# INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY APPROACHES & THEIR SCOPE [ICMAS-2023]

*(Hybrid Mode)*

27th-28th January, 2023

2023 ICMAS
International Conference on Multidisciplinary Approaches & their Scope

# SOUVENIR

DKNMU
VALUE • KNOWLEDGE • CHARACTER

*NAAC ACCREDITED*


Organized By:

**DR. K. N. MODI UNIVERSITY**

**INS-1, RIICO Industrial Area, Phase-II, Newai, Tonk, Rajasthan - 304021**

# INTERNATIONAL CONFERENCE
# ON
# MULTIDISCIPLINARY APPROACHES & THEIR SCOPE
# [ICMAS-2023]

***(Hybrid Mode)***

**27th -28th January, 2023**

# *SOUVENIR*

***NAAC ACCREDITED***

**Organized By:**


**DR. K. N. MODI UNIVERSITY**

**INS-1, RIICO Industrial Area, Phase-II**

**Newai, Tonk, Rajasthan - 304021**

# ***ICMAS-2023***

---

**CHIEF PATRONS :**

**Prof. (Dr.) D. K. Modi**
Hon'ble Chairman, Dr. K.N. Modi Foundation

**CHIEF MENTOR :**

**Prof. (Dr.) R. K. Khandal**
Former Vice Chancellor UPTU, Lucknow

**PATRON :**

**Mr. Sanjay Gupta**
Trustee
Dr. K.N. Modi University

**Mr. U.N. Mishra**
Registrar
Dr. K.N. Modi Foundation

**Prof. (Dr.) V. K. Dwivedi**
Pro-President, DKNMU

**CONVENER :**

**Prof. (Dr.) Jay Prakash Dubey**
Dean Academics &
Director: IQAC

**CO-CONVENER :**

**Dr. Pradeep Kumar Sharma**
Dean Student's Welfare

**&**

**Dr. Sandeep Gupta**
HoD, Electrical and Electronics Engineering

## ORGANISING COMMITEE:

Dr. Monika Sharma, Dean Faculty of Law

Dr. Amit Sharma, Research Coordinator

Dr. Ranjan Kumar, HoD Civil Engineering

Dr. Amit Verma, HoD Applied Sciences

Dr. Santosh Sharma, HoD Faculty of Law

Dr. Meenu Gangal, HoD Education

Dr. Hemraj Jat, HoD School of Agricultural Sciences

Dr. Seena, HoD Management

Mr. Onkar Mal Bunker, HoD Mechanical

Mr. Aneesh Kumar Mishra, HoD Computer Science Engineering

Dr. Dharmendra Yadav, HoD Faculty of Social Studies

Dr. Rahul Kumar, Computer Science Engineering

Dr. Sanjeev Vijay, Applied Sciences

Dr. Sagar Kumar, Mechanical Engineering

Mr. Anil Sharma, HoD, School of Pharmaceutical Studies

Mr. Girish Kumar Vyas, School of Pharmaceutical Studies

Ms. Raj Sinha, Computer Science Engineering

Mr. Shashi Maurya, Computer Science Engineering

## INTERNATIONAL ADVISORY COMMITTEE:

Mr. Sanjay Gupta, DKNMU, Rajasthan

Mr. U. N. Mishra, DKNMU, Rajasthan

Prof. (Dr.) R.C. Lal, DKNMU, Rajasthan

Prof. (Dr.) A. K. Sharma, DKNMU, Rajasthan

Prof. (Dr.) K.P. Sharma, DKNMU, Rajasthan

Prof. (Dr.) Rajesh Booree, C.P.R.A., Sydney, Australia

Prof. (Dr.) Tej Bahadur Karki, National R. Authority, Nepal

Prof. (Dr.) Om Kumar Harsh, Australia

Prof. (Dr.) Piyush Sharma, Principal, MAIP, Jaipur

Prof. (Dr.) Uday Singh, Gorakhpur University, India

Prof. (Dr.) G. S. Dangayach, MNIT, Jajpur

Prof. (Dr.) Ranjana Dubey, T.M.B. University, Bihar

Prof. (Dr.) Mahendra Choudhary, MNIT Jaipur

Prof. (Dr.) Tarun Varshney, Sharda University, Noida

Prof. (Dr.) R. D. Shukla, BBIT, Kolkata

Prof. (Dr.) V. Ravi Prasad, N.E. College, Gudur

Prof. (Dr.) Padmanabh Thakur, G.E.U., Uttarakhand

Dr. Mangal Raj, C. N. University, South Korea

Dr. Praveen Sharma, Senior Scientist, USA

Dr. S. P. Singh, EED REC, Ambedkar Nagar

Dr. Sunil Yadav, DKNMU, Rajasthan

Mr. Shantanu Sanghi, CEO KRSNA Industry, Newai

Mr. Naveen Sharma, MD, Indochem Industries, Alwar

# About Dr. K. N. Modi University

Dr. K. N. Modi University, a NAAC accredited, a State Government ordained & UGC recognized Private University, is situated at Newai in the Tonk district of Rajasthan [India]. It is being managed by Dr. K. N. Modi Foundation, whose Founder Dr. Kedar Nath Modi was a doyen in contributing to the cause of the Society & a pioneer in establishing educational institutions. The Foundation, now in the throes of its Platinum Jubilee Celebrations, is being administered by the illustrious son of its Founder, Prof. (Dr.) D. K. Modi, who is educated both in India and Switzerland. The University, in the background of its philosophy, 'Education for the development of the society', has embarked on a missionary zeal to realize its goals & objectives, since its inception during the academic year 2010-11. It offers professional academic programs in Agriculture, Arts, Commerce, Law, Management, Pharmacy & diverse streams of Engineering at Diploma, Undergraduate, Post Graduate & Doctoral levels to scores of students belonging to diverse states of country besides those from SAARC countries and Nepal, and those from African & East Asian Countries in the near future.

# Scope of Conference

The conference aims to discuss innovative strategies adopted globally for organizational sustainability in the diverse areas of business & Academia to bring together Academicia, Scholars, Practitioners, Management Consultants, Corporate, Government and experts from all spheres under one roof to discuss and analyze research-based knowledge on relevant strategies; cover the diverse areas of following main categories for their sustainable growth but not limited to: Physical & Electronics Science Engineering - Mechanical, Civil, Electrical & Electronics Computer Science, Industrial & Production, Automobile, Chemical & Life Sciences (including EVS) Nano science & Nano technology Biotechnology, Biomedical & Bio-sensors Law Management Education & Social Science Pharmaceutical Sciences & Drug Design Agriculture Any other topic directly or indirectly related to the main theme.

# *Chairman's Message*

It gives me immense pleasure in writing this foreword for the proceedings of the International Conference on **"INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY APPROACHES & THEIR SCOPE [ICMAS-2023]"** being organized by Dr. K. N. Modi University, INS-1, RIICO Industrial Area, Phase-II, Newai, Tonk, Rajasthan on January 27-28$^{th}$, 2023.

This conference, **ICMAS-2023** is targeted towards researchers, professionals, educators, and students. Its aim is to share innovative ideas, discuss issues on recent trends and future directions in the fields of multidisciplinary areas.

I am pleased to note that researchers and the student community from various institutes/universities from different parts of the world are presenting their research papers/ survey/study papers on different tracks and specialized areas of the conference.

I am sure that the interaction and thoughts haring during the conference between researchers, educators and students will be fruitful and set road maps for their future endeavor. I congratulate the organizing committee for their sincere efforts and wish the conference a great success.

**Prof. (Dr.) D. K. Modi**
**Chairman**
**DKNMU, Newai**

# *Pro-President Message*

DKNMU is the premier institute established in the year 2010 for providing education in various branches of engineering in the capital of Rajasthan. The institute is equipping a budding engineer & a technocrat with required qualification and expertise in specific branch of their choice with all the knowledge and skill under the guidance of highly qualified team of dedicated faculty. To maintain the degree of excellence in the institute, the role of emerging technologies, the new modes of knowledge delivery in an electronic environment consistent with industrial, technological and economic future of the country is undertaken as a coordinated effort. The institute provides an excellent environment for overall personality development and communication skills of a student apart from their curricular by their active participation in various activities like seminars, workshops, exhibitions, tech fests etc. conducted by the institute from time to time for exploring the potential to exhibit their other skills.

**Prof. (Dr.) V. K. Dwivedi**
**(Pro-President)**
**DKNMU, Newai**

# PROGRAM

**January 27, 2023**

**[Hybrid-Mode] DAY-1**

| Time | Details |
|---|---|
| 09:00AM Onwards | **Registration** |
| **Inaugural Session** | |
| 9:45AM | **Guest receiving and Welcome** |
| 10:00AM | **Guest will be seated on Dias** |
| 10:05AM–10:10AM | **Lighting of lamp and Saraswati Vandana** |
| 10:10AM–10:30AM | **Welcome address By Prof. (Dr.) V. K. Dwivedi (Pro-President)** |
| 10:30AM–10:35AM | **Honoring of Guest with Shawl & Plant by Pro-President, Dean Academic, DSW** |
| 10:35AM–10:40AM | **Inauguration of Proceedings** |
| 10:40AM–10:50AM | **Address By Honorable Chairman** |
| 10:50AM –11:10AM | **Address By Prof. (Dr.) R.K. Khandal, Former Vice Chancellor UPTU** |
| 11:10AM –11:30AM | **Address By Prof. (Dr.) D.S. Chauhan, Former Vice Chancellor APJAKTU** |
| 11:30AM–12:10PM | **Key note speaker Prof. (Dr.) N K Jain, Chif GM Nabard** |
| 12:10PM–12:40 PM | **Key note speaker Prof. (Dr.) Om Harsh Kumar, Australia** |
| 12:40PM–1:15 PM | **Key note speaker (Dr.d Pankaj Kumar, A.P. MNIT Jaipur)** |
| 01:15PM–2.00PM | **LunchBreak** |
| 2.00PM Onwards | **TECHNICALSESSIONS (Session Chair Dr. Amit Jhalani, A.P. SKIT, Jaipur, Dr. Pankaj Kumar, MNIT Jaipur) Venue:Auditorium,VCRRoom,QEEE** |
| 4:30PM-5:00PM | **HighTea** |

## PROGRAM

**January 28, 2023**

**[Hybrid-Mode] DAY-2**

| Time | Details |
|---|---|
| 09:00AM-9:20AM | **Breakfast** |
| **TECHNICALSESSION** | |
| 9:20AM-10:00AM | **Keynote Speaker Dr. Anoop Tiwari, Central University of Haryana** |
| 10:00AM-12:30PM | **Technical Session2**<br>**Venue : Auditorium, VCR Room, QEEE** |
| 12:30 PM-1:30 PM | **Lunch** |
| 1:30PM–1:45 PM | **Welcome address by Prof. (Dr.) Jay Prakash Dubey, Dean Academics** |
| 1:45PM–1:55PM | **Honoring of Guest with Shawl & Plant by Pro-President,**<br>**Prof. (Dr.) V. K. Dwivedi and HoD EEE, Dr. Sandeep Gupta** |
| 1:55PM–2:30PM | **Address by Chief Guest Prof. (Dr.) Pawan Kr. Basniwal, SBCP, Jaipur** |
| 2:30PM–3:10PM | **Address by Chief Guest Prof. (Dr.) S. B. Sharma, VC M.U. Malawai** |
| 3:10PM–3:25PM | **Address by Chief Guest (Mr. Dheeraj Kumar KCSL)** |
| 3:25PM–4:00PM | **Certificates Distribution** |
| 4:00PM –4:10PM | **Vote of thanks by Prof. (Dr.) Jay Prakash Dubey, DeanAcademics** |
| 4:10PM –4:15PM | **National Anthem** |
| 4:15PM –4:30PM | **Photography Session** |

## *Chief Editor*

**Prof. (Dr.) Jay Prakash Dubey**
**Dean Academic & Director IQAC**
**(Convenor ICMAS – 2023)**

## *Associate Chief Editor*

**Dr. Pradeep Kumar Sharma**
**Dean Student's Welfare**
**(Co- Convener ICMAS – 2023)**

**Dr. Sandeep Gupta**
**HoD Electrical & Electronics Engineering**
**(Co- Convener ICMAS – 2023)**

**Mr. Shashi Maurya**
**(Associate Chief Editor ICMAS – 2023)**
**Assistant Professor**
**(Computer Science & Engineering)**

# CONTENTS

## ABSTRACT

# ***PREFACE***

***The INTERNATIONAL CONFERENCE ONMULTIDISCIPLINARY APPROACHES & THEIR SCOPE (ICMAS-23)*** was organized by Dr. K. N. Modi University, INS-1, RIICO Industrial Area, Phase-II, Newai, Tonk, Rajasthan - 304021on January 27-28, 2023. (Hybrid Platform).

Objective of conference was to provide a vibrant platform to Researcher, Academician, and Scientist & Industrialist working in the Multidisciplinary area.

This book that we wish to bring forth with great pleasure is an encapsulation of research work presented during this international conference. We hope that efforts would be found informative and interesting to those who are keen to learn advancement in Information Technology that addresses the challenges of exponential growing information in the core and allied field of Information Technology.

We are thankful to National and International key note speakers, Authors of research papers for their valuable contribution to this conference & for bringing forth significant research & literature across the field of Advancement in various research areas.

We express special thanks to publishers of this book and its team for valuable support in publication of proceedings.

# Estimation Of Cycle Time For Lathe Machine Operation Using Different Materials

Dr. Pradeep Kumar Sharma, Dr. Sagar Kumar, Mr. Onkarmal Bunkar

Department of Mechanical Engineering, Dr.K.N. Modi University Newai, Tonk

## Abstract-

To achieve the aim of making a different type of performance on lathe machine. We Compare and analyzed the cylae time for mild steel and aluminium. In lathe machine tool rotates the workpiece on its axis to perform various operations such as cutting, sanding, knurling, drilling, or deformation, facing, turning, with tool that are applied to the workpiece to create an object with symmetry about an axis of rotation due to them. We used available tools and equipment in central workshop. We also calculate the cycle time of object and parameters of lathe machine like speed feed and depth of cut.
Finally, compare the actual machine time and practical machine time for mild steel and aluminium. To ensure the achievement of best performance, interactive procedures, were carried out. To achieve this preliminary experiment was carried out to determine the optimum speed of this machine various design alternatives for lathes can also be used to produce most solids of revolution, plain surfaces the objective was considered.

***Keywords: Lathe machine, Cycle time, cutting speed, feed, Depth of cut, operations.***

# New Device for The Blind Person as a Third Eye using Sensors

Dr. Sandeep Gupta, Dr. Vidya Kant Dwivedi

Department of Electrical Engineering, Dr. K. N. Modi University Newai, Tonk

## Abstract-

The third eye for the blind is an innovation with the help of multidiscipline subjects like computer science, electronics engineering, and health science that helps the blind navigate with speed and confidence by detecting nearby obstacles using ultrasonic waves and notifying them with a buzzer sound or vibration. According to the WHO, 39 million people are estimated to be blind worldwide. They are suffering a lot of hardships in their daily lives. The affected ones have been using the traditional white cane for many years, which, although effective, still has a lot of disadvantages. This will be wearable technology for the blind. One of the main advantages of this device is that it will be affordable. The Arduino board is worn like a device. This will be equipped with ultrasonic sensors, consisting of a module. Using the sensor, the visually impaired can detect the objects around them and travel easily. When the sensor detects any obstacle, it will notify the user by beeping or vibrating. This is an automated device. This device will be of great use to the blind and help them travel to different places.

