



# **INTERNATIONAL CONFERENCE**

**On**

**“RECENT TRENDS IN ENGINEERING, COMMERCE,  
MANAGEMENT, HUMANITIES, SCIENCE AND  
ENVIRONMENTAL ECOSYSTEM FOR  
SUSTAINABLE DEVELOPMENT”**

**Date: 31 May 2021**

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Organized By: Vindhya Institute of Technology and Science, Satna,  
Shri Shraddha Nath PG College, Todi, Jhunjhunun (Rajasthan)



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We would like to express my sincere gratitude to all the authors, researchers and reviewers, who provided their detail research and views for **“RECENT TRENDS IN ENGINEERING, COMMERCE, MANAGEMENT, HUMANITIES, SCIENCE AND ENVIRONMENTAL ECOSYSTEM FOR SUSTAINABLE DEVELOPMENT”**.

We would like to thank my family, who supported and encouraged me in spite of all the time it took me away from them. This conference could see the light of day due to generous support from the WFST.

The readers and beneficiaries vary from academicians, professional engineers and scientists, to undergraduate and graduate students from all over the country.







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**MESSAGE**

It is my pleasure to humbly invite you to attend the **International Conference on “Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development”** on 31 May 2021 Organized By: Vindhya Institute of Technology and Science, Satna, Shri Shraddha Nath PG College, Todi, Jhunjhunun (Rajasthan), Research Foundation of India & JHERF.

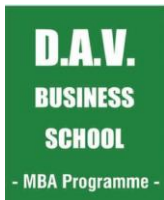
This year’s conference will attract attendance from all around the world; the distinguished speakers are from the top notch academic institutes as well as leading all industries from all around the globe. This conference will provide the opportunity and exchange of ideas related with the nuts and bolts as well as the challenging issues concerning within the fields.

Participation from successful entrepreneurs and industry leaders at the Conclave, would act as a guiding light to the enterprising youth, who would be soon embarking on their career paths. I am happy to note that Entrepreneurship Summit, Leadership Lectures and Innovation Exhibition are being organized as a part of Conclave.

I wish all the success of this International Conference.

**Dr. Princiwill Akaosh**

Department of Management  
University of Lagos, Nigeria



# DAV BUSINESS SCHOOL, NEPAL



## MESSAGE

Dear Attendees,

It is my pleasure to welcome you to this highly informative conference. It is a very exciting time to be in sustainable development. Having served many years in these events I can say it is the most active and promising time I have experienced. I hope you learn more about the evolving sustainable development in institute and industry, and take away key insights and information from the conference.

I extend my warm greetings and felicitations to the organizers and the participants and wish the Conclave all success.

**Rudra Pd Ghimire**

Principal/Campus Chief at DAV Business School,  
Masters of Business Administration (MBA)  
Nepal



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**रिसर्च फाउंडेशन ऑफ इंडिया**  
JHERF UNDER THE GOVT OF INDIA SOCIETY ACT 1973  
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**MESSAGE**

I welcome you in the **International Conference on “Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development”** on 31 May 2021 Organized by: Vindhya Institute of Technology and Science, Satna, Shri Shraddha Nath PG College, Todi, Jhunjhunun (Rajasthan), Research Foundation of India & JHERF.

On behalf of the Executive Committee of RFI, I wish to thank all the authors, invited lecturers, session chairman, members of the International Scientific Committee, National coordinators and numerous others who helped to shape the content of this conference. I would also like to thank organizational committee members, whose administrative and organizational works were the prerequisite for a successful conference.

Thank you for joining us on this momentous occasion.

**Dr. Sourabh Jain**

Chairman & CEO

Research Foundation of India



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### **MESSAGE**

**Dear Distinguished Colleagues, Precious Academicians and Our Research Professionals,**

As Chief Managing Director, of Research Foundation of India, firstly, it is my pleasure to welcome one and all to participate in this significant and prestigious event. On behalf of the Organizing Committee, it is honours of the hosting you at India.

Conferences have a great platform for global networking. I want to thank all of you who have worked on putting our extraordinary conference together; I would also like to express my appreciation to the Research Foundation of India for elegant configuration.

Participation from successful entrepreneurs and industry leaders at the Conclave would act as a guiding light to the enterprising youth, who would be soon embarking on their career paths. I wish you all the success for this International Conference.

**Prof. (Dr.) Ashok Kumar Gupta**

Chief Managing Director

Research Foundation of India





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### MESSAGE

My Dear Fellows,

I am honoured and delighted to welcome you in the **International Conference “Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development”** on 31 May 2021 Organized By: Vindhya Institute of Technology and Science, Satna, Shri Shraddha Nath PG College, Todi, Jhunjhunun (Rajasthan), Research Foundation of India & JHERF.

I am delighted that has been designed to offer a comprehensive range of sessions that includes Trends and Emerging techniques in Science and Technology. I hope you have a good time & opportunity to connect with experts from the scientific community and influential entrepreneurs from industries through their lectures and presentations and will also put forward many thought-provoking strategies for a future line of action in the area of Science and Technology.

We are looking forward to meeting all of you to make grand success.

**Prof. (Dr.) Priyadarshini Agnihotri**

President - Northern-South Board of India

Research Foundation of India



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### **MESSAGE**

It is my immense pleasure to invite you to attend the **International Conference on 31 May 2021 "Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development"** going to be held Organized By: Vindhya Institute of Technology and Science, Satna, Shri Shraddha Nath PG College, Todi, Jhunjhunun (Rajasthan), Research Foundation of India & JHERF.

This year's conference will attract attendance from all around the world; the distinguished speakers are from the top-notch academic institutes as well as from the leading industries all around the globe. This conference will provide the opportunity to exchange ideas as well as highlight the challenging issues in the various fields of Science, Technology and Management.

**Prof. Ajay Jain**

President

Central India Board Zone

Research Foundation of India



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**MESSAGE**

Dear Attendees,

I am delighted to welcome you for the **International Conference on 31 May 2021 “Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development”** which brings together experts and academics from around the world. New trends and challenges to Research are being put forward by the rapidly changing social and economic situation in many parts of the world. At the present the implementation of an appropriate control programs towards the reduction of infection in man will be discussed.

I extend my warm greetings and felicitations to all participants and wish the Conclave all success.

**Dr. Manish Dubey**  
President Madhya Pradesh State  
Research Foundation of India



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**MESSAGE**

**ICOSD-2021** is to bring together innovative academics and industrial experts in the field of **“Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development”** to a common forum. I sincerely hope that this conference will deliberate on various issues that need to be addressed and come up with recommendations.

I wish the conference a success.

**Dr. Kuldeep Agnihotri**

Indore Chapter Head

Research Foundation of India



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**MESSAGE**

Dear Attendees,

I am delighted that “**Recent Trends in Engineering, Commerce, Management, Humanities, Science and Environmental Ecosystem for Sustainable Development**” has been designed to offer a comprehensive range of sessions that includes Trends. I hope you have a good time & opportunity to connect with experts from the scientific community and influential entrepreneurs from industries through their lectures and presentations and will also put forward many thought-provoking strategies for a future line of action in the area of Humanities.

I extend my warm greetings and felicitations to the organizers and the participants and wish the Conclave all success.

**Dr. Indira Dixit**

President Indore Zone

Research Foundation of India, New Delhi





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**RFI/VIT/SSN/153**

**A REVIEW ON NETWORK SECURITY TOOL HONEYPOT**

**Dinesh Kumar Gupta**

Research Scholar, Dr. APJ Abdul Kalam University, Dewas Road, Indore MP

**Dr. Deepika Pathak**

Professor, Dr. APJ Abdul Kalam University, Dewas Road, Indore MP

**Abstract** - Network Security is generally used to detect attacker's activity. It analyze attacker's behavior. Attacker's data collection is the main task of network security. The Honeypots are used in network security to collect useful data of attackers. The honeypot is a new technology for collecting attacker's data for security in networks at the time of attack. It will be helpful for network administrators to create more and more secure systems and be aware of the attacks. We are successful to make honeypot system that is interesting enough for hackers to attack, they will try to gain access by using security faults on the system. The Honeypots observe the attacks. The honeypots are places in the network for knowing the activities of attackers. The honeypots alert network administrators for a possible attack. Attack methods can be used to improve the security in the network. A honeypot technique is developed to learn about the attacker's procedure of attack. The honeypots obtain the useful information about the attacker by observing the attacker's activity.

**Keywords:** Honeypot, HoneyNet, IDS, Network Security.

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**RFI/VIT/SSN/154**

**RELIABILITY, AVAILABILITY AND MAINTAINABILITY ANALYSIS OF DIFFERENT MACHINES -A REVIEW**

**Jiban Jyoti Kalita**

Assistant Professor, Department of Mechanical Engineering, Dhemaji Engineering College, Dhemaji, Assam, India

**Abstract** - Machines utilized in industry are worked at various working conditions like varying load, temperature, climate and so forth. So it is of utmost concern to identify the different causes of failure. Conventional ways of finding failure includes vibration analysis, oil analysis, non destructive testing etc. But for automation of system now a day's RAM analysis is widely used. Failure data such as mean time between failure, mean time to repair etc. are useful for RAM analysis. RAM analysis not only helpful to identify maintenance procedure (Preventive maintenance, break down maintenance) but also help in enhancement of quality of a product. In order to verify the failure data different mathematical distribution technique such as normal, lognormal, we bull etc are used. This review paper mainly aims at identification of various factors that can improve efficiency, productivity of machine components in industry through RAM analysis.

