hair shampoo marketers need to give importance to packaging, ingredients, perfumes and level of foaming while manufacturing and marketing hair shampoos. Hair conditioners provide an attractive area for growth in the Indian market. Hair shampoo marketers have already introduced hair conditioner sachets but these are prevalent in the urban areas. Hair care brands need increase the awareness of rural consumers regarding use of hair conditioners. This can provide future path of growth for hair care products marketers in India.*

*Keywords: Hair shampoo, consumer perception, hair care, buying behaviour, packaging*

### **VIBRATIONS OF GEOMETRICALLY NONLINEAR VISCOUS-ELASTIC CYLINDRICAL SHELLS INTERACTING WITH AN ELASTIC MEDIUM**

**Karimov Abdusamat Ismonovich**

Namangan Institute of Engineering and Technology

#### **ABSTRACT**

*This article examines the nonlinear vibrations of a thin-walled structure such as a cylindrical shell interacting with the ground. On the basis of the seismodynamic theory of underground structures, the nature of the movement of the structure is revealed depending on the stiffness coefficient and rheological properties of the soil, as well as on the frequency of external influences. When solving specific problems, seismic waves in the form of a sinusoid are considered. Nonlinear integro-differential equations describing the vibrations of structures laid in the ground are solved approximately in the following sequence:*

- *The method of decomposition of displacements in rad by coordinate functions is applied, which are selected depending on the boundary conditions. Using the approximate Bubnov-Galerkin method, the original nonlinear integro-differential equations in partial derivatives of the fourth order are reduced to ordinary equations of the second order;*
- *The obtained nonlinear integro-differential equations are solved by the averaging method, as well as numerically.*
- *The nature of the change in stress and amplitude of oscillation in time in an elastic and viscoelastic shell at different coefficients of soil stiffness was obtained.*

*Key words: shell, cylinder, orthotropic, vibrations, nonlinearity, frequency, wave, deflection, process, tasks, method, stresses, characteristic, amplitude, elasticity, medium, hinge, stiffness, frame, axis, circumference, normal, integral, differential, the ground, solution, the system, equation.*



### A GENERATING FORMULA FOR HERMIT SEQUENCE OF POLYNOMIALS

**Hitesh**

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#### ABSTRACT

*It develops a formula that explicitly expresses the general term of a linear recurrent sequence, allowing us to generalize J. McLaughlin's original finding on powers of 2 matrices to the case of a square matrix of size  $m \leq 2$  matrix. The identities of Fibonacci and Stirling numbers, as well as a variety of combinatorial relations, are deduced. It uses two-variable Hermite polynomials and their operational laws to derive integral representations of Chebyshev polynomials. Most of the Chebyshev polynomial properties can be obtained using the Hermite polynomials  $H_n(x)$  definitions and formalism. They also show how to use these results to introduce valid generalizations of these polynomial groups and derive new identities and integral representations for them.*

*In Number Theory we work on numbers in mathematics many types of numbers for examples Even number, Odd number, prime number, complete square number etc. In Number Theory we want a solution in integers. Many basic theorems have proved in Number Theory. There many representations of Fermat and Pell polynomials in number theory we are also giving a special representation of Fermat and Pell polynomials.*

*Keywords: Sequence, recurrence relation, number theory, coefficient.*



### AGILE EDUCATION FOR A DIGITAL-FIRST FUTURE: AN ECONOMETRIC APPROACH

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#### **ABSTRACT**

*Knowledge, technology and innovation go hand in hand. Over the pandemic the journey from chalk - board to stylus - touch screen had become smooth, but the way ahead is still unpredictable. With government planning to reopen educational institutes by March 2022, the main question in the mind of all stakeholders is the mode of teaching learning to be followed from next academic session. The success story of online education in both developed and developing nations depends on “local and regional research (which) may yield untapped sources of opportunity for online programs” (Santos and Zanca, 2018). So the objective of the study was to analyse how far the students of Odisha are prepared to welcome online class as a part of their regular syllabus in future. For this the study collected primary data by circulating a questionnaire containing key issues relating to strength, weakness, opportunity and threat of online education for professional courses. Using econometric approaches like factor analysis and SEM the results were derived. Students were more concerned about the threats and weakness aspects of online professional education system. The issues that raised concern among the students were relating to quality of technology, LMS, practical know how and credibility of online (compared to offline) mode of professional courses. The solution to the threats and weakness of online education may be mitigated through technological innovation and blended learning.*



### STUDY OF EMPLOYEE ATTRITION AND PERFORMANCE: HR ANALYTICS APPROACH

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#### ABSTRACT

Human resource (HR) analytics refers to applying analytic procedures to the human resource department of an organization in the hope of improving employee performance and thusly getting a better improvement rate of profitability. Employee attrition is one of the central points that influence overall business execution. This paper portrays the study of employee attrition and performance using HR analytics approach. The secondary dataset considered for the study which was generated by IBM Kenexa talent analytics tool. It includes the details of 1470 employees with 35 features. The dataset includes features like Age, Employee Role, Daily Rate, Job Satisfaction, Years At Company, Years in Current Role etc.

Data analysis is carried out and thus explored the current status of employees, how the different factors affect attrition and remedy the situation to prevent attrition. Statistical Analysis applied to validate the assumptions, hypothesis and test those using standard statistical models. The exploratory data analysis and visualization carried out in Microsoft Excel and R. Following are the key findings of the present study:

- i) The attrition rate of male employees' higher as compared to female.
- ii) As compared to attrition rate of single employee, married employee attrition rate is less.
- iii) Attrition is maximum in lowest job level.
- iv) The employees who have either spent more time on same company tend to leave more.
- v) The attrition rate is less for employees whose daily rate is high.

Keywords: attrition, HR analytics, job satisfaction, IBM attrition data, key factors

### A COMPLETE STUDY ON PHYTOCHEMICAL SCREENING, GC-MS ANALYSIS, ANTIBACTERIAL AND ANTIOXIDANT ACTIVITY FROM THE COMBINE EXTRACT OF ZINGIBER OFFICINALE AND AEGLE MARMELOS.

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#### ABSTRACT

The medicinal plant *Zingiber officinale* are widely used in treating arthritis, blood thinning, lowering cholesterol and heart and lung disease. The *Aegle marmelos* are also widely used for treating jaundice, cancer, gastrointestinal and cardiovascular disorder. The aim of the present study is to extract the bioactive compounds with ethyl acetate. The extracted samples are characterised using GC – MS for the identification of different bioactive compounds present in which 41 compound were retrieved. The extracted samples were tested for the presence of phytochemical which resulted in the presence of alkaloids, sugar, quinones, glycoside, flavonoids, phenol. Antibacterial activity of was performed with the combined extract in different concentration from 0.5 – 2 mg and treated against four bacterial species such as *Escherichia coli*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Staphylococcus aureus* using agar well diffusion method. The extract at 2mg concentration showed significant antibacterial activity with 14mm zone of inhibition for *Klebsiella pneumoniae* then 20mm zone of inhibition for *Pseudomonas aeruginosa*.

Keywords: GC-MS analysis, Phytochemical, Antioxidant property, Antibacterial activity.



### THE SIGNIFICANCE VANET IN INTELLIGENT TRANSPORTATION AND ITS NEED FOR INDIA

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#### **ABSTRACT**

*The new area of research has been evolved through Vehicular Adhoc Network (VANET) in the domain of network performance and routing. This domain of dynamic network arise with network performance issues and routing challenges The paper also discuss some of the Swarm Intelligence based routing algorithm . This paper focus on VANET routing significance over the mobile ad-hoc network (MANET). The paper presents the statistical reports of road accidents that took place in India. Then, the major issues has been highlighted that caused due to bad roads and transportation system. This paper aims to analyze and focus on the status of the road conditions and accidents that took place in India. It also discussed that the Intelligent Transportation System (ITS) and VANET shall be implemented in near future that may help for smoother transportation facility and lowering the rate of accidents. The paper shows that the*

*Keywords: VANET, MANET, India, Swarm Intelligence, road accidents, Intelligent Road Transportation ITS*



### MOLECULAR DOCKING STUDIES ON THE PHYTOCHEMICALS OF EPIPHYLLUM OXYPETALLUM FLOWER AGAINST URINARY TRACT INFECTIONS

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#### ABSTRACT

The present study focuses on the molecular docking studies with the selected phytochemicals from the flower extract of *Epiphyllum oxypetalum* against the protein FdeC to treat urinary tract infections. Molecular docking and drug-likeness were performed for the natural compounds of *Epiphyllum oxypetalum* flower. Five compounds satisfying Lipinski's rule of five were subjected to study the molecular interactions using the software Auto Dock 4.2.6. The molecular docking results showed that the phytochemicals of *Epiphyllum oxypetalum* has good inhibition towards the *E. coli* FdeC receptor. The compounds 7-hydroxy-3-[1,1-dimethylprop-2-enyl] coumarin and spiro[androst-5-ene 17,1'-cyclobutan]-2'-one were found to have good inhibition with activation energy of -6.17 kcal/mol and -4.12 kcal/mol docking score. Thus, it proved to be a good inhibitor of *E. coli* and this serves as a lead to develop a drug based on the molecular interactions analyzed to specifically treat urinary tract infections.

**Keywords:** *Epiphyllum oxypetalum*, FdeC, Molecular docking, Urinary tract infections



### THZ FREQUENCY ANALYSIS OF ROD PHOTONIC CRYSTAL FOR OPTICAL SENSOR

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#### ABSTRACT

*The THz frequency analysis has been carried out on the rod photonic crystal structure using the Finite Difference Time Domain (FDTD) method. The method gives the result, there is a transmittance band when the wave propagates in the structure. The transmittance of PBP shows the characteristics of the structure by looking at several parameters that affect it. For changes in optical parameters, namely the refractive index of rods, it causes PBP to shift linearly towards lower frequencies. This linear change is quite sensitive and can be controlled by selecting the rod radius value. From the simulation results, the optimal radius value is  $0.0375\mu\text{m}$  with a sensitivity value of 0.35*

*Keywords: rod photonic crystal, FDTD method, transmittance characteristic*



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### IN VITRO PROPAGATION OF AN ENDANGERED ORCHID DENDROBIUM BARBATULUM LINDL THROUGH STEM NODAL SEGMENTS

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#### ABSTRACT

*Dendrobium barbatulum* Lindl. is belonging to the family orchidaceae. This species is highly valued in the floriculture industry. However, this orchid species is getting depleted from its natural habitat due to over collection and habitat destruction. Therefore, an efficient propagation protocol from stem nodal segment culture system was established from One year old in vitro grown seedlings. The frequency of shoot regeneration and the number of adventitious buds produced from the stem nodal explants significantly relied on the concentration of plant growth regulators. Half strength Murashige and Skoog (MS) medium supplemented with different concentrations of  $\alpha$ -Naphthalene acetic acid (NAA), 6-Benzyl amino purine (BAP) and Thidiazuron (TDZ), separately and in combinations. The synergistic action between NAA and BAP enhanced the proliferation and elongation of shoots from the nodal segments. The highest number of shoots per explants ( $12.13 \pm 0.14$ ) was obtained in half MS medium supplemented with  $5.38 \mu\text{M}$  NAA and  $16.15 \mu\text{M}$  BAP. Among the different phytohormones tested for rooting, the addition of  $2.69 \mu\text{M}$  NAA shows highest frequency of root induction. More than 90% In vitro plants survived during acclimatization under ex vitro conditions. The protocol developed will not only help to alleviate the pressure on the natural population under stress, but will also help in meeting its demands in ornamental industry and also form the basis of conservation.

**Keywords:** In vitro, Conservation, Plant growth regulators, acclimatization





### INCORPORATION OF COVID-19 VACCINATION AND ITS BENEFITS

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#### ABSTRACT

*The Novel Corona Virus (Covid - 19) is the most infectious and lethal disease that affects the body's respiratory system. This virus emerged unexpectedly in late December 2019 in Wuhan, China. This disease is transmitted through inhalation or contact with an infected person. The world has been pushed to the brink of a pandemic. Globally, there have been many economic losses, which have had a significant impact on many individual lives and resulted in the deaths of millions of people. Vaccination is the only way to defeat this disease. In this chapter, we will look at the different types of vaccines and how they are designed, as well as their actions, immunogenicity and safety.*

*Keywords: Corona virus, pandemic, vaccination, types of vaccination, clinical Trails, benefits of vaccination.*



### INNOVATIVE BANKING SERVICES IN INDIA

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#### ABSTRACT

Banking sector has a tremendous change in the recent years. The technological changes have impacted on the financial sector of the country too. The banks play a major role in the business and also the economy's growth. The services extended by the banks should have a target and also to improve the economy on the whole. Banks started to use the technology in a wide manner to provide quality of service in a greater speed. The study aims to find out the innovative banking services which are used by the Indian banks and also the consumer perception towards the drastic change. The study highlighted the key innovations such as checking account balances and transactions, transferring money between bank accounts, asking a customer service question, deposited money, applied for credit card or loans, SMS service. The focus of this paper is on the innovative banking services and the type of services availed by the customer. The statistical tools used were reliability analysis, correlation analysis and regression analysis. Based on the literature survey the key innovative services factors were identified. This paper makes a descriptive study among 100 respondents. The concluding observations of the study were there is significant relationship between age and mobile banking services. The customers tend to use more of the innovative banking services after the demonetization.

Keywords: ATM, Credit card, Digital, Innovation, Transactions.



### INNOVATIVE WAYS OF TEACHING AND LEARNING MATHEMATICS

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#### **ABSTRACT**

*This observe sheds mild at the diverse techniques to educate arithmetic and whether or not they may be hired or not. The observe investigates the hired arithmetic-coaching techniques in Maharashtra colleges, and the obstacles that save you instructors from making use of numerous powerful techniques of their school rooms. The researcher follows the qualitative method primarily based totally on in-intensity interviews and tips of preceding research and statement to gain the most benefits. Teachers assert that using the one of a kind revolutionary techniques are crucial and green in coaching arithmetic, however there are numerous handicaps that save you instructors from exploiting them including, among others, the imposed responsibilities to finish the whole quantity of loaded observe fabric for the duration of the semester, in addition to the dearth of to be had gear to computerize training and coaching method in general, the dearth of constructing tangible gear, and the low talent stage of a few instructors. The effects of the interviews confirmed that era is not often hired in coaching arithmetic – if ever, in addition to revolutionary and contemporary-day techniques. The observe concludes that the heavy burden of coaching arithmetic need to be lightened to permit area for creativity in coaching techniques, as they want extra time to be hired. In addition, for arithmetic to be understood properly, the coaching method need to be thrilling to draw college students. Besides this, the advised techniques are nice to be carried out with inside the coaching method*



### DESIGN OF PROGRAMMABLE LOGIC CONTROLLERS TO ADJUST THE TEMPERATURE IN THE TEMPORARY STORAGE BUNS OF COTTON

**Karimov Abdusamat Ismonovich and Ismanov Mukhammadziyo Abdusamat Ugli**

#### ABSTRACT

*In this scientific article, a SCADA system for continuous monitoring of temperature in temporary storage bunts of cotton was developed. The system was designed using 24-bit programmable logic controllers (PLC) and thermocouple sensors (TS), as well as analog digital converters (ADC). The main objectives of the project in the article are:*

- *Formatting of signals from thermocouple sensors (TS), development of a method of ratiometric change of the sensor;*
- *Programmable logic controllers and signal routing, system protection;*
- *Designing programmable logic controllers, as well as developing and creating a sensor-PLC module for measuring temperature and sending signals to PLC.*

*Keywords: sensor, program, module, logic, microchip, temperature, connection, block, circuit, signal, pair, contact, approximation, design, mathematics, frequency, function, program, interface, chip, microchip.*



### PERSONALITY TRAITS AND FINANCIAL BEHAVIOR

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#### ABSTRACT

*The present research aims to obtain empirical evidence of the effect of personality types including openness to experience, conscientiousness, extraversion, agreeableness and neuroticism on individual financial behaviors such as investment behavior, debt behavior, purchasing behavior, and herding behavior. This study involved a total of 400 Indonesian respondents. The data in this study were obtained from questionnaires. The data were analyzed using structural equation modeling-partial least squares (SEM-PLS). The findings of this research indicated that openness to experience has a positive and significant effect on investment behavior, while neuroticism has a negative and significant effect on investment behavior. Conscientiousness has a positive and significant effect on debt behavior. Conscientiousness, and agreeableness has a positive and significant effect on purchasing behavior. Neuroticism, in the meantime, has a positive and significant effect on herding behavior. This study has an implication that investment managers, employers, and advertisers need to take into account each of their clients, consumers and employee's personality traits.*

*Keywords: Openness to Experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism, Financial Behaviour*



# ABSTRACT

## 2<sup>nd</sup> International Conference on Science, Technology And Innovation

Organized By Indian Academicians And Researchers Association

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### ASSESSMENT OF AVIAN DIVERSITY AND FEEDING HABIT IN DIFFERENT FOREST AREAS IN JASHPUR (C.G.)