## Cyber security, Cyber-Physical Systems and Smart City Using Big Data

Miss Raj Sinha

Department of Comuter Science Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Some towns throughout the world are now adopting new technology and transforming into smart cities. The quality of life for citizens is improving as a result of new technologies. Any use of technology, however, brings with it new concerns and obstacles. A single vulnerable action by an individual or group in a smart city can put the entire city at danger. Because so many aspects of smart cities rely on information and communication technology, cyber-security issues (such as data leaks and hostile cyber-attacks) have an impact on how they operate. As a result, in order to respond to the enthusiastic adoption of global smart city technology, cyber security must follow suit. Also, Around the world, a huge portion of the population is relocating to metropolitan areas. Nations are collaborating on smart city projects to improve the lives of their citizens. Smart city installations rely heavily on cyber-physical technologies. They' re found in nearly every system component in the smart city ecosystem. The purpose of this article is to conduct a survey and discussion on cyber security, smart cities, and the extant literature on security in that technology. The current research focuses on the four essential components of a smart city, namely the smart grid, smart buildings, smart transportation, and smart healthcare. Also, the purpose of this study is to discuss the essential components and difficulties involved in changing traditional cities into smart cities, with a particular focus on cyber-physical systems in the Indian setting. The study focuses on the infrastructure and technical know-how needed to intelligently transform traditional cities that were developed haphazardly owing to overcrowding and poor planning into smart cities.

***Keywords: Cyber-Security, Cyber-physical systems, Smart City***

## Multiplication Of Shoots In Vitro Using Nodal Segments Of Sesame

Dr. Anupama Goyal

Department of Applied Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

An effective micropropagation system was effectively developed through an enriched culture system for Sesamum indicum L. used as a medicinal plant and a nutritionally important spice crop. Shoot multiplication was obtained on Murashige and Skoog medium supplemented with 15 g l-1 sucrose, 8 g l-1 agar and fortified with benzylaminopurine (BAP) at 0.1 -1 mg/l rabies. The maximum number of young shoots appeared on MS medium supplemented with 0.5 mg/L benzylaminopurine (BAP). Multiple combinations of harmonics were used for multiple inductions. The induced microshoots were transferred to culture medium supplemented with IAA (1.0 mg/L) for effective rooting. Newly developed shoots were taken for hardening and 71% survived effectively. This system can be successfully used for mass propagation of Sesamum indicum.

***Keywords: BAP; middle MS; Micropromotion; Multiple shoots; Sesame***

## Thermal Energy Storage System for Solar Power Plant

Mr. Onkar Mal Bunker, Dr. Pradeep Kumar Sharma, Dr. Sagar Kuamar
Department of Mechanical Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

As awareness of global warming and its adverse effects as caused by human activities increases in the world, renewable energy is fast gaining popularity as a way of combating the "energy trilemma" (meeting requirements for environmental sustainability, energy security and energy equity) The sun is the primary source of renewable energy with the exception of geothermal energy. Solar energy utilization is however limited due to intermittency of the resource. Solar thermal power plants employ solar radiation as the heat source to produce steam to drive turbines and produce electricity. This is a sure way of increasing operation hours and thus capacity to produce power. The paper is reviewed thermal energy storage systems and shown that the storage material is the main driving force in system design considerations.

***Index Terms- solar thermal energy, storage systems, system components, capacity factor, efficiency***

## Marketing Support using Aida Model

Mr. Prasenjit Chakrabarty
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Chief Executive Officer | Sales & Operation | Startup- FMCG- Healthcare- IT-Training| Consulting- Small Business 6 articles AIDA stands for the gross stages of the sales process- awareness- interest-desire- action. The AIDA model is widely used in formulating marketing strategies in SaaS sales strategy. The outcome of the successful strategy is a traction or purchase of the buyer. In the digital age, emphasis is one existence of product or service, building relationships, and creating mutual value to the customer. In this paradigm, the AIDA model fits well into the paradigm. The SME world is restrictive not from imagination or talent but from financial resources, which limits the options to execute effective growth strategies. Imaginative differentiation of social media marketing plays a key role to level the constraint and compete with bigger organizations. Studies have shown that one in five SME does not have a coherent digital marketing strategy. Without a proper strategy or goal, the marketing effort is not worthwhile. With an effective strategy and methodical execution, SME can derive impactful value from social media marketing. The AIDA model fits well with the context of social media marketing. The origin of social media marketing is print and electronic media. With the advent of social media, the marketing methods migrated there. Friends do trust their friends, families and follow their decisions. Similarly, if trust can be created by providing true response post purchase [“verified customer”], then such reviews can play a critical part to create a successful purchase decision.

## Source And Distribution of Lead and Its Effect on Plant Growth: A Review

Dr. Hemraj Jat, Dr. Rajendra Singh Choudhary, and Kailash Choudhary
Department of Agriculture, Dr. K. N. Modi University Newai, Tonk

**Abstract: -**

Lead is a naturally occurring toxic heavy metal found in the earth's crust. Globally Pb loading rate in soil exceeded its natural removal rate by approximately 20-fold. It is used widely for human welfare and prosperity but simultaneously its exposure and accumulation to a toxic level in the environment creates lot of problems as well. The important ore of lead is galena followed by cerusite and angestite with Pb 4+ and Pb 2+ form, respectively. The plant, food and soil material containing lead beyond 0.3, 10 and 600 ppm, respectively are at the toxicity level. The leaded gasoline and rainfall deposited lead are the main sources of the lead contamination in soil, water and environment. The industries of rubber, ammunition, glass, cable cover, alloy and lead sheeting are generating large amounts of lead and contaminating the environment. The important factors affecting the lead adsorption on exchange sites of soil are the pH, clay, $CaCO_3$, organic matter and cation exchange capacity of the soil. Specific adsorption on soil phases, precipitation and chelated compound formation are supposed to be govern solid solution equilibrium of Pb in soils. Excess lead causes a number of toxic symptoms in plant e.g. stunted growth, chlorosis, blackening of root system, inhibits photosynthesis, upsets mineral nutrition and water balance, change hormonal status and effects membrane structure and permeability.

***Key-Words: - Heavy Metals, Lead, Toxicity, Plant Growth***

## National Curriculum Framework 1998-2022: Transforming Education in India

Dr. Ruchi Bhargava
Department of Education Khalsa College of Education, Ranjit Avenue, Amritsar

**Abstract:**

India is one of the most culturally diverse and prominent countries in the world and has achievedmany feats ever since independence. But if we were to talk specifically about the education whichforms the future of a nation then there are a lot of things to consider. There are around 14,94,052 schools in India including Government, Govt Aided and Private Schools. Despitethese numbers, educational practices lacked in terms of "quality" until the introduction ofthe National Curriculum Framework. The traditional educational structure was focused onexamining the students quarterly or annually. It was mechanical and caused a sense ofcompetitiveness in the children from an early age. It diminished the interest of students inlearning, gave no scope for the growth of creative intelligence as well as did not contribute topersonality development. National Curriculum Framework 2005 was published to guide theinstitutions and schools to encourage the overall development of the children and to move awayfrom textbook-centric learning. National Curriculum Framework is a system of education that isdeveloped keeping in mind the geographical and cultural diversity as well as social environment. The key goals of the National Curriculum Framework is to promote a wholesome development ofthe child encompassing the academic, emotional, physical, and emotional aspects.

***Keywords: NEP 2020, NCF, Foundational Stage, NEP 1986, DIE***

## Stress and Thermal Behaviour Analysis of Tapered Roller Bearings

Dr. Sagar Kumar, Ritu Shree*, Dr. Pradeep Sharma, and Onkar Mal Bunker
Department of Mechanical Engineering, Dr. K. N. Modi University Newai, Tonk
*Department of Computer Science & Engineering, Vivekananda Global University Jaipur

**Abstract:**

Due to heavy loads and high operational speed, the parts of the bearings may undergo fatigue. The part spins in the cage as a result of squeal movement, skidding and skewing. The wear will be more due to the dynamics move of the bearings. Friction plays key role on the dynamics and failure of the bearings. The 3D modeling is done to study the dynamic effects of the ball and cylindrical shape roller bearings. For better performance of the tapered roller bearing, the kinematic and geometric equations is developed for both normal and axial loads. In this research work the design of taper roller bearing with different material compositions analysis of bearings has been done by ANSYS workbench 14.0 software. After that effect of stresses between the roller, inner, and outer ring is observed. New lubricants (calcium-based grease) with modified designed bearings are used. In that easy inlet and outlet of lubricants is provided. This research work is mainly focused on a new coating material (ZEFFLE series), which is corrosive resistant and fretting wear.

***Keywords: Stress analysis; thermal analysis; Tapered Roller bearings; peened bearing steel***

## OTT Changing the World of Digital Content Sharing

Mr. Lokesh Gupta
Ph.D. Scholar, Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

OTT can be a very economic platform to share your content. Traditionally we used broadcast mechanisms to share our content which is not affordable for everyone. This paper will be written with the aim that everyone gets knowledge of what OTT is and how can one start their owncontent-sharing platform.OTT can use to manage content copyright; this can be a great platform for sharing digital content as well as earning.

## A Study of The Performance of Agriculture in The State of Rajasthan

Mr. Mahaveer Prajapat

Department of Humanities, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

Rajasthan, the largest state of India, is endowed with diverse soil and weather conditions comprising of several agro-climatic situations that helps the state to adopt a diversified cropping pattern. The state is India's largest producer of mustard, pearl millet, and spices, cluster beans, bisabol and it is the second largest producer of maize. The state has a substantial area under vegetable crops. It is also having the second largest herd of livestock amongst Indian states contributing about 10 percent of the country's milk and 30 percent of mutton production. The diversified cropping pattern and the presence of livestock as a major livelihood source has helped the state in managing the wide range of risks associated with dryland agriculture. However, the state faces many challenges that are to be addressed systematically so as to facilitate a sustainable development of the sector. The present study evaluates the performance of agriculture in the State of Rajasthan in the recent years and also presents what could be the future options, given our objectives of accelerated growth, inclusiveness and reduction of poverty. This study will be useful to agricultural scientists, economists, non-governmental organizations, policy makers and planners in understanding the present state of agriculture sector in Rajasthan.

## Cyber Security and Governance

Prof. (Dr.) Monika Sharma, Dean of Law; Ms. Damini Saxena
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

In today's Era the authority of cyber security is the most contention theoretical issue. Allexperts are trying to give their best to bring consequential election to cyber security like asComputer security experts, national security experts, and policy analysts, but moreover, thediscipline of law and economics has completely applied to the issue yet. A specialistcompletely works on these preliminaries who explore this composite national securitychallenge from a law and its corrective viewpoint. A consultation of pure market solutions topublic –private issue analysis expands the focus and providing an important aspect for policyand several laws for attention regarding the applicable governmental role on the issue ofcyber safety measures.

***Key words: digital devices, information technology security, cyber security, cyber-attacks, unauthorized access, database security etc.***

## Effect of SiC Addition on Wear Properties of Al6061 Alloy at Different Load

Amit Dubey, Sagar Kumar, Maneesh Dubey
Dr. K.N. Modi University Rajasthan, India

**Abstract:**

Aluminum alloy metal matrix composites are used to make a variety of vehicle components. During operation, the machine parts rub against the material surface and experience sliding and abrasive wear. Here in this work Al6061-SiC composite wear testing of the as-cast was performed at various loading conditions to better understand their wear phenomenon. SiC with different wt.% (5, 7.5, and 10%) was added into Al6061 alloy and made composite through stir casting methods. The effect of adding a different percentage of SiC in Al6061 on wear property at different loading conditions was analyzed.

***Keywords: Wear, composite, SiC, Al-alloy, behavior***

## भक्ति की शक्ति: आज के जीवन मे

श्वेता नागर, डॉ शिखा रस्तोगी
मानविक विभाग, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

**सर :** भक्ति शब्द की व्युत्पत्ति भज धातु से हुई है, जिसका अर्थ सेवा करना या भजना है, अर्थात् श्रद्धा और प्रेमपूर्वक इष्ट देवता के प्रति आसक्ति। व्यास ने पूजा में अनुराग को भक्ति कहा है। भारतीय धार्मिक साहित्य में भक्ति का उदय वैदिक काल से ही दिखाई पड़ता है। भक्ति आत्मा की शक्ति है,भक्ति परमात्मा से मिलने का एक मात्र साधन है,भक्ति मनुष्य जीवन का मूल उद्देश्य है। जब हम ईश्वर की भक्ति करते हैं तो हमें शक्ति के साथ अन्य ज्ञान भी प्राप्त होता है और हम और ऊपर उठ जाते हैं हमारी सोच और कहीं अधिक ऊपर उठ जाती है कहने का मतलब काम क्रोध मोह माया से परे एक अलग सुख प्राप्त होता है। भक्ति भावना के कारण व्यक्ति ईश्वर की भक्तिमें लीन रहकर सादगी भरा जीवन बिताता है । भक्ति से ह्रदय के क्लेश समाप्त हो जाते है । भक्ति से शांति और आनंद की प्राप्ति होती है । भक्ति से मनुष्य को जीवनमुक्ति होने का मार्ग मिलता है । इसीलिए कहा जाता है भक्ति में शक्ति है।

## Fuzzy Rough Set Based Feature Selection:

Aneesh Kumar Mishra, Dr. Rahul Kumar Singh, Raj Sinha
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract.**

Fuzzy rough set grounded feature selection is a tactic for treatment vagueness uncertainty and redundancy present in discrete and continuous data set. Most of the collected data is rough data it need pre-process to get accurate information and reduce the size of storage. Several kinds of techniques proposed in previous studies. In this paper we discuss various fuzzy rough set-based feature selection techniques. However, most of them based on degree of dependency calculation and discerni- bility matrix calculation. This paper also includes intuitionistic fuzzy rough set-based feature selection approaches. Moreover, all presented techniques does not need any additional information to generate reduct set, feature selection also develops the enactments of profligate packing systems. In this review paper unsupervised domain (unlabelled data), supervised do-main (labelled data) and semi-supervised domain (some data class labelled) dataset have been discussed. Furthermore, we coexistent selected margins of fuzzy rough set grounded feature selection techniques and recommended some points to incredulous individuals.

***Keywords: Fuzzy Rough Set, Degree of Dependency, Feature Selection, Discernibility Matrix, Intuitionistic Fuzzy Rough Set.***

## Right To Privacy & Amp; The Media

Dr. Santosh Sharma
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

The privacy is that area of a man's life which in any given circumstance a reasonable man with an understanding of the legitimate needs of the community would think it wrong to invade. Privacy as a concept involves what privacy entails and how it is to be valued. Privacy as a right involves the extent to which privacy is (and should be legally protected). "The law does not determine what privacy is, but only what situations of privacy will be afforded legal protection."

## Forestry Tools and Techniques:

Raj Singh
Department of Applied Science, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Different industries can benefit from the utilisation of cutting-edge technological innovations that serve to strengthen their inherent resistance to disruption. Both agriculture and forestry have this characteristic. Read on to learn if it's possible to maintain healthy fields, quickly identify common tree illnesses, and reduce waste without negatively impacting the natural world. To maximise the long-term quality and quantity of forest products and services, forest management is an art and science known as forestry. There has been a shift in perspective, with forestry now recognised as an essential branch of study in the areas of science, natural resource management, applied art, and technology because of the critical role that forest ecosystems play in maintaining biodiversity. Forestry's primary objective is to design and execute ecologically sound social systems that ensure forests can keep providing essential ecosystem goods and services for the foreseeable future.

***Keywords: Forestry, Management, Tools, Technique***

## An Analysis of the Issues and Challenges of Infringement of Copyright in India

Mr. Dinesh Purohit
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The fastest growth of technology and industry leads to various copyright issues and challenges in Intellectual Property Rights in present time. Misuse of Computer database, software and internet are main causes of infringement of copyright in India. The Intellectual Property Right issues based on communication and information are address and tackle by copyright law in India. The main object of the Copyright Law is to protect interest of individual and it also allows the author to generate economic interest through writing books, article and developing new software in digital sphere. The main challenge of copyright infringement is determination of jurisdiction of subject matter. There are various International and National Legislations for protection works of author. Hence, in this paper the author proposed to canvass the issues and challenges relating to infringement of copyright in India in cyber world and the protections of rights of author in general.