**Keywords:** Reliability, Availability, Maintainability, Mean time to repair, Mean time between failure.

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**RFI/VIT/SSN/155**

**AUGMENTED REALITY - THE EFFECTIVE LEARNING TOOL IN EDUCATION**

**Ms. Payal Dar**

Assistant Professor, Department of Interior Design, CSPA Chitkara University, Punjab

**Abstract** - Nowadays, the paradigm of conventional mode of education has been taking a shift towards a new platform of immersive learning. Augmented Reality is one of the learning tools which is making the teaching - learning journey more active, interesting and meaningful to educators and students. This paper discusses the use of augmented reality in the field of education and its effective ways. How it is benefiting the students in developing critical thinking, innovative ideas and easy grasping. It also reviews the implementation of the AR, its benefits, and existing apps which are being used in the education industry as a successful tool in various ways which make the learning more powerful and enriching for the students. In this time of pandemic, the education field has leaped to online mode where immersive learning could be the better tool to engage the students to attain knowledge and make them captivated.

**Keywords:** Augmented Reality, education, immersive learning, benefits, innovative.

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<sup>1</sup>Preeti C M, <sup>2</sup>D Supriya, <sup>3</sup>N Nageshwari<sup>1,2,3</sup>Loyola Academy, Hyderabad, India

**Abstract** - Deep learning is a field of machine learning. It is an experimental machine learning process. It impacts on various sectors of research. The methods of Deep learning process have made innovations in various applications. It has proved to be the best solution for determining complex architecture in high-dimensional data. The widely used sections of deep learning are social network analysis, autonomous driving, natural language processing, sentiment classification, visual data processing, computer vision, disaster management, speech recognition, information retrieval and many more. This paper focuses on the understanding deep learning, its architectures, characteristics, deep learning usage, comparison of machine learning and deep learning. Finally, the paper ends with the conclusion and scope for the future.

**Keywords:** Deep learning, Architectures, Machine learning, Neural Networks.

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Swati Verma,

Department of Mathematics, School of Science, O. P. Jindal University,  
Raigarh (C.G.), India

**Abstract:** The multi signature is a kind of group-oriented cryptography that was first introduced by Desmedt in 1987. The group has a security policy that requires a multi signature to be signed by all group members with the knowledge of multiple private keys. However, to any verifier, the multi signature can be verified using a corresponding group public key. In general, we assume that all group members do not trust each other. On the other hand, if they do trust each other, all private keys can be shared among themselves. In this paper, we propose a new multi signature scheme based on discrete logarithm problems. We show that our new scheme can resist existential forgeries against adaptive chosen-message attacks. Furthermore, the new scheme is very simple and efficient computationally. It has the property that the size of a multi-signature is independent of the number of the original signers.

**Keywords:** Cryptography, Digital Signature, Discrete logarithm problem, Security.

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Seth Okyere Dankwa, Dr. SR. Chaudhary, Abinav Pandey

**Abstract** - Research has shown that there is a substantial lost in productivity anytime the performance of computer network becomes suspect. The resultant financial effect of supplementary bandwidth investment presents a daunting picture. Performance issues are very crucial in computer networks, for example when many computers are interconnected, complex interactions arise with unforeseen consequences. This complexity leads to degradation of performance if the system is not managed properly. The research explores the use of performance management aspect of the network management to maximize efficiency and productivity in computer network. It also tries to find out the features of performance management, examines current solutions to performance management features, investigate about techniques adopted to achieve quality of service and then attempts to recommend an appropriate performance approach to a medium sized company. The research is expected to reveal that performance management concept is one of the most efficient and effective network management approaches which ensures automated and preventive maintenance, thus relieving the network managers of doing manual investigation to find out many problems that the network might create. The research outcome enhances network availability to users, remote and automated monitoring to network administrators and then increase productivity to cooperate bodies.

**Keywords:** Throughput, Response Time, Availability, Protocol Analyzer, Multi Router Traffic Grapher (MRTG).

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**कलात्मक जिमनास्ट के मानसिक स्वास्थ्य पर मानसिक प्रशिक्षण का प्रभाव**

आयुष त्रिवेदी, शोधार्थी, मंदसौर विश्वविद्यालय, मंदसौर (म.प्र.)

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डॉ. आलोक मिश्रा, शोध सह मार्गदर्शक, बरकतुल्लाह विश्वविद्यालय, भोपाल (म.प्र.)

**सार** - जैसा कि शोधकर्ता जिमनास्टों के मानसिक स्वास्थ्य पर मानसिक प्रशिक्षण कार्यक्रम के प्रभाव का अध्ययन करना चाहता है, इस प्रकार प्रायोगिक पद्धति द्वारा अध्ययन किया गया था। सभी बिन्दुओं पर विचार करने के बाद उद्देश्यपूर्ण प्रतिदर्श तकनीक का प्रयोग किया गया। मध्य प्रदेश राज्य के उज्जैन के केवल 7 से 14 वर्ष के आयु वर्ग के पुरुष जिमनास्ट को अध्ययन के लिए जानबूझकर चुना गया था। कुल 60 नमूनों का चयन किया गया। अध्ययन का चयनित चर मानसिक स्वास्थ्य है, जिसे सी.डी. अगाशे और आरडी हेलेडे के मानसिक स्वास्थ्य प्रश्नावली के प्रशासन द्वारा मापा गया था। वर्तमान अध्ययन के लिए एकल समूह प्रीटेस्ट-पोस्टटेस्ट डिज़ाइन का उपयोग किया गया था। प्रीटेस्ट और पोस्टटेस्ट के बीच सांख्यिकीय महत्वपूर्ण अंतर का परीक्षण करने के लिए, वर्णनात्मक आंकड़ों और युग्मित नमूनों द्वारा जिमनास्ट के मानसिक स्वास्थ्य पर मानसिक व्यायाम कार्यक्रम की प्रभावशीलता को निर्धारित करने के लिए डेटा का विश्लेषण किया गया था। टी-परीक्षण। परिकल्पना का परीक्षण करने के लिए महत्व का स्तर 0.05 रखा गया था। उपरोक्त विश्लेषण और आंकड़ों की व्याख्या से निम्नलिखित निष्कर्ष निकाले गए। मानसिक प्रशिक्षण कार्यक्रम मानसिक स्वास्थ्य में काफी सुधार करता है। निष्कर्षों से यह देखा गया कि मानसिक स्वास्थ्य के प्रीटेस्ट और पोस्ट टेस्ट के बीच महत्वपूर्ण अंतर था। यह इंगित करता है कि मानसिक प्रशिक्षण कार्यक्रम का जिमनास्टों के मानसिक स्वास्थ्य पर सकारात्मक प्रभाव पड़ा। अतः शोध परिकल्पना को स्वीकार किया गया। अध्ययन के परिणाम से यह निष्कर्ष निकाला जा सकता है कि जिमनास्टों के मानसिक स्वास्थ्य को बढ़ाने के लिए 8 सप्ताह की अवधि के लिए मानसिक प्रशिक्षण सर्वथा प्रभावी था।

कीवर्ड: मानसिक प्रशिक्षण, मानसिक स्वास्थ्य, जिमनास्ट।

**MOBILIZATION OF FINANCIAL RESOURCES OF AMC AND SMC**<sup>1</sup>Shah Nilam, <sup>2</sup>M. Prof. (Dr.) Paresh Shah<sup>1</sup>Research Scholar, Rai University, Ahmedabad<sup>2</sup>Research Guide, Principal & Professor, Rai Business School, Rai University, Ahmedabad

**Abstract** - Municipal corporations are a subject of state governments in matters pertaining to their responsibilities, powers and functions. The state governments allot certain functions and duties to municipal corporations. Most of the municipal corporations rely upon the devolution of resources and grants from the state and central governments and borrowings from financial institutions. The main objective of this paper is to analyze the fiscal health and performance of selected municipal corporations by assessing expenditures and internal as well as external sources of revenue with a view to know the dependency of selected municipal corporations. The study suggests strategy for revenue mobilization and evolution for municipal corporations to be able to proficiently respond to the challenges that they cope with in the coming decades.

**Keywords:** Dependency, Internal and external sources, Mobilise, User charges.**PREFERENCE AND PERCEPTION OF ZOO VISITORS: A CASE STUDY OF DR. SHYAMA PRASHAD MUKHERJEE ZOOLOGICAL PARK, SURAT****Solanki Binduben Ranjitsinh**, Research Scholar, Rai University, Ahmedabad**Dr. Chinmayee J. Bhatt**, Research Guide, Rai University, Ahmedabad

**Abstract** - The main objective of the study is to find out preference and perception of zoo visitors. The study was conducted in Shyama Prasad Mukherjee Zoological Garden; Surat during the period of 21 may to 31 may 2019. Data was collected using closed ended

questionnaire. 100 respondents have been selected by Stratified Random Sampling method from zoo. Data has been analysed by descriptive statistics (percentage) and Chi-Square. This study revealed that Majority of visitors have visited the zoo for purpose of Pleasure trip and to see the animals. Most of visitors visited the zoo with their family and they would like to visit the zoo frequently. This study recommended that majority of visitors main purpose of the visiting the zoo is fun, the authority should change of this attitude of visitors by promote the educational motives of visiting zoo.

**Keywords:** Tourism, zoo, visitors, preference, perception.

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**RFI/VIT/SSN/162**

**IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON FINANCIAL PERFORMANCE: A STUDY IN THE CONTEXT OF INDIAN BANKING SECTOR**

**Dr. Nitashree Barman,**

Head & Assistant Professor, Department of Accountancy,  
Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Tulungia, Bongaigaon, Assam

**Abstract** - In order to become sustainable the corporate players are required not only to strengthen their economic power but also to garner the public confidence in them. The corporate players can gain the public confidence by making positive impact on society through their social activities. Banks being the important constituents of financial system play the role of growth engine of an economy. Having this backdrop, the present study is an attempt to review the CSR practices and its impact on the financial performance of select Indian banks. The findings of the study reveal that Indian banks cover mostly two areas, viz., eradicating hunger, poverty and malnutrition, sanitation and making available safe drinking water, and promoting education including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects. On the other hand, Indian Banks have not yet contributed towards technology incubators within academic institution and slum area projects during the study period. With regard to the statutory compliance of CSR norms, private sector banks have been found to be better performer than the public sector banks. Further, the study observes the positive and statistically significant influence of CSR on financial performance.