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#### ABSTRACT

*The study on feeding habit of bird diversity in Jashpur district of Chhattisgarh was carried between January 2021 to June 2021. During the study total 61 species of birds were observed of which majority were residential and few were migratory. The feeding habits of these bird species were Carnivorous, omnivorous, insectivorous, graminivorous and fructivorous.*

*Keywords: Avifauna, bird diversity, feeding habit, Jashpur.*



### EVALUATION OF ECONOMIC ASPECTS OF MITANIN PROGRAMME IN DISTRICT JANJGIR-CHAMPA

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<sup>1</sup>Research Scholar and <sup>2</sup>HOD and Assistant Professor, Department of Economics, Dr. C.V. Raman University, Kargi Road, Kota, Bilaspur (C.G.)

#### ABSTRACT

*In Chhattisgarh, Mitanin is a government community health worker (CHW). There are nearly 65,520 mitanins in 28 districts of Chhattisgarh who reach around people across villages and urban slums. They provide health education, link communities with formal government healthcare services, and mobilize community action for health rights. Mitanin are the backbone of the health system of Chattisgarh state and are meant to be selected by and be accountable to the community. Recognized as Mitanin in the District Janjgir – Champa, is the social health activist and a voluntary community health worker moreover an important human resource for public health system. Their inspiration to become a community health worker and constant efforts is a combination of monetary and non-monetary factors. This kind of motivation to work arises relatively from desire to work for the community and esteem, but is fostered by the financial benefit. This study has been undertaken with the objective to study the economic status of Mitanins in District Janjgir – Champa, and their contribution to household income and the role played by monetary incentives in their work. This study was conducted among 50 Mitanins of the District who were interviewed using pre-piloted structured questionnaire through which their economic status was assessed. The results of the study reveal that the majority of Mitanins are earning between Rs. 3000 to Rs. 5000. The major findings of the study disclose that most Mitanins belong to poor socio-economic background, thus financial incentive was an important motivating factor with associated concerns about delay in payments even then contribute in a major way to their household income.*

*Keywords: Government community health worker, Esteem, Incentive, Motivation.*

### THE ROLE OF MITANINS IN ADDRESSING HEALTH RELATED ISSUES IN JANJGIR – CHAMPA

<sup>1</sup>Kumud Singh and <sup>2</sup>Dr. Pratima Bais

<sup>1</sup>Research Scholar and <sup>2</sup>HOD and Assistant Professor, Department of Economics, Dr. C.V. Raman University, Kargi Road, Kota, Bilaspur (C.G.)

#### ABSTRACT

*The study is focused to describe the role of Mitans in addressing health related social issues in District Janjgir – Champa, with an idea to recognize the ways for strengthening and making recommendations on the working of Mitans in Mitans Programme and future Community Health Work programmes. For the purpose of the study, a case study design with qualitative research methods is adopted, with the sample comprising of action on social factors by the Community Health Workers. This case study describes successful action undertaken by Mitans on nutrition or violence against women in the village or cluster of villages in the District Janjgir – Champa. Data collection was undertaken through In-depth Individual Interviews and Group Interviews with Mitans, community members and programme staff that participated with the Mitans in, and also benefitted from, their action on health related social issues. The conceptual framework of the factors facilitating and constraining the action of Mitans on health related social issues, along with the pathways for action on social determinants by the Community Health Workers (CHWs), and their role, was developed at the start of the research. The analysis was done using this conceptual framework, which was refined during analysis, resulting in an explanatory framework. The study provides us with the resulting that, the Mitans in the District Janjgir – Champa had effectively and successfully addressed the nutrition and other health related social issues, as imagined in the initial programme documents. Regardless of threats to the sovereignty of the programme, pressures to formalise the Mitans' role, and reaction from assigned interests, such action keep on constant, since the start of the Mitans programme.*

*Keywords: Mitans, CHW, Cluster, Health, Nutrition, Community.*





### GENE EXPRESSION STUDIES IN HYPOXIA INDUCED RETINAL EPITHELIAL CELLS

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#### ABSTRACT

Most living creatures are exposed to oxygen which make up 20.9% of earth's atmosphere. oxidative stress is caused by oxygen which can lead to cell death and damage of cells. In order to cope with different oxygen requirements, the organisms have developed several strategies. One such strategy is triggered upon exposure of cells to low oxygen environment which is called as hypoxic response. Under hypoxic conditions certain transcription factors are activated. Hypoxia inducible factor (HIF) is a central player in regulation of hypoxic responses. In this review article, we focus on, the hypoxia inducible factor pathway and its role in hypoxia induced retinal pigment epithelial (RPE) cells. Eukaryotes are often subjected to different kinds of stress. In order to adjust to such circumstances, eukaryotes activate stress-response pathways and regulate gene expression. HIF is a common transcription factor for many angiogenic proteins. This work summarizes and discusses the emerging studies on the expression of HIF, its regulation by prolyl hydroxylases (PHD) enzymes and expression of genes such as vascular endothelial growth factor (VEGF) and EPO under chemically induced hypoxia in RPE cells in order to determine some of the molecular mechanisms underlying ischaemic retinal diseases.

**Keywords:** Hypoxia, Prolyl hydroxylases, Enzymes, Retinal pigment epithelium, Vascular Endothelial Growth Factor.



# ABSTRACT

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### TECHNOLOGICAL INNOVATION IN AGRICULTURE AND FOOD SECURITY OF INDIA

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#### ABSTRACT

*Since independence, the rapid changes in the Indian economy have had minimal influence on food security. Widespread hunger, irregular monsoons, and conventional farming patterns are all failing to meet the rising food demand. India's record in terms of hunger is clearly abysmally poor, not just in comparison to other emerging countries like China, but also in comparison to the rest of South Asia.*

*This paper examines one potentially important component in addressing India's food security: speeding the deployment and development of new crop varieties using leading agricultural technologies such as biotechnology, genetically modified crops, and plant tissue culture processes.*

*The crucial issue of agricultural biotechnology and its influence on food security is thoroughly examined. This includes the interaction of Intellectual Property Rights (IPR) laws, treaties, policies, and management in both public and private agricultural research and development.*

*Key words: Agricultural biotechnology, Genetically Modified Crops (GM Crops), Intellectual Property Rights (IPR), Food Security.*



### NANOTECHNOLOGY APPLICATIONS IN CANCER TREATMENT

**Sanjay Parethe. S<sup>1</sup>, S.Ivo Romauld<sup>2\*</sup>, P. Vivek<sup>3</sup> and S.Thiruvengadam<sup>4</sup>**

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#### ABSTRACT

*Nanotechnology is a field of research at the crossroads of biology, chemistry, physics, engineering, and medicine. Design of multifunctional nanoparticles capable of targeting cancer cells, delivering and releasing drugs in a regulated manner, and detecting cancer cells with enormous specificity and sensitivity are just some examples of the potential application of nanotechnology to oncological diseases. In this review we discuss the recent advances of cancer nanotechnology with particular attention to nanoparticle systems that are in clinical practice or in various stages of development for cancer imaging and therapy. With a new generation of nanotech drugs, researchers are fighting cancer by approaching it as a physics problem—a problem of mass transport and fluid mechanics. They've already achieved some success, but the drugs have introduced a new series of challenges unique to the physics of nanomaterials. Recent advances have led to bioaffinity nanoparticle probes for molecular and cellular imaging, targeted nanoparticle drugs for cancer therapy, and integrated nanodevices for early cancer detection and screening. These developments raise exciting opportunities for personalized oncology in which genetic and protein biomarkers are used to diagnose and treat cancer based on the molecular profiles of individual patients.*

*Keywords: Cancer, Nanotechnology, Cancer treatment, Cancer detection, Targetting molecules*



# ABSTRACT

## 2<sup>nd</sup> International Conference on Science, Technology And Innovation

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### COMPARATIVE ANALYSIS OF FREQUENCY TO ACCESS THE INTERNET IN INDIA

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#### **ABSTRACT**

*Mobile phone is the best friend of the present generation. Mostly people use the smart phone. Smart phone cannot function without internet. So, internet is the primary requirement for the smart phone user. This paper shows the growth and frequency of internet user in India. It focuses on the frequency of access of internet usages by gender, by age group and by cause in India. This research also found that there is a huge discrimination by gender and by age group in India. Correlation, frequency, growth rate and mean analysis were done to find the effects of certain parameters which effect the growth of internet user in India. Paper analysis also finds the correlation with total internet access with face-book and social network user in India. Internet growth rate is closely linked with subscription rate through internet mode. Youth is a big market for use of internet in India.*

*Keywords: Correlation analysis, CAGR, mean analysis, social network, Tele-density, penetration etc.*



### ASPECT BASED SENTIMENT ANALYSIS USING MACHINE LEARNING ALGORITHMS

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#### ABSTRACT

*Social media is emerging day by day on the internet. Media knowledge helps people in making decisions. Clients of Web based business were given the chance to express their feeling about the item on the web as a content as survey. Reviews are ranging from hundreds to thousands and contains various sentiments. Opinion mining is also called as sentiment analysis which involves in building a system to gather and examine opinions about the product made in reviews or tweets, comments, blog posts on the web. Here, Aspect-based opinion mining is used to extract the most interesting aspects of a product sentiment from unlabelled text data. To start with, noun phrases algorithm was utilized to get all the aspect term of a review. Secondly, the sentiment algorithm was applied on the result of the noun-phrase algorithm. Finally, using relative importance algorithm important aspects were presented to the user. The system determines the positive and negative and neutral/ aspects. The classification of sentiment polarity of aspects can be done by using Naive-Bayes and Support Vector Machine.*



### USERSPACE IMPLEMENTATION OF PROTOCOL INDEPENDENT TRANSPORT API

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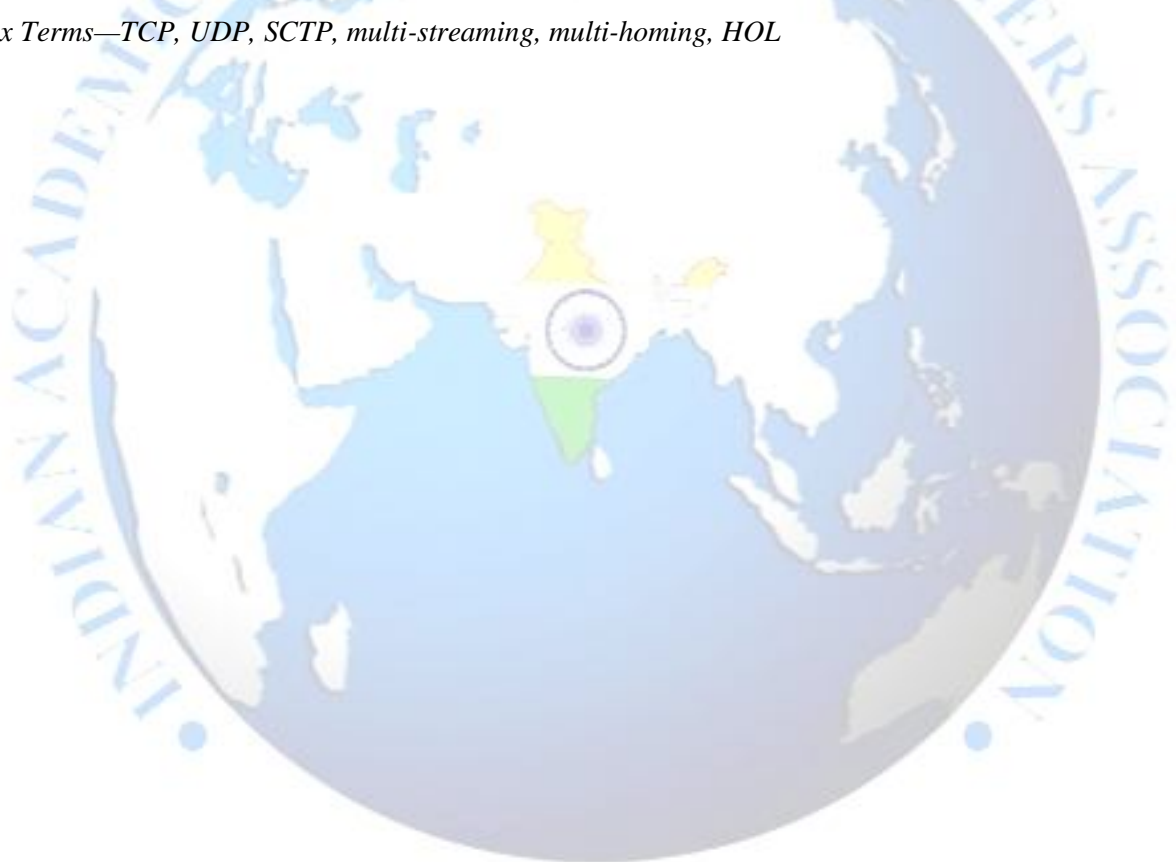
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#### ABSTRACT

*One of the general purpose reliable transport protocol is Stream Control Transmission Protocol (SCTP). SCTP has a number of additional capabilities over TCP and UDP. Although TCP and UDP are widely used in networking environment, use of SCTP can not be ignored. Now a days SCTP is supported by all operating systems and applications. But difficulty lies in implementation of newly developed APIs, which can be troublesome in some operating systems. We have taken protocol independent API [1] as our basis for protocol implementation. In this paper we have studied available APIs and their implementations. We have chosen protocol independent API preferably and implemented in userspace. The proposal is very clear and we showed performance benefit of userspace implementation as compared to kernel implementations.*

*Index Terms—TCP, UDP, SCTP, multi-streaming, multi-homing, HOL*



### DEEP STUDY ON ALOPECIA AREATA DIAGNOSIS FOR HAIR LOSS RELATED AUTOIMMUNE DISORDER PROBLEM USING LEARNING TECHNIQUES

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#### ABSTRACT

*Lots of women all over the globe are affected by thinning hair, & the number of females suffering from the disease is growing per year. Another important component in the development of thinning hair is genetics. Baldness may be classified into various categories, each with its own set of causes. ANNs are being employed in a wide variety of disciplines for a variety of reasons. One of the most important goals is to make a clinical condition. For example, in the area of medicine, categorization is critical since one of the primary goals of the doctor is to determine whether or not a patient suffers from an illness. Alopecia areata is a kind of chronic illness that causes baldness in the affected region. AA may cause baldness for a variety of causes, thus testing may be essential to confirm if it is the source of the loss of hair. Machine learning approaches have shown promise in a variety of fields, including dermatology, and may be useful in identifying alopecia areata for better prediction and diagnosis. Proper detection of an illness is also influenced by the fluctuating character of illness signs. Related work in machine learning for hair illness categorization has also been addressed. It is the goal of this study to analyze several machine learning & deep learning strategies for the identification of alopecia as well as in humans, as well as to determine the accuracy of extracting features methodologies.*

**Keywords:** Alopecia areata, Hair loss, Deep learning, Machine learning, Feature extraction approaches.



### A COMPREHENSIVE STUDY FOR IMPROVING THE FACTS LOCATION USING OPTIMIZATION TECHNIQUES

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#### **ABSTRACT**

*The demand for electricity has risen dramatically in recent decades. However, increasing power generation and transmission capacity is not being pushed to meet this rising demand. As a result, power plants are operating at maximum capacity to meet the increased demand for electricity. As a result, power systems are only slightly protected and are vulnerable to voltage instability, which has resulted in the failure of many large networks and generation of losses and harmonics. Implementing a flexible alternating current transmission system (FACTS) can be a good way to improve the transmission network's reliability and power capacity. The FACTS controller has been given a thorough examination in order to improve its stability and power flow capability. FACTS devices require a significant upfront cost. As a result, FACTS location, type, and rating are critical and should be optimised for optimal network placement. Different optimization approaches such as are explored and compared in this study for determining the best location, kind, and rating of devices. In the event of a traffic jam, the bus system IEEE 30 fact on the best spot to wait. Losses on various loads have increased as a result of the congestion. The proposed study demonstrates how changing the position of FACTS in an IEEE 30 bus reduces power loss, stabilises the voltage in the bus bar, and determines the optimal location of FACTS for maximum efficiency.*

*Keyword: FATCS devices, Voltage stability, Power system stability, Losses*





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### PREPARATION OF RED SANDAL PTEROCARPUS SANTALINUS ETHANOLIC EXTRACT AND ITS ANTI-INFLAMMATORY AND ANTI-DIABETIC ACTIVITY

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#### ABSTRACT

**Introduction:** *Pterocarpus santalinus*, with the common names red sanders, red saunders, red sandalwood, Rakt Chandan, and saundersfoot is a species of *Pterocarpus* endemic to the southern Eastern Ghats mountain range of South India. *Pterocarpus santalinus* is used in traditional herbal medicine as an antipyretic, anti-inflammatory, anthelmintic, tonic, hemorrhage, dysentery, aphrodisiac, anti-hyperglycaemic and diaphoretic.