***Index Terms- Copyright issues and challenges, reasons of copyright infringement and remedies.***

## Survey Paper on Application of Artificial Intelligence in Cyber Security

Mr. Ankur Raj, Dr. Rahul Singh, and Mr. Aneesh Mishra
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The number of cyber-attacks has outpaced financial institutions' capacity for analysis and defense against every emerging cyber threat to the sector. Due to the expanding digital protect against cyber-attacks, a significant amount of personal information must be encrypted. Attack execution is on the rise, and today's cyber-attacks are serious, A wide range of effects and results. These factors combine to cause problems So that your security team can keep up with the pace. The productivity or failure of a brand might be harmed by data leaks. Artificial intelligence promises to be a great solution for this. By combining the strength of artificial intelligence with cyber security, security experts are more capable to defend vulnerable networks and data from cyber attackers. This paper provides an introduction to the use of artificial intelligence in cyber security.

***Index Terms- Cyber security, Cyber-attacks, Artificial Intelligence, Scanning Engine.***

## A Comprehensive Review of Solar Thermal Energy Storage Systems Using Phase Change Materials

Mr. Rakesh Mahawar, Mr. Onkar Mal Bunker
Department of Mechanical Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

Dueto the growing awareness of global warming caused by conventional energy technologies, studies on solar systems are becoming more and more prevalent today. Because solar energy is a variable source, it must be stored as thermal or electrical energy in order for solar units to be dependable components of sophisticated energy systems. For the efficient use of solar energy, a storage media is needed that makes it possible to store extra energy and then release it when it's need. Phase change materials (PCMs) have drawn a lot of attention from the perspective of thermal energy because they offer a high storage capacity in comparison to practical thermal storage methods. A Number of studies carried out on PCMs for better results by using this in solar heating systems. This article aims to provide a comprehensive analysis of recent research on PCMs used in various solar thermal energy storage systems. The article gives readers a viewpoint on the subject and some ideas for further investigation. The application of PCMs for solar energy usage and storage, including solar power generation, water heating systems, solar cookers, and solar dryers, is thoroughly reviewed in this article. the researcher can use this study to guide future research on solar power production, water heating systems, solar cookers, and solar dryers for industrial applications.

***Keywords: PCMs, Solar energy, Energy storage***

# ई-शासन के द्वारा सुशासन एक प्रयास

Sandeep
Choudhary Bansilal University, Bhiwani

**Abstract:**

आज हम तकनीकी युग में प्रवेश कर चुके हैं| विश्व का कोई भी देश आज वैश्वीकरण के दौर में अपने आप को तकनीकी उपयोग से अछूता नहीं रख सकता यदि कोई देश अपने आप को तकनीकी उपयोग से अलग रखता है तो उसका भविष्य किसी भी रूप में उज्जवल नहीं हो सकता| शासन तथा सामाजिक जीवन का शायद ही कोई ऐसा क्षेत्र है जिसमें वर्तमान समय में तकनीक का उपयोग नहीं होता हो, यदि कोई राष्ट्र अपने निर्धारित लक्ष्य को पूर्ण करना चाहता है तो उसके लिए तकनीकी उपयोग तथा प्रशासन में नवोन्मेष को अपनाना अनिवार्य हो गया है विशेष रूप से लोकतांत्रिक शासन व्यवस्था वाले राष्ट्र जिनका उद्देश्य सुशासन की प्राप्ति है उनके लिए तकनीकी रूप से सक्षम होना निश्चित रूप से अनिवार्य हो गया है | आज ई – शासन को चौथी क्रांति के रूप में भी देखा जाने लगा है, क्योंकि तकनीकी उपयोग से प्रत्येक क्षेत्र में आमूलचूल परिवर्तन हुए हैं | शासन में पारदर्शिता बढ़ाने समाज के संपूर्ण भाग की शासन में भागीदारी सुनिश्चित करने बेहतर सेवा प्रदान करने संसाधनों का अधिकतम उपयोग करने यह सभी जो कि सुशासन प्राप्ति के लिए अनिवार्य है वर्तमान समय में केवल तकनीकी उपयोग के माध्यम से ही संभव है |इसलिए भारत सरकार ने भी समय की जरूरत को ध्यान में रखते हुए शासन में तकनीकी उपयोग को बढ़ावा देते हुए शासन को ई–शासन में परिवर्तित करने पर बल दिया है |

# An Analytical Study on Desertion Of Divorce

Mr. Dinesh Bairwa
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

On divorce, remarriage, and desertion were reviewed. Particular emphasis was focused on variables (demographic and interpersonal) related to divorce, divorce adjustment, probability of remarriage, and the dynamics of remarriage. Data presented confirm some previous findings but challenge others. Implications of the non institutionalized status of divorce, remarriage, and desertion, and suggestions for research in the 1980s are included.

## A Review on The Effect of Diatomite on The Cement Mortar and Concrete

Mr. Surender Bishnoi, Mr. Prakash Singh, and Mr. Arun Serawat
Department of Civil, Dr. K. N. Modi University Newai, Tonk

**Abstract**.

The most long-lasting and powerful concrete mix designs are built on the foundation of pozzolanic additives. Pozzolanic materials include by-products such metakaolin, rice husk ash, silica fume, fly ash, and other natural items like volcanic ash and pumice. Diatoms are one of the pozzolanic additives that have been utilised in the industrial and construction sectors to improve the rheological and mechanical properties of cement. The primary component of diatomite, a form of sedimentary rock, is amorphous or active silica. It is frequently utilised as a pozzolanic additive in cement mortar and concrete. It has had a discernible effect on altering the chemical and mechanical properties of cement. This paper describes the work that has been done to use diatomite as a partial substitute for Portland cement in mortar and concrete. The numerous mechanical and rheological characteristics of cement and concrete, including unprocessed diatomite, are covered in detail in the study.

***Keywords: Cement mortar, cement concrete, diatomite***

## Effect of Bacillus Sphaericus Bacteria on The Calcined Clay Incorporated Cement Concrete

Mr. Prakash Singh, Mr. Arun Serawat, and Mr. Surender Bishnoi
Department of Civil, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The partial substitution of Ordinary Portland Cement (OPC) with Supplementary Cementitious Materials is the most efficient way to reduce CO2 emissions in the worldwide cement production business (SCMs). Calcined clay can be considered one of the successful CO2 emission reduction techniques to achieve this. Calcined clay is used as an SCM in this study to replace cement to varied degrees in the pro-portions of 10%, 15%, and 20%. The self-healing capabilities of concrete are also investigated using calcined clay and Bacillus Spheeris's bacteria with a bacterial population of 10 8 cells/ml. Samples were evaluated for water absorption and compressive strength at 7, 14, and 28 days, respectively. When bacteria-embedded concrete is used in place of some calcined clay, the compressive strength of the concrete is raised by 21 percent, 24 percent, and 25 percent at 28 days. The bacteria in the calcined clay reduce the concrete' s porosity and boost its compressive strength as a result, making concrete building more efficient and cost-effective.

***Keywords- bacterial concrete, cement concrete, autogenous healing, compressive strength***

## Development of Bio-Weeds Composite Bricks with Granite Powder

Bibek Mandal
Dr. K. N. Modi University Newai, Tonk

---

## Abstract.

Even when the highest quality materials and craftsmanship are used, it is almost impossible to prevent the formation of cracks on the surface of the concrete. This is the case even in situations when the concrete is in perfect condition. Because of these flaws, the concrete's strength and durability may begin to deteriorate over time. Therefore, it is of the highest importance to seal these gaps so that the destructive effects of the degrading agents that may get into the concrete via these cracks may be mitigated or avoided. Various fractures may allow for the entry of these degrading agencies. In this study, a review is presented on the impact that the concentration of different bacteria belonging to the bacillus family has on the qualities of concrete, namely its strength and durability. In this study, we have taken into consideration bacteria with a concentration ranging from 10 0 CFU to 10 8 CFU. The potential of several bacteria belonging to the bacillus family to cure themselves is also discussed in this work. Self- healing is a term used to describe the process by which fractures in concrete may repair themselves by adding bacteria from the bacillus family to the concrete mix. This process also mitigates the negative effects that these bacteria can have on the concrete's strength and durability.

***Keywords: Bacterial concrete, cracks in concrete, autogenous healing, compressive strength***

## High performance Concrete with Silica fume additives for Smart City Creation.

Dr. Ranjan Kumar, Mr. Ashutosh Kumar
Department of Civil, Dr. K. N. Modi University Newai, Tonk

---

## Abstract-

This paper studies about the high strength concrete blended with Silica fume in presence of Methylamine admixtures. The high strength concrete mixes were prepared by blending Silica fume as 0%,5%,10%,12%,15%& 20% replacement of cement with addition of constant dose of Superplasticizers. The grade of the concrete tested were M75. The water cement ratio variation was .28. The Concrete mixes were casted in the form of cubes, Prisms and cylinders. The cubes were tested for compressive strength test; Cylinder specimen were tested for split tensile strength & prism specimen were tested for flexural strength test after a lapse of 28 days curing. It was observed that the results were satisfactory for 10% Sillicafume and .5 % % Methylamine superplasticizer.

***Keywords: High strength concrete, Sillicafume, Methylamine admixture.***

# A Study on Computerized Databases

Miss. Hema Mahawar, Mr. Satender Singh and Mr. Shashi Maurya
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

The government is the biggest producer of information and well-organized management of the gigantic amount of data available within the government departments is of extreme importance. Due to the advent of information and communication technology (ICT), the e-government applications are being implemented to improve government functioning by exploiting ICT potential. In order to meet government data needs efficiently and effectively, the databases need to be designed conforming to standard database design principles. This research paper attempts to study the structure of existing databases used in the government departments for e-government applications. The study reveals the extent of devotion to the most basic parameters while designing the database keeping in view the long term legitimates of computerization applications**.**

***Keywords: E-Government, Computerization, Database, Information Systems, Relational Table, Database Design Parameters.***

# समावेशी शिक्षा में विशिष्ट बालक व परामर्शदाता की भूमिका

Miss Meena Sharma
Department of Social Studies, Dr. K. N. Modi University Newai, Tonk

## प्रस्तावनाः –

‘‘समावेशी शिक्षा का प्रमुख कार्य अधिगम बाधा से युक्त बालकों को मुख्य धारा की कक्षाओं में समाविष्ट करना है एवं उन्हें अधिकारों के प्रति जागरूक बनाना है। ‘‘मानव समाज को सभ्य एवं विकसित बनाने के लिए निर्देशन एवं परामर्श की अत्यन्त भूमिका है। निर्देशन व्यक्ति की समस्याओं का समाधान खोजता है, ओर परामर्श द्वारा समस्या समाधान के उपाय बताये जाते है। समावेशी शिक्षा जोकि सामान्य व असामान्य बालकों को शिक्षा प्रदान करती है। मानसिक व शारीरिक रूप से कमजोर बालकों में हीन भावना न आये ओर वह आगे बढ़े। इसके लिए समावेशी शिक्षा में विशिष्ट बालकों को परामर्श देने में निर्देशन व परामर्श की महत्वपूर्ण भूमिका होती है।

**उद्देश्य: 1. समावेशी शिक्षा से अवगत कराना।**
**2. विशिष्ट बालकों के संदर्भ में जानना। (आवश्यकताओं को पहचानना)**
**3. विशिष्ट बालकों की आवश्यकता में परामर्शदाता की भूमिका से अवगत कराना।**

## Plasmonic Coloration of Silk Fabrics by In-Situ Generation of Silver Nanoparticles

Dhanashree Banait[1], Mohammad Shahid[1,2], Saptarshi Maiti[1], Ravindra V. Adivarekar[1]
[1]Department of Fibers and Textile Processing Technology, Institute of Chemical Technology, Matunga, Mumbai.
[2]Department of Applied Science, Dr. K.N. Modi University, Newai, Tonk, Rajasthan.

**Abstract:**

This paper describes a simple one-step process for the in situ synthesis of silver nanoparticles (AgNPs) on silk fabrics using eco-friendly reductants. Silver nitrate was used as nanoparticle precursor. In-situ reduction was chosen over a two-step process because it allows nanoparticle generation and deposition on fabrics in a single step, saving time and resources. Acacia powder, tannic acid, and glucose were chosen as environmentally friendly reductants, and their effectiveness was compared to that of trisodium citrate and Rangolite C. Visual colour change, UV-Vis spectra, and particle size analysis confirmed the formation of AgNPs. Nanocolored fabrics were tested for colour and fastness towards washing, rubbing, and light exposure. A range of golden to dark chocolate brown and grey shades on silk were obtained with satisfactory fastness and very good ultraviolet protection properties.

***Keywords: Silver nanoparticles, Plasmonic coloration, Textile dyeing, Silk, UV-protection***

## Stress and Hen's Chick Brain: A Theoretical Analysis

Adarsh Kumar*, Hemlata Arya**, Kavita Tamta**, Shweta Arya**, Ram Chandra Maurya**
*Department of Applied Science; Dr. K. N. Modi University, Newai-Tonk, Rajasthan-304021, India
**Department of Zoology (DST-FIST Sponsored); Soban Singh Jeena Campus, Almora; Kumaun University Nainital; Uttarakhand, India
Author's email address: draadarshkumar786@gmail.com

**Abstract-**

The basic structural and functional unit of nervous tissue is neuron. The neuronal cells show remodeling in their dendritic arborization and number of synaptic connections in many brain regions most especially the forebrain regions viz., the hippocampus, amygdala, and the prefrontal cortex. Under stressful conditions the neuronal cells show variations in their three-dimensional architecture most especially in dendritic spine number. The small protrusions arising from the cylindrical dendritic shaft of the neuronal cell are called dendritic spines which are classified into four main categories on the basis of their shape viz.: Filopodia, Stubby spines, Thin spines, and Mushroom spines. The dendritic spines show changes rapidly in their three-dimensional architecture in response to various stimuli that may be internal such as hormones and external such as environmental changes like stress. Dendritic spine density plays a major role in categorization of principal neuronal cells including the multipolar and the pyramidal projection neurons. On the basis of density of spine over the dendritic branches the principal neuronal cells may be classified as sparsely spinous, moderately spinous and heavily spinous. In response to changing environmental conditions remodeling of neuronal dendrites takes place in the form of dendritic spine shapes, dendritic spine turnover dendritic spine density. Synaptic plasticity primarily takes place in dendritic spines because of their dynamic nature and changing environmental conditions have either positive effect or negative effect or contrasting effect on synapse formation. Exposure of an animals to environmental complexity may improve the learning as well as the memory by providing adaptive changes in the dendritic spine density of different neuronal cells for the survival of the animal under such changing environmental conditions. Among birds, the chick seems to be a suitable avian model for studying the structural (including neurogenesis), functional synaptic plasticity however there is need to know the molecular as well as cellular mechanisms accompanying such changes by using some advanced neurobiological techniques.

***Keywords- Dendritic spine density, Nervous tissue, Neuronal cells, Stress, Synaptic connections***

## Role Of Green Marketing in India After Globalization

Nikhil Sirohi
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

In order to implement their green marketing strategy, these organizations are interested indetermining the factors of green purchase behavior. However, this is a difficult strategy toimplement because various studies have shown that environmentally conscious consumers donot necessarily choose ecologically friendly or green items. Changes in consumer tastes, exaggeration of green advertising claims, negative consumer perceptions of green products, and the high expense of manufacturing green products are just a few of the issues thesecompanies confront. Green marketing has become an integral aspect of a company's entirestrategy. The primary concept behind green marketing is to give customers with knowledgeabout a product's environmental impact so that they can utilize that information when makingpurchasing decisions. Companies will be more inclined to manufacture items that are betterfor the environment as a result of this factor.

***Key Words: Environmental Degradation, Toxic Waste, Customer Perception***

## Integrating ICT in Teacher Education- A Breakthrough towards Perfection

Pawanpreet Kaur
Khalsa College of Education, Ranjit Avenue, Amritsar

**Abstract**

For competence in ICT prospective teachers must comprehend what successful future learning constitutes. The 21st century addresses a rapidly changing world filled with new problems aswell as new possibilities and methods so teaching and learning need to change to meet the very different needs of the present generation. Since the role of faculty is to prepare students to navigate this new world, both teachers and students must become literate in educational digital technology.