**Keywords:** CSR, Indian Banks, Financial Performance, Healthcare, Education.

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**RFI/VIT/SSN/163**

**COMPARATIVE STUDY OF DEPTH PERCEPTION BETWEEN NATIONAL AND STATE LEVEL MALE HANDBALL PLAYERS**

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Research Scholar, Mandsaur University, Mandsaur, Mandsaur

**Dr. Bhushan Kekre,**

Supervisor, Mandsaur University, Mandsaur

**Abstract** - The purpose of the study was to compare the depth perception between national and state level male handball players. Forty male (n = 40) junior handball players were selected as samples from Madhya Pradesh. From forty players, twenty players were played at national level and twenty players played at state level. The ages of the subjects were 15 to 19 year. "Johnson and Nelson's (1974) depth perception test was used to measure the depth perception of forty male handball players. To compare the depth perception t test was used. To test the hypothesis, the significance level was set at 0.05. After statistical treatment, result showed that there were significant differences in depth perception between National and State level junior male handball players. It was concluded that National level players were superior to state level players.

**Keywords:** Comparative study, depth perception, male handball players, National and State level.

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**RFI/VIT/SSN/164**

**A STUDY ON BIOHYDROGEN PRODUCTION BASED ON BIOPHOTOLYSIS FROM CYANOBACTERIA**

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**<sup>2</sup>Dr. Alok Kumar Srivastav,**

Assistant Professor, Department of Biotechnology, Dr. A.P.J. Abdul Kalam University, Indore

**Abstract** - Hydrogen (H<sub>2</sub>) has long been promoted as an ideal fuel, as it permits a completely clean combustion and has great potential to provide clean power needed for transport and electricity generation. The unicellular, nitrogen-fixing cyanobacterium *Cyanothece* sp. ATCC 51142 is a promising strain with a remarkable capability of producing large quantities of H<sub>2</sub>. Under anaerobic condition, the cyanobacterium carries out the biological fixation of atmospheric nitrogen (N<sub>2</sub>) into ammonia (NH<sub>3</sub>), concurrently producing H<sub>2</sub> as by-product. The aim of this thesis was to improve our understanding of the growth and H<sub>2</sub> production of *Cyanothece* sp. ATCC 51142 in order to develop a continuous and practical cyanobacterial H<sub>2</sub> production process. In order to effectively handle incompatible requirements between the cyanobacterial growth and its sequential H<sub>2</sub> production, a novel two-stage chemostat photo bioreactor (PBR) system was designed and developed, with an aim to improve H<sub>2</sub> production yield as well as extend its production duration. The system has been operated non-stop for consecutive 30 days without any losses in its performance and subsequently demonstrated a remarkable improvement in H<sub>2</sub> production, with more than 6.4 times higher yield than that of a single-stage batch system. With the continuous mode of operation, a continuous collection of produced biomass from the PBR is also permitted (more than 7.3 times improvement in biomass yield than that of a single-stage batch system). At an industrial scale, this biomass could undergo further downstream processing to generate a multistreamline of high valued by-products such as e.g. vitamins, pharmaceuticals and human nutrition, which can subsequently contribute to a significant improvement in an economic viability of biohydrogen process.

**Keywords:** Hydrogen Generation, Biophotolysis, *Cyanothece*, Photo bioreactor, Bio-Hydrogen, Nitrogenase, Hydrogenase.

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**RFI/VIT/SSN/165**

**APPLICATIONS OF ARTIFICIAL INTELLIGENCE METHODOLOGIES IN EDUCATION**

**Dr. Sanjay Soni,**

Assistant Professor, Industrial & Production Engineering, J.E.C. Jabalpur

**Abstract** - Artificial Intelligence is one of the fastest growing disciplines, disrupting many sectors. Originally mainly for computer scientists and engineers, it has been expanding its horizons and empowering many other disciplines contributing to the development of many novel applications in many sectors. These include medicine and health care, business and finance, psychology and neuroscience, physics and biology to mention a few. However, one of the disciplines in which artificial intelligence has not been fully explored and exploited yet is education. Applications of AI methodologies to behavioral and social sciences provide opportunities and challenges that need to be considered. Although Artificial Intelligence (AI) has been a part of the computer science field for many decades, it has only recently been applied to different areas of behavioral and social sciences. artificial intelligence methodologies have been successfully applied to three main areas of behavioral and social sciences, namely (1) to increase the effectiveness of diagnosis and prediction of different conditions, (2) to increase understanding of human development and functioning, and (3) to increase the effectiveness of data management in different social and human services. Random forests, neural networks, and elastic net are among the most frequent AI methods used for prediction, supplementing traditional approaches, while natural language processing and robotics continue to increase their role in understanding human functioning and improve social services.

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**RFI/VIT/SSN/166**

**EXPEDITE FLOW COMPLETION ON HIGH SPEED NETWORK THROUGH PROTOCOLS**

**Seth Okyere Dankwa, Dr. SR. Chaudhary, Abinav Pandey**

**Abstract** - It has been proved by a lot of researchers that the present operation of TCP which is the main internet control protocol will suffer poor performance in future high speed networks. It has also been established that performance issues are very crucial in computer networks, for example when many computers are interconnected, complex interactions arise with unforeseen consequences. This complexity leads to degradation of performance if the system is not managed properly. Yet research on congestion control focuses almost entirely on maximizing link throughput, utilization and fairness, which matter more to the operator than the user. To arrest the situation, various factors which affect network performance were examined. Characteristics of congestion Control Protocols were described. Congestion Control Protocols like Transmission Control Protocol (TCP) and Explicit Congestion Protocol (XCP) were evaluated. The proposed congestion control protocol, Rate Congestion Protocol (RCP) was also evaluated. Then NS2 simulator was used under different scenarios to evaluate the performance of RCP and the aforementioned protocols to prove that RCP outperforms them in terms of expediting flows.

**Keywords:** Rate Control Protocol (RCP); Explicit Control Protocol (XCP); Processor Sharing (PS); Network Simulator 2(NS2); Transmission Control Protocol (TCP).

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**RFI/VIT/SSN/167**

**REDUCING THE TAR CONCENTRATION OF PRODUCER GAS FROM BIOMASS GASIFICATION USING CONDENSATION TECHNIQUE**

**Dr. Jai Bahadur Balwanshi, Avinash Namdeo**

Vindhya Institute of Technology and Science, Satna

**Abstract** - Gasification is a renewable technology with a potential for providing producer gas from use in heat and power generation. Tars in producer gas from gasification process still present a problem especially on end use application like gas turbine or in internal combustion engines. These applications require that the gas is cooled; cooling however results in tars condensation which leads to fouling and clogging of the equipment. Gas cleaning and conditioning systems to control tars levels exists and still being improved to make them efficient and affordable. With the right physical conditions tar cracking can be a successful alternative to remove the tars in producer gas. In this article a simple method is described to remove the tars from producer gas.

**Keywords:** Gasification, Biomass, Tar, Gas Conditioning.

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**RFI/VIT/SSN/168**

**THE INFLUENCE OF COVID 19 PANDEMIC ON THE ECOMMERCE INDUSTRY- A QUALITATIVE ANALYSIS**

**Amrutha Mary Lukose**

**Abstract** - The Coronavirus has disrupted global patterns and trends profoundly. Such differences are causative of the extremely inadvertent and secondary tools expressed in this virus. In this paper, the e-Commerce developments in Coronavirus plight were calculated and how imminent advancements in e-Commerce might impact customer behaviour in the future. This paper explores the rise of e-Commerce due to Coronavirus. In this case, e-Commerce was becoming a replacement outlet and considered the top.

E-retailers sell items typically purchased by the customers in supermarkets—the influence of Coronavirus on full e-Commerce. In the meantime, the researcher wants to evaluate their effectiveness in stabilizing all costs and rewards and associated behaviour in the coming years. The COVID-19 crisis drives the growth of e-Commerce to new businesses, consumers and forms of items, potentially requiring a long-term transition from expensive goods and utilities to regular necessities for e-Commerce purchases.

It also illustrates how policymakers should harness the power of digital transformation in the retail and related fields, while ensuring that no one is left behind, to encourage market adaptation and boost social distancing.

**Keywords:** Covid-19, Pandemic, e-Commerce, Business Giants.

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**Somanjana Dutta Chattakhandi,**

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**Abstract** - Sustainable development is an approach towards the economic development of a country along with preserving the quality of the environment for future generations at the same time. Due to economic development lots of environmental damage takes place like land degradation, soil erosion, air and water pollution, deforestation, etc. Basic aim of Sustainable development lies in the promotion of the kind of development that minimises environmental problems as well as to satisfy the needs of the existing generation without compromising with the quality of the environment for future generations. The world committed to implementing the 2030 Agenda for Sustainable Development with 17 Sustainable Development Goals adopted by United Nation in September 2015. The unusual situation created by COVID-19, in early 2020, is creating difficulties to achieve these goals. Moreover it created certain global challenges on economy, education, etc. In the present situation the interconnection between sustainable development and Covid 19 is a major concern as world is under huge difficulties to overcome this situation. In the present situation many things are at stake. So this Covid 19 is creating a huge threat on the sustainability. Problems created by the pandemic emphasize the indivisible character of the 2030 Agenda for Sustainable Development. Multidisciplinary systems-thinking is needed for exploring interconnections between environment, wildlife, and humans all in one health approach. So interdependent implications and recent trends in international development related to sustainability as a useful framework in the post-pandemic recovery period. So the emerging effects on sustainable Development goals interconnectedness through the new conditions under the influence of the COVID-19 pandemic and its management is a great concern in the present situation.