**Aim:** To evaluate the antiinflammatory and anti diabetic property of *Pterocarpus santalinus*.

**Methodology:** The anti-inflammatory activity for *Solanum torvum* gel was tested by the following convention proposed by Muzushima and Kabayashi with specific alterations. Spearman correlation analysis was done with SPSS.

**Result:** *Pterocarpus santalinus* exhibited positive correlation with maximum anti-inflammatory at 50  $\mu$ l concentration and maximum anti diabetic activity at 20  $\mu$ l and 50  $\mu$ l concentration. The obtained data were analysed using spearman correlation analysis and the non parametric correlation was statistically significant at  $p$  value < 0.05.

**Conclusion :** From the present study it can be concluded that *Pterocarpus santalinus* have a good anti-inflammatory at high concentration and anti diabetic at low concentration. This is a relatively novel concept but has good potential in the pharmaceutical industry.

**Keywords:** diaphoretic, anthelmintic, tonic, pharmaceutical industry, innovative technique, green synthesis, eco friendly.

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### PROGRESSIVE METHOD FOR ASSESSING THE COMPONENT HARMONIZATION OF THE COUNTRIES` DEVELOPMENT

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#### ABSTRACT

*The study objective is to propose a progressive method of component harmonization of countries` development applying quantitative and qualitative indicators. The practical application of the harmonization method is considered on the basis of three global indicators: the human development index, the happiness (life satisfaction) index and the ecological efficiency index.*

*The composite development index has been calculated on the basis of the named international indicators applying the standardization method to bring indicators to a single measure, and a multiplicative model which advantage is the possibility of simultaneous consideration and harmonization of low and high values. Calculations have been made for 25 countries. Calculations have been made by three methods of harmonization between integrated development index`s components: the Golden Ratio. The harmonization methods have been applied as the case of Estonia, the EU country, which showed the highest growth of the composite development index (+0,023) and, the EU country, with the lowest growth (+0,01) during 2019-2020s.*

*Based on the Golden Ratio, the differences and lack of interaction between the development components like human development, life satisfaction and environmental efficiency in EU countries during 2019-2020s, as well as their quantitative analysis, have been figured out. Application of the proposed toolkit to study the level of composite development at the EU countries has confirmed the disharmony with the predominance of the human development index. The practical application of the "equilibrium triangle" model to the harmonization of a country's composite development components, has allowed to state that the distances (sides of a triangle) "human development-happiness" and "human development-ecological efficiency" components should be equal. In case of equilateral triangle, the equality of indices meets all distances: "human development- happiness", "human development-ecological efficiency" and "happiness-ecological efficiency".*

*The proposed progressive method of harmonization is universal, because it allows expanding the number of indicators to determine the composite development and use other international indicators determined by the objective of the study. If more than three indicators are applied, then the geometric interpretation of the harmonization will be a regular N angle.*

*Keywords: Harmonization, human development, life satisfaction, ecological efficiency, composite development, Golden Ratio method, equilibrium triangle and equilateral triangle method.*

### SKIMMED MILK AS NOVEL MATERIAL IN ENHANCING AQUEOUS SOLUBILITY OF POORLY SOLUBLE DRUGS

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#### ABSTRACT

Poor aqueous solubility of drugs poses challenge to efficient therapy in disease management following oral route of administration. Among the various strategies employed to enhance solubility, dissolution and availability of poorly soluble drugs in optimum amount in blood circulation, use of different classes of hydrophilic and/or water-soluble substances with varying physicochemical characteristics seems to be a viable option. Skimmed milk is an example of such substance known as carrier which is being explored in the formation of solid dispersions of poorly water-soluble drugs. The present review introduces the concept of solid dispersions to the readers with a brief discussion on different carriers and literature review on skimmed milk-based solid dispersions, their methods of preparation and characterisation and finally culminating with the positive outcomes as a result of the approach.

*Keywords:* Carrier, Skimmed milk, Solid dispersion, Spray drying, Lyophilisation, In vitro drug release, Salt formation.



### AN EMPIRICAL STUDY AND CRITICAL REVIEW OF ENVIRONMENTAL IMPACT ASSESSMENT DRAFT REGULATIONS, 2020 IN INDIA

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#### ABSTRACT

*Environmental Impact Assessment (EIA) is one of the most important and powerful tools for environmental compliance of projects and if implemented in its true spirit, it is very helpful in protecting environment in conjunction with economic growth. There is a constant need to update and upgrade the various regulations that govern the EIA process. Indian government had recently proposed draft EIA regulations, 2020 which received a lot of criticism from environmental experts. This paper is intended to critically examine the various facets of the draft EIA regulations, 2020 and study its weaker points and suggest solutions for improving them. The methodology adopted for this research is twofold. Firstly, it includes a literature review of current EIA regulations, its historical development and present implications. Secondly, direct interview with 42 experts from the fields of environment and policy using an innovative interview questionnaire was conducted to understand their views on the new draft EIA regulations, 2020. Based upon the results of the interview questionnaire, some recommendations have been proposed to refine and improve the draft EIA regulations, 2020 before they are implemented in practice.*

*Keywords: draft EIA regulations 2020; Environmental clearance; Environmental Impact Assessment; Interview questionnaire*



### FORMULATION AND EVALUATION OF ORODISPERSIBLE TABLETS FOR THE TREATMENT OF HYPERTENSION

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#### ABSTRACT

*In this research paper we focus on the preparation of orodispersible tablets of telmisartan because sometimes patients have a remarkable increase in blood pressure and the instantly increase blood pressure may cause inactiveness, restless and anxious. To tackle such complications orodispersible tablets of telmisartan were formulated by direct compression techniques so that rapid onset of action can be produced to lower down the blood pressure in the normal range. Telmisartan belongs to an antihypertensive class of drug which is soluble in phosphate buffer, and other solvents. The bioavailability of telmisartan is about 42-99% which is better than other drugs that belong to the same class. Here we used several super disintegrants such as treated agar, avicel-101, magnesium stearate, etc. Which increases the rate of dissolution and bioavailability of drugs up to optimum level.*

*Keywords: orodispersible tablet, hypertension, telmisartan.*



### RETRIEVAL OF MEDICAL DATA USING FINGERPRINT TECHNOLOGY WITH SURF FEATURES

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#### ABSTRACT

*Biometric systems used for the authentication of medical data. Laws, policies and technological standards are developed to maintain the privacy of the individual. In the proposed algorithm, database images of fingerprint are acquired and analyzed using texture, morphological and SURF features for template formation. These features help in recognizing and matching the templates with the input fingerprint data. Database is designed with the local server technique for the storage of the templates and the medical data of the individual through a web application. Template matching is performed with the input fingerprint to retrieve the medical records of the patient or individual. Biometrics enables a high secured authentication system for the storage and retrieval of the medical data. Efficiency of template matching is defined to more effective with the help of the parameters like True acceptance rate and False acceptance rate. Thus an highly secure and improved authentication is emphasized for the medical records with the biometric systems*

*Keywords: Biometric system; Fingerprint technology; Medical record authentication, SURF features; database; Web application.*



### RETINOBLASTOMA: A CHILDHOOD CANCER– A REVIEW

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#### ABSTRACT

*Retinoblastoma is an ocular cancer which has been very common among children. Retinoblastoma is caused due to mutations in RB and MYCN genes. The mutations in parents are inherited to their children. The mutations can be hereditary and non-hereditary. Retinoblastoma can be in two cases, metastatic and non-metastatic. Metastatic type has been reported in many children. If retinoblastoma untreated it results in loss of vision. The chemotherapeutic drugs like vincristine, carboplatin and etoposide have given better reduction in tumor. When the tumor spreads to other parts like optic nerve, CNS and lymph node it leads to several difficulties in treating the cancer. So, modern therapies have been employed to cure retinoblastoma. RB can be unilateral and bilateral. The drug response of RB is based on its malignancy. The tumor within the eye can be cured and 95% of the patients have recovered. This review focuses in detail about the pathogenesis, symptoms, diagnosis and treatment options available for Retinoblastoma.*

*Keywords: Retinoblastoma, Chemotherapy, Metastasis, RB protein, mutation.*



### CELLULOSIC-ACRYLIC POLYMER BLEND IN DRUG DELIVERY ACROSS SKIN

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#### ABSTRACT

*Delivery of drugs through the skin has been always a challenging area for research due to barrier properties exhibited by the outermost layer of skin. One of the most popular strategy to overcome the barrier property of skin is termed as Transdermal drug delivery system(TDDS). These drug delivery systems in the form of transdermal patches have been designed as an alternative route for drug delivery directly into blood stream. The drug delivery through skin holds several advantages such as maintenance of constant drug level in blood thereby minimizing side effects, improvement of extent of absorption of drug into blood stream by circumventing hepatic first pass metabolism and minimizing wastage of drugs. Polymers play a crucial role in modulating the drug release from transdermal patches. It has been observed that a single polymer is not capable of controlling the rate of release of drug from patch for a prolonged period of time. Polymer blends enable effective and desired modulation of drug release from patches. Polymers employed in fabrication of TDDS can be either Natural, synthetic or Semi-synthetic. The outlook for continued growth of the TDDS market is very optimistic. It is essential to have sufficient knowledge on the properties of the different polymers so as to select the ideal combination of polymers for the design and development of transdermal patches. The present article assembles the comprehensive information on various types of polymers being used for the development of transdermal patches, rational behind the use of combination of polymers with a special emphasis on cellulosic-acrylic polymer blend for the development of transdermal patches.*

**Keywords:** Drug, Polymer, Polymer blend, transdermal patch, cellulosic-acrylic polymer blend.





### A REVIEW ON ESSENTIAL OILS FOR PAIN MANAGEMENT AND ITS APPLICATION ON TEXTILE MATERIALS

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#### ABSTRACT

Muscular pain is a recognized medicinal problem resulting in further non-communicable disease which is widely increasing throughout the world. Muscle soreness may emerge due to infections of the soft tissues, overexertion, inflammatory conditions or injury. There are wide varieties of medicinal plants which help in combating muscular pain. The medicinal plants are used in the form of plant extract or essential oils. Camphor, eucalyptus, lemongrass, clary sage, peppermint, etc. are some essential oils used for relieving muscular pain. Essential oils are used in aromatherapy as a main therapeutic agent. Aromatherapy is derived from the word aroma and therapy which means smell or fragrance and healing of person's soul, body and mind respectively. In addition, essential oils have antibiotic, antiviral and antibacterial properties in it. The usefulness and scope of biomedical-engineered goods have expanded immensely in recent years and textile material offers an outstanding intermediate to bring these biomedical-engineered goods for human's welfare and health. Aroma-therapeutic textiles are value-added functional textiles for the comfort of humans along with their well-being. The aroma-therapeutic textiles influence our olfactory senses and also offer healing assistances to the wearer.

Keywords: muscular pain, medicinal plants, aroma-therapeutic textile, essential oils.



### MACHINE LEARNING BASED ANALYSIS OF THERMAL IMAGES AT ELECTRICAL INSTALLATIONS

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#### ABSTRACT

*The evolution of thermograph technology has been quite beneficial to the power system engineers working at electrical installations, substations and overhead lines. About 20-25% faults are taking place due to loose connections developed at joints at electrical installations. The loose connections are developed at clamps, connectors, spacers, T joints etc. because of factors such as wind pressure, lack of routine maintenance and incidental defect in hardware. In rainy season, the water gets accumulated inside the gap formed by these loose connection. This may cause undesired events such as sparking, flashover and breakdown. This may lead to consumer dissatisfaction due to interruptions, loss of revenue, fatal/ nonfatal accidents and system degradation. Such loose connections are identified well in advance using thermal scanning and the unforeseen event can be avoided. The joint is said to be converted to hot spot above the temperature of 50<sup>o</sup> C. Conventionally the analysis of thermal images is conducted with respect to present value of temperature of the joint. The future values of temperature cannot be predicted by the conventional analysis. This paper proposes a novice method of forecasting temperature using linear regression analysis. Using the proposed method, the hot spots being developed in future can be anticipated. The other parameters such as R<sup>2</sup> method and p-value are also put up. The Python language can be used as an effective programming tool for conducting computational analysis. The proposed method is cost effective and easy for implementation.*

*Keywords: Thermal imaging, Thermograph, Linear Regression*



### MACHINE LEARNING METHODS TO DETECT PNEUMONIA OF LUNGS IN CORONA: A SURVEY

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#### ABSTRACT

The number of patients in world is increasing exponentially day by day due to corona. They have symptoms like fever, cough, shortness of breath and in these patients CT shows lighter coloured or grey patches which is patch ground glass opacity in medical terms. This may lead to Pneumonia and finally results in death. So early detection of Pneumonia is important. The early diagnosis will help to reduce the mortality rate to a great extent. There are several methods to diagnose early. Machine learning and deep learning play an important role in determining the severity of Pneumonia using various datasets like chest X-Rays, CTscans and Lung images. Deep learning method consists of three steps for the detection of Pneumonia. The steps are 1. Detection, 2. Segmentation 3. Classification.

Keywords: ground glass opacity, grey patches



### THE ROLE OF MATHEMATICS AND STATISTICS IN BUSINESS

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#### ABSTRACT

*It is important to understand the basics of business to keep profitable efforts and accurate records. In business, various terms such as management mathematics, statistics, operations research, analytical techniques, basic mathematics and management sciences are used for business decisions. Mathematics and statistics is the soul of any business. There is no doubt that business mathematical concepts play an important role in planning your financial life and achieving it. This paper explains the role of mathematics and statistics in business. The main purpose of this paper is to underline the nature of mathematics and statistics in business.*

*Keywords and Phrases: Business Mathematics, operation research, statistical analysis.*



### THE USE OF REMDESIVIR LEADING TO EMERGENCY USE FOR THE TREATMENT OF COVID-19

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#### ABSTRACT

*The novel Coronavirus infection initially found at the end of the year 2019 has been attracted great attention among the people. So far, the cases has been spreading like a fire across the world and the outbreak has been defined as a pandemic situation, but still now there are some specific drugs to control the spread of corona virus among people. The first medical experience of the patients had led the remdesivir to be specific drug. It is RNA- dependent viral RNA polymerase inhibitor that are used to treat variety of RNA virus infection. Remdesivir is a broad-spectrum antiviral drug which is being tested as a potential treatment for COVID-19. The current evidence about the effects of remdesivir against coronavirus is primarily based on in-vitro and in-vivo studies. Its unique structural features allows higher concentration of tri-phosphate to deliver intercellularly to inhibit viral RNA in humans and zoonotic beta-coronavirus which includes SARS-COV-2. In this review, we provide an overview of coronavirus outbreaks and then summarize the effects and use of remdesivir for the treatment of COVID-19.*

*Keywords: Remdesivir, COVID-19, Antiviral drug, SARS-COV-2.*



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### TO EVALUATE THE RELATIONSHIP BETWEEN LUMBAR LORDOSIS AND FORWARD NECK POSTURE USING RADIATION – FREE MEASUREMENT TOOL

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#### ABSTRACT

**Objective of The Study:** The purpose of the study is evaluating the relationship between lumbar lordosis and forward neck posture using radiation – free measurement tool.