***Keywords: ICT prospective teachers***

## Hatha Yoga in Modern day Leadership and Educational Management

Dilip G Patel
Department of Social Studies, Ph.D. Scholar, Dr. K. N. Modi University Newai, Tonk

**Abstract**:

The modern-day leadership has become less of a managerial task rather more of a spiritual task. Going by the life stories and life styles of successful national and international leaders, it has evolved as an instinctive process backed up by methodical thought processes as well as technical knowhow. There is much resemblance between a leader and a Hatha Yogi. This paper attempts to eke out the role of the Hatha Yoga in modern leaderships and education management systems by analyzing different paraphrases of the Hath Yoga and its reflection in modern life.

***Keywords: Hatha Yoga, Leadership, Instinctive Process, Education Management***

## An anti-diabetic activity in plant- Abelmoschus Esculentus and Punica Granatum

Mr. Chitransh Saxena, Mr. Manmohan Sharma, and Dr. Shailesh Sharma
Department of School of Pharmaceutical Studies,
Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

The focus of current examination is to premier part of the anti-diabetic effects of plant Okra and pomegranate. Diabetes mellitus is a heterogeneous group of disorders characterized by increasing blood glucose level in the blood caused by deficiency of insulin hormone in pancreas. One of the most okra plants and pomegranate that were often used as habitual medicine for diabetes in Indonesia was okra (Abelmoschus esculentus L.) and pomegranate (Punica Granatum) fruit and Okra have also familiar name is lady finger. The plant okra belonging to the family Malvaceae, pomegranate Lythracea is a nutritious source used for both medicinal grounds. The Okra and Pomegranate proved to have many medicinal uses such as anticancer, anti-diabetic, antioxidant, eye and neurological disorders etc. These consequences specify that the usable mechanisms of anti-diabetic result of plant Okra and Pomegranate fruit are complicated and might mean increased glycol genesis, keep glucose absorption and pancreatic islets renewal major to add-on insulin secretion. These might help ascendancy postprandial hyper glycaemia in diabetes mellitus.

***Keywords: Plant Abelmoschus Esculentus and Punica Granatum, Anti-diabetic, Insulin, Diabetes, Medicinal Plants.***

# Performance Evaluation of Warm Mix Additives for Bituminous Mix Concrete Mixes

Krushna Chandra Sethi, Ranjan Kumar, and B.P. Naveen
Department of Civil, Ph.D. Scholar, Dr. K. N. Modi University Newai, Tonk

## Abstract:

Utilizing warm mix asphalt (WMA), a new technique, it is possible to lower the temperatures duringmixing and compaction without sacrificing the quality of the paving. There have recently been manyWMA methods established. Evotherm J1 and Honeywell Titan 7686 are two additives that are used in oneof the procedures. The Evotherm J1 (0.5%, 1.5%, ) and Honeywell Titan 7686 (1.5%, 2.5%) additives,which were obtained following a number of studies, have been used in an attempt to generate warm mixasphalt mixtures in the laboratory. The dense bituminous macadam (DBM) mixes with aggregategradation in accordance with MORTH standards were created with various binder amounts ( 4.5%, 5.5%,5%, and 5.5%). doses of warm EvothermJ1 Intake of doses was based on binder weight. As DBM Grade-II samples, aggregates and dust were employed, respectively. The binder for both mixtures was VG-40grade bitumen. Marshall A procedure has been developed for sampling and assessing bituminousmixtures. Investigations have been done into the volumetric characteristics (VA, VMA, and VFB), stability, flow value, and ideal binder content of the DBM mix samples. The DBM Grade-samples' idealbinder content was discovered to be 4.5%. Marshall Mix diagram for VG -10 bituminous mix takes idealbitumen material into account while adding 0.5%, 1.0%, and 1.5% of warm blend additional substance. The important features of Honeywell Titan 7686 (1.5%, 2.5%, and 3.5%) and Evotherm J1 chemical aregrouped and focused on emphasis on the essential traits in accordance with codal acquisition. The laboratory study shows that Marshall Mix design employing WMA mix with the inclusion of the additional ingredient may be done at lower temperatures at 100°C, 110°C, and 120°C, as well as toproceed for further analyzing ITS, Retained Stability, Refusal Density, and Rheological test. Additionally, the boiling point test is used to examine moisture susceptibility. The interpretation of the molecular structure of these modified binders using FT-IR, HNMR, CNMR, and mass spectrometry is also covered in this report.

***Keywords: warm mix asphalt (WMA), dense bituminous macadam (DBM), Marshall Mix design, Retained Stability, Rheological test.***

# Infant Milk Quality: Harmonization of Standards

Geeta Mathur, Dr. R.K Khandal, Prof. Manjeet Aggarwal
Department of Applied Science, Dr. K. N. Modi University Newai, Tonk

## Abstract:

Food quality these days is checked more on the basis of presence of minor constituents that cause damage to human health rather the major ones which determine the composition of foods. Whether the food is fit for human consumption is more important than the composition of food, these days. In other words, it can be said that the food safety has become the synonym of food quality. That is why, global food trade especially of processed foods is governed mostly by parameters of quality that ensure that the food is safe for human consumption. Codex Alimentarius, the global agency dedicated to ensure food safety expects that the regulators across the globe must adopt stringent norms of food safety so that consumers are provided with the food having no harmful effects. Other than the standards, Codex also desires that the quality standards for all types of food, especially the quality standards of processed foods, are harmonized globally. In order to do this, it is imminent that each country adopts a uniform Food Code System (FCS). FSSAI, the regulator of food safety standards in India has already adopted FCS. Processed foods of various types are categorized in 18 different categories based on: a) origin and type of raw food used, b) process employed for production and d) type of processed food. Products that could easily be defined based on this criterion are listed in categories: 1 to 17. All those which could not be so clearly defined are listed under 18 th category; designated also as category 99. With FCS, in place, it is easy to regulate and monitor food safety of processed foods. Policy-research studies, on a regular basis, must be undertaken to assess whether the standards of processed foods are harmonized or not. Also, the regulators must be kept updated with the existing gaps in this regard. With globalization, foods are traded more frequently and in larger proportions than the situation a half century ago. In order to ensure that the consumers always get the food fit for their health, regulators of each country notify the quality specifications that the manufacturers as well as the suppliers must adhere to. It has been seen that the standards set by on country may not match with those set by the other country. In such cases, the incidents of rejection of exported consignments are quite common. Often, lots of some of the processed foods exported from India are rejected by importers in EU or USA, for example, in spite of the fact that those products are produced strictly complying with the norms set by FSSAI. There are also cases where, the exercised like residue monitoring plant are undertaken for products like honey, gherkins, egg powder etc. mainly to ensure that only the lots which met quality criteria set by regulators of importing countries like EU, are exported. This means that only those lots of honey which conform to the quality standards as per EU will be allowed for exports. Those lots failing on the basis of EU standards will then be sold in the local market. Such a scenario is certainly not justified and hence, should be stopped. The reason as to why this exists is because the standards are kept unreasonably more stringent by EU than the exporting countries like India. How come that the food safe for Indians is not safe for consumers in developed world. In order to counter such incidents, Indian regulator must also be equally vigilant with imported goods from developed countries. For this, it is essential that studies are conducted and enough data are provided to FSSAI. Each of the products being traded between India and EU must be taken up for this purpose, beginning with the ones imported in large quantities. The present study deals with assessment of the case of an important processed food: “infant milk” The objective is to check whether quality standards of infant milk are harmonized? A comparison of standards adopted by regulators in India, EU and USA is made. Whether what is defined as infant milk by FSSAI is also the same as what is prevalent in EU and USA? Whether all three regulators are in sync with the Codex norms? What are the gap areas in case of any discrepancies? What should be done if the standards are not harmonized? From this study, it is evident that there remains a lot of gap areas, pertaining to the harmonization of standards, which need to be bridged. Findings of this study are important, due to the fact that: a) infant milk is a vital food for growth of infants and b) a number of brands of this product category are imported from western world. The areas of concerns highlighted here, will benefit stakeholders of infant milk in India.

***Keywords: Food Safety, Infant Milk Powder, Infant Milk Formula, Food Code System, Processed Food, Harmonization of Standards.***

## Internet of Things (IoT), Applications, Problems, and Challenges

Mr. Satender Singh, Mr. Aneesh Kumar Mishra, Dr. Rahul Kumar
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

TheInternet of Things (IoT), which has risen to greater heights and become a global standard in recent years, is one of the most well-known names. Things (items) in the physical world have been transformed into intelligent objects. The Internet of Things (IoT) aims to link all of the world's things under a single framework, allowing users to monitor and report on them on a regular and timely basis, their current status IoT has evolved into a standard for establishing communication between devices. In light of the current state of IoT, a comprehensive survey of literature on a wide range of IoT topics, including technology and challenges, was conducted. Existing issues and challenges in these fields are also mentioned. The study also highlights future research directions in the field of IoT to provide new researchers with the tools they need to examine current IoT standings and improve them with innovative ideas.

***Index Terms- Internet of Things (IoT) · Wireless sensor networks (WSN) · Radio-frequency identification (RFID)***

## Theatre and Cinema: A Captivating Contrast with Reference to Shakespeare Tragedies

Lata Singh, Dr Kalyan Uttamrao Gangarde
Department of Social Studies, Dr. K.N Modi University, Rajasthan

**Abstract:**

Shakespeare remains vital because his plays present people and situations that we recognize today. His characters have an emotional reality that transcends time, and his plays depict familiar experiences, ranging from family squabbles to falling in love to war. Shakespeare's works have strong themes that run through each piece. And again, these themes are still relevant today – love, death, ambition, power, fate, free will, just to name a few. So Shakespeare's works are timeless and universal. That also makes them relatable. Shakespeare read widely and took inspiration from everything he read, but some writers proved especially influential. One important influence was Christopher Marlowe. Marlowe pioneered the use of blank verse; the form Shakespeare uses in all his plays. Shakespeare Day is celebrated every April 23 to recognize the birth and death of English poet and playwright William Shakespeare. He wrote some of the world's most famous plays, including Hamlet and Romeo and Juliet, so it's no wonder Hollywood adapted his literary works for the big screen. The Bard abides! Joel Coen's The Tragedy of Macbeth is the latest to bring Shakespeare to the screen, but it certainly isn't the only one. These centuries'-old plays have inspired hundreds of films, many direct adaptations, and some entirely unexpected. like, from the Wild West to outer space and even high school.

***Keywords: Shakespeare, Tragedy of Macbeth, Wild West.***

# Evaluation of consequences of the state open schooling at secondary and higher secondary level of education in Ajmer division of Rajasthan, India

Sanjeev Vijay
Department of Education, Dr. K. N. Modi University Newai, Tonk

## Abstract:

Background: The development and upliftment of any nation depends on its proper education system. To make education value more effective the maximum enrolment of students is essential. However, in developing countries like India, the girl's education has become limited as found in the largest state of India namely, Rajasthan. Therefore, State Open School has been established in Rajasthan, by Rajasthan government with the objective of making both boys and girls educated. Aim: Thus, the aim of present research study was to find out the trend of girl's enrolment at secondary and higher secondary level in State Open School of Ajmer division. Method: Ajmer division has been selected for this study and the trend of enrolment of girls at secondary and higher secondary level in Rajasthan State Open School has been studied. All the girls enrolled were taken as a research population and the entire population has been taken as a sample. Result: The present study has shown that the girl's enrolment trend was found both in downward and upward manner in Ajmer division of Rajasthan. Conclusion: Therefore, in present research study both the increase as well as decrease in the enrolment trend of girls to get education both at secondary and higher secondary level has been found but the main reason behind girl's enrolment reduction remains unfolded. Future direction: Thus, there is a great need of further research studies to find out the main cause of girl's enrolment decline.

***Keywords: Autonomous Organization, Ajmer Division, Education, Girl Enrolment, Rajasthan State Open School***

# A Post-Modernist study of Henrik Ibsen's Doll's House

Laxmi Bai Sharma, Dr. Kamal Bhattacharyya
Department of Education, Dr. K. N. Modi University Newai, Tonk

## Abstract—

Henrik Ibsen is regarded as a significant Norwegian dramatist of the late 19th century who introduced to the European theatre a new order of moral analysis that was set against a harshly realistic middle-class backdrop and developed with economy of action, perceptive conversation, and rigorous thought. Although the majority of his literary works are frequently analyzed from a modernist standpoint, ideas like women's emancipation, irony, and conflict have opened the door for critics to examine his works from a variety of perspectives. While Henrik Ibsen's A Doll's House, a play that displays various modernist features as a frequent element of Ibsen's works, is the focus of this essay, it cannot and will not be used to demonstrate various conceptions of post modernity.

***Key words—postmodernism, modernism, irony, feminism, conflict, deception and truth***

# Harmonization of Standards for Chocolates: A case study to Assess gaps

Ms. Priyanka M., Ms. Geeta M., Dr. Nidhi K.
Department of Applied Science, Dr. K. N. Modi University Newai, Tonk

## Abstract:

Standards are set by specifying limits for quality parameters mainly to describe the composition of any given product; focusing more on the purity. That means, quality of a product is determined largely by purity of the main constituent. But this is applicable only for materials other than products meant for human consumption such as pharmaceuticals and food. In case of foods, the quality is determined not by the purity of the contents rather it is governed by the impurities present. Various types of minor constituents, even at the level of sub micro gram, such as processing contaminants, residues of agrochemicals, antibiotics, veterinary drugs etc., and adulterants must be strictly regulated. It means that the food having a composition full of nutrients and meeting best of the compositional quality criteria, it will be considered safe for human consumption only when it is free from toxic impurities. Minor constituents therefore are of real concern in case of foods and hence, the limits for them are set with utmost care taking into account their toxic effects. In other words, food safety has today become the synonym of food quality. All food products must be declared fit for human consumption before they are introduced to the market. Whether all the countries across the world are following the same criteria of food safety is the question that needs to be answered. A product declared safe for human consumption and marketed in India must also be safe and okay for markets in other countries. The fact is that this is not so. As a result, often the supplies of foods considered as good quality in India when exported to developed countries are rejected as a filth. How can foods have consumed by Indians are termed as filth in countries in Europe for example. The case of export of honey from India is the perfect example to highlight this aspect of global food trade. In order to be able to export honey, Indian bee processors must ensure that their honey is as per standards of EU which are much more stringent than those set by FSSAI. As a result, a large portion of honey produced in India doesn't conform to EU standards and hence not allowed to be exported to Europe. What is not exported is consumed locally because it meets quality standards of FSSAI. The question is: how can the honey not okay for EU consumers becomes okay for Indians? This clearly shows that there is a need for harmonization of standards of all processed foods. The other pertinent question relates to setting limits for impurities in foods by regulators across the world. In the name of food safety, is it logical to bring down the limits to such extra ordinarily low levels? Codex addresses all such discrepancies and aims to resolve them by making the standard setting as a completely evident based exercise; all countries must adopt level up approach as far as food safety is concerned while using research data. Whetherthe foods imported, in India are regulated as strictly as the products expor ted from India and regulated by EU countries is another question that needs to be addressed? Are the limits specified for various parameters of quality are same across the globe for a given product must also be understood? The fact is that there are several anomalies and gaps that need to be eliminated. The only way that can be achieved is by way of harmonization of standards of each and every food product traded globally. In order to achieve this it would be necessary to carry out studies to find out the gaps in standards for major food products traded globally. The present study deals with chocolates. The aim is to assess the differences in standards of quality of chocolates in different parts of the world. Standards of chocolates set by EU, USA FSSAI and Codex are included in the scope. Attempt is made to find out the quality standards set by these four different regulators. From the present study it is evident that there exists lot of gap areas between the standards for chocolate manufacturers of different countries. There are different types of chocolates listed in the regulations of FSSAI, EU, USFDA, Canada and the CODEX. There is no uniformity as far as the definition, names of different types of chocolates listed by the regulations of different countries and the norms for labelling are concerned. There are no clear regulations for the producers of dark chocolate. This lack of proper information on dark chocolates makes it a difficult task to label the dark chocolate for chocolate producers. Also, there is a need to reframe the rules for import & export of chocolates in India mainly because the definition, composition and labelling requirements as specified by FSSAI are different from those of regulators of EU, USA, Canada etc. There is a need for harmonization of regulations and standards for Chocolates. There exist gaps that need to be filled without further delays, in order to ensure that consumers get standard quality of chocolates across the world

***Keywords: Food Safety, Limits, Processed Food, Harmonization, Chocolates, Conform.***

## A Comprehensive Review on Herbal Sunscreen

Mr. Prateek Pandey, Mr. Anil Sharma, Dr. Shailesh Sharma, Mr. Manmohan Sharma,
Mr. Girish Vyas
Department of Pharmaceutical Studies, Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

The sun's radiations are damaging and have an impact on the skin. There are three different forms of ultraviolet radiation: ultraviolet A, ultraviolet B, and ultraviolet C. The various forms of ultraviolet light are thoroughly reviewed in this page. Sunscreen formulations that either absorb the radiation or reflect it are used to protect our skin from ultraviolet rays. The damaging consequences on skin, such as DNA damage, skin cancer, and photoaging, are explained. The various formulations of sunscreen and the substances used for sun protection are described in the current review. The agents come in two varieties: chemical and physical sun blockers. There is a list and an explanation of the chemical and physical substances that reflect and absorb sunlight. To determine effectiveness Calculation of the sun protection factor is done. Detailed explanations of the formula used to determine the Sun Protection Factor value are provided. The Sun Protection Factor is determined using the ultraviolet spectroscopic approach. The Sun Protection Factor values can be calculated quickly and easily using the suggested method in in vitro investigations. Because the herbal formulation has less adverse effects than the chemical formulation, it is better. A few herbal sunscreen ingredients are provided with an explanation of their actions.