**Sajjad Ahmed,**

Research Scholar, English Department, Rabindra nath Tagore University

**Abstract** - English is the only valid language that can be understood by everyone all around the world. Students learn faster and easier than before because of the use of technology in schools. If they are trained during their school years, they have the chance of becoming experts in technology. It is proved by the researches that have been done; early beginnings are always beneficial. Learning English through the web and using new trends in education in schools make students willing to learn the language. The aim of this study is to review technology in English learning activities and internet communication tools which are being used lately by instructors and learners. The study was conducted on the base of literature survey. Also, this study looks at Web-based English language learning tools, and tries to give information about internet communication tools also it is mentioned that how the teachers or instructors make educational environment more enjoyable. It is quite clear that English has become a necessity today. We need it in different fields of life. Web based technologies and powerful internet connections provide various new possibilities and latest trends for teachers and students. © 2009 Elsevier Ltd. All rights reserved

**Keywords:** E-learning; technology; English language; new trends in English; web based language learning.

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**Abstract** - Politics has always influenced the mind of the masses. Almost all the aspects of a society are influenced by this politics. Even the literature is not out of this. It is said that

literature is the mirror of society. The happenings with the societies are depicted in literature. The nineteenth century witnessed great upheavals in India. Influence of Gandhi is also a marked one. These are reflected in the creations of Anglo-Indian writers. Nayantara Sahgal, a contemporary writer witnessed the changes in Indian societies. These changes find place in almost all his novels. Here it will be tried to examine the political aspects in Sahgal's novels, both Pre & Post-Independence.

**Keywords:** Politics, Novels, Gandhian, Nayantara Sahgal, Socio-political.

**RFI/VIT/SSN/183**

**“ईट भट्टा उद्योग का विश्लेषणात्मक अध्ययन: श्रीगंगानगर जिले के विशेष संदर्भ में”**

**भूपेन्द्र कुमार,** शोधार्थी, टांटिया विश्वविद्यालय, श्रीगंगानगर

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**Abstract** - भारत गाँवों का देश है। यहां प्राचीन काल से ही कृषि उन्नत अवस्था में थी। यहाँ के कृषक खुशहाल थे लेकिन तेरहवीं-चौदहवीं शताब्दी एवं इसके बाद मुगलशासकों ने उद्योगों को बहुत प्रोत्साहन दिया। लेकिन औपनिवेशिक काल में जैसे-जैसे इंग्लैण्ड में औद्योगिकरण बढ़ता गया भारतीय उद्योगों की स्थिति बिगड़ती चली गयी। अठारहवीं शताब्दी के अंतिम वर्षों में तथा उन्नीसवीं शताब्दी के प्रारम्भ में स्थिति काफी बिगड़ चुकी थी।

किन्तु आजादी के बाद उद्योगों की बिगड़ी हुई स्थिति में कुछ सुधार होने लगा। केन्द्र सरकार द्वारा औद्योगिक उत्पादन में वृद्धि करने एवं औद्योगिक विकास को प्रोत्साहित करने के उद्देश्य से औद्योगिक नीति की घोषणा की गयी जिसके तहत कुटीर, ग्राम एवं लघु उद्योगों को महत्वपूर्ण स्थान प्रदान किया गया। सरकार द्वारा ईट भट्टा उद्योग को भी लघु उद्योग का दर्जा दिया गया। देश के नागरिकों की तीन मूलभूत आवश्यकताओं—रोटी, कपड़ा और मकान में से रोटी एवं कपड़े की समस्या तो सरकार द्वारा हल कर दी गयी है परन्तु मकान की समस्या का जो विकराल रूप देश के समक्ष उपस्थित है, उसे हल करने में ईट भट्टा उद्योग का विशेष महत्व है। ईट भट्टा उद्योग मानव जाति के इतिहास में सबसे पुराना उद्योग माना जाता है। यह सबसे ज्यादा रोजगार सृजन करने वाले उद्योगों में से एक है।

ईट उद्योग का इतिहास अति प्राचीन है। वर्तमान में देश में कोई भी ऐसा लघु उद्योग नहीं है जो कि बिना भारी मशीनरी एवं विद्युत शक्ति के उपयोग के इतने अधिक ग्रामीण भूमिहीन श्रमिकों को रोजगार देने की क्षमता रखता हो। राजस्थान में वर्तमान समय में ईट भट्टा उद्योग की लगभग 5500 इकाइयां कार्यरत हैं जिसमें से 473 इकाइयां श्रीगंगानगर जिले में हैं। ईट भट्टा उद्योग से श्रीगंगानगर जिले में 50,000 से अधिक श्रमिकों को रोजगार मिला हुआ है जबकि 80,000 व्यक्ति इस व्यवसाय से अप्रत्यक्ष रूप से जुड़े हुए हैं। कृषि अवशिष्ट के निस्तारण के कारण ईट भट्टा उद्योग किसानों की अतिरिक्त आय का जरिया भी है। ग्रामीण भूमिहीन श्रमिकों के रोजगार के दृष्टिकोण से भी ईट भट्टा उद्योग महत्वपूर्ण भूमिका निभा रहा है।

**RFI/VIT/SSN/184**

**श्रीगंगानगर जिले में आर्थिक विकास की सम्भावनाएं**

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**Abstract** - किसी भी प्रदेश की आर्थिक दशाएं उस क्षेत्र की प्राकृतिक परिस्थितियों की देन होती हैं, किंतु मानव अपने सार्थक प्रयासों से यथोचित परिवर्तन कर उसे अपने अनुकूल भी बना सकता है। इस तथ्य का स्पष्ट उदाहरण श्रीगंगानगर क्षेत्र को कहा जा सकता है। एक समय यह क्षेत्र मात्र मरुस्थल था, जहां बालूका स्तूप एवं रेतीली आधियों का साम्राज्य था। किन्तु सन् 1927 में गंगानगर आ जाने के पश्चात् इस क्षेत्र में क्रान्तिकारी परिवर्तन आया और यह क्षेत्र शीघ्र ही आर्थिक दृष्टि से राजस्थान का सर्वाधिक महत्वपूर्ण क्षेत्र बन गया एवं यह क्षेत्र कृषि व अन्य स्तर पर काफी विकसित हो चुका है। वर्तमान समय में पूरे राजस्थान राज्य में श्रीगंगानगर जिले को आर्थिक दृष्टि से सम्मान की दृष्टि से देखा जाता है। जनसंख्या की दृष्टि से भी यह क्षेत्र धीरे-धीरे अपने विकास के साथ-साथ अग्रणी होता जा रहा है।

श्रीगंगानगर जिले का विकास कृषि पर निर्भर है। अतः यहां पर कृषि पर आधारित उद्योग ही अधिक विकसित हुए हैं। गंगानगर के अलावा सूरतगढ़, अनूपगढ़, रावला में भी ऐसे औद्योगिक क्षेत्र विकसित किये गये हैं। जिले में कूटीर उद्योगों का विकास अपेक्षाकृत कम हुआ है, इन्हीं सब बातों से ऐसी संभावना है कि श्रीगंगानगर जिला कृषि के साथ-साथ औद्योगिक दृष्टि से भी राज्य का सिरमौर जिला बनने में सफल होगा।

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**RFI/VIT/SSN/186**

### **WEB SECURITY & PRIVACY**

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**Abstract** - As we approach a new millennium, the Internet is revolutionizing our society, our economy and our technological systems. No one knows for certain how far, or in what direction, the Internet will evolve. But no one can underestimate its importance.

In the new Information Age, we are learning to magnify brainpower by putting the power of computation wherever we need it, and to provide information services on a global basis. Computer resources are infinitely flexible tools; networked together, they allow us to generate exchange, share and manipulate information in numerous ways. The Internet, as an integrating force, has melded the technology of communications and computing to provide instant connectivity and global information services to all its users at very low cost. Ten years ago, most of the world knew little or nothing about the Internet. It was the private enclave of computer scientists and researchers who used it to interact with colleagues in their respective disciplines. Today, the Internet's magnitude is thousands of times what it was only a decade ago. This means that Internet kept growing steadily the way it has been growing over the past few years. So web security and privacy which is not a new concept are becoming more and more important. With Internet filtering software and proper supervision, one can keep one's children safe and sound from the ever - present problem of online risks. Internet filtering software, also known as content – control software or censor ware, is a term for software designed and optimized for controlling what content is permitted to one's child using the Internet. Filtering software determines what content will be available on a particular computer. Need less to say that the importance and significance of web security and privacy is much more needed now than in the past.

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**RFI/VIT/SSN/187**

### **RECENT TRENDS OF E- COMMERCE IN INDIA**

**Dr. Prem Birla,**

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**Abstract** - It is no vanity to claim that India is the fastest growing e-commerce market. With an annual growth of 51%, the highest in the world, the sector has driven an unforeseen growth in avenues that perhaps several actors in the ecosystem had not foreseen. The past 10 years were a clear testament to the fact that e-commerce as a sector not only arose out of the need to expand what retail has to offer, but built its own identity by solving problems for the aspiring Indian consumer, even at the all levels.

The sector has transformed the way of doing business in India. Based on industry estimates, India's e-commerce market is expected to grow to \$ 200 billion by 2026 from \$ 38.5 billion in 2017. In the past decade, we have seen the digital landscape being led by platforms that they grow beyond central silos and are able to win with customers holistically. Within this panorama, consumer technology players have led the creation of market value. While the US and China had a disproportionate innovation surplus; India was solving the here and now.

**Keywords:** E-Commerce, M-Commerce, Sustainable Development, Digital India, Internet users, Covid-19, Buying Behavior of Customers.