**Background of The Study:** Forward neck posture is the upper extension of the upper cervical vertebrae and forward translation of the cervical vertebrae. It increases compressive loading on tissues in the cervical spine, particularly the facet joints and ligaments. Lumbar lordosis is the inward curve of the lumbar spine. Lordosis can affect the lower back and neck. This can lead to excess pressure on the spine causing pain and discomfort. It can affect the ability to move if it's severe and left untreated. Hence the study was made to correlate the relationship between forward neck posture and lumbar lordosis.

#### Methodology:

**Study Design:** Observational study

**Study Setting:** Physiotherapy students in Dr. MGR Educational And Research Institute University.

**Sample Size:** 100 subjects

**Study Sample Method:** Simple random sampling method **STUDY DURATION:** 4 weeks of duration

#### Inclusion Criteria

- Both men and women
- Age above 18 years
- Age below 40 years
- Subjects with musculoskeletal disorder

#### Exclusion Criteria

- Subjects with structural deformity
- Subjects with general systemic disease
- Subjects with chronic respiratory disease
- Tmj dysfunction
- Torticollis
- Balance disorder
- Pregnant women
- Recent surgery

**Procedure:** 100 subjects were randomly selected based on inclusion and exclusion criteria. The cranio vertebral angle and lumbar lordosis for all the subjects were measured using radiation – free measurement tool. The angles were recorded.

**Keywords:** Digital pelvic inclinometer, pelvic tilt, forward neck posture, lumbar lordosis, radiation – free measurement tool, posture

### EFFICACY OF BRIEF INTERNET BASED PROGRAM TO BOOST EMOTIONAL INTELLIGENCE AMONG ADOLESCENT

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#### ABSTRACT

**Background:** Emotional intelligence is a matter of great interest in cognitive research for a long time. It is defined by WHO as a person's capacity to control ones self and others' feelings, differentiate between them, and Using knowledge to support one's activities, thinking, and understanding.

#### Objectives:

1. To assess the efficacy of brief internet-based program to boost emotional intelligence of adolescent at pre-test.
2. To assess the efficacy of brief internet based program to boost emotional intelligence among adolescent at posttest.
3. To evaluate the efficacy of brief internet based program to boost emotional intelligence among adolescent between pre-test and post-test.
4. To associate the emotional intelligence among adolescent with their demographic variables at posttest.

**Materials and Methods:** The interventional method was used in this investigation. Purposive sampling technique was utilized. In this study 100 adolescents as samples were used and used structured questionnaire as a tool.

**Results:** Findings of the study, In the pre-test findings of the present study shows that 17% of Adolescents scored poorly on knowledge tests, 36% had average, 28% had good, 16% had very good and Only 3% of teenagers had an excellent degree of knowledge. The pretest had a minimum knowledge score of 0 and a maximum knowledge score of 21. In the pretest, the mean knowledge score became  $8.89 \pm 4.60$ . In the pretest, the average percentile score for knowledge was  $40.40 \pm 20.92$ . In the posttest the current study's findings shows that 9% of adolescents had very good and 91 percent of teenagers scored excellent in terms of knowledge. The posttest possessed a minimum level of knowledge score of 16 and a maximum knowledge score of 22. Mean knowledge score in posttest was  $20.77 \pm 1.71$  and mean percentage of knowledge score in post test was  $97.40 \pm 7.77$ . Adolescents' post-test knowledge score is statistically linked to their religion, family type, and educational level.

**Keywords:** Emotional Intelligence, Adolescents, Brief internet based program.

### A STUDY ON EFFECTIVENESS OF SUSTAINED NATURAL APOPHYSEAL GLIDES WITH LEMPERT MANEUVER IN BENIGN PAROXYSMAL POSITIONAL VERTIGO AMONG MIDDLE AGED WOMEN

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#### ABSTRACT

*Benign paroxysmal positional vertigo (BPPV) is one of the most common causes of vertigo or dizziness that is very uncomfortable. It is the sudden sensation that we are spinning or rotating and also the inside of our head is spinning. This occurs generally due to the debris called ear rocks or otoconia which has collected within a part of the inner ear. The symptoms are really distressing that is a feeling of spinning (vertigo), lightheadedness, trouble with balance, nystagmus, nausea and vomiting. Certain types of movement can bring on symptoms. Common triggers are rolling over in bed or looking up while standing. These symptoms can vary in how often they happen and how severe they are. In some people, these symptoms are so severe that they disrupt personal and work life. Very often, the symptoms go away and then come back weeks or months later. It is more common in middle-aged women. The ratio of females to males is 3:1. This study aimed to determine the efficacy of sustained natural apophyseal glides (SNAGs) with Lempert Maneuver in the treatment vertigo. Convenient samples of 30 subjects from the middle aged women who are diagnosed with Dix hall spike test and horizontal roll test positive are selected. The experimental group was treated with Sustained natural apophyseal glides with Lempert maneuver. The control group was treated with Conventional physiotherapy of vestibular exercises. After the six to eight weeks of the treatment session the scores on the Dizziness Handicap Inventory (DHI) and there is decreased frequency of dizziness or vertigo for the experimental group who undergone the SNAGS with Lempert Maneuver compared to the conventional vestibular exercises.*

*Keywords: Middle aged women, BPPV, Vertigo, SNAGS, Lempert Manueuver, DHI*



### ENVIRONMENTAL CHALLENGES

**R D Vaidkar\*, V K Khobarkar\* and N V Shende\*\***

\*Assistant Professor and \*\*Professor, Dr PDKV, Akola, Maharashtra, India

#### ABSTRACT

*The biggest issue facing the environment is over population of humans. The global population has more than tripled in the last 60 years placing stress on every aspect of the environment. Ever increasing area of land is being taken up by urbanization and human settlements to accommodate the fast growing population.*

*Currently, one third of humans have inadequate access to clean, fresh water. The number is expected to increase up to two thirds by 2050. Some experts believe that in the near future water will become a commodity just like Gold and Oil. Some experts say that wars will be fought over who owns the water supply.*

*In India, water availability is becoming increasingly crucial because per capita availability of water in the country has sharply declined as a result of population growth.*

*The latest measurements show that the average sea level is currently 50 mm higher than in 1993. According to a United Nation's forecast, sea levels are likely to rise well over 50 cm by 2100, posing serious threat to coastal communities. Half of the 10 largest cities in the world, including Mumbai, Kolkata, New York City, French Rivera and one-third of the world's 30 largest cities are already threatened by sea level rise.*

*Environmental conservation and effective use of ecosystem services must receive highest priority and should be the under lying theme of all development activity. We have to make an all-out effort to decarbonize the economy, increase resource use efficiency, protect biodiversity and ecosystem services for the benefit of present and future generations.*



### INDIAN AGRICULTURE AND GROWTH

**R D Vaidkar\*, V K Khobarkar\* and N V Shende\*\***

\*Assistant Professor and \*\*Professor, Dr. PDKV Akola, Maharashtra, India

#### **ABSTRACT**

*The need to prioritise the use of new technologies, including drones and AI-based decision support systems, and pitched for increasing agriculture research and organic farming*

*Focus should be on use of new technology including drones and AI-based decision support systems, reduction in use of chemical fertilizers and use of low-cost organic inputs and supporting startups for innovations*

*An increased focus on harnessing the potential of the allied activities, pointing out that animal husbandry, dairying, fisheries and wages have helped increase incomes as farm holdings have fragmented. The average size of household ownership holdings fell to 0.512 hectares in 2019 from 0.592 hectares in 2013 and 0.725 hectares in 2003.*

*In view of this fragmentation, it called for increased focus on the development of small farm technology and boosting non-farm businesses.*

*Pointing to a direct correlation between capital investments in agriculture and its growth rate, it called for a focused and targeted approach to ensure higher public and private investment in the sector.*



### ERA CONNECTING NANO TECHNOLOGY WITH AGRICULTURAL SUSTAINABILITY: ISSUES AND CHALLENGES

**Sana Altabbaa<sup>1</sup>, Nitika Thakur\*, Gunika Jagga<sup>2</sup> and Kamel Haydar Haydar<sup>3</sup>**  
PhD Scholar<sup>1</sup>, Assistant Professor\*, Student<sup>2</sup> and PhD Scholar<sup>3</sup>, Shoolini University, Solan, Bajhol, H.P,  
India

#### ABSTRACT

*Access to sufficient quantities of safe and nutritious food is the key to livelihood and to promote good health. Foods containing viruses, bacteria, chemicals or harmful parasites, those considered unsafe foods and can cause more than 200 diseases ranging from diarrhea to many type of cancer. The food which we consume daily connects us to a great global web of food manufacturers, farmers, traders, and other people who are involved in getting food from the farm to the fork. Most of people probably don't stop thinking about this issue while biting into a piece of vegetables, and fruits or a slice of bread, but the global food system is the most importance of the biggest problems that facing humanity. This review provides a detailed overview of using smart nano materials advantages in systems such as improving the complex systems response by establishing systems of early warning, enhancing the conditions of survivability range and/or providing adaptive response to deal with unexpected situations and conditions. also it can provide enhancements such as minimize the responses distortion, increase the precision and providing better system control. These enhancements could lead to improving the new geometries design and performance for special applications. In further to Improving the system functionality by performance optimization and proper preventive maintenance. Also Using smart nano materials has important impact on processing and manufacturing techniques by improving the system health monitoring and better control of its adaptive, active or smart functions.*

*Keywords: Livelihood, Diseases, Smart nano materials, Food system, Complex systems response.*

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### IN VITRO EVALUATION OF ANTIBACTERIAL ACTIVITY OF ETHYL ACETATE EXTRACTS OF PLECTRANTHUS AMBOINICUS (LOUR.)

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#### ABSTRACT

*Plectranthus amboinicus* Lour., (Lamiaceae) is commonly known as Indian / country borage. In Sanskrit it is called as Parnayavani and in Kannada as Dodda pathre. It is a folkloric medicinal plant and its leaves are used to treat malarial fever, hepatopathy, renal and vesical calculi, cough, chronic asthma, hiccough, bronchitis, helminthiasis, colic convulsions, epilepsy, etc. Microorganisms such as virus, bacteria, fungi and protozoa are well-known to cause various human diseases. Many infections need treatment through antimicrobial drugs to prevent them from spreading further and causing complications. The spread of drug resistant pathogens is one of the most serious threats to successful treatment of microbial diseases. Down the ages, essential oils and other extracts of plants have evoked interest as sources of natural antimicrobial agents. They have been screened for their potential uses as alternative remedies for the treatment of many infectious diseases. In the present study, the antibacterial activity of ethyl acetate extracts of the *P. amboinicus* leaves was studied by cup diffusion assay method against pathogenic bacteria such as *Bacillus subtilis* MTCC 441, *Listeria monocytogenes* MTCC 839, *Staphylococcus aureus* MTCC 3160, *Streptococcus pneumoniae* MTCC 2672 (Gram positive bacteria); *Enterobacter aerogenes* MTCC 7661, *Escherichia coli* MTCC 1560, *Klebsiella pneumoniae* MTCC 7407, *Proteus vulgaris* MTCC 7299, *Salmonella enterica* ser. typhi MTCC 8767 and *Shigella flexneri* MTCC 9543 (Gram negative bacteria). The ethyl acetate extract of *P. amboinicus* leaves had a potential antimicrobial activity against all the microorganisms tested at all the concentrations screened - 2.5 mg/ml, 5.0 mg/ml, 7.5 mg/ml and 10 mg/ml. It therefore suggests that *P. amboinicus* extracts could serve as a source of novel drugs useful in the chemotherapy of many bacterial diseases caused by drug resistant bacteria. However, requires further research for effective exploitation of *P. amboinicus* plant for novel antibacterial drug production.

**Keywords:** *Plectranthus amboinicus*, antibacterial activity, ethyl acetate extract, cup diffusion assay

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### IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN LABORATORY MEDICINE

**Dr. Ashish P. Anjankar<sup>1\*</sup> and Roshan Kumar Jha<sup>2</sup>**

Professor<sup>1</sup> and Tutor<sup>2</sup>, Department of Biochemistry, Jawaharlal Nehru Medical College, WardhaDattaMeghe Institute of Medical Sciences (Deemed to be University), Wardha, India

#### ABSTRACT

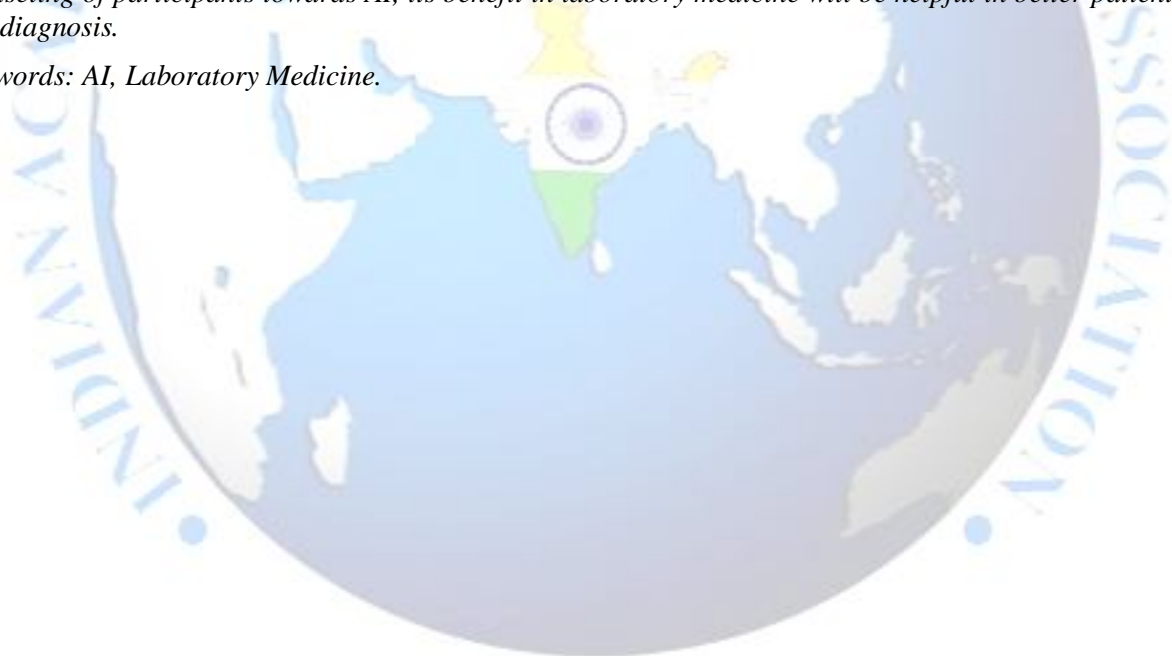
*Introduction:*In advancing health care, evolution of Laboratory medicine is necessary to overcome the need of accurate, readily available and relative data within appropriate time window, we see towards Artificial Intelligence (AI) in laboratory medicine. Introduction of AI in health care is practice of complex algorithms and software to compete with human intellect in analysis, diagnosis, and research and so on.

*Methods:*A Google Form based survey on the use of AI in laboratory medicine was designed in several independent steps. First, 123 Participants were shortlisted into online discussion board, they were introduced to AI, along with its benefit and limitation in laboratory medicine. Direct content analysis was used to analyze the close-ended questions. Competent Doctors and Psychologist independently screened the answers and drafted a rough framework of themes.

*Results:*Our participants with positive attitude believe AI In laboratory will have benefit with proper training and better IT support. It is also time saving, accurate and cost effective for the diagnostic purposes.

*Conclusion:*General practitioner and laboratory expertshave an obligation to uphold AI implementation. As attitude towards adoption of AI were found the major factor in AI Implementation and use. Further counseling of participants towards AI, its benefit in laboratory medicine will be helpful in better patient care and diagnosis.

*Keywords:* AI, Laboratory Medicine.