***Keywords: Herbal, sunscreen, skin, SPF.***

## Consumer satisfaction towards online shopping of ITC products on ITC Store

Mounesh. B*, Raghu Yadaganti**
*Department of Management, Dr. K. N. Modi University Newai, Tonk
**Faculty of Management and Commerce, PES University

**Abstract** –

The purpose of this study is to explore the factors that make consumers satisfied when using ITC online store. Design/methodology/approach – The study uses a qualitative and quantitive approach by conducting questionnaires. Findings – The study reveals that ease of use and user interface are the main components which enable customer satisfaction when using ITC online store. However, the service offered by ITC online store is also making the consumers unsatisfied. Research limitations/implications – The sample used was sufficient for the purpose of this study and allowed reasonable conclusions to be drawn; however, it cannot be considered consistent as people's preferences changes from time to time. ITC and technical experts in design websites can use these findings for further improvement. Practical implications – The findings of this study provide useful insights on how to improve the ITC online stores and what are the main key areas that need more attention. These findings can be important for ITC as this helps to improve current consumer satisfaction and also to attract new customers. Originality/value – Previous studies in the context of consumer satisfaction towards ITC have made a research on the products offered by ITC, not about the ITC online store. Hence, these studies have not been able to capture the complete essence of the integration of ITC products and the consumer's satisfaction when using ITC online stores.

***Keywords – ITC online store, Consumer satisfaction, Influencing factors, Qualitative and quantitative approach.***

## Cultural Activities of Ancient India According to Jain Historical Sources

Mr. Mithun Sharma
Department of Humanities, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The cultural history of ancient India is very rich. Many aspects of the cultural history of ancient India are presented by the scholars in the modern times. Yet the left aspects are yet to be explored. The present effort consists the same-Motto and Study. The Jain Literature is Vast, deep and rich. It has contributed immensely in unfolding the cultural history of the past. The composers of the Jain Literature travelled far and wide throughout the country in that period.

***Key words: AI = ancient India, SC = Socio Culture.***

## Breast Cancer Detection and Classification Approach Based on Ensemble Learning

Arvind Kunwar, Bhal Chandra Ram Tripathi and Dr. Rahul Kumar
Dr. K. N. Modi University Newai, Tonk and Serve India Management

**Abstract-**

The application of machine learning is constantly increasing especially in the field of automated disease diagnose and prediction such as breast cancer, which is very common in females as it can cause too many death but machine learning can increase the chances of survival by early prognosis and diagnosis if it diagnosed properly and accurately. In this paper we propose an automated breast cancer prediction approach based on the XgBoost random forest classifier (XGBRF) algorithm. In order to prove the effectiveness and accurateness of the proposed approach, Wisconsin diagnose breast cancer dataset is used over which various classification rates like precision, recall, F1score and confusion matrix are generated. The testing accuracy of our proposed approach is 99%. Apart from that the proposed approach is being compared with various other approaches based on other machine learning classifiers like support vector machine, K- nearest neighbor, Naïve Bayes etc.

***Keywords: Machine learning, Xgboost with random forest classifier, confusion matrix, support vector machine (SVM) etc.***

# A Qualitative Study on Academic Performance of Teaching Faculty at Private Management Colleges in the Kathmandu Valley

Mr. Amit Gharti
Department of Management, Dr. K. N. Modi University Newai, Tonk

## Abstract-

This paper aimed to gain an insight about Academic performance of Teaching Faculty at Private Management Colleges in the Kathmandu Valley. To conduct this research, a qualitative methodology was employed. Interview was the main instrument used for the data collection. The study restricts to the management colleges and institutions only. A Total of five best management colleges of Kathmandu Valley were selected and 10 % of the total Teaching faculty were selected out of them. The Thematic analysis was used to explore the dimensions of academic performance. Based on the findings, the research results showed that Teaching Faculty at Private Management College deliver high academic performance as compared to public colleges and universities. The working environment of academic institutions plays a vital role in enhancing faculty members' capability in both teaching-learning and research activities. The study recommended that private colleges and institutions should improve more on its information and communication technology (ICT) so as to enhance its productivity.

***Keywords: Academic, Colleges, Education, Faculty, Performance, University***

# Trading Strategy: Using Technical Indicator Bollinger Band in Nepal Stock Exchange Ltd.

Mr. Dushyant Lal Joshi
Department of Management, Dr. K. N. Modi University Newai, Tonk

## Abstract-

The technical indicator Bollinger Band (BB) assists to take trading decision in Nepal Stock Exchange Ltd., (NEPSE index). This indicator is propounded by John Bollinger in 1992 to know the trend and volatility. It is one of the powerful technical indicators, which is often used by technical analysist by combining with other technical indicator to find accurate results in stock market. Volatility is determined by the interval between the upper band, lower band and middle band. The parameters are 20 periods Moving Average and two standard deviations. In the context of NEPSE, Bollinger Band shows the clear picture of "Buy" and "Sell" decision. But sometime this signal doesn't work properly. So, securities traders should not blindly rely on the technical analysis rather, should have adequate knowledge of fundament analysis as well as economy environment of country.

***Key Words: - Bollinger Band (BB), Technical Analysis, Stock Market, Indicator.***

# Organizational Health as a Key to Performance: A Comparative Study between Public & Private Academic Institutions in NCR

Dr. Arunima Mishra, Ms. Punjika Rathi
School of Management, KIET Group of Institutions

## Abstract-

The 22nd century is an age of knowledge, information, technology and learning. In this era, education will be the strategic fundamental industry for the growth of knowledge-based economy. For any country which wants to grasp this opportunity, the key is to develop higher education and accelerate the pace of building knowledge-based society. Higher education shall play a decisive role in the change of competition in the 22nd century. The Higher education institutions are not only a base to train and export talents, but also a gathering place and a place to employ human resources. Excellent teachers and efficient administrators are a must in the building of world class educational institutions. Therefore, improving academic and on academic staff work performance is a major issue facing contemporary education theorists and practitioners. This research paper aims to study the concept and measurement of Organizational Health of an Academic Institutions in NCR and a comparative study between Public and Private Academic Institutions is being done on the parameters selected for Organizational Health and found that the Organizational Health prevailing in public institutions was perceived significantly higher than that prevailing in private institutions and that is largely because of the perception of the teaching fraternity of the public institutions. Further, managerial implications were suggested to improve the Organizational Health of both Public as well as Private Academic Institutions in NCR.

***Keywords: Organizational Health, Private Academic Institutions, Public Academic Institutions, problem-solving adequacy, optimal power equalization.***

## Lan Messenger And Optimized Video Calling Using Only Ip

Niharika Saxena, Dr. Sandeep Kumar Agarwal
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

In the LAN Messenger And Optimized Video Calling application, the user can send and receive text messages and do audio calling, video calling using only IP addresses of their systems. They do not need to share any mobile number or any type of user id or email addresses. The following application has a functionality of optimized video calling in which the quality of video during video call will automatically be adjusted according to the internet speed available with the security mechanism. In this application, to prevent a hacker from stealing data from the user, we have used Advance Encryption Standard (AES) encryption to encrypt the data. AES is advanced encryption technology that provide assurance for security. So, the security of data is main concern. Other messaging applications need email account or phone number for using the messenger but in our LAN messenger application, we don't need any of these things, we just need IP address of the system to which we want to connect and to be on a same network and using LAN technology we can connect to each other.

***Keywords: LAN, Chat Messenger, Optimized Video Calling, Audio Calling.***

## Energy-Efficient Clustering Protocol to Enhance the Lifetime of Wireless Sensor Network

Rajesh Kumar Singh, D.C. Mishra, and A.K Sharma
Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Wireless Sensor networks are ubiquitous technology shaping the world due to their ease of deployment and applicability. Under the emerging paradigm of Internet of Things, they find ever increasing use in industry, smart homes, smart farming and smart cities. System reliability and energy efficiency in wireless communication networks is one of the challenging aspects especially in industrial and other mission critical applications. Such applications require prolonged network life time without any interruption. Previously proposed solutions include variants of cluster-based, hierarchical-topologies; however, they are still known to have sub-optimal stability, reliability, network lifetime and data throughput. To tackle these issues, we propose a heterogeneous network-based cluster routing protocol. It focuses on solving the issues of energy consumption and network lifetime which helps in providing the enhanced network performance.

***Keywords- wireless sensor networks; unequal clustering; energy consumption; network lifetime.***

## Silica fume as Partial Replacement of Cement in Concrete

R. Sangeet
M. Tech. Construction Technology & Management, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

In the recent past, there have been considerable attempts for improving the properties of concret with respect to strength and durability, especially in aggressive environments. High performance concrete appears to be better choice for a strong and durable structure. A large amount of by- product or wastes such as fly-ash, copper slag, silica fume etc. Are generated by industries, which causes environmental as well as health problems due to dumping and disposal. Proper introduction of silica fume in concrete improves both the mechanical and durability characteristics of the concrete. This paper present literature review on replacement of Cement by Silica Fume which includes current and future trends of research.

***Keywords: Silicafume, Cement, pozzlanic.***

## Multi-objective Particle Swarm Optimization Method Based Time-Cost Trade-Off Model for Construction Projects

Mayank Chauhan, Dr. Ranjan Kumar
Department of Civil Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Time and cost are extremely significant but contradictory objectives of scheduling of construction projects. The present competitive circumstances of construction market make the trade-off optimization among these objectives important and basic requirement of project's stakeholders for the successful completion of projects. To alleviate the complexities and limitations of existing trade-off optimization models, this paper presents a multi-objective particle swarm optimization (MOPSO) method-based time-cost trade-off (TCT) optimization model. The article examines multi-mode activities of construction project, in which each mode represents an alternative for an activity requiring a different amount of time, money, and resources. For this purpose, this paper aims to select optimum combinations for alternatives of activities of project. The suggested MOPSO method is applied to a case study project to demonstrate its efficacy in producing a set of Pareto-optimal solutions. The suggested approach's efficiency and effectiveness in simultaneous optimization of two objectives are compared to existing trade-off optimization techniques. In addition, trade-off plots and a priori approach are provided to the project team in order to allow them to choose one of the generated Pareto-optimal solutions. Moreover, the project's stakeholders will benefit from this research in terms of profit maximization. Finally, this research may help project teams and organizations in making better scheduling decisions.

***Keywords: Construction projects, Optimization, Pareto-optimal Solutions, TCT, MOPSO.***

## Corporate Social Responsibility Practices of Nepalese Wholesale Microfinance Banks

Tilak Ghising
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The aim of this study was to explore CSR practices of four wholesale microfinance institutions of Nepal in 2020/2021. This study adopted exploratory research design. The data were collected from annual reports (2020/2021) of four Nepalese wholesale microfinance banks. The role of microfinance through CSR during COVID-19, is valuable. The results show that major portion of CSR fund was provided to fight against COVID-19.

***Key Words: Corporate Social Responsibility, Microfinance, Nepal.***

## Advanced Nanomaterials for Sustainable Water Solution

Sayed Zenab Hasan
Department of Applied Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

One of the most important technologies of the twenty-first century, nanotechnology has made a lot of advancements in the realm of environmental applications. Due to the effects of pollution and global climate change, a major challenge the world is currently facing is the lack of clean water. Many methods in the field of water treatment have been developed as a result of the demand for sustainable technologies to conserve water supplies. Due to the environmentally interesting chemical and physical properties of nanomaterials, such as increased material durability against mechanical stress or weathering, high specific surface area and chemical reactivity of nanoparticles, and significant absorption as well as adsorption capacity, nano materials hold promise in the field of water treatment. The sustainability of using nano materials in water solutions has been investigated. The use of the most recent technical advancements can help minimize the negative consequences of the emission of hazardous nano particles into the atmosphere. Nano material has significant potential for sustainable water treatment. A summary of the significance of cutting-edge nanostructured materials, unique features, and energy-related applications is attempted in this paper. On a fundamental level, the methods for designing and creating sophisticated materials are explored, along with nanos tructuring, nano-/micro combination, an alternative to 2D materials, hybridization, core-shell control, porous nature, and surface changes. It is feasible to create new technologies in ways that are both affordable and environmentally beneficial if one has a thorough understanding of the concepts and fundamentals. The potential advanced nano materials for sustainable water solution are examined in the current review.

***Index Terms- Carbon quantum dots, Doped metal nanoparticles, Graphene quantum dots, Metal organic framework, Nanotechnology, Nanotubes.***

# सामाजिक बुद्धि की जीवन में उपयोगिता

Govind Prasad Sharma
Education Department, Banasthli Vidyapith (Raj.)

**Abstract**–

समाजिक बुद्विमत्ता एक कौशल है जिसे लोगो को समझने और सामाजिक सम्बन्धो को विकसित करने के लिए अपने व्यवहार को नेविगेट करने के दैनिक जीवन के अनुभव के माध्यम से प्राप्त किया जा सकता है। यह एक व्यक्ति की प्रभावी ढंग से संवाद करने और लोगो के साथ सहानुभूति पूर्ण और दृढ तरीके से बातचीत करने की क्षमता के बारे में है। सामाजिक बुद्विमत्ता एक ऐसा गुण है जो किसी के आन्तरिक स्व के बारे में जागरुकता और प्रभावी भावनात्मक प्रबंधन का अभ्यास करने से आता है।

एक कौशल के रुप में सामाजिक बुद्वि प्राप्त करने का महत्व दूसरों के साथ अच्छा व्यवहार करने और उनके साथ अच्छा सहयोग करने के महत्व पर आधारित है। सामाजिक बुद्वि एक सामाजिक कौशल है। जो व्यक्ति को अपने व्यक्तित्व को विकसित करने और समाज का एक सक्रिय और मूल्यवान हिस्सा बनने में मदद करता है।

सामाजिक बुद्वि के प्रमुख घटक सामाजिक बुद्विमत्ता एक मूल्यवान कौशल है। जो किसी व्यक्ति को प्रभावी ढंग से संवाद करने में सक्षम बनाता है। कुछ ऐसे घटक है जो सामाजिक बुद्वि का निर्माण करते है।

**संचार कौशल और मौखिक प्रभाव** – सामाजिक बुद्वि के सबसे महत्वपूर्ण घटको मे से एक महान प्रभाव के साथ प्रभावी ढंग से संवाद करने की क्षमता है। प्रभावी ढंग से बातचीत करने में सक्षम होने के लिए सहज संचार कौशल होना आवश्यक है।

# Professional Commitment of Primary and Secondary Teacher Educators In Reference to Gender

Dr. Meenu Gangal
Department of Education, Dr. K. N. Modi University Newai, Tonk

## Abstract–

The progress of a country depends upon the quality of its teachers and for this reason, teaching is the noblest among all professions and the teachers are called the nation builders. The present study was aimed to find out the difference between the professional commitment of primary and secondary teacher educators in reference to gender. The researchers formulate the hypothesis of no significant difference between the professional commitment of primary and secondary teacher educators in reference to gender. The study was conducted through Survey Method. The sample of the study consisted of 80 primary and secondary teacher educators from population belonging to Delhi State were chosen for the study by random sampling method. The researcher has used the standardized test; Professional Commitment Scale for Teacher Educators- by Dr. Vishal Sood (PCSTE-SV) was developed. For analysis and interpretation of the data, the researcher used t-test as a statistical technique. The researchers revealed that the no significant difference between the professional commitment of primary and secondary teacher educator in reference to gender. Sharma (2010) concluded that the factor like gender, location of institutes of teaching experience of teacher educators have no impact on their attitude towards teaching profession as well as job satisfaction. Study also revealed that the no significant difference of learner, society and basic values in professional commitment of primary and secondary teacher educator in reference to gender while the sub- hypothesis there is a significant difference of profession and to achieve excellence for professional actions of professional commitment of primary and secondary teacher educator in reference to gender. Hakim Cooper (2005) found that the professional commitment has positive impact in the dimensions.