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**RFI/VIT/SSN/188**

**A STUDY ON EMPLOYEE WELFARE MEASURES WITH SPECIAL REFERENCE TO VITS  
COLLEGE SATNA**

**Divya Singh,**

Student (B.Com Honors – III Year),  
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**Abstract** - Human Resource Management (HRM) is a management function that helps managers plan, recruit, select, train, develop, remunerate and maintain members for an organization. Human Resource management is mainly concerned with the motivation of human resources in the organization. An organization must have set policies, definite procedures and well – defined principles relating to its personnel who contribute to the effectiveness, continuity and stability of the organization. This paper is an attempt to highlights the study on employee welfare measures with special reference to VITS College Satna.

**Keywords:** HRM, Welfare Measures, HR Challenges.

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**RFI/VIT/SSN/192**

**BLOCKCHAINS AND BITCOIN FROM A DISTRIBUTED COMPUTING PERSPECTIVE**

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**Introduction-** With the ever-scaling technological expansion of the world, distributed systems are becoming more and more used and has significance. They are a sophisticated field of study in computer science and applications.

A distributed system, also known as distributed computing, is a system with multiple components located on different machines that communicate and coordinate actions in order to appear as a single coherent system to the end-user. It does not reveal the existence of multiples systems. i.e., the user feels that all services are get done by the system which is located on his table.

The machines that are a part of a distributed system may be computers, physical servers, virtual machines, containers, or any other node that can connect to the network, have local memory, and communicate by passing messages.

If you have been following banking, investing, or crypto currency over the last ten years, you may have heard the term “blockchain,” the record-keeping technology behind the Bitcoin network.

All these above term are examples of a pure distributed system. That is the blockchain and bit coin are the result of distributed computing.

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**RFI/VIT/SSN/197**

**अन्ना हजारे आंदोलन के मुख्य उद्देश्यों का गुणात्मक मूल्यांकन**

**योगेश आत्रेय<sup>1</sup> एवं डॉ. मनोज परमार<sup>2</sup>**

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अन्ना हजारे के आंदोलन का मुख्य उद्देश्य भ्रष्टाचार को समाप्त करने के लिए प्राश्निक ढाँचे में आमूल चूल परिवर्तन लाना था। भ्रष्टाचार की समस्या न तो नई है और न ही यह केवल विकासशील देशों तक ही सीमित है। इसकी प्रकृति अत्यंत विविधतापूर्ण है और इसीलिए इस समस्या का संदर्भ और प्रासंगिकता अलग अलग देशों और समय अवधि में व्यापक रूप से भिन्न है। भारत दुनिया का सबसे बड़ा लोकतंत्र है और यह राष्ट्रीय और स्थानीय दोनों स्तरों पर हर क्षेत्र में भ्रष्टाचार से लड़ने के लिए दैनिक आधार पर संघर्ष करता रहता है। भारत में राजनीतिक, नौकरशाही, कॉर्पोरेट और व्यक्तिगत

भ्रष्टाचार चिंता का विषय हैं। 2005 में भारत में ट्रांसपेरेंसी इंटरनेशनल द्वारा किए गए एक अध्ययन में पाया गया कि 55% से अधिक भारतीयों को सार्वजनिक कार्यालयों में सफलतापूर्वक नौकरी पाने के लिए रिश्वत देनी या झूठ बोलना पड़ा। प्रस्तुत शोध पत्र उन सभी विषयों की गहन व्याख्या करता है जो मुख्य रूप से इस आंदोलन में उभर कर सामने आए। इसमें लोकपाल बिल, उम्मीदवार को वापस बुलाने का अधिकार, रिजैक्ट करने का अधिकार, सी. बी. आई. को स्वतंत्र करना आदि शामिल थे।

**मुख्य शब्दावली:** अन्ना हजारे, भ्रष्टाचार, सी. बी. आई., लोकपाल, नौकरशाही।

**RFI/VIT/SSN/199**

### **ASSESSING THE FINANCIAL STATUS OF SBI BANK AND AXIS BANK**

**Ratika Agrawal**

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**Abstract-** The starring role of financial reportage in banks is of vital importance for the efficiency of banks operations. Objective: In that regard, we have assessed the financial status of the SBI bank and Axis bank intended for an accounting period of ten years 2011-12 to 2020-21. Method: We have used financial ratio analysis to assess the financial status of the SBI bank and Axis bank. Result: This study reveals that there is significant increase in the credit-deposit ratio, the other income to total income, net profit margin, the total assets turnover ratio, the dividend payout ratio, the debt-equity ratio and significant decrease in the interest income to total income in Axis bank as compare with SBI bank. We didn't observe any significant difference in growth in the net profit, the total income, the total expenditure, the total advance and the total deposit among SBI and Axis Bank. Conclusion: Based on the findings, during this operating period, the study reveals that individual well-liked SBI bank to require loans and advances as compared to Axis bank. The SBI bank has excellent financial soundness as compare with Axis bank.

**Keywords:** SBI, Axis Bank, Financial Status.

**RFI/VIT/SSN/202**

### **हिन्दी उपन्यासों में उद्धत स्त्री की समस्याओं का गहन अध्ययन**

लेखिका

सुनीता

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**सारांश** — हिन्दी उपन्यासों में स्त्री का स्थान बहुत प्रशंसनीय दिखाई पड़ता है। उपन्यासकारों ने स्त्री का चित्रण प्रेमिका के रूप में बहुत अधिक किया है, स्त्री को देवी रूप और माया के रूप में भी लिखा गया, स्त्री के साहसी रूप उजागर किया गया है आधुनिक काल में प्रगतिवाद स्त्री जागरण को बहुत अधिक महत्व दिया गया है। स्त्री के ममता एवं प्रेम में रूप का चित्रण भी किया गया है इसी के साथ आधुनिक विचारों को भी स्पष्ट किया गया है। उपन्यासों में अनमेल विवाह, विधवा समस्या, बाल विवाह, सती प्रथा, पर्दा प्रथा आदि विभिन्न कुरीतियों के प्रति आक्रोश की भावना से स्त्री की चेतना जगाने का कार्य हिंदी कहानियों में किया गया। विभिन्न लेखकों ने स्त्री की भूमिका को गरिमामय और सम्मानजनक दिखाया तथा कोमल और वात्सल्य की पूर्ति के रूप में स्त्री का चित्रण किया गया है, स्त्री पात्रों के माध्यम से स्त्री संघर्ष का वितरण भी किया गया है। वर्तमान में उपन्यासों में स्त्री के विभिन्न स्वरूपों को दर्शाया गया है। स्त्री की स्थिति और प्रगति को इसमें उजागर करने का भरपूर प्रयास हुआ है वर्तमान साहित्य में स्त्री के स्थान को उजागर करते हुए उसके वास्तविक जीवन को प्रस्तुत करने का पूर्ण प्रयास हुआ है। स्त्री जीवन की वास्तविकता से अकन को करने का सशक्त प्रयास किया जा रहा है।

**मुख्य शब्दावली:** स्त्री, स्त्री पात्र, स्त्री संघर्ष, स्त्री चेतना, वर्तमान उपन्यास।

**Sonu Rani**

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract** - The exclusive division of the fiscal power led to multiplicity of the indirect taxes in India. Also, CST or the Central Sales Tax was levied on the interstate sales of goods and services by Central Government. However, it was collected as well as retained by exporting states. Further, several states levy the entry tax on entry of the goods in their local areas. The multiplicity of the taxes at Central and the State levels resulted in a complicated structure of indirect taxes in India. This is ridden with some hidden costs also for industry and trade. First, there is absolutely no uniformity in the rates of tax and the structure of taxes across the states of India. Secondly, cascading of tax system because of tax on tax is there. No credit for excise duty and the services tax paid right at the manufacturing stage is also available for the traders when they pay sales tax at the State level or the VAT or vice versa. There was a need of GST in India to remove the taxation complexities from the countries. However, there are certain goods on which still GST is not implemented and there are many slabs of GST rates. Hence, overall, all the complexities have not decreased but shifted from one regime to another regime. This paper makes a comparison of old tax methods and GST in the context of the comparison of complexities.

**Keywords:** Complexities, Tax Regimes, Multiplicity of Taxes, Indian Taxation system.

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**Pooja Kumari**, Research Scholar**Dr. Sanjay Kumar Mishra**

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**Dr. Sudhanshu Shekhar**Assistant Professor, Dept. of Physics, Maharishi Vishwamitra College Buxar,  
Veer Kuwar Singh University, Ara, Bihar

**Abstract:** In sodium cooled Fast Reactors (SFRs), in the event of secondary sodium circuit failure (cracks developed in the fluid carrying pipe), the hot sodium is exposed to atmosphere, burns to produce sodium combustion aerosols and is released into the atmosphere. Of the released aerosols, sodium hydroxide (NaOH) poses inhalation health hazard (Threshold Limit Value (TLV) of NaOH is 2.0 / 106 kg/m<sup>3</sup> for inhalation) due to its corrosive nature. In the context of fast reactor safety analysis studies, the quantity of sodium aerosols reaching various locations in the downwind direction and its chemical composition are very important. In this study sodium aerosol dispersion experiments in the open environment were conducted, by burning 50 kg of sodium. Aerosols were released through a 10 m high chimney and sampling was done in a range of up to 700 m distance. About 100 aerosol samples were collected in a 30 field sector with 170 as a bisector line. Aerosol characteristics were measured and atmospheric dispersion simulations were performed to predict the ground level concentration and deposition using Gaussian Plume and FLEXPART models. The simulation results were compared with experimental measurements and models were validated. Both experimental results and model predictions showed that, the maximum ground level concentration occurred at 100 m distance from the release point and that the concentrations increased with increase of the release rate. About 14% of the total quantity of burnt mass of sodium was deposited as aerosols between 50 and 700 m distance. The chemical species at all the arc distances was found to be sodium bi-carbonate. The study is found useful in hazard evaluation of sodium aerosols released from a sodium fire event in SFRs or from a sodium handling facility, to determine the aerosol concentration and chemical species in the downwind direction, in particular, the chemical species is found to be bi-carbonate reducing the chemical hazard to greater extent. A model shall be applied to the site specific condition to predict the sodium aerosol concentration and deposition for any sodium fire incidents and subsequent release of aerosols.