# ABSTRACT

## 2<sup>nd</sup> International Conference on Science, Technology And Innovation

Organized By Indian Academicians And Researchers Association

On 6<sup>th</sup> February 2022

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### FEMINIST PERSPECTIVE ON ABORTION AND MOTHERHOOD

**Kanika Khari**

Research Scholar, Department of Philosophy, University of Delhi

#### ABSTRACT

*Feminist movement began in the mid of 1900s in order to bring down the inequality of power in the gender-specific system. This movement has employed abortion as its focus in extending the liberation of women. But by giving so much attention to abortion movement has left some women devalued for making a choice to have children. Recently, motherhood has been seen as an important aspect of the feminist theory. Therefore, it has become necessary to re-look at the abortion debate in consideration of the intrinsic value of motherhood.*

*Keywords: Abortion, feminism, motherhood, pro-choice feminist.*



### TEACHING: AN OVERVIEW

**Dr. Debabrata Bhattacharjee**

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Department of Secondary Education, Govt. of Tripura, India

#### ABSTRACT

*Teaching is a very specified activity where general and behavioural objectives are pre-determined and the entire teaching phases have their context specific correlation as pre-active phase, inter-active phase and post-active phases are very closely inter-related. Hence, the success or failure of teaching in terms of attainment of educational objective is solely relies upon teaching and for that aspect effectiveness in teaching is needed and it requires competent teachers who can well organize and manage the entire phase of teaching. The paper focuses on various core and peripheral issues of teaching so that the pertinent issues related with teaching can be comprehended. Since, teaching is a very specified activity and learning outcomes of the learners are depended on teaching, so teaching should be very scientific and learning objective oriented so that the qualitative outcome of learning can become possible.*

*Keywords: teaching, learner, competency, perception, learning-outcome*



### INTUITIONISTIC L-FUZZY SOFT NORMAL SUBHEMIRINGS OF A HEMIRING

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<sup>1</sup>Assistant Professor, Department of Mathematics, Periyar University PG Extension Centre, Dharmapuri-636701

<sup>2</sup>Research Scholar, Department of Mathematics, Periyar University, Salem –11

#### ABSTRACT

In this paper we investigate Intuitionistic L-Fuzzy soft normal subhemirings of a Hemiring. The purpose of the study is to introduce the concept of Intuitionistic Fuzzy set with L-Fuzzy soft normal subhemirings in a Hemiring. Here we implement the concept of strongest Intuitionistic L-Fuzzy soft relations, homomorphic preimage, composition operation and some of its related properties are analyzed.

2000 AMS SUBJECT CLASSIFICATION: 05C38, 15A15, 05A15, 15A18.

Keywords: Soft set, Fuzzy soft set, L-fuzzy set, L-fuzzy soft subhemiring, Intuitionistic L-fuzzy soft subhemiring, Intuitionistic L-fuzzy soft normal subhemiring, pseudo L-fuzzy soft coset.





### ELECTROCHEMICAL SENSORS FOR ENVIRONMENTAL MONITORING

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Department of Physics, R.B. Attal Arts, Science and Commerce College Georai, Dist. Beed-431127

#### **ABSTRACT**

*Electrochemical sensing devices have a major impact upon the monitoring of priority pollutants by allowing the instrument to be taken to the sample (rather than the traditional way of bringing the sample to the laboratory). Such devices can perform automated chemical analyses in complex matrices and provide rapid, reliable and inexpensive measurements of a variety of inorganic and organic pollutants. exciting electrochemical research, this many important advances in electrochemical sensor design and development for environmental monitoring purposes.*

*Keywords: Conducting Polymer, electrochemical method UV Spectroscopy, FTIR and SEM*



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### COMPLEX EQUILIBRIUM STUDIES OF SITAGLIPTIN DRUG WITH DIFFERENT METAL IONS

Ganesh Babasaheb Akat<sup>1</sup> and Dr. B.K. Magare<sup>2</sup>

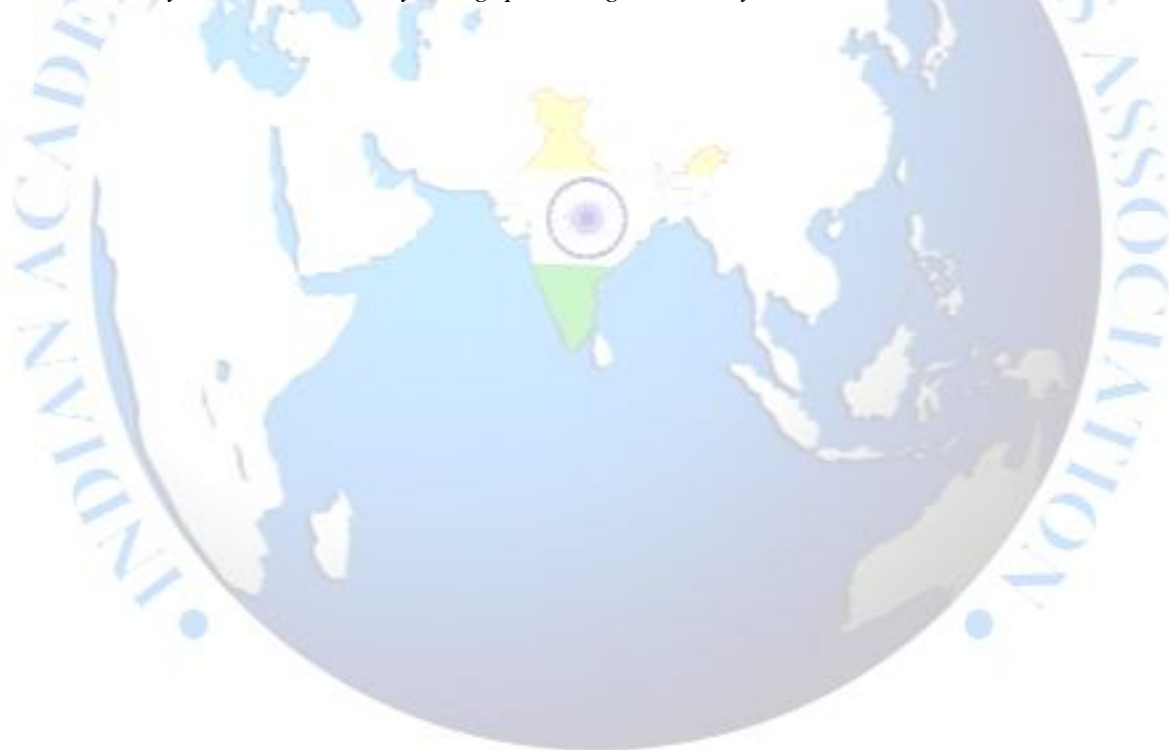
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<sup>2</sup>Shivaji College Kannad. Dist. Aurangabad (M.S.) 431103 India

#### ABSTRACT

*In this paper, the determination of stability constants of Sitagliptin drug with the transition metal ions such as Cu(II) & Ni(II) employing PH metric measurement technique in 20%(v/v) water-ethanol mixture at various temperature conditions and specific ionic strength of 0.1M Sodium perchlorate have been carried out. The pH metry is a useful and successful system utilized for metal complex estimations. The Calvin and Bjerrum method, which Irving and Rossotti further modified, was used to determine the metal-ligand stability constant values (logK). It was practical to find that a transition metal ion forms 1:1 and 1:2 complexes. The thermodynamical parameters Free energy (G), Enthalpy (H) and Entropy (S) were calculated from values of stability constant at various temperatures. The synthetic methodology of metal complexes was found to be spontaneous in nature. Sitagliptin is a drug used to cure diabetic patients of type 2 and it belongs to the class of new therapeutic called dipeptidyl peptidase inhibitors.*

*Keywords: Stability Constant, PHmetry, Sitagliptin Drug, Thermodynamic Parameter, DPP.*



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### MIXED LIGAND COMPLEX FORMATION OF COPPER (II) WITH SOME AMINO ACIDS AND METOPROLOL

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#### ABSTRACT

The pH metric stability constant of ternary metal complexes of Cu (II) ion has been determined in an 80% (V/V) ethanol water medium at 27 °C with medicinal drug Metoprolol as primary ligand and various biologically relevant ligands such as amino acids. The distributions of concentrations of different species produced in solution were investigated. The stability of ternary complexes follows the Irving–William's order of metal ions, which was quantitatively ( $\log K$ ,  $\log X$ , and % RS) contrasted to their binary complexes. The stability of the complexes and electronic spectra at various pH intervals were used to determine the molecular geometry of the complexes produced in solution between the ligands and Cu (II). Cyclic voltammetry was used to examine the production of complexes as well as their electrochemical characteristics. The ternary complexes' biological activity was examined in vitro against bacteria, fungus, and yeast.

Keywords: Stability constant,  $\Delta\log K$ ,  $\log K$ , Mixed ligand complex.



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### REFRACTIVITIES AND POLARIZABILITY CONSTANTS STUDY OF TAMSULOSIN & LAMIVUDINE IN METHANOL AND ACETONE MEDIA

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#### ABSTRACT

Molar refractivities, molar polarizability constants and refractive indices Lamivudine, also called Epivir-HBV, it also cures infection of hepatitis B. This belongs to a class of drugs called nucleoside reverse transcriptase inhibitors (NRTIs). It works by decreasing the amount of HIV and hepatitis B in the blood. Tamsulosin belongs to a class of drugs called alpha-enzyme blockers. It is used to treat men with symptoms of benign prostate enlargement. It is also occasionally taken to treat kidney stones. This has been examined in Methanol and Acetone at varying concentrations ( $0.63 \times 10^{-3}$  to  $10.00 \times 10^{-3}$  M) and temperatures of 27 °C ( $\pm 0.1$  °C). The above system's molar refraction was computed theoretically. These observations were used to compare experimental and theoretical molar refraction values. The molar refractivity (R) and molar polarizability ( $\alpha$ ) values reduce the solute concentration.

Keywords: Molar refraction, Refractive indices, polarizability constants, Abb's Refractometer, THF, (3CT) Lamivudine, Tamsulosin.



### THE LAW OF SOWING AND REAPING IN MANGGARAI LANGUAGE (A CULTURAL LINGUISTIC ANALYSIS)

**Fransiskus Bustan and Tans Felix**

Lecturer of Nusa Cendana University Kupang

#### ABSTRACT

*This study examines the law of sowing and reaping in Manggarai language in view of cultural linguistic perspective by referring specifically to the form and meaning of linguistic units used in the traditional expression of Manggarai language along with the conceptualization of Manggarai society. The research is descriptive. The results of study show that the law of sowing and reaping in Manggarai language is reflected in the form and meaning of linguistic units used in the traditional expressions of Weri latung gok latung, weri woja ako woja 'Planting corn, harvesting corn, planting rice, harvesting rice'. In terms of the form of linguistic units used, the traditional expression is a compound sentence and, along with the discursive context of its use, the sentence is a sentential metaphor. The word classes functioning as the subjects are nominal metaphors especially plant metaphors, as reflected in the words latung 'corn' and woja 'rice'. As conceptualized in the cognitive map of Manggarai society, the traditional expression implies didactic meaning that what we sow is also what we will reap, that is if we sow the good, we will also reap the good, or vice versa, if we sow the bad, we will also reap the bad. Regardless the difference in the choice of words, the meaning is universal as it applies to all societies on this earth.*

*Keywords: law, sowing, reaping, Manggarai language*



### THE FEATURES OF HUMAN METAPHORS IN THE RAI DIALECT

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<sup>1</sup>The Lecturer of Department of Language and Arts Education, Tadulako University Palu

<sup>2</sup>The Lecturer of Study Program of English Education, Nusa Cendana University Kupang

<sup>3</sup>The Lecturer of Study Program of English Education, Nusa Cendana University Kupang

#### ABSTRACT

*This study investigates the features of human metaphors in the Rai dialect as one the dialects of the Kaili language in view of cultural linguistics as a new theoretical perspective in cognitive linguistics exploring the relationship of language, culture, and conceptualization. This is a descriptive study. The methods of data collection were observation, interview, and documentary study, while the techniques of data collection were recording, elicitation, and note-taking. The sources of data were the members of Rai ethnics represented by three key informants. Data were analyzed qualitatively by using inductive method. The result of study shows that the features of human metaphor in the Rai dialect are unique and specific, as reflected in the forms and meanings of the linguisti units used in such verbal expressions of mata nuue, vivi ntalinti, puse ntasi, and pa'a nubulu. It is expected that the results of study might be beneficial to support the study of language belonging to a society as members of a social group along with the function of language they employ as the mirror of their culture as well as the window of their world.*

*Key words: feature, human metaphor, the Rai dialect*



### PHARMACOGNOSTIC AND PHYTOCHEMICAL EVALUATION OF ANDROGRAPHIS SERPHYLLIFOLIA (ROTTLE.X VAHL.) WT.

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<sup>3</sup>Department of Pharmaceutical Chemistry, Jawaharlal Nehru Technological University, Ananthapuram, A.P., 515002, India

#### ABSTRACT

*Andrographis serphyllifolia*(Rottl.ex Vahl.) Wt. belonging to the family Acanthaceae is widely used as an herbal drug in treating various diseases in India. In spite of the immense usage, there is no scientific data available regarding the quality standards which may adversely affect the therapeutic properties of the *Andrographis serphyllifolia*(Rottl.ex Vahl.) Wt. Therefore the present study is designed for establishing standards by carrying out pharmacognostic study and screening for phytoconstituents. The pharmacognostical profile includes anatomy of leaf, stem and root; study of quantitative microscopical characters; fluorescence study of the crude drug; physical parameters; extractive values; phytochemical screening showed the presence of major phytoconstituents. Quantitative estimation of total phenolics and flavonoid content by RP-HPLC is demonstrated. In anti-oxidant assay ethanol extract of *Andrographis serphyllifolia*(Rottl.ex Vahl.) Wt. showed excellent scavenging activity. The study reports for the first time, the standardization of the *Andrographis serphyllifolia*(Rottl.ex Vahl.) Wt. drug and the results can be considered as standard in Indian Pharmacopeia

**Key words:** *Andrographis serphyllifolia*(Rottl.ex Vahl.) Wt., pharmacognostic, phytochemical screening, RP-HPLC, anti-oxidant

### EDGE COMPUTING TECHNOLOGY: AN OVERVIEW

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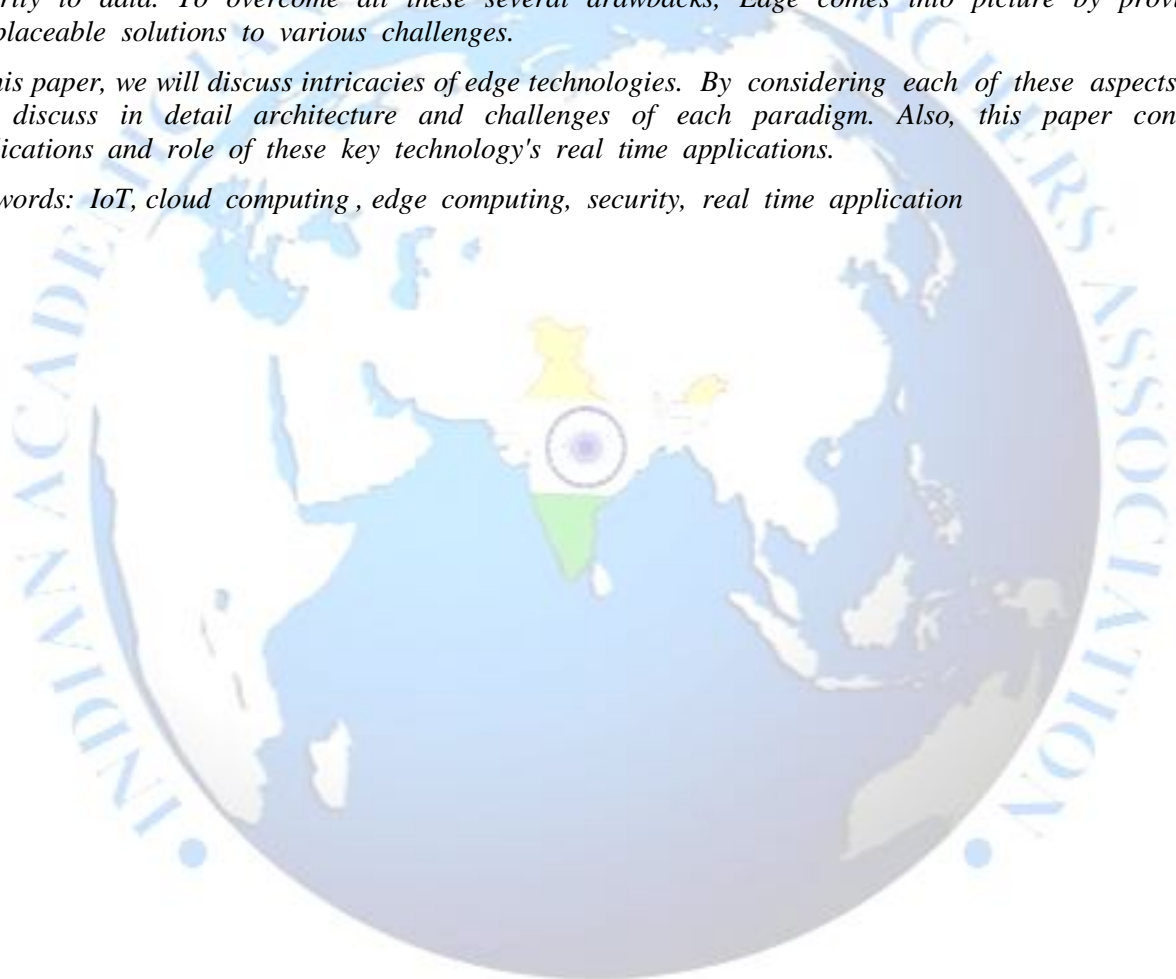
<sup>2,3,4</sup>Computer Engineering, Dr. D. Y. Patil Polytechnic Kolhapur, India

#### ABSTRACT

Now a days, with speedy deployment of IoT (Internet of Things), industries, healthcare, transportation etc. billions of sensors, storage devices produces huge amount of data to make comfort in human life. Such massive amounts of data processed by, cloud computing technology. On other hand, traditional centralized cloud computing facing several challenges, like high delay, high latency, huge utilization of bandwidth, poor efficiency, high utilization of bandwidth, less elevated security to data. To overcome all these several drawbacks, Edge comes into picture by providing irreplaceable solutions to various challenges.