***KEY TERMS: Professional Commitment, primary and secondary Teacher Educators.***

# Occurrence Of Disaster Events and Their Impact in Nepal: Role of Government And Civil Society Organizations to Reduce the Disaster Risks

Pitambar Aryal
Department of Humanities, Dr. K. N. Modi University Newai, Tonk

## Abstract–

Nepal is highly vulnerable to multiple geological, hydro and meteorological hazards in the country in which floods, landslides, fires, avalanches, glacial lakes outburst floods, droughts and earthquakes are predominant. Nepal has also been experiencing outbreak of epidemics and pandemic having high morbidity and mortality. Every day, on an average, 2 people die due to recurrent disasters. Situated in seismic zone, Nepal is prone to earthquake, and it had experienced several episodes of earthquake having losses of human lives and physical infrastructure. Climate change attributing significantly in extreme weather conditions resulting heavy rainfall, drought, fire, and glacial lake outburst floods. The disasters events have severe impact in health of community people creating problem in access, disrupting supply chain, damage, and destruction of service delivery outlets. The main objective of this paper is to analyze the disaster situation in country, their impact and assess the role of government of Nepal and civil society organizations in reducing the disaster risks. This paper has been prepared by reviewing the secondary data mainly government, UN and I/NGOs reports and research articles. Marginalized groups of the society are hardest hit by the disasters. Investing resources in preparedness and risk reduction pays off in saving lives and properties, investing 1 NPR in DRR is equivalent to 18 NPR during post disaster situation. A whole of society approach where preparedness, risk reduction, response, recovery, and reconstruction go simultaneously in building resilience nations to disasters. Development work should mandatorily apply environmental impact assessment and do no harm principle. The government of Nepal has developed DRM Act, policy, and strategic plan. Accountability framework, risk governance and risk education play a critical role to achieve outcomes stipulated in the strategic plan.

***Key words: Disaster Risk Reduction, Resilience, Vulnerability, Climate Change***

## Perception of Students towards the Quality of Education in Management and Engineering Institutes in Uttar Pradesh: An Empirical Evidence

Shalini Kumari, Prof. (Dr.) Devendra Kumar Modi
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The significance of student perception on the quality of education is growing. Although there are many factors that may be used to examine education quality. This study attempts to analyse the perception of students towards the quality of management education in Uttar Pradesh. 200 students from management and engineering institution from Uttar Pradesh were randomly selected to participate in the survey. Using a 5-point scale, the questionnaire was developed. SPSS software was used to conduct statistical analyses and code all the data collected throughout the study. Further, t-test and analysis of variance is used for testing hypothesis. Results revealed that demographics have a significant impact on perception of students towards the quality of management and engineering education in Uttar Pradesh.

***Keywords: Perception, students, quality, management education***

## Conflict Management Strategies in Educational Industries

Mr. Rajeshwer Prasad Chaudhary
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

Conflict is when two concepts, understandings, thoughts and perspectives are not matched with each other. No any area is free from the conflict. But it is not always harmful and inherent to each and every area. The Conflict management approaches and strategies are generally depending on the situation of conflict. Everyone has its own strategy to handle the conflicts occurs in the Everyone has its own strategy to handle the conflicts occurs in the organization. Different researchers have found the different kinds of strategies and approaches based on their situation of conflicts. The aim of this study was to find the best strategy to manage the conflicts of educational industries in Kathmandu. 50 respondents were used as sample by random sampling through a quantitative study. Data was gathered by 15 questionnaires for conflict management strategies. Data was analyzed by the help of percentage bar diagram.

***Keywords: Conflict, Conflict Management Styles, Competition, Collaboration, Avoidance, Accommodation, etc.***

## Review Of Compressed Stabilized Earth Brick

Mr. Sujit Kumar Sah, Mr. Durgesh Nandan Verma
Department of Civil Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

Earth as a building material has already known for centuries started with plain mud and straw utilized sun dried producing brick adobe with low strength and durability until its evolved to become fired clay brick with mass rapid production in the kiln. In the growing concern of awareness regarding sustainable building material and environmental issue, Compressed Stabilized Earth Brick (CSEB) give the view of energy efficient, cost reduction and environmentally friendly with reduction of CO2 gas by 60 % in comparison to fired clay brick building materials, overall contribution on the sustainable development. It turned out that CSEB properties can be very easy bear comparison with other materials such as concrete block or normal fired brick.

## What Will 5G Be?

Ankit Khangar, Dr. Rahul Kumar Singh
Department of Computer Science &Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract—**

What will 5G be? What it will not be is an incremental advance on 4G. The previous four generations of cellular technology have each been a major paradigm shift that has broken backwards compatibility. And indeed, 5G will need to be a paradigm shift that includes very high carrier frequencies with massive bandwidths, extreme base station and device densities and unprecedented numbers of antennas. But unlike the previous four generations, it will also be highly integrative: tying any new 5G air interface and spectrum together with LTE and WiFi to provide universal high-rate coverage and a seamless user experience. To support this, the core network will also have to reach unprecedented levels of flexibility and intelligence, spectrum regulation will need to be rethought and improved, and energy and cost efficiencies will become even more critical considerations. This paper discusses all of these topics, identifying key challenges for future research and preliminary 5G standardization activities, while providing a comprehensive overview of the current literature, and in particular of the papers appearing in this special issue.

## The Infertility and it's effects on Indians Society

Mr. Siddheshwar Datt Sharma
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract**–

It is dream of every woman to bear a child. Her life is not complete without bearing a child. The reproduction has been highly recommended in every religion, be it Christianity, Judaism, Islam or Hinduism.

## A Review of The Application of Carbon Nanotubes (Cants) In Solar Cells

Dr. Amit Verma
Department of Applied Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The world is looking for clean, renewable and cheap energy. Researchers have long struggled to find materials that make this possible. The discovery of carbon nanotubes (CNTs) has opened new horizons for their application in the field of solar energy. The chemistry of carbon nanotubes involves the chemical reactions used to change the properties of carbon nanotubes (CNTs). To obtain desired properties that can be used in a wide range of applications, CNTs can be functionalized. Covalent and non-covalent modifications are the two main types of CNT functionalization. This review focuses on how carbon nanotubes synthesized using the flame fragmentation deposition (FFD) technique, which is a simple and inexpensive method, can be prepared at lower temperatures than other conventional techniques, using Carbon nanotube composites in solar cell modules improve charge conduction, electrode flexibility and act as active light absorbers

***Index Terms- CNT, Solar cell, FED, Application of CNT***

# Analytical method development and method validation of 2,2′- methanediylbis [4-chloro-3-methyl-6-(propan-2-yl) phenol]

Sunil K Pandey, M. Shahid
Department of Applied Science, Dr. K.N. Modi university

## Abstract:

Analytical procedure for method development and method validation of 2,2′-methanediylbis [4-chloro- 3-methyl-6-(propan-2-yl) phenol] is to demonstrate that it is suitable for its intended purpose characteristics applicable to identification, control of impurities and assay procedures.

***Keywords: TLC method development, HPLC method development, GC method development, Method validation.***

# Abortive Mergers and Acquisitions in India: Regulatory Framework and its Analysis

Dr. Maneesh Yadav, Mr. Shivansh Bansal
Department of Law, Teerthankar Mahaveer University, Moradabad

## Abstract–

Mergers are significant corporate tactic activities that, including different factors support the organization in peripheral expansion and bring in low-priced benefits. Mergers as the foundation of lucrative business development have been the question of cautious inspection in the literature. The common introduction of corporate interaction indicates that the worth formed by the combination of firms may result in well-organized supervision, cost advantage, better-quality manufacture methods, a combination of corresponding assets, the redistribution of gainful uses, and the use of market power or any number of values generating means. This area has procreated a massive number of works over the historical half a century, particularly in the technologically progressive countries of the environment. India also has been far-sighted an increase in the quantity of mergers in previous years since reforms took place after the introduction of liberalization and monetary restructurings. Mergers and acquisitions have converted an actuality of life for all varieties of companies. The captions might be conquered by a few 'mega' deals connecting corporate giants, but that is not the entire picture. Matrimonies are made in paradise and mergers and acquisition in the management meetings with success and failure stories. In recent past, India had observed several productive mergers and acquisitions like Indus towers, Indiabulls Housing Finance Limited and Indiabulls Commercial Credit Limited. Though, there were limited agreements which could not get done. This paper will witness the regulatory cause and consequences of failure of such deals in India.

***Keywords: Shareholding Patterns, NCLT, Due diligence, Merger & acquisitions.***

# Brake Fluids for modern Cars in India; Gaps based on the Survey of Products Available in the Market

Satyanarayana D, Prof. Dr. R. K. Khandal, Prof. Dr. Anil Kumar Sharma, Prof. Dr. Manjeet
Department of Engineering & Technology D, Former Senior General Manager MSE,
Brakes India Private Limited, Chennai, 600050, India.

## Abstract-

Brake fluid is a hydraulic fluid that has wide applications in thefunctioning of hydraulic brake and hydraulic clutch in different kinds ofvehicles. The function of the brake fluid is to amplify and convert forceinto pressure as well as transfer the pressure to the braking system. Brakefluid is a mixture of synthetic organic chemicals which transmit hydraulicpressure from the brake pedal through hydraulic lines to the brakingmechanism near the wheels. To make this possible, a brake fluid itselfmust be incompressible. For proper working of the braking system, brakefluids must possess specific characteristics determined by differentparameters. It must also comply with specified quality standards relatedto performance.. It must therefore, bekept in mind that vaporization of brake fluid can cause the failure of thebraking system and hence, it must be avoided by choosing components ofhigh boiling point. A good brake fluid should have certain characteristicsnamely: a) high boiling point, b) stable viscosity behaviour within the setparameters, c) maintain performance even during moisture absorption,d) incompressibility, e) protection of brake parts against corrosion, f)correct level of lubricity and g) minimal swelling of rubber parts. The aimshould be to ensure that the brake fluid provides a solid pedal duringbraking and causes no damage to metallic as well as rubber parts of thebraking system throughout the period of its life span.Various types of brake fluids have been designed over the years. Types of brakefluids designed so far are: DOT 2; DOT 3; DOT 4; variants of DOT 4; DOT 5;DOT 5.1. The need for newer versions never ends! It may be noted here thatDOT 2 brake fluids are almost obsolete these days. The DOT 3 brake fluids arestill in use though their volumes are steadily decreasing; only being used indeveloping countries. The demand for DOT 4 and higher versions has beenrising world over.. In fact, mostof the modern cars are being manufactured locally. In order to be able tomeet the demand of superior brake fluids for these vehicles, it is utmostessential that a survey of the quality of brake fluids available in the localmarket is done and the existing gaps are identified in order to be able todesign brake fluids of the desired quality. The specifications of thethree types when compared show that: type I brake fluids correspond tothose of DOT 3 of FMVSS specs; type II brake fluids correspond to thoseof DOT 4 of FMVSS specs and type III are similar to those of DOT 5.1 ofSAE J1703 specs. The IS specifications therefore, are in no way inferior tothe globally accepted quality standards for brake fluids.From the results obtained here, following conclusions may be drawn:a) brake fluids of DOT 2 are not much in use now-a-days; type I is onlybeing sold in the market. The industryhas the desire to shift over from type I to type II; cost is the realconstraint! It may be noted here that: a) DOT 3: brake fluids musthave a dry boiling point of 205 °C minimum and wet boiling point of 140° C minimum, b) DOT 4: are superior to those of category DOT 3because of their higher dry boiling point (230 °C minimum) and wetboiling point (155 °C minimum). It may be said that several variants ofDOT 4 can be designed using combination of different constituents toachieve dry boiling point as high as 300 ° C and wet boiling points ashigh as 180 ° C and c) DOT 5: brake fluids are mainly silicone basedhaving a dry boiling point of 260 ° C and d) DOT 5.1: exhibit a dryboiling point of 260 ° C and wet boiling point is 180 ° C with lowviscosity. Based on the status of quality of brake fluids that are availablein local market, it will be easier to plan designing new brake fluidsneeded for the modern cars.

***Keywords: Brake Fluid, Vaporization, Boiling Point, Brake System, Safety.***

## Effect Of Use of Jatropha-Carcass Oil as Biofuel Blend in Four-Stroke Diesel Engine and Their Performance

Kishor Radhe Sham Bhageriya, Sagar Kumar, A, N, Pawar
Department of Engineering & Technology, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The standard of living on earth depends on energy. One of the key issues facing society in the twenty-first century is how to sustainably fulfil the rising demand for energy. The second most populated country in the world is India, which is still in development. An environmentally acceptable option fuel that will help increase the supply of sustainable power is biodiesel. One source of biofuel that has an immediate and long-term advantage above other sources when it comes to greenhouse gas reduction is jatrophacurcas. The present work focus on the use of jatropha oil as a biodiesel in a four-stroke engine. Different percentage blends of jatropha and diesel were evaluated and measured the performance of the engine in terms of their efficiency and emission.
***Keywords- Jatropha oil, biodiesel, combustion, emission, and efficiency*.**

## Implementation of Multidisciplinary Approach: A Study of Course Combinations in Actuarial Science Program

Pankaj P. Shirodker, Sunny S. Pandhre
Department of Applied Sciences, Assistant Professors in Mathematics;
Commerce, Vidya Prabodhini College, Porvorim-Goa.

**Abstract-**

The National Education Policy: 2020 has suggested that programs should be multidisciplinary in nature. The current time specialization is acquiring the theoretical knowledge and application of the same in relevant disciplines. The curriculum for the implementation of multidisciplinary knowledge is need of the hour. In this regard, the present research paper advocates the implementation of multidisciplinary approach in Actuarial Science. The course combination differs from one educational institution to another. The streams offering the program also differ as per the University requirement and decisions. In this paper a combination of six courses is presented which are most suited to be studied by the student of actuarial science program. The list of the courses is exhaustive and can be taken for the study in detail. The focus of the paper is not listing the courses offered, but critical analysis how the courses make an appropriate actuarial science program. The syllabus of the program should have the combination mentioned in the paper. It has been taken from the extensive review of literature and systematic study of the program structure of the programs available in India. The paper concludes that such programs promoting the multidisciplinary approach will be long way in solving the problem of single specialization without application.

***Keywords: Multidisciplinary, Actuarial Science, Course, & balanced approach*.**

## Three strong women in view of Devdutt Pattanaik: Gandhari, Shikhandi and Draupadi

Indira Purohit, Dr. Kalyan Uttamrao Gangarde
Department of Social Studies, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

Devdutt Pattanaik is a motivational speaker and mythologist from Mumbai, India. He's also an illustrator and author who focuses in Hindu sacred lore, legends, folklore, fables, and parables. Devdutt Pattanaik brings his experience to the table to help people maximize their success. Gandhari, Shikhandi and Draupadi are three strong women from Indian Mythology in terms of commitment, ruling and management. This paper reviews the views of the Devdutt Pattanaik about these strong women.