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Poonam Khatri

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract** - The study found that the literature of children's is always found to be an area of debate and arguments; it is an area that is filled with controversies, contradictions, as well as puzzles. Text and shadow are the two perspective from which theorists of children's literature looked on to this genre. The concept of children's literature is a latest phenomenon, which has emerged in the west just after the introduction of system of education and their public schooling in the society. After the appearance of western tradition of writing for children, Indian writers attempted to write, keeping in mind children as an audience. Writers observed some of the contemporary issues faced by children are lack of adult supervision, lack of their involvement, racism, and discrimination, as per the findings of the study it shows that children also face violence at school, racial disparities. All such issues are affecting the life of children and making strong impact on their mental as well as physical health. This work is an analytical study, wherein I have studied about the connection of children's to contemporary issues in Indian fictions.

**Keywords:** Children fiction, problems, contemporary, issues, Indian fiction.

नीलम देवी

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**सारांश**— भारतीय परंपरा व सामाजिक नियमों के ताने-बाने के आधार पर महिलाएं आजीवन पिता, पति और पुत्र के संरक्षण में हो स्वयं का जीवन यापन करती रही हैं। कानूनी रूप से भारतीय संविधान में भले ही महिलाओं व पुरुषों को समान अधिकार प्रदान किया गया है, लेकिन इस तथ्य को आज भी नजरअंदाज नहीं किया जा सकता है कि विकास व सामाजिक स्तर के मुद्दों पर महिलाएं पुरुषों से काफी पीछे हैं। हमारे समाल की नींव को मजबूत करने के लिए महिलाओं की भूमिका उतनी ही महत्वपूर्ण है जितनी मानव शरीर को जीवित रखने के लिए वायु, जल और भोजन है नारी ही संतति की परंपरा में मुख्य भूमिका निभाती है, लेकिन फिर भी प्राचीन से लेकर आधुनिक समय में भी महिलाएं उपेक्षा का शिकार होती आयी हैं। महिलाओं को कम सुविधाएं और अधिकारों से वंचित रखा जाता है जिसके कारण उनका स्तर काफी निचला है। भारतीय समाज में महिलाएं आज भी कमजोर वर्गों में शामिल हैं। प्रस्तुत शोध पत्र उपरोक्त सभी स्त्री विमर्श के आयामों को वर्तमान साहित्य के संदर्भ में एक गुणात्मक अध्ययन के माध्यम से प्रस्तुत करता है।

**मुख्य शब्दावली:** स्त्री-पुरुष, स्त्री विमर्श, स्त्री समस्याएँ, सामाजिक भेदभाव, गद्य साहित्य, गुणात्मक अध्ययन।

Gaurav Asija

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract-** In current scenario, customers of banking system demands anytime and anywhere banking and this requires innovative, secure and robust technology, which is

ready to meet and fulfil the demands, expectations and needs of customers. Traditional banking system is moving towards digital world after digital transformation. It is an important change in whole system of banking. Some of the known digital services provided by the banking are Plastic money such as Debit and Credit cards, smart cards, etc. e banking that includes electronic payment system, online investment, online opening of trading account, electronic fund transfer, clearing services, telephone banking, mobile wallet, etc. The dynamics of the banks are changing, which means that performance of the bank is no longer depends upon the sale of branches. Attracting and retaining customers has become important and difficult for the banks and for this digital banking has become a good choice. There are various web-based portals and mobile applications which is attracting customers.

**Keywords:** Digitalization, India, growth, internet banking, digital banking services.

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**RFI/VIT/SSN/210**

**CUSTOMERS PERSPECTIVE FOR CHOOSING PRIVATE AND PUBLIC SECTOR BANK: A THEORETICAL PERSPECTIVE**

**Amit Kumar**

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract-** As competition is increasing due to economic globalization and creating a constantly changing environment, winning and retaining customers has become important as well as difficult. Nowadays, banks are focusing more on satisfaction of customers, as they have understood that attracting new customer is more difficult than retaining old customers. Customer looks for high quality services as well as products with minimum waiting time; therefore, they prefer tech-savvy banks. At this backdrop, commercial banks especially the Indian public sector banks were operating in insulated regime even after nationalization; on the other hand, private sectors banks adopted technology more quickly. Overall, customers of both private as well as public banks are found to be satisfied except some of the tangible and behavioral elements such as policies, efficiency etc. Both private as well as public sector need to work upon their behavioral factors and tangible factors to satisfy their customers and it will also help them to attract new customers and retain old customers.

**Keywords:** Private Sector, Public sector, Customers' satisfaction, bank's performance, finance.

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**RFI/VIT/SSN/211**

**CHANGING INVESTOR'S BEHAVIOR IN VARIOUS INVESTMENT AVENUES: AN ANALYTICAL STUDY**

**Pooja Dhingra**

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract-** This work is about studying the behavior of investor in identifying better investment avenues available for them in India. A plan called as investment strategy is developed to guide investor to choose the best investment plan and create an investment portfolio, which will help them to achieve the financial goals within a particular period. By increase in personal wealth, investment can make a good contribution, helps in overall economic growth and prosperity. The investing process can assist companies where they can raise capital in financial markets. Specific type of investment gives other advantages to investors, corporates and to society. The investors of Indian have good understanding and knowledge about the concept of portfolio management and risk and return of investment. "Prevention is better than Cure" is the mantra of investment that is expected with more income and less risk. Investors address distinct set of investment avenues to spend their saved money based on the availability of its risk and return. From this analytical work, I intended to understand the changing behavior of investor in various investment avenues available in the market.

**Keywords:** Investment Strategy, Investment Portfolio, Risk and Return, Avenues, Decision.

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**WOMEN REVOLUTION AGAINST THE MALE DOMINANT SOCIETY IN THE WORKS OF R.K. NARAYAN****Arun Singh**

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore, M.P., (India)

**Abstract** - Writers like that of R.K. Narayan who also were amongst the privileged people who got to learn English later started writing in that language, describing the life and livelihoods of people in India through fictional stories that gained appraise in and around the country. Being born in a Hindu family he saw the plight of women very closely. He understood how women were deprived off their basic rights of living and had no right to speak and were always suppressed. Education and specially knowing the way other countries worked made writers like R.K. Narayan understand that women in Indian societies were just objectified in the name of culture and customs and one could not and should not stay like that. This paper discusses about the revolution against the male dominated society by women in the selected work of R. K. Narayan. The paper discusses about the various steps taken by the women to save their identity in the society and make themselves strong.

**Keywords:** Women Revolution, R. K. Narayanan, Indian Culture, Society.

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**PENTOXIFYLLINE FOR INTERMITTENT AND ITS APPLICATIONS IN DERMATOLOGY****Rana Nileshkumar Ramanlal**

Department of Chemistry, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract** - Pentoxifylline is a methyl-xanthenes derivative with a variety of anti-inflammatory effects. pentoxifylline for intermittent and its applications in dermatology After oral administration, the aqueous solution of pentoxifylline is almost completely absorbed. It undergoes first pass metabolism and various metabolites appear in plasma very soon after administration; peak plasma levels reach within 2 hours. There are many hypotheses regarding the mechanism of action of pentoxifylline and its cellular and molecular effects, based on human and animal studies. Pentoxifylline affects almost all factors responsible for blood viscosity and is among the if rest known hemorheologically active drug Pentoxifylline has been found effective in recurrent oral and genital apothecosis. These benefi coal effects may be due to anti-TNF- $\alpha$  properties of pentoxifylline as well as correction of impaired erythrocyte deformability, which has been shown to be decreased in active Behest disease patients in comparison with healthy control subjects To determine the efficacy of pentoxifylline in improving the walking capacity (i.e. pain- free walking distance and total (absolute, maximum) walking distance) of individuals with stable intermittent claudicating, Fontaine stage II. For this update, the Cochrane Vascular Group Trials Search Co- ordinator searched the Specialized Register All double- blind, randomized controlled trials (RCTs) comparing pentoxifylline versus placebo or any other pharmacological intervention in patients with IC Fontaine stage II. Two review authors separately assessed included studies. matched data and resolved disagreements by discussion. Review authors assessed the methodological quality of studies by using the Cochrane 'Risk of bias' tool and collected results related to pain- free walking distance (PFWD) and total walking distance (TWD). We included in this review 24 studies with 3377 participants. Seventeen studies compared pentoxifylline versus placebo. In the seven remaining studies, pentoxifylline was compared with flunarizine (one study), aspirin (one study), Gingko balboa extract (one study), nylidrin hydrochloride (one study), prostaglandin E1 (two studies) and buflomedil and nifedipine (one study). The quality of the evidence was generally low, with large variability in reported findings.