In this paper, we will discuss intricacies of edge technologies. By considering each of these aspects, we will discuss in detail architecture and challenges of each paradigm. Also, this paper contains applications and role of these key technology's real time applications.

*Keywords:* IoT, cloud computing , edge computing, security, real time application





### **BEST PRACTICES IN TEACHER EDUCATION INSTITUTIONS OUTCOME BASED EDUCATION - ONE OF THE BEST PRACTICES AT VISTAS**

**Dr. V. Girija**

Associate Professor, Vels Institute of Science Technology and Advanced Studies

#### **ABSTRACT**

*The overall purpose and intent of the bench marking Best practice is summarized as the development of an understanding of the fundamentals that lead to success, focus on continuous improvement efforts and management of the overall change process to close the gap between an existing practice of the institution and that of the best in class institutions. The two major bodies that are responsible in India for Higher educational accreditation are National Board of Accreditation (NBA) and National Assessment and Accreditation Council (NAAC). It is mandatory for the institutions to publish the status of accreditation on the official website, so that the stakeholders, students, parents may know about the infrastructure and other important details about the institution before enrolling. This will also help the institutions to go for a National Institutional Ranking Framework (NIRF) that will help them compete with other premier institutions globally. Outcome based education is a theory that bases education around pre-defined goals(outcomes). By the end of the educational experience, each student is expected to have achieved the goal. It is a holistic approach to convert a student into a great person, based on desired outcomes and defined goals. The Vision and Mission of School of Education, VISTAS syncs with Outcome Based Education. Therefore as one of the Best Practices, Outcome-Based Education is followed in the School of Education, VISTAS. In this paper, the measurement of attainment of COs and POs. for a sample course- Pedagogy of Commerce for the year 2018 is shown.*



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### **DIOSCOREA BULBIFERA MODULATES THE ANTIMICROBIAL ACTIVITY OF GENTAMICIN AND CIPROFLOXACIN: AN IN-VITRO STUDY**

**Ashlesha Mali\*, Priyanka Mahadik, Neha Ingle, Dr. Vaishali Undale**

Department of Pharmacology, Dr. D. Y. Patil Institute of Pharmaceutical Sciences and Research, Pune, Maharashtra India 411018

#### **ABSTRACT**

*Background & Objective- Antimicrobial infection is the major cause of infectious diseases which can lead to morbidity and mortality. The problem with current antibiotics is the risk of development of resistance due to irrational use. One of the approaches to reduce the emergence of antibiotic resistance may be the use of herbal drugs concomitantly. Dioscorea bulbifera has been proven for the anti-microbial activity but its MIC (Minimum Inhibitory Concentration) is not evaluated yet. Therefore, in this experiment, the MIC and the herb-drug interaction are being evaluated. The objective of this study is to evaluate the pharmacodynamics interactions of Dioscorea bulbifera with other antibiotics such as Gentamicin and Ciprofloxacin.*

*Material and Method: 1) The MIC study of Dioscorea bulbifera has been done by a two-fold dilution method. 2) The zone of Inhibition study of Dioscorea bulbifera has been done to evaluate the interaction between Dioscorea bulbifera and Gentamicin & Ciprofloxacin.*

*Results: The results of the MIC study showed that the hydro-alcoholic extract of Dioscorea bulbifera was able to prevent the growth of S.aureus, at the concentration of 224µg/ml. The herb-drug interaction study suggested that Dioscorea bulbifera has shown a synergistic effect with Gentamicin and an antagonistic effect with ciprofloxacin.*

*Conclusion: Hydro-alcoholic extract of Dioscorea bulbifera at a concentration of 224µg/ml has antimicrobial activity against S.aureus. The overall results of the present Zone of inhibition study provided evidence that the Dioscorea bulbifera has a synergistic action with Gentamicin and an antagonistic effect with Ciprofloxacin. A further detailed mechanistic study needs to be explored for the potential use of Dioscorea bulbifera as an adjuvant to potentiate the action of Gentamicin so that this will help to reduce the toxicity and the antimicrobial resistance of the Gentamicin.*

*Keywords: Dioscorea bulbifera, MIC, gentamicin, ciprofloxacin, zone of inhibition.*

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### MASS ATTENUATION COEFFICIENTS AND EFFECTIVE ATOMIC NUMBER OF YATTRIUM OXIDE (Y<sub>2</sub>O<sub>3</sub>) AT ENERGIES 122 KeV To 1330 KeV

**Pradip Dahinde**

Department of Physics, R.B. Attal College Georai – 431127

#### ABSTRACT

*In the present study, the mass attenuation coefficient ( $\mu_m$ ) of Yattrium Oxide (Y<sub>2</sub>O<sub>3</sub>) has been calculated in the energy range 122–1330 keV and compared with the obtained values from the WinXCOM program. It is found that there is a good agreement between theoretical and experimental values (o3%). The linear attenuation coefficients ( $\mu$ ) total atomic cross section ( $\sigma_t$ ), and total electronic cross section ( $\sigma_e$ ) have also been calculated from the obtained ( $\mu_m$ ) values and their variations with photon energy have been plotted. From the present work, it is observed that the variation of obtained values of  $\mu_m$ ,  $\mu$ ,  $\sigma_t$  and  $\sigma_e$  strongly depends on the photon energy and decreases or increases due to chemical composition and density of the sample. . The selected samples were thoroughly examined using the transmission method in order to determine whether the material could be used for radiation dosimeter.*

*Keywords: attenuation coefficient; total atomic cross sections*



### A REVIEW ON ISSUES AND PROBLEMS OF WOMEN ENTREPRENEURS IN MICRO, SMALL AND MEDIUM ENTERPRISES IN INDIA

**Dr Pratima Singh**

Principal, Chandrabhan Sharma College of Arts, Science & Commerce, Mumbai

#### **ABSTRACT**

*The image of women as home makers who has very little to do with the economy is shifting in modern India. Number of women is now taking over entrepreneurial activity especially in micro, small and medium scale enterprises. But this shift from homemaker to business woman is not easy. Though the entrepreneurial path is the same for both men and women, however, in practice, several problems are faced by women, which are of different dimensions that restrict them from realizing their full potential as an entrepreneur.*

*Keywords: Micro, Small and Medium Enterprises, Women Entrepreneurs, Economic Development, Challenges, Issues and Problems*



### A REVIEW ON WOMEN ENTREPRENEURSHIP: EVIDENCE FROM INDIA

**Dr Aruna Singham**

Assistant Professor, B.L. Amlani College, Mumbai

#### **ABSTRACT**

*Today, women play a vital role in the socio economic development of the nation. They are involved in multiple businesses thereby making very important contributions to economic progress of the nation. Women entrepreneurs also create employment opportunities. As per the Government of India, any entity which has minimum 51 percent share and is controlled by women is considered as women enterprise. As per estimated nearly 25 percent of entity are registered by women's. It is also observed that more and more females are enrolling for entrepreneurship Programs. Women's entrepreneurship has picked up force in last few years with an expansion in the variety of ventures run by women. Moreover, with more and more women pursuing skilled, technical education and with the appearance of mass media, women are now more awake of their rights to be financially independent. This paper seeks to discuss on women entrepreneurs, the challenges they come across and factors that encourage them to begin their own business.*

*Keywords: Women Entrepreneurs, financial Interest, independent.*



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### ASSESSING TALENT MANAGEMENT STRATEGIES IN PUBLIC AND PRIVATE SECTOR BANKS

Poornima Thakur<sup>1</sup> and Dr. (Mrs.) Archana Agrawal<sup>2</sup>

<sup>1</sup>Ph.D Scholar, Dr. C.V. Raman University kota Bilaspur 495001 (C.G.)

<sup>2</sup>Associate Professor, Commerce & Management, Dr. C.V. Raman University Kota Bilaspur 495001 (C.G.)

#### ABSTRACT

*Usually the bank job is considered safe and secure, but not very demanding in terms of work output. It is difficult to fire an employee for non-performance. Banking is like any other business and the staffs have to carry out multifarious activities. Some of these activities are specialist in nature. At the same time some of the activities are in no way related to banking competencies and could be outsourced. Banks need to make some institutional changes to adapt to the markets. In this study various programmes and strategies framed by the banks for attracting, hiring and retaining the employees have been discussed. Further, the role of government in this area has also been explored.*

**Keywords:** Talent management, Strategies, Public banks, Private Banks, Banking programmes.



### AN ANALYSIS OF HYBRID MAXIMUM POWER POINT TRACKING CONTROLLER FOR PARTIALLY SHADED PHOTOVOLTAIC SYSTEM WITH BOOST AND CUK CONVERTER

Angkoo Deep Nath<sup>1</sup> and Dr. Barnali Goswami<sup>2</sup>

Masters of Technology and Professor, Electrical Engineering, Assam Engineering College, Jalukbari, Guwahati, 781013, Assam, India

#### ABSTRACT

The main aim of every individual is to keep our environment safe and green, and when the word green comes into action, Photovoltaic (PV) energy generation has drawn interest in several researchers' minds in this fast progressing world. In PV systems, the long strings of photovoltaic modules are found to be affected during shading conditions. Hence, there is a significant reduction of power in the output end. To overcome this, a Hybrid maximum PowerPoint-tracking(abbreviated as HMPPT) scheme has been proposed by various researchers. In the HMPPT scheme, DC-DC converters act as an intermediate connection between the PV module and the load . The DC-DC converter is run by the duty cycle which is controlled by the HMPPT controller for the extraction of power at the maximum peak using a conventional and meta-heuristic algorithm. The development of a Hybrid maximum power point tracking photovoltaic system enables us to overcome the issues of Maximum power point tracking during that condition where partial shading of the PV system occurs. The output of the HMPPT controller which emphasis extracting maximum power at the output terminal with the better convergence time has been studied in the present work.

**Keywords:** Photovoltaic, Hybrid Maximum power point tracking, Metaheuristic Algorithm, FPA(Flower pollination algorithm), PSO(Particle swarmoptimization), PO(Perturb and observe)



### FORECASTING USING SHORT TERM INTEREST RATES IN INDIA

**Dr. Koel Roy Choudhury**

S.I.E.S (Nerul) College of Arts, Science and Commerce, Nerul, Navi Mumbai, 400706

#### ABSTRACT

Short term interest rates are one of the most important economic variables in any financial system. Forecasting interest rates is of great concern to investors and policy makers because it affects investment and saving behaviour of individuals, financial institution and policy makers. The rationale of this research article is to develop an appropriate model for forecasting short term interest rates in India. The Call rates, CBLO rates and Market repo rates are analyzed for this purpose. The short term returns are forecasted using Random walk, ARMA, ARMA-GARCH and ARMA-TGARCH. The results show that the returns have volatility clustering and GARCH based models are more appropriate to forecast than the other models. It is found that for call returns, ARMA-TGARCH model is the most appropriate model for forecasting and for CBLO returns and Market repo returns, ARMA-GARCH is the most appropriate model for forecasting

*Key Words:* Short Term interest rates, Volatility, Forecasting, ARMA, ARMA-GARCH





### STUDY OF ENHNO MEDICINAL PLANTS USED FOR SKIN DISEASES IN THE DISTRICT SEONI OF MADHYA PRADESH, INDIA

**Praveen Parate and Naureen S. Khan**

Department of Botany Dr. C.V. Raman University Kargi Road, Kota, Bilaspur (C.G.)

#### ABSTRACT

Human skin, the outer covering of the body is the largest organ in the body. It also constitutes the first line of defense. Skin diseases occur worldwide and amount to approximately 34% of all occupation disease encountered. Skin diseases are numerous and a frequently occurring health problem affecting all ages from the neonates to the elderly and cause harm in number of ways. A large sector of society in this region entirely depends on the medicinal plants for their primary health care needs. Keeping in view, the immense importance of medicinal plants ethno-botanical survey by taking questionnaire with the traditional healers (Baigas) of different regions of seoni district (Tehsils.- Barghat, kurai, dhanora ,keolari, Chhapara, Lakhanadona) has been conducted. 134 plants were collected and identified by following taxonomic keys. Out of which 13 species were found endangered, 19 species were vulnerable, 14 species were near threatened, 21 specie was at low risk (least concern) and rest were rare and common in occurrence. Some of the dominant species of high medicinal values were *Aloe vera* (linn.)Burm.f.(Gavarpatha) *punica* *Granatum* linn. (Anar) ,*Curcuma longa* Linn, (Haldi), *Azadirachta indica* (Neem) etc. Findings of the study has reflected remarkable role of traditional healers in terms of highly specific indigenous knowledge. This study has not only provided recognition to the undocumented knowledge but also dragged the attention towards the conservation of such rare, gradually vanishing important medicinal plants, source for uncountable remedies. (Collecting, identifying and studying medicinal plants used in skin disease through survey in seoni district and the work start of the herbarium seat of the plant. About 140 plants have been found out of which only 40 plants identify in the table).