***Keywords: Gandhari, Shikhandi, Draupadi, Devdutt Pattanaik.***

## Comparative Study on Risk and Return of Nabil bank and NIC ASIA Bank in Nepal

Narad Kumar Thapa
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract:**

This paper examines the risk and return on common stock investments in the Nepalese stock market, with a focus on two commercial banks listed on the Nepal Stock Exchange Limited. Investors' attitudes toward risk and entrepreneurial activities vary. The secondary data was gathered from the NEPSE website (www.nepalstock.com), prior studies, publications by the NRB, commercial banks website and the SEBON website. Scientific analysis has been done on both quantitative and qualitative data. Based on the results of the sample bank's risk and return analysis and historical data from their most recent five fiscal years, from FY-2017/18 to FY- 2021/22. Different techniques, including correlation, regression and descriptive statistics, have been used in this analysis to test whether there is a risk-return trade-off in the Nepalese stock markets to test hypotheses. It can be said that both the commercial banks are very risky and have variable rates of return.

***Key words: Common stock, expected returns, risk, standard deviation, required rate of return.***

## Solar Charging Station for Electric Vehicle

Mr. Ankush Singh
Department of Engineering & Technology, Dr. K. N. Modi University Newai, Tonk

**Abstract-**

The main purpose of developing a solar charging, so that vehicle get fully charged and is environmentally safe. This technique transforms solar power to electricity and stores it in an battery bank. If electric vehicles must be truly imperishable, it's essential to charge them from sustainable sourcesof electricity, like solar or wind energy. The solarcharging station gives the electricity to charge thebattery. The charging station has integrated batterystorage that allows for off-grid operation. The DCcharging uses the DC power from the photovoltaiccells directly for charging the vehicles batterywithout the utilization of an AC charging adapter.

## A Review Power Quality Enhancement in Flicker Problem

Mrs. Manisha Tyagi, Dr. Sandeep Gupta, and Dr. Sangram Bana
Department of Electrical and Electronics Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract**—

In this review paper discuss the different voltage flicker problem that is generate due to voltage up and down. This voltage problem generates flicker, and power quality degradation. The main reason of flicker generation is load change. Mainly caused by the amplitude change, not depended on absolute change. In the last decade there are different research work proposed on this flicker mitigation problem. In this survey paper discuss the different method to reduces this problem that is shown in this paper. STATCOM and DSTATCOM both are major players to reduce this problem.

***Keywords— Power quality, Voltage flicker, STATCOM, D-STATCOM***

# Arduino Based Underground Cable Fault Detection

Prasanna Kumar Pandey, Dharma Pal Singh Chauhan, Ujjawal Shukla
Department of Electrical and Electronics Engineering,
Vindhya Institute of Technology and Science Satna (M.P.)

## Abstract–

This project aims to use the Arduino microcontroller kit to identify the location of an underground cable line failure from a base station to the exact location in kilometers. In urban areas, power cables are laid underground rather than overhead. Whenever an underground cable fails, it is difficult to pinpoint the exact location of the failure during the repair process for that particular cable. The proposed system will find the exact location of the error. This scheme uses an Arduino microcontroller equipment and a rectified power supply. Here, a current-sense circuit made of a combination of resistors is connected to the Arduino microcontroller kit to support internal ADC devices and provide the microcontroller with digital data representing the length of the cable in kilo meters. Error generation is done by the switch set. The relay is prohibited by the relay driver. A 16x2 LCD display that interfaces with a microcontroller to display information. When a short circuit occurs, the voltage across the series resistance changes accordingly and is supplied to the ADC to produce accurate digital data for the programmed Arduino microcontroller kit. The kit also displays the exact location of the fault from the base station, in kilometers. In the event of a cable failure, the buzzer will generate an alarm to alert field workers and take immediate.

## डॉ. ए.पी.जे. अब्दुल कलाम के उच्च विद्यालयी शिक्षा संबंधी विचार

**ehuk{kh* ,oa M,- egs'k dqqekj xaxy****
**'kksèkkFkÊ] 'kksèk funZs'kd ,oa lg vkpk;Z****
**f'k{kk foHkkx] ouLFkyh fo|kihB] ouLFkyh& 304022**

## lkjka'k--

^felkby eSu^ ds uke ls fo[;kr Hkkjr ds egku oSKkfud ,o a11oha jk"Vªifr M,- ,-ih-ts- vCnqy dyke dks oSfÜod eap ij ,d oSKkfud lksp okys O;fäRo ds :i esa tkuk tkrk gS] ijarq bl ckr esa dksbZ lansg ugha fd vCnqy dyke ,d oSKkfud gksus ds lkFk&lkFk egku f'k{kd Hkh FksA mUgksaus u dsoy f'k{kk ds fo"k; esa vius fopkjksa dks j[kk gS vfirq f'k{kk ds fofHkUu Lrjksa tSls çkFkfed fo|ky;] mPp fo|ky;] egkfo|ky; esa i<+kbZ tkus okyh f'k{kk ds fo"k; ij Hkh vius fopkj Li"V fd;s gSA orZeku 'kksèk i= esa vCnqy dyke ds mPp fo|ky; f'k{kk ds fo"k; esa fopkjksa dks m)`r djus dk ç;Ru fd;k x;k gSaA mudh ;g fopkj u dsoy fo|kfFkZ;ksa] f'k{kdksa ,oa uhfr fuèkkZjdksa ds fy, egRoiw.kZ gS vfirq Hkfo"; dh mPp f'k{kk dk ekxZ Hkh ç'kLr djrs gSaA

dqV 'kCn& M,- ,-ih-ts- vCnqy dyke] mPp fo|ky;] f'k{kk

## Factors Affecting Young Consumer Buying Behaviour Towards Apparel In Modi Nagar (West Up, India)

Ajay Chaudhary, Prof. (Dr.) Devendra Kumar Modi, Prof. (Dr.) Prateek Gupta
Dr. K. N. Modi University Newai, Tonk

**Abstract**–

The role of a consumer is very vital in the economic development of the nation both in online and the traditional shopping. Consumer behavior is the analysis of how beings picked and use products/services and takes into consideration mindset, motivation, and behavioral attributes. The one and only purpose of the study is to identify the different factors and their influence on the purchase pattern of a consumer with respect to apparels both in the traditional and online modes of shopping. The study is qualitative in nature and based on secondary sources. The study reveals that the principal factors namely economic, psychological, personal, social and cultural factors affect the buying pattern of apparels. Both offline and online modes of apparel shopping have merits and demerits.

***Keywords: Apparel, Consumer behavior, Factors, Purchase Patterns, Promotional Activities*.**

## Smart Car Parking System Based on IoT

Shivanshi Mishra, Utkarsh Singh Tiwari, Akhilesh Kumar Shukla
Chandan Tiwari, Dharam Pal Singh Chuhan, Pankaj Kumar Sharma, Kaushal Kumar Vishwakarma
Department of Electrical Engineering, VITS, Satna

**Abstract**–

The idea of smart cities has exploded in popularity in recent years. The concept of a smart city today appears to be attainable because to the development of the Internet of Things. To increase the efficiency and dependability of urban infrastructure, ongoing IoT research is being conducted. IoT is used to address issues including traffic congestion, a lack of car parking, and road safety. In this research, we offer a cloud-integrated smart parking system that is IoT-based. The IoT module that is deployed on- site as part of the proposed smart parking system is utilized to track and signalize the availability of each individual parking space. Additionally offered is a smartphone application that enables users to check.

# उच्च माध्यमिक एवं स्नातक स्तर पर अध्ययनरत विद्यार्थियों की दुश्चिंता का शैक्षणिक प्रदर्शन पर प्रभाव का अध्ययन

Dr. Poonam Keshwani
Dr. K. N. Modi University Newai, Tonk

**Abstract**–

दुश्चिंता की परिभाषा मन की एक प्रकार की बैचेनी या एक प्रकार की आशंका, चिड़चिड़ापन, अनिष्ट के पूर्वाभास या व्यक्ति को आंतरिक जीवन के विक्षोभ से उत्पन्न एक रूप है। फ्रायड के अनुसार दुश्चिंता एक ऐसी भावात्मक एवं दुःखद अवस्था होती है जो अहं को आलंबित खतरे से सतर्क करता है ताकि वातावरण के साथ अनुकूली ढंग से व्यवहार कर सके। शोधकत्री ने शैक्षणिक प्रदर्शन पर दुश्चिंता को आधार मानते हुए शीर्षक ''उच्च माध्यमिक एवं स्नातक स्तर पर अध्ययनरत विद्यार्थियों की दुश्चिंता का शैक्षणिक प्रदर्शन पर प्रभाव का अध्ययन'' के अन्तर्गत शोध कार्य किया। इस शोध कार्य को टोंक जिले के निवाई कस्बे में स्थित राजकीय व निजी विद्यालयों के कक्षा 12 व स्नातक स्तर के छात्रों पर किया। अध्ययन के उपरांत निष्कर्ष में उच्च माध्यमिक एवं स्नातक स्तर पर अध्ययनरत विद्यार्थियों की दुश्चिंता का शैक्षणिक प्रदर्शन पर सार्थक प्रभाव पाया गया।

## Smart Street light System Based on IoT

Kanchan Kushwaha, Manu Gautam, Akhilesh Mishra, Aman Tiwari, Srikrishna Agnihotri, DPS Chauhan
Department of Elcrtical Engineering, Vindhya Institute of Technology & Science, Satna

**Abstract:**

This project aims for designing and executing the advanced development in embedded systems for energy saving of street lights. Currently we have a manual system where the street lights will be switched ON in the evening before the sunsets and they are switched OFF in the next day morning after there is sufficient light on the outside. But the actual timing for these lights to be switched ON is when there is absolute darkness. With this, the power will be wasted up to some extent. This project gives solution for electrical power wastage. Also, the manual operation of the lighting system is completely eliminated. The proposed system provides a solution for energy saving. This is achieved by sensing and approaching a vehicle using an IR transmitter and IR Receiver couple. Upon sensing the movement, the sensor transmit the data to the microcontroller which furthermore the Light to switch ON. Similarly as soon as the vehicle or an obstacle goes away the Light gets switched OFF as the sensor sense any object at the same time the status (ON/OFF) of the street light can be accessed from anywhere and anytime through internet. This project is implemented with smart embedded system which controls the street lights based on detection of vehicles or any other obstacles on the street. Whenever the obstacle is detected on the street within the specified time the light will get automatically ON/OFF according to the obstacle detection and the same information can be accessed through internet. The real time information of the street light (ON/OFF Status) can be accessed from anytime, anywhere through internet.

## Home Automation System via GSM

Puspanjali Dixit, Aditya Mishra, Pushpraj Tripathi, Shibbu Chaturvedi, Pankaj Kumar Sharma,
Dr. Dharmpal Singh Chauhan, Pankaj Agnihotri
Department of Electrical Engineering, Vindhya Institute of Technology &Science, Satna

**Abstract**–

This study looks into the possibilities for "Full Home Control," which is what future home automation systems hope to achieve. The analysis and use of home automation technology using a Global System for Mobile Communication (GSM) modem to control the GSM protocol, which enables the user to operate the target system away from a residential setting using the frequency bandwidth. The creation of the smart GSM-based home automation system has made use of the idea of serial communication and AT-commands. Homeowners will be able to check the status of any controlled appliances from their mobile phones, whether they are remotely switched on or off. The smart automated home system uses a PIC16F887 microcontroller with GSM integration to produce the needed 9600 bps baud rate. A maximum of four loads were used to implement and test the proposed prototype of the GSM-based home automation system, which demonstrated accuracy of 98%.

## Electric Consumption Using Time Series Analysis

Prasanna Kumar Pandey, Srikrishna Agnihotri
Research Scholar, Department of Engineering & Technology
SGSITS Indore, M.P.

**Abstract**–

Electric consumption is increasing day by day with increasing population and soaring economies. The necessity for predicting and forecasting electricity needs is more now than ever before. Electricity forecasts play a vital role in electric optimization which is very important in balancing the energy supply and demand. The main steps involved in doing this forecast are data preparation, consumption pattern identification, seasonality factor analysis in time series data and estimation of the effect of external factors like the economic meltdown on electricity consumption.

## Impact of Junk Food on Health

Dr. Sheena
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract**–

Junk refer to food that is high in calories but low in nutritional content and something that is appealing or enjoyable but of little or no value. Junk food easily available in market at different cost. Junk food is not good for health because it contains high amounts of fat or sugar. Various type of Junk food that are easily available in restaurants like cold-drinks, pizza, burger, and sandwich etc. The number of junk food restaurants are increasing fastly because people around the world like to eat junk food. USA, Canada, Britain, Australia, Japan, Sweden etc. are the countries with most junk food consumption around the world. Junk food is more popular because of experience of great taste, better shelf life and easy transportation. The junk food advertising is also play a great role in junk food's popularity. But it should be avoided, because of lack of energy, high cholesterol and poor concentration. It causes a lot of harmful effect on the body like obesity, diabetes, heart disease and various types of skin cancers. Eliminating the temptation for junk food and developing the awareness for fitness can be helping in avoid the junk food from the healthy diet regimen.

***Keywords: - junk food, cholesterol, burger and pizza***

## Developmental Co-ordination Disorder Among Children: A Study

Dr. Amit Parashar
Department of Pharmacy & Health ScienceJaipur Physiotherapy, Vidhya Dhar Nagar, Jaipur-302039

**Abstract**–

The developmental co-ordination disorder (DCD), also known as dyspraxia, affects physical coordination and causes children to perform less well than expected in daily activities. Researchers believe that DCD is caused by delayed brain development. People with DCD have no other medical issues that could explain the disorder. Due to their lack of coordination, children may find physical education challenging, as well as playground activities such as hopping, jumping, running, and catching a ball. In addition to affecting the child's ability to learn motor skills and perform everyday activities, developmental coordination disorder (DCD) is a neuro developmental disorder. There is no known cause for DCD; however, evidence suggests that children with DCD have altered brain structure and function. This paper study about developmental co-ordination disorder, its causes and impact on children.

***Keywords: Developmental Co-ordination Disorder, Dyspraxia, DCD.***

## Understanding Blood Cancer and Treatment Options

Abhishek Jayswal, Ajay B. K, Girish Vyas
Department of Pharmacy & Health Science, Dr. K. N. Modi University Newai, Tonk

**Abstract–**

A type of cancer that found in the bone marrow, where blood is make, cancers effect the construction and basis of your blood cells. Most of these cancers start in your bone marrow where blood is manufactured. Stem cells in your bone marrow mature and develop into three types of blood cells: red blood cells, white blood cells, or platelets. Leukemia, Lymphoma and Myeloma are some of the most common types of blood cancer. treatment cancer 'A plan for the diagnosis and treatment of cancer is a key component of any overall cancer control plan. Its main goal is cure cancer patients or prolong their life considerably, ensuring a good quality of life.

***Key Words- Blood Cancer, Leukemia, Lymphoma, Myeloma***

## Impact of Mobile Phone on Kids' Heath

Ms Vaishali
Department of Management, Dr. K. N. Modi University Newai, Tonk

**Abstract–**

Children are not fully-grown yet, and they are just little adults, their growing minds and bodies make them uniquely vulnerable to the effects of the environment around them, including all types of radiations generated by mobile phones, iPads, tablets, smartphones and all other kinds of wireless devices. In the new era, the children are exposed to technology at younger ages than ever before. There are different types of radiations generated by mobile phones and wireless devices, microwave radiations, ionizing and non-ionizing radiations. Ionizing radiations such as x-rays, radon, ultraviolet rays of sunlight all are high frequency, and high energy. Non-ionizing radiations are low in frequency and energy. Cell phones have non-ionizing radiations. Mobile phones send radio-frequency waves from its transmitting unit or antenna to nearby cell towers. When we make or receive a call, send or receive text, or use data, our phone receives radio-frequency waves to its antenna from cell towers. The rate of microwave radiations absorption is higher in children than adults because their brain tissues are more absorbent, their skulls are thinner, and their relative size is smaller. Foetuses are particularly more vulnerable, because microwave radiations exposure can lead to degeneration of the protective sheath that surrounds the brain neurons.