**Keywords:** Pentoxifylline, methyl-xanthenes, Quality, Apothecosis, Deformability.

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## SPECIES RICHNESS AND ABUNDANCE OF HONEYBEE'S IN ALONG THE CATCHMENT OF NARMADA RIVER

**Dinesh Baban Deore**

Department of Zoology, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract** - Honeybee's comprise an important group of arthropods by way of their contribution to ecosystem stability. Besides this, they have been known to play important role in public and veterinary health and thus need to be scientifically explored more extensively. They are also the best pollinators and provide important role in vegetation. The Narmada is the third holy and fifth largest west flowing river of India and the biggest west flowing river of the state M. P. The Narmada river covers large areas in the states of Madhya Pradesh (86%), Gujarat (12%) and a comparatively smaller area (2%) in Maharashtra. The present study was carried out for the period of ten months. Two sampling sites were selected namely the Omkareshwar and Mandleshwar for studying the ecological distribution of Honeybee's. In the present study about seven species of Honeybee's were recorded. Highest Shannon and Weaver index was observed in station I and lowest in station II. The value of Correlation coefficient (r) indicates that there was positive correlation between the Honeybee's population and transparency, alkalinity, DO and there was moderate negative correlation between Honeybee's fauna and water temperature, BOD. Our study raise an important point concerning the regular monitoring of physico-chemical as well as biological parameters of the Narmada river which will be useful in maintaining the productivity of the river. This study shows that the diversity of Honeybee's fauna along the catchment of Narmada River.

**Keywords:** Queen Mandibular Pheromone, Honeybee Brain Dopamine, HPLC analysis and Neural Mechanisms.

## SOLAR POWERED ABSORPTION AIR-CONDITIONING SYSTEM

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**Abstract** - An air-conditioning system utilizing solar energy would generally be more efficient, cost wise, if it was used to provide both heating and cooling requirements in the building it serves. Various solar powered heating systems have been tested extensively, but solar powered air conditioning systems have received very little attention. Solar powered absorption cooling systems can serve both heating and cooling requirements in the building it serves. This paper will help many researchers working in this area and provide them with fundamental knowledge on absorption systems, and a detailed review on the past efforts in the field of solar absorption cooling systems with the absorption pair of lithium-bromide and water.

The chapter presents the recent studies focusing on optimizing the efficiency of air-conditioning (AC) systems using solar energy. For this purpose, several advanced AC plants (absorption, adsorption, and desiccant) are designed. Their technology and components are described in this chapter. It also discusses the energy intake of the solar energy use in air-conditioning, especially in rural regions where the electricity shortage is frequent, as well as the reduction of the energy costs and the pollution rate. A comparison between solar AC systems and traditional AC systems at the level of the designs, costs, and effectiveness is made at the end of the chapter. This article shows the procedures and considerations to evaluate a solar air-conditioning project considering both technical and economical analysis. The system generates air conditioning and heating for a residential home. A thermodynamic analysis is conducted in order to determine the capacity of the equipments that will be used in the solar air-conditioning system. It also shows the economical analysis of the solar air-conditioning system comparing with conventional cooling and heating systems. Through a developed computational model is possible to analyze different scenarios

under which the solar air-conditioning system meets conditions of economical feasibility based on criteria such as the internal rate of return among others parameters.

**Keywords:** Economical, Computational, Conventional, Thermodynamic, Costs, Technology.

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**RFI/VIT/SSN/218**

**AN EXPERIMENTAL INVESTIGATION OF FEATURE SELECTION TECHNIQUES FOR  
CROP LEAF IMAGE CLASSIFICATION**

**Hanif Khan Pathan**

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Indore

**Abstract-** The plant leaves are the good indicator of any viral infection or disease in crops. Therefore recently a significant amount of efforts are made in order to design the methods and techniques based on plant leaf image analysis. In this paper we proposed to study and compare the different image feature extraction techniques. Basically the aim of this study is to reduce the image data size to improve efficiency of the ML algorithms. The proposed study includes the color features, edge feature extraction technique namely canny edge detection, and the texture analysis technique i.e. local binary pattern (LBP) analysis. Finally using these features the artificial neural network (ANN) has been trained and the performance with these algorithms has been evaluated. According to the obtained results the edge detection techniques are performing better with the classifier. Additionally the combination of multiple features are also provides better results as compared to the individual features.

**Keywords:** Crop disease detection, feature extraction, plant leaf image analysis, comparison of feature analysis, combining multiple features.

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**RFI/VIT/SSN/219**

**STUDIES ON EFFECTS OF DIFFERENT CONCENTRATIONS OF ZINC AND COPPER  
IONS ON TRICHODERMASP**

**Gohil Nikitasinh Anirudhsinh**

Department of Microbiology, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract-** Development of plants is closely related with both the soil quality and community of soil microorganisms, therefore plants shows major direct or indirect influenced of these heavy metals and even to the microorganisms associated. Copper and zinc are essential micronutrient but beyond certain threshold conditions shows toxic effects to both microbes and humans. Many heavy metals have been used to study the effects on several types of fungi. In this paper, two heavy metals viz.  $ZnCl_2$  and  $CuSO_4$  of different concentrations were used to study their effect on selected fungi. The result reveals that  $ZnCl_2$  and  $CuSO_4$  have negative effects on Trichoderma sp. In their growth rate and reduce the production of spores with the increased concentration of the heavy metals. In this study,  $CuSO_4$  showed greater inhibitory effect on the growth of Trichoderma sp. than the concentration of  $ZnCl_2$ .

**Keywords:** Heavy metals, Hydrocarbons, Mycoparasitism, Trichoderma sp.

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## FUTURE IMPACT OF NATIONAL EDUCATION POLICY IN DEVELOPMENT OF EDUCATION OF INDIA

**Prof. (Dr.) Pramod Sharma**

Registrar, Renaissance University, Indore

**Abstract** - Education is the key to do a nation's development. A properly educated nation, which is modern in genesis, an intellect and forward looking in thinking, can only put the country at the zenith of its development. So we need to extent our education system far and wide. That's why, a good education policy is needed to achieve this purpose our educational policy making system is based on incremental model, which is one of the most popular models of public policy New education policy is the first education policy of the 21<sup>st</sup> century and replaces the 34 years old National Pillars of Access, Equity, Quality. Affordability and Accountability this policy is aligned to the 2030 Agenda for Sustainable Development and aims to transform India into a vibrant knowledge. Superpower by making both school and college education more holistic flexible multidisciplinary suited to 21<sup>st</sup> century needs and aimed at bringing out the unique capabilities of each student. This education policy will work as a basic for an education system suited for the delivery of education which will be pro-people, easily available, uniform, universal, well planned, science oriented and high standard as a strategy to continue all problems. The policy lays a great emphasis on promoting multilingualism so that children know and learn about the rich and vast array of languages of their country.

**Keyword:** New Education Policy 2020 is brought for the "LEARNING TO LEARN" approach and says that "NO CHILD WILL BE LEFT BEHIND" PERSPECTIVE OF THE POLICY.

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## ROLE OF SOCIAL NETWORKING WEBSITES IN LEARNING ENGLISH: A THEORETICAL PERSPECTIVE

**Vikas Sharma**

Research Scholar, Dr. A. P. J. Abdul Kalam University, Indore (India)

**Abstract** - Technology has always been the most important factor in the case of the advancement of civilization. Today, technological advancements have successfully created a Global Village. Like all walks of life technology has greatly advanced the structure of the Educational System. The technological advancements that majorly impact education are computers, broadcasting devices, smartphones, tablets, and other devices. The Internet provides one of the greatest resources in the form of Social Networking Sites, to connect a native English speaker with a willing second language learner. With the help of the various Social Networking Sites, the learner can directly communicate with a native thus, learning practical applications of the language and the cultures, traditions, and customs that come with the language. These interactive sessions help the learner to learn not only quicker but more effectively learn the use of various local twists too. This paper is theoretical in nature and explores the various ways and means by which a person can learn English Language through social networking websites.

**Keywords:** Social Networking Websites, English, Learning, Internet, Devices.

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## भारत में महिला सशक्तिकरण का अवलोकन: अतीत से वर्तमान तक की संक्षिप्त चर्चा

**भावना शर्मा<sup>1</sup> एवं डॉ. वंदना वर्मा<sup>2</sup>**

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साररूमहिला सशक्तिकरण एक बहस का विषय है। पाषाण युग के पहले के समय में, महिलाओं को पुरुषों के समान दर्जा और शक्ति प्राप्त थी। लेकिन फिर उन्हें उत्तर वैदिक और महाकाव्य युगों के दौरान कुछ कठिनाइयों का सामना करना पड़ा। इतिहास गवाह है कि कई बार महिलाओं के साथ गुलामों जैसा व्यवहार किया जाता था। यह देखा गया कि बीसवीं बीसवीं (राष्ट्रीय आंदोलन) की शुरुआत से ही महिलाओं की स्थिति में धीरे-धीरे बदलाव आ रहा था और इसका श्रेय ब्रिटिश लोगों को जाता है। भारत की स्वतंत्रता के बाद ही, डॉ. अम्बेडकर के सक्षम नेतृत्व में, संवैधानिक निर्माताओं

और राष्ट्रीय नेताओं ने पुरुषों के साथ महिलाओं की समान सामाजिक स्थिति की जोरदार मांग करना और दोहराना शुरू कर दिया। आज भारत में महिलाओं का अच्छा अनुपात सभी क्षेत्रों में सम्मानजनक स्थिति में है, यह देखकर बहुत खुशी होती है। लेकिन देश में दो वर्गों के लिए हो रही विभिन्न घटनाओं से स्पष्ट रूप से पता चलता है कि सार्वजनिक रूप से महिलाओं के साथ भेदभाव, दुर्व्यवहार, अत्याचार और उत्पीड़न किया जाता है। परिवारों में पीड़ा के बावजूद, यह जानकर अच्छा लगा कि कुछ ही महिलाएं अपनी क्षमताएं स्थापित करने में सफल रही हैं। इसलिए, यह लेख सुझाव देता है कि प्रत्येक मनुष्य को महिलाओं की स्थिति को बढ़ावा देने और उनकी गरिमा का सम्मान करने के लिए कदम उठाने में सावधानी बरतनी चाहिए।

**खोजशब्द:** महिला सशक्तिकरण, अच्छी शिक्षा आनुपातिक आदि।

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**RFI/VIT/SSN/224**

### **PHISHING DETECTION TECHNIQUE AS A UNARY CLASSIFICATION PROBLEM USING MACHINE LEARNING**

**Lokendra Singh Songare**

Department of Computer Science and Engineering, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract-** The low cost of communication and internet technology empower the common man to access various services online. But, these services are under watch of attackers who are trying to trick the online user by misleading or fake URLs. The URL communication may lead to phishing attack. Therefore accurate identification of malicious or phishing URL is one of the critical issues. In this paper, a ML (machine learning) model is proposed to recognize the phishing URL. The proposed model formulates the URL classification problem as unary classification problem. Thus two association rule mining algorithms are utilized to mine the association rules namely Apriori and FP-Tree. The model responsibly identifies the phishing URLs. The experiments on phish Tank database were carried out. Additionally, the mix set of URLs (Phish tank and legitimate) were also used with the association rule based classification model to validate the performance. The obtained results in terms of accuracy confirm the goodness of the proposed ML based phishing URL classification model. According to the results we found the Apriori based rules are accurate as compared to FP-Tree based URL classification. On the other hand the FP-Tree is efficient in terms of time and memory resource utilization.