**Keywords:** Skin diseases, medicinal plants, patents, active ingredients

# ABSTRACT

2<sup>nd</sup> International Conference on Science, Technology And Innovation

Organized By Indian Academicians And Researchers Association

On 6<sup>th</sup> February 2022

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# ABSTRACT

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# ABSTRACT

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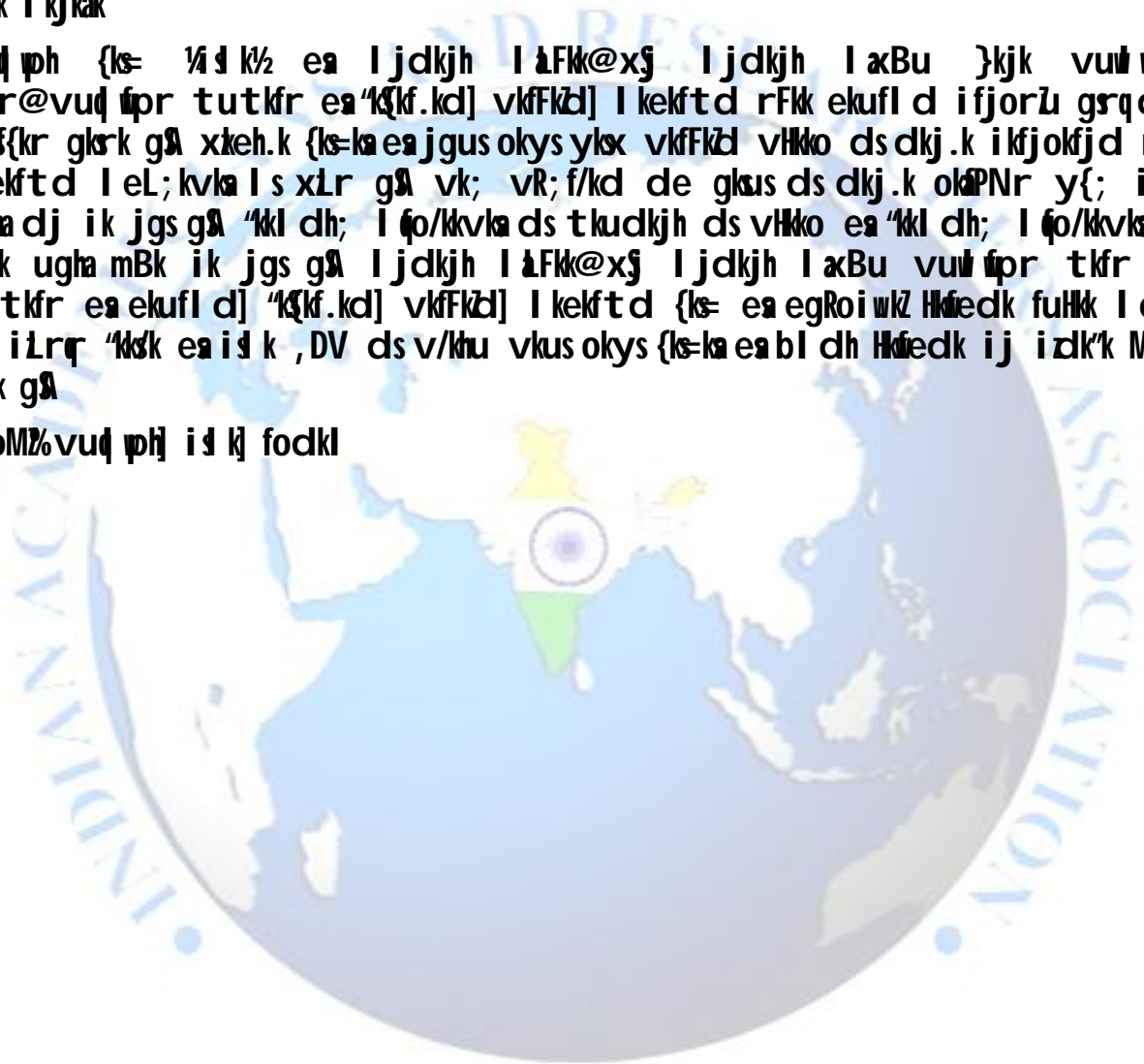
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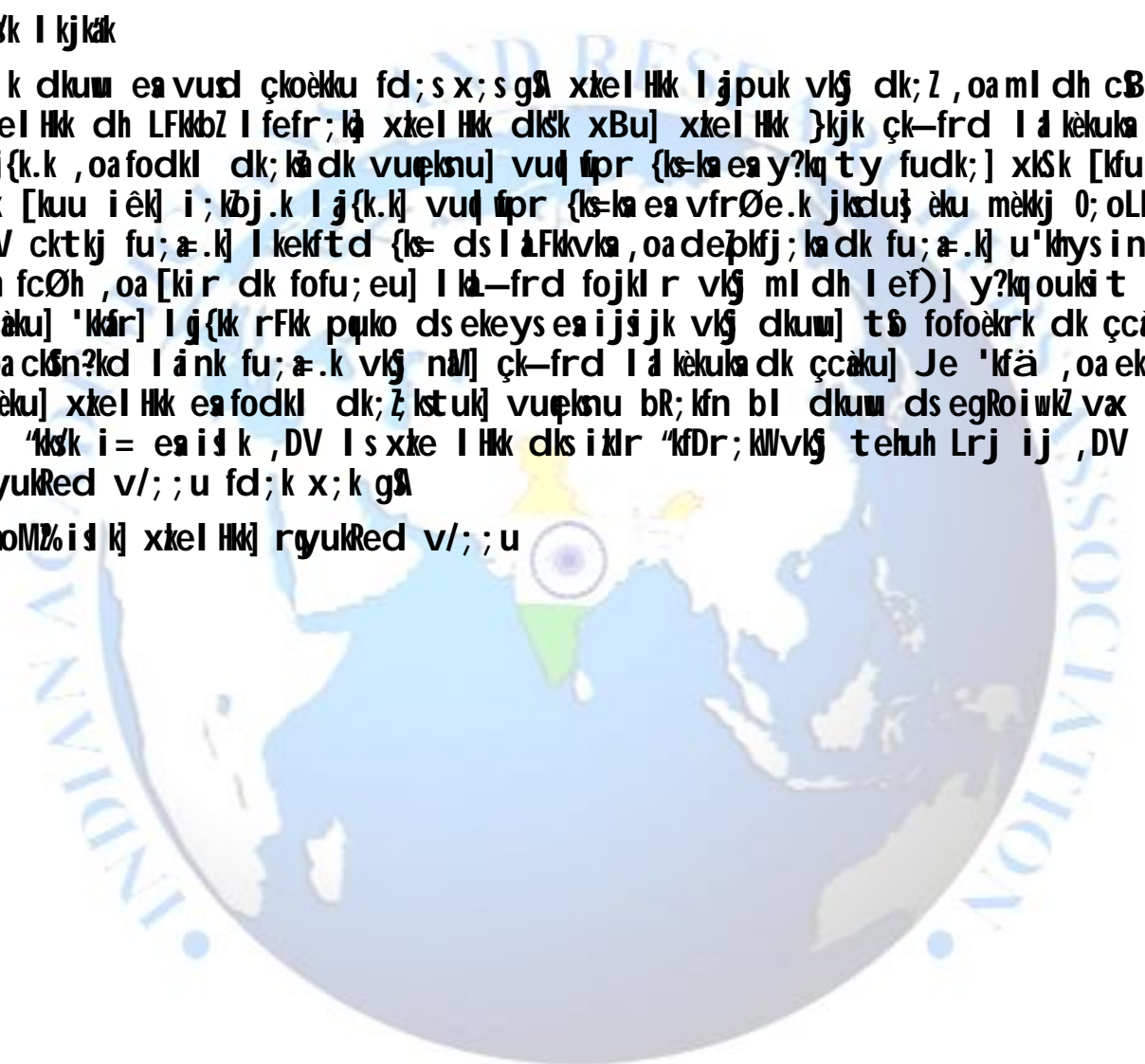
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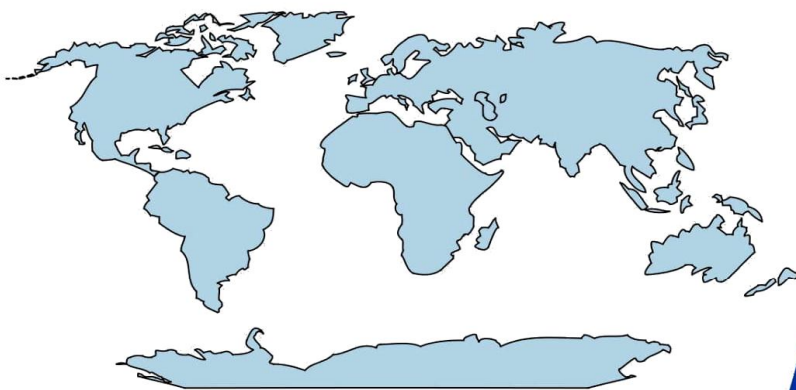


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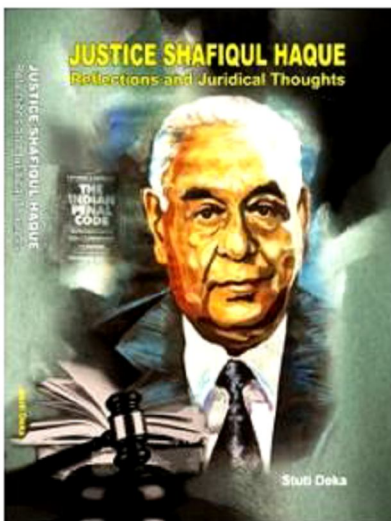


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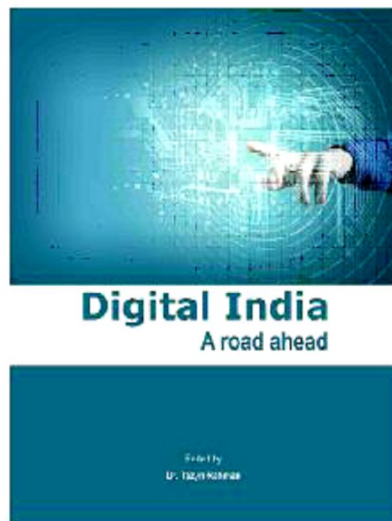
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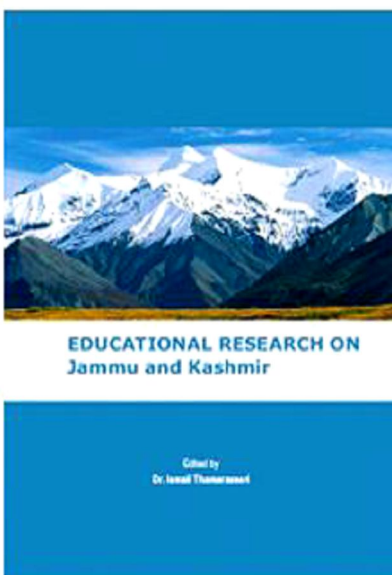
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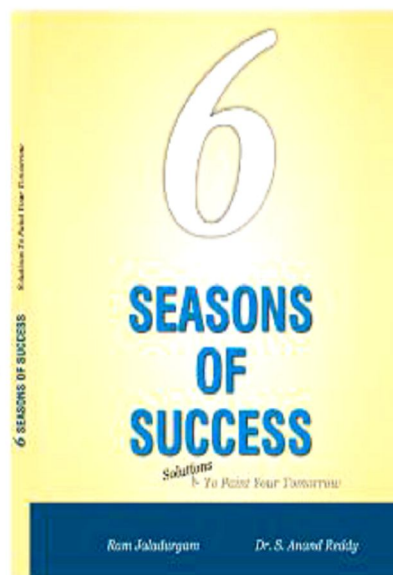
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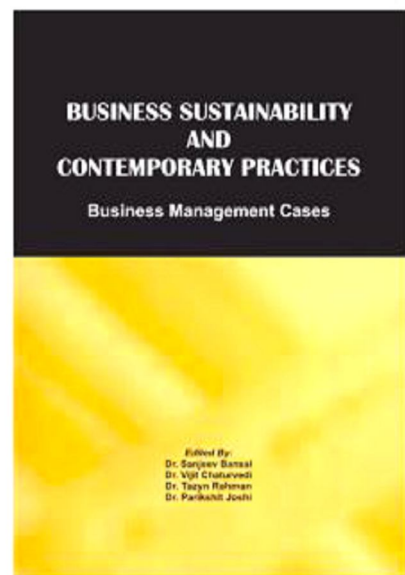
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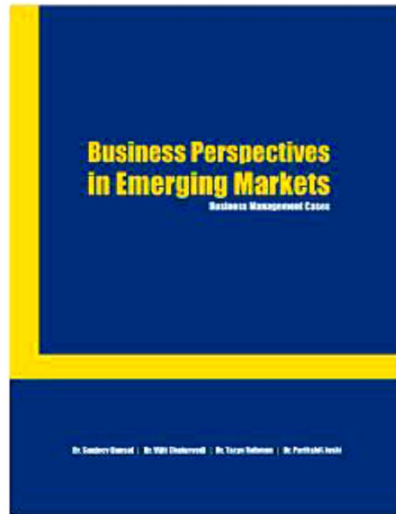
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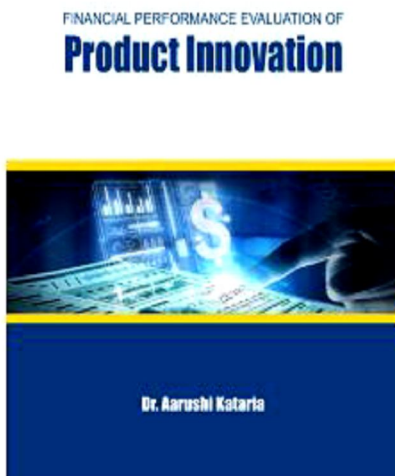
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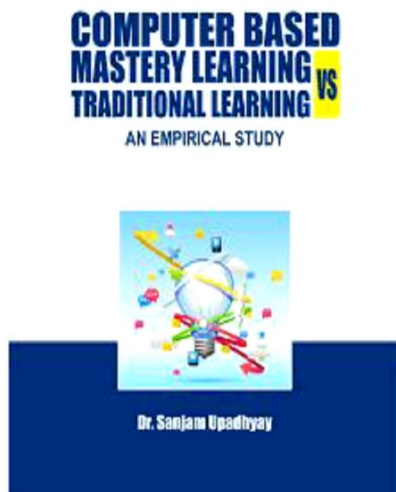
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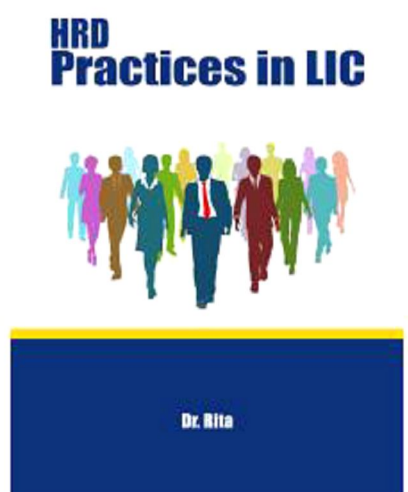
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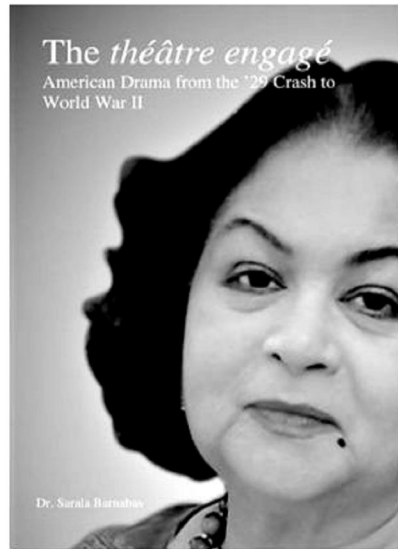
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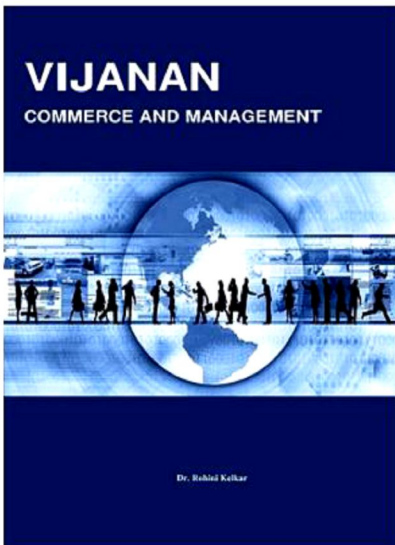
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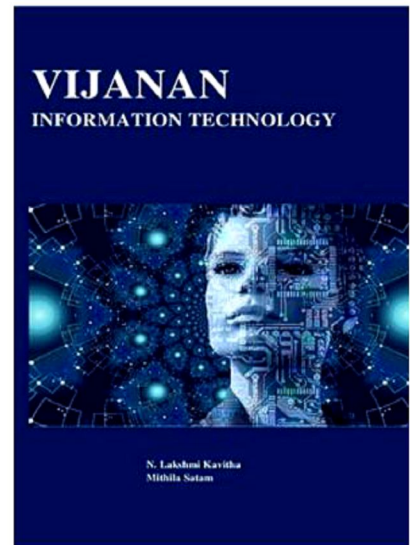
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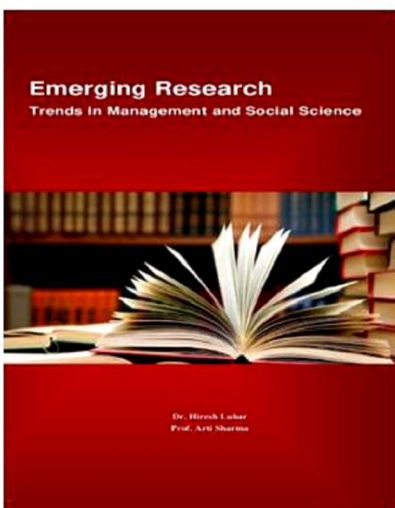
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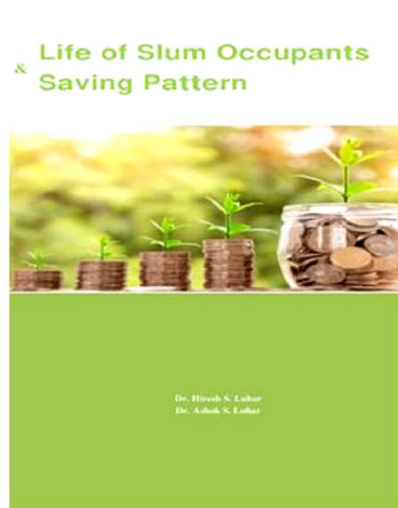
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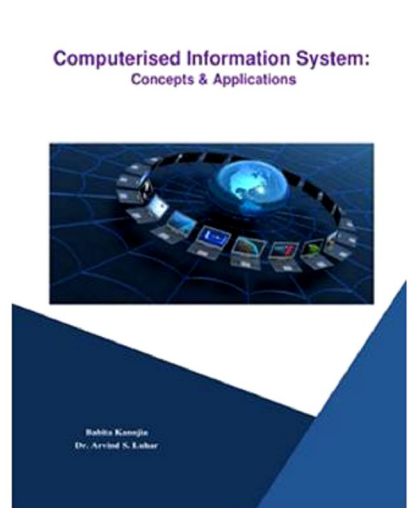
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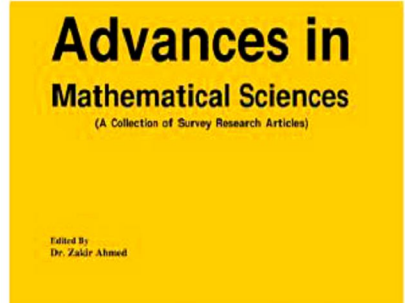
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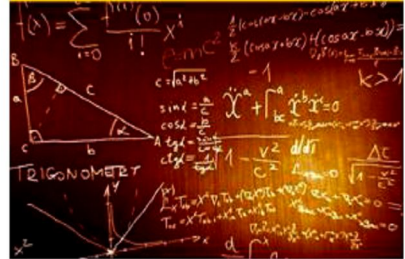
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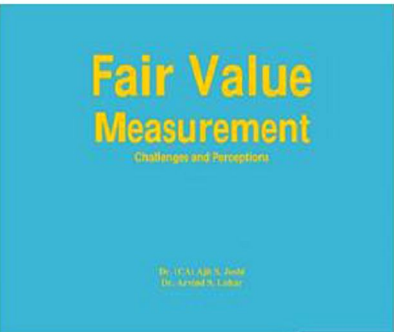
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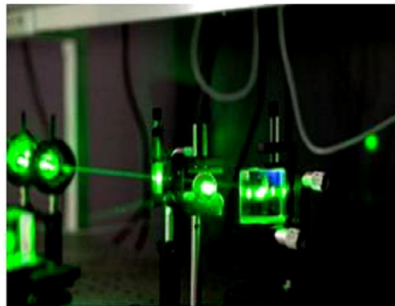
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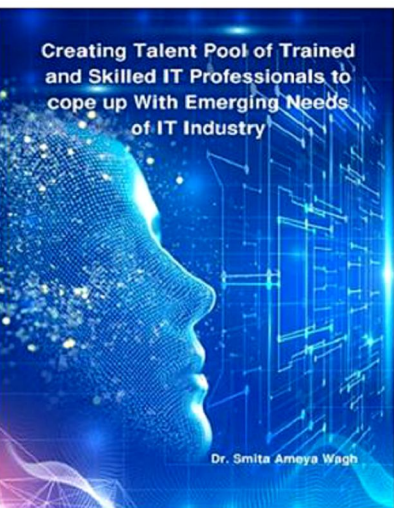


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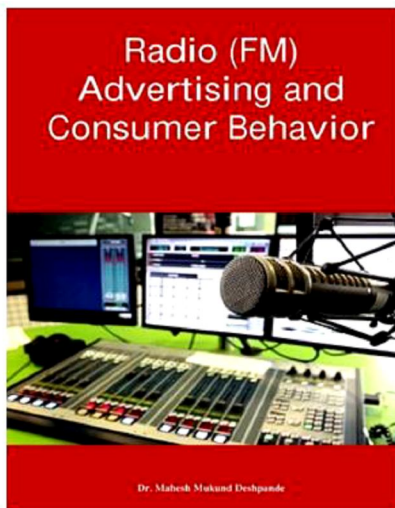
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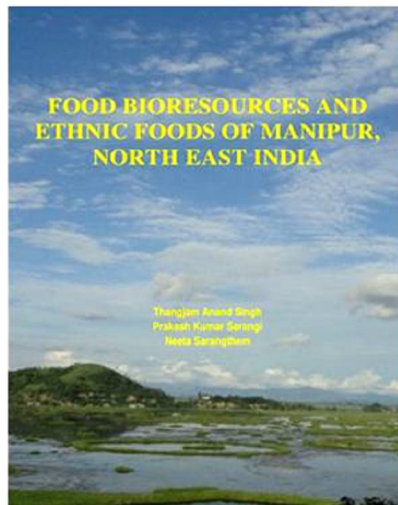
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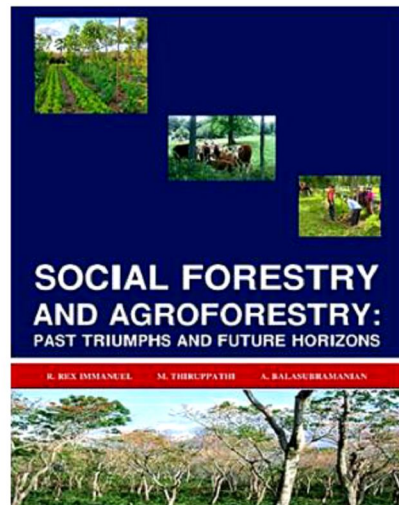
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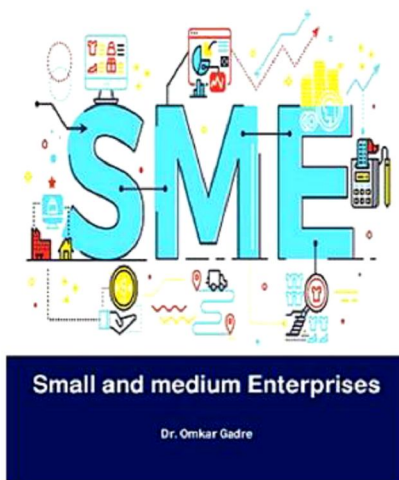
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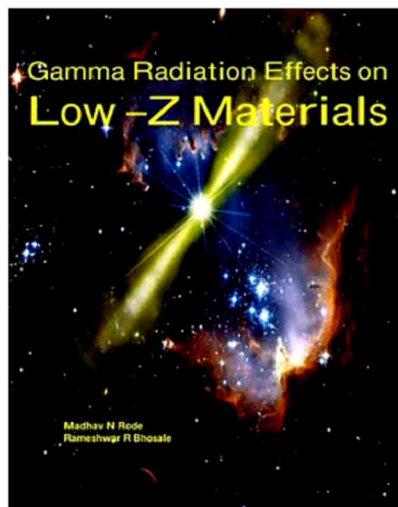
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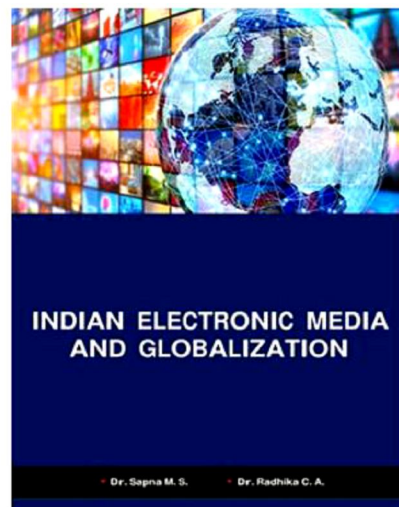
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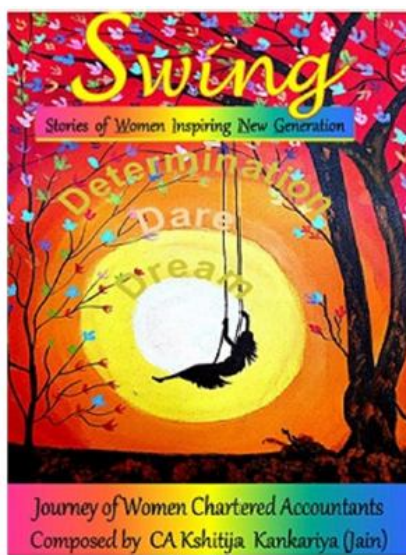
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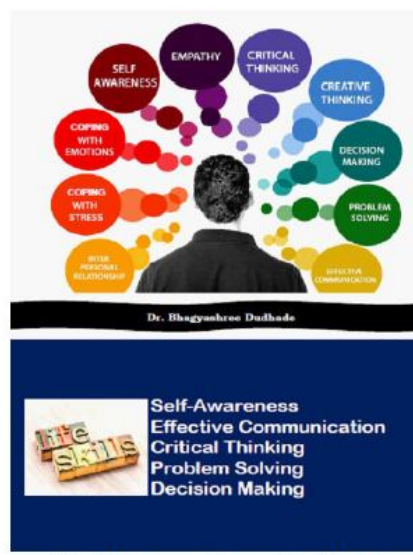
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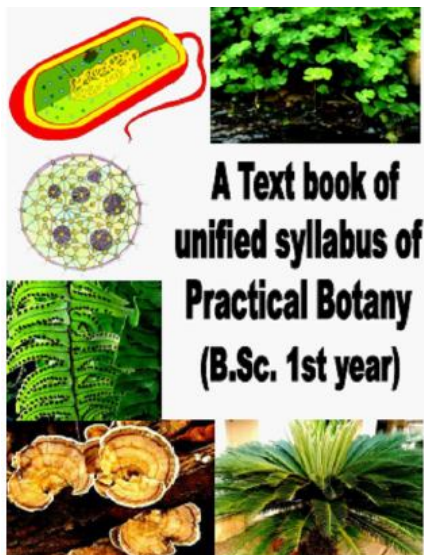
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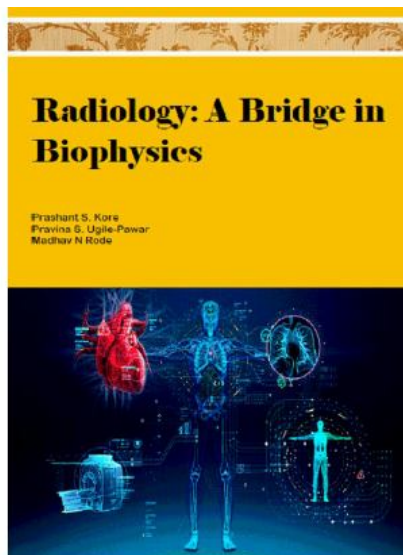
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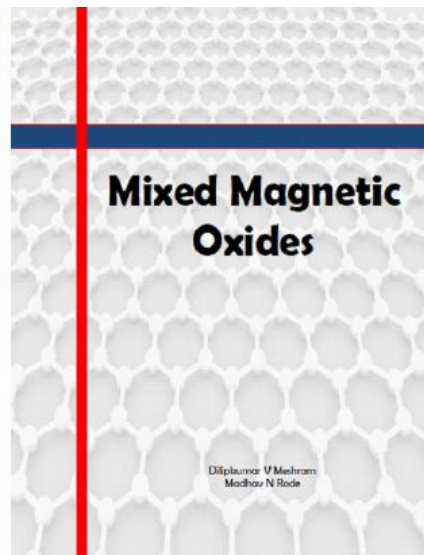
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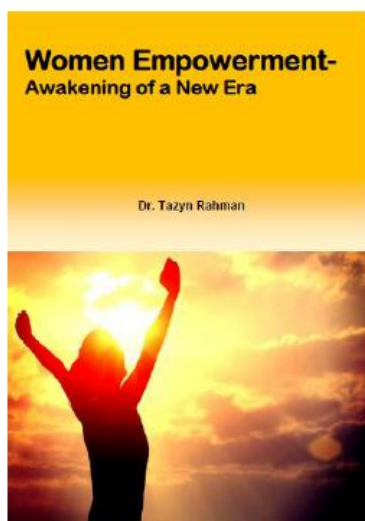
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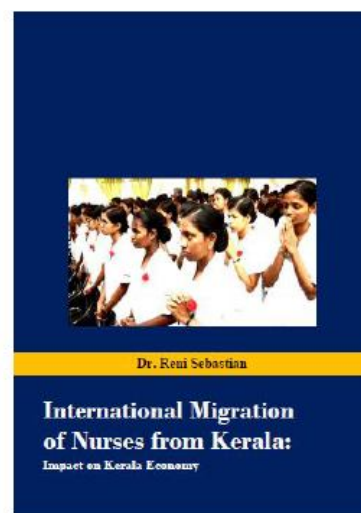
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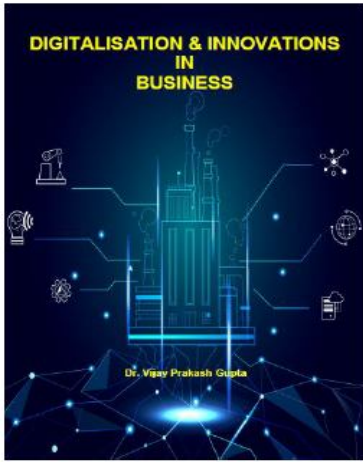


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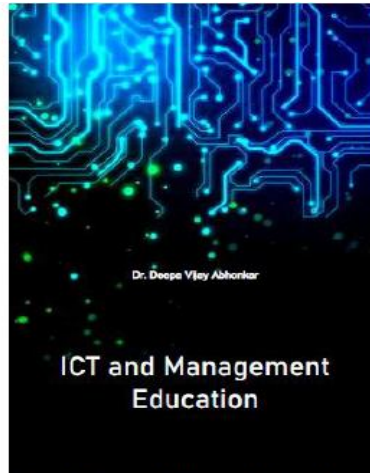
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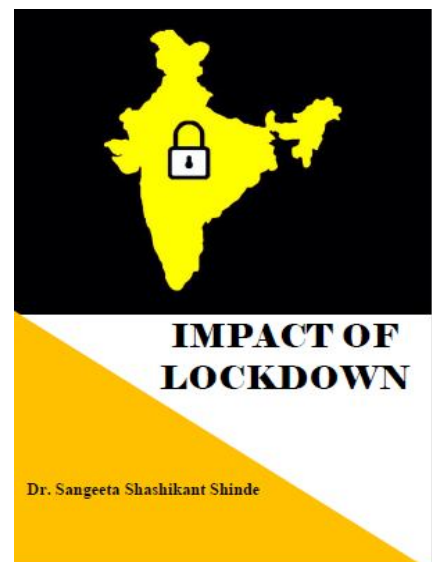


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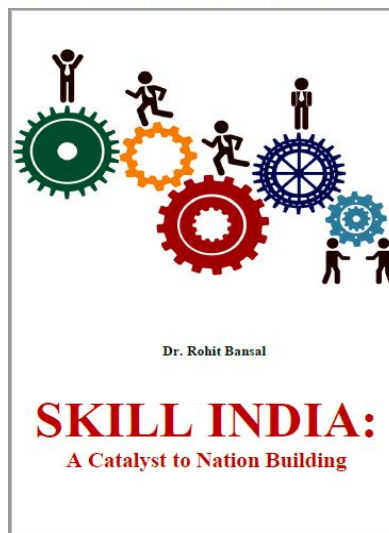
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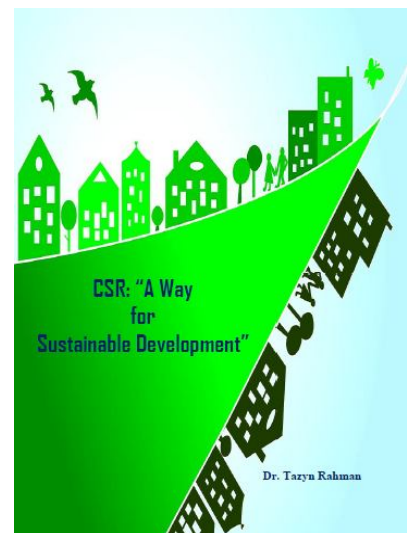
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