**Keywords:** Cyber Security, Email, Fraud, Phishing, URL Classification, Emails Classification.

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**RFI/VIT/SSN/226**

### **IMPACT OF DIVIDEND ON THE EQUITY SHARE PRICES OF THE LISTED COMPANIES IN INDIA**

**Thangjam Ravichandra Singh**

Department of Management, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract -** In corporate finance, the most important decision of a finance manager is to look at the dividend policy of whether to pay the dividend to the equity share holder or retained the earning for future opportunity. It is also a mystery as to whether dividend policy impacts the dynamics of the equity prices of the listed firms. The corporates listed in NSE and BSE were selected for the research work and the share prices – historical data has been analysed to have a sound decision of investment strategies. In this research work, the main objective was to investigate the impact of dividend policy both cash dividend and share dividend on the equity share price. The various data including the volume weighted average price as dependent variable and cash dividend per share and share dividend per share as independent variables were used for many corporates in this research. The data were further analysed with Least Square testing to prove the significance of the model and the results thereof, proved that the model was suitable for estimation. Post which, Random Generalized Least Square Regression Testing was conducted at 5% significance level. The research got an outcome that a significant positive relationship between cash dividend and share prices and also a negative relationship between share dividend and share prices. Further, the management of these listed firms should consider adoption of cash dividend

policy more than share dividend as a strategy aimed at increasing the value of the firms due to its positive effect on the share price.

**Keywords:** Corporate Finance, NSE, BSE, Investment, Cash Dividend, Share Dividend.

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**RFI/VIT/SSN/227**

**TO EXPLORE THE INFLUENCES OF VARIOUS MICRO DRILLING CONTROL FACTORS  
ON FIBER-REINFORCED POLYMER COMPOSITES**

**Dilip Gangwani**

Department of Mechanical Engineering, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract** - Fiber reinforced polymer composites outperform other materials in aerospace applications such as automobiles, aircraft, and the construction of space ships and sea vessels. They have a low thermal conductivity, high strength, and chemical and microbiological resistance, as well as excellent basic strength stiffness, corrosion resistance, and a light weight structure. The primary goal of this study was to use the hand layup process to create GFRP-Glass Fiber Reinforced Polymer (a composite material) from glass fibre, epoxy and hardener, which is one of the most cost-effective ways to make fiber-based composites. The GFRP composite was machined using a CNC vertical machining centre and micro drill bits of Carbide and H.S.S. material with different diameters of 0.5 mm, 0.8 mm, and 1 mm. Drilling parameters such as feed and spindle rpm were varied in the current experiment. After gathering all of the data, the values are tabulated and a graph is created. FRP composites are now widely used in a variety of applications. Carbide drill bits and H.S.S. drill bits were used to drill FRP composites in this experiment. In the drilling process, spindle speed, drill bit diameter, and feed rate are used as input parameters, and the delamination factor is used as an output response. As shown in the tables, the delamination factor improved as the feed rate and spindle speed increased. This was due to the fact that the unreformed chips had a larger cross-sectional area. Drilled holes in GFRP sheets performed better than holes drilled with an HSS tool. A higher spindle speed and a slower feed rate can be used to achieve high hole quality. Drilled holes in GFRP sheets of 0.5 mm, 0.8 mm, and 1 mm made with a carbide tool outperform holes of 0.5 mm, 0.8 mm, and 1 mm made with an HSS tool. A higher spindle speed and a lower feed rate can produce good hole efficiency.

**Keywords:** GFRP-Glass Fiber Reinforced Polymer, Carbide drill bits, H.S.S. drill bits, Delamination factor, Micro Drilling.

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**RFI/VIT/SSN/228**

**HUMAN-POWERED FLYWHEEL MOTOR (HPFM): A REVIEW**

**Hemant K Baitule**

Department of Mechanical Engineering, Dr. A. P. J. Abdul Kalam University, Indore

**Abstract** - Human-powered flywheel motor has been used for various rural-based applications. The existing HPFM has the capacity to develop 3 to 5 HP power. This paper is discussing the varied literature on human-powered flywheel motor system. It also addresses the generation of design data for the human-powered flywheel motor through the development of generalized experimental data-based models. As can be seen in detail in the paper, HPFM is a novel energy source. One should think about developing influence of more than one peddler to elevate energy storage quantum so that higher power process unit can also be energized.

**Keywords:** Angular velocity, Mass moment of inertia, Gearratio, Torsionally flexible clutch (TFC).

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Versha Matre

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**Abstract-** Mobile ad hoc network (MANET) is one of the popular networks and communication technology. The MANET is a set of wireless nodes that are enabled to communicate with each other by using Wi-Fi. The nodes are limited to communicate in a specific range, thus the intermediate nodes are used to create a path and convey messages. The MANET self-organizing network thus nodes are free from the network. So, any time a new node can join or leave the network. Additionally, the network is not involving any centralized administration or control thus the routing and other decisions are made by the nodes itself.

The properties of MANET enable different applications to take advantage of different industrial and military operations. In this paper, an army application is proposed to secure network communication. Where we assumed, the network contains two malicious nodes that are connected with a high-speed LAN. Additionally both the attackers are trying to suspend the communication of the network. Such kind of situation is known as a wormhole attack.

Mobile ad hoc network (MANET) is one of the well-known technologies in network and communication. MANET offers significant features that help to improve applications. In this paper for MANET's secure routing and improved routing protocol is introduced. The proposed routing technique is a trust-based routing protocol that evaluates the characteristics of intermediate nodes in the network. During the evaluation of nodes, a weighted trust value for all intermediate routers is calculated to create a secure path establishment. To compute weighted trust the network parameters of nodes are used i.e. packet drop ratio, RRT and energy consumption rate. Additionally, a trust threshold is used for classifying the malicious and legitimate nodes in a network path. Therefore trust threshold is used to make decisions for the selection of a secure and efficient path. Finally, a comparative study between traditional AODV and proposed trust-based AODV is performed. The experimental results demonstrate the proposed routing is efficient and secure as compared to traditional AODV routing protocol.

**Keywords:** Mobile Adhoc Network, Security, Trust Computation, Routing Protocol improvements, Implementation.

Jasjit Singh Sodhi

Department of Management, Dr. A. P. J. Abdul Kalam University, Indore (M.P.)

**Abstract** - All auditors must adhere to rules that encourage moral behavior. The PCAOB/AICPA has created a Code of Professional Conduct, sometimes known as its code of ethics, for financial statement auditors. The principles and the norms are the two parts of this code of ethics. The purpose of this research is to explore, via a qualitative study based on 32 semi-structured interviews with assurance of sustainability audit report agents, how they perceive and handle ethical difficulties underlying the verification of sustainability reports. the majority of ethical Four linked concerns have been identified: sustainability's underlying commercialism assurance, the verification process's symbolic character, the relationship between auditing and involvement in consultancy projects and experience with the audited firms The results provided insight into the Reflectivity of assurance companies on these challenges and the justification techniques employed how they balance the impartiality and independence necessary for auditing tasks with features of client-provider relationships that are commercial in nature. The study also highlights the importance of contextual factors in the assurance services' ethical standards.

**Keywords:** Classification audit report, principles, independence of auditors, sustainability audit reporting.

**MACHINING PARAMETERS AND SURFACE ROUGHNESS STUDY OF NICKEL BASED  
INCONEL-718 ALLOY**

**Pankaj Shende**

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452016

**Abstract** - Inconel 718 superalloys are known materials with high applicability to components that demand exceptional chemical and mechanical properties at higher working temperatures combined with excellent surface finish requirements. However, due to the lack of in-depth knowledge regarding its machining process, the material is considered a difficult-to-machine material. Therefore, to improve the machining process of the Inconel 718 superalloy, by finding the optimal processing conditions, it was necessary to analyze the influence of the cutting parameters on the workpiece surface quality. In this work, the evaluation of quality indicators was made through the influence analysis of cutting speed, feed, tool, and lubrication parameters. The surface roughness (Ra, Rt), consumed power, vibration, and tool wear indicators were evaluated by following a Taguchi experimental design. To perform the machining process, the tool CNMG120408-M1 coating TS2500 with minimum quantity of lubricant was used. Results have proven that feed rate adjusted to 0.10 mm/rev and the cutting speed of 70 m/min provided the optimal processing results. It was observed that the feed increase led to an increase of all indicators. Consumed power denoted high sensibility concerning the machining parameters, suggesting its potential use in tool wear prediction studies applied for the Inconel 718 machining.

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