***Key Words: Tablets, Smartphones, Radiations, Frequency.***

# Smart Garbage System Using IoT

Shubham Dutt Shukla, Kuldeep Sharma, Krishna Prajapati, Vijay Kumar kushwaha, Ujjawal Shukla,
Dr. Dharmpal Singh Chauhan, Prasanna KumarPandey
Department of Electrical Engineering, Vindhya Institute of Technology & Science, Satna

## Abstract –

The Internet of Things (IoT) must be able to incorporate a large number of different and heterogeneous end systems transparently and seamlessly, while also providing open access to selected subsets of data for the development of a plethora of digital services. Building a general architecture for the Internet of Things is thus a very complex task, owing to the extremely wide range of devices, link layer technologies, and services that may be included in such a system. One of our main environmental concerns has been solid waste management, which, in addition to disrupting the environment's balance, has negative effects on society's health. One of the most pressing issues of our time is the detection, monitoring, and management of waste. Traditional waste monitoring involves manually checking waste in bins, which is a labor-intensive process that takes more time and money to complete and is incompatible with contemporary technology. This is a cutting-edge, automated waste management technique. This Internet of Things garbage monitoring system project is an extremely creative system that will aid in maintaining clean cities. This system keeps an eye on the trash cans and updates a web page with data about how much trash has been collected there. Through this website, all information is also transmitted to the garbage collection vehicles.

***Keywords: Wi-Fi modem, Arduino microcontroller, Application Resource Manager (ARM), and Solids, Waste management are all examples of technologies used in this project.***

# प्रवासी साहित्य में नैतिक मूल्य

Hari Prasad Gautam
Dr. K. N. Modi University Newai, Tonk

**Abstract**–

प्रवासी जीवन पर आधारित कहानियों में भूमंडली करण की यथार्थ भूमि पर पीड़ाओं को आत्मसात करती हुई वेदनाओं का चित्रण हैं। प्रवासी भारतीयों की अस्तित्त्व चेतना है। उनके जीवन संघर्ष के अनेक पहलू है। आज अमेरिका, डेनमार्क, स्कॉटलैण्ड, यू.ए.ई., ऑस्ट्रेलिया, कुवैत, फ्रांस, मौरिशस, मलेशिया, कनाडा, मेक्सिको, युगांडा, सूरीनाम आदि विभिन्न देशों में प्रवास कर रहे निवासियों के द्वारा उन देशों के कानून और नियम संस्कृति और वातावरण जीवन संघर्ष और जीवटता, उपलब्धियाँ और दुश्वादियों को इन कहानियों में अंकित किया है। प्रवास के प्रति युवा वर्ग का आकर्षण भी इन कहानियों में प्रस्तुत है। वहाँ भले ही एक उच्च शिक्षित को ड्राइवर बन कर या मजदूरी करनी पड़े (इला प्रसाद की लौटते हुए) नई स्थिति यह भी है कि प्रवासी भारतीय के सम्बन्ध भी उसे सोने की खान समझकर निरंतर उसका शोषण करते रहते हैं। (सुधा ओम धींगरा की कौन सी जमीन अपनी) प्रवासी व्यक्ति की मिस्र फिटनेस भी इन कहानियों में चित्रित है।

## Biology And Management of Shoot and Fruit Borer in Brinjal

Rajendra Singh Choudhary, Sunita Choudhary, Hemraj Jat, Kailash Chand Choudhary
Department of Agricultural Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract**–
Brinjal, Solanum melongena L. is the most popular and principal vegetable crop regarded as the "King of Vegetables". It is importance due to its nutritional, medicinal, as well as commercial value i.e., carbohydrates, proteins, mineral and vitamins. Shoot and fruit borer, L. orbonalis is a major constraint in achieving potential yield. The infested fruits lose their market value and finally complete loss occurs. Farmers injuriously applying insecticides and by this indiscriminate use of insecticides by farmers to control BFSB it leading to the development of resistance resurgence and environmental contamination. In order to manage the pest and to produce a quality crop, it is essential to manage the pest population at appropriate time with suitable control measures including different methods. Host plant resistance plays a significant role in deciding the management strategies of the pest; hence, the dependence on highly toxic insecticides to control insect pests especially in vegetables leads to problems of insecticidal residues, which affects human health besides causing environmental hazards and ecological damage on one hand and the higher expenditure incurred on pesticides on the other hand.

***Key Words: Brinjal, Biology, Management, Shoot and Fruit Borer***

## Dispersible Levosalbutamol Tablet

Md Mainuddin Ahmed Shah, Manmohan Sharma, Anil Singh and Giris Vyas
Department of Pharmaceutical Studies, Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract**–
Asthma symptoms are the result of bronchial hyperresponsiveness, bronchospasm, and chronic airway inflammation. Short-acting, inhaled beta2 agonists; oxygen; intravenous fluids; and corticosteroids are the mainstays of treatment for acute exacerbations. The R-enantiomer of albuterol is responsible for bronchodilation. The S-enantiomer exhibits broncho-constricting activity in vitro, which may be mediated by muscarinic receptors and may be opposed by adding the anticholinergic agent ipratropium bromide. Levalbuterol improves pulmonary function to a greater extent than racemic albuterol and reduces the need for costly hospitalizations in patients with acute asthma exacerbations. It was estimated that more than 339 million people suffer from asthma. Asthma is the most common noncommunicable disease among children. Most deaths occur in older adults. Under Preformulation study, the physicochemical properties were complied with the IP and USP specification. Physical properties such as appearance, melting point, effect of temperature and humidity in different conditions were more in Levosabutamol raw powder. Parameters evaluated were within the USP limit.

***Keywords: Asthma, Levosabutamol, bronchial hyper responsiveness, bronchodilator, Dispersible Tablet***

## Domestic Violence with Abuse on Women and Its Effect on Indian Families

Bhuvan Divakar Dixit, Dr. Santosh Sharma
Department of Law, Dr. K. N. Modi University Newai, Tonk

**Abstract–**
The woman whose image has been presented in front of us by the author in the above lines is hardly seen anywhere in our so-called modern society. In a community where the standards for men and women are different, how have we managed to push a woman's equality, rights, and freedom into a blind alley of words and thoughts? Is this just because of being a patriarchal society or are anti-feminine values deeply ingrained in our veins and breeds? Today we see these anti-women rituals in our homes, society and politics everywhere. A father does not question his son on a picnic from college but questions his daughter about her life. In modern times, we start discussing not the role of women in society but their safety and status. The examples that are presented before us are of those remarkable women who were very strong in history and politics. We generalize every woman in our society through the status of those women. Take the history of mythological and ancient times and see. Women have been participating in the war with men. Kaikeyi had asked King Dasaratha for two promises to protect her on the battlefield. Chanakya had given the responsibility of Chandragupta's personal security to women instead of men. The post-Vedic yug, the yug after the Vedic age, could not maintain this condition of women. His freedom and rights began to be restrained. Child marriage was instructed in the Dharmasutra, in which women' education was hindered.

## The Thermal Management of Battery (TMoB): Experimental and numerical study based on combining air- forced convection (CAFC) with phase change material (PCM)

Sooraj Kumar Chourasia, Amit Kumar Vishwakarma, Bablu Patel
Department of Electrical and Electronic, Eklavya University Damoh, (M.P.)

**Abstract–**
The Thermal Management of Battery (TMoB) based on combining air- forced convection (CAFC) with phase change material (PCM) have been proposed in many articles, but more attention has been paid to the problem related to Thermal Radiation (TR) of the batteries, and the influence of the Thermal Management of Battery (TMoB) on the efficacy of battery module has rarely been studied. The System effectiveness is verified by experimental bases. It is clear that the thermal performance any battery in the passive mode is better than in the active mode. The estimation results show that the TR of batteries with CAFC PCM is higher than that of the batteries without CAFC PCM under the same working conditions, and it is more sensitive to ambient temperature even without phase transition. Also, the accurate model, grounded on the three- dimension TR model coupled with the electrochemical model, is carried out and also validated with experimental data. Taking advantage of the accurate model, the space of designed structures is further optimized.

## Technological Solution of Problems In Trenchless Construction

Mr. Aman Kumar Jain
Department of Engineering & Technology, Dr. K. N. Modi University Newai, Tonk

**Abstract**–

Trenchless technologies can be defined as "techniques for utility line installation, replacement, rehabilitation, inspection, location, and leak detection, with minimum excavation from the ground surface". This Presentation describes different trenchless technology methods along with the technological solutions to the different problems in installation and rehabilitation of pipe lines and sewer pipes in building of cities where less damage to the pavement along with less inconvenience to the customer is of prime importance. Some of the methods adopted in this presentation is unique in the sense that they are consistent with the environmental sound pollution control to build a city a unique one. The main goal tried to be achieved in this presentation is return a defective pipe line to a serviceable condition without pipe replacement by some other trenchless technology methods as non-steering and steering methods.

***Key words: Trenchless, Rehabilitation, Replacement, Line utilization.***

## Synthesis, Kinetics and Pharmacological Evaluation of Mefenamic Acid Mutual Prodrug

Mr. Rajendra Gurjar, Mr. Girish Vyas, Mr. Manmohan Sharma, Mr. Anil Sharma
Department ofPharmaceutical Studies, Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract** –

A novel mutual prodrug (MA-P) consisting of mefenamic acid (MA) and paracetamol (P) has been synthesized as a gas trosparing NSAID, devoid of ulcerogenic side effects. The structure of synthesized drug was confirmed by elemental analysis, infrared spectroscopy, 1H NMR spectroscopy and mass spectrometry. The kinetics of ester hydrolysis was studied by HPLC at pH 2, pH 7.4 as well as in human plasma. The pharmacological activities (anti-inflammatory, analgesic and ulcerogenic) were evaluated for the synthesized drug. The ulcerogenic reduction in terms of gastric wall mucosa, hexosamine and total proteins were also measured in glandular stomach of rats. The results indicated that MA-P ester has better ulcer index than the parent drug.

## Performance measures of nuclear reactor with standby generators and head-of-line repair

Aurisha Bhatnagar, Dr. Ajay Sharma
Department of Mathematics, DKNMU, Newai, Rajasthan

**Abstract** –

In the present paper, the authors have worked upon performance measures of nuclear reactor with standby generators and head-of-line repair. The whole power plant has been divided into four subsystems namely A, B, C and D. The subsystem A is reactor vessel and it creates heat energy through fissioning of atoms. This energy goes to subsystem B, through coolant. This subsystem B is a heat exchanger and converts the heat into steam. Now this steam move to subsystem C, a turbine, and starts to rotate it. This subsystem C is connected with generator (subsystem D), which products electric power on rotating of turbine. In last, electric energy produces by generator, can be stored for further utilization. In this model, the author has taken one standby redundant generator. So, the subsystem D has two standby redundant units. The whole system get fail if any of its subsystems stop working. Head-of-line policy has been adopted for repair purpose. All failures follow exponential time distribution whereas all repairs follow general time distribution. Expressions for availability and profit function have been computed. A numerical example together with its graphical illustration has been appended in the end to highlight important results. Since, the system under consideration is non-Markovian, the supplementary variables have been used for mathematical formulation of the model. Laplace transforms is being utilize to solve the mathematical equations. Some particular cases and asymptotic behaviour of the system have also been derived to improve practical importance of the model.

***Key Words: Non-Markovian system, supplementary variables technique, Laplace transform, asymptotic behaviour etc.***

## Casia Fistula Linn. (Casia) A review of its Pharmacological Activity and its Traditional Use.

Mr. Ratsongja Tokbi, Mr. Girish Kumar Vyas, Mr. Shailesh Sharma, Mr. Anil Sharma
Department of Pharmaceutical Studies, Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract** –

The aim of this study is to provide a comprehensive and recent review on Cassia fistula's Pharmacological Activities and Its Traditional Uses. Cassia fistula Linn is known as Golden shower has therapeutics importance in healthcare since ancient times. It is obtained from deciduous and mixed-monsoon forests throughout greater parts of India, ascending to 1300 m in outer Himalaya, is widely used in traditional medicinal system of India has been reported to possess hepatoprotective, anti-inflammatory, antitussive, antifungal and also used to check wounds healing and antibacterial. It is known as a rich source of tannins, flavanoids and glycosides. The innumerable medicinal properties and therapeutic uses of Cassia Fistula as well as its phytochemical investigations prove its importance as a valuable medicinal plant.

***Keywords - Cassia Fistula, Caesalpiniaceae, Amulthus, Pharmacological Activities, Its Traditional Uses.***

## (IOT) "Internet of Things", Cyber security, Data Mining, (AI) "Artificial Intelligence"

Mr. Animesh Singh Malik

Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract** –

In this novel model i proposed one assembled PC , I used raspberry pi 3 model b. This is 3rd generation raspberry pi (SOC) which equipped with 1.2 GHz quard core arm cortex a-53 64bit processor and a powerful video core iv GPU and this having 1 GB of SRAM, and having on board equipment's wired (LAN) "local area network" Ethernet port and WiFi with Bluetooth 4.1. The pi is having size of credit card dimension, it comes in series of (SBCS) "series of small single board computer". The project is having laptop dimensions this is full flaged computer . The components using are 15 inch (LCD) "Liquid Crystal Display" Screen, (LCD) "Liquid Crystal Display" Driver board , rectifier boards , ac to dc adapters, (USB) "Universal Serial Bus" Extensions , various types of power cords and various types of digital signal transmission cords , stereo channel speakers with 5v amplifier driver board , heat sinks with 5v fans mounted over for better cooling effect and better performance outcome etc. This run's on raspbian UNIX like operating system but based on Debian distribution. Raspberry pi having (GPIO) header "general purpose input output" 40 pins for placing sensors and many types of equipment as well . For this project using a (DIY) "do it your self" Case of (MDF) "medium density fiber board" . This system is compact, feasible, portable, and considering in term's of performance as well, and uses in areas of (IOT) "Internet Of Things", Cyber security, Data Mining, (AI) "Artificial Intelligence" Etc.

## Automation, Voice Assistance, Software, Controller, Agile

Mr. Udit Gupta

Department of Computer Science & Engineering, Dr. K. N. Modi University Newai, Tonk

**Abstract –**

I have an idea of building a device or a software for all your digital devices which can do their work according to you and understand you what you want with them to do. Like if you want to make a website and you have some idea of how it is looking then you only need is to say to the software and then that software will make you a website on their own, same like that taking the inspiration from a movie [Ironman (the place where this idea came from)]. In that Jarvis is the software who do the work for the Tony accordingly. That was not so far from us for now as we have my voice assistance, but it can do many more than just some tasks, you only need you train that software. Putting more AI in the voice assistance can make it more advance and it can do many more things from making food for us to do our work of coding and building software own their own. It is like a software making more software, understand us, doing our personal work and making life easier. And in this there might be possibility that the software will train itself that much, that it is not listening to you or responds to you correctly.
***Keywords: Automation, Voice Assistance, Software, Controller, Agile.***

## Spectrophotometric Estimation of Total Phenols Content from Different Plant Parts of A Marmelos

Dr. Renuka Verma*, Mr. Mukut Raj
*MDPG College, Lalsot
Department of Pharmaceutical Studies, Faculty of Health Sciences, Dr. K. N. Modi University Newai, Tonk

**Abstract** –

Aegle marmelos is an important medicinal plant of India. Compound purified from leaves, fruits, stem and roots of Aegle marmelos have been proven to be biologically active against several major diseases. Present investigation for the first time provides a comprehensive profile of antioxidant activities of different extracts of Aegle marmelos with respect to its total phenols. The purpose of this study was to screen the methanolic extracts of Aegle marmelos to characterize the phenols content available in different plant extracts of A. marmelos which were analysed quantitatively by UV-Spectrophotometric method. The results showed that the maximum phenol contents were observed in in vitro leaves (IVL- 114.1 mg) whereas minimum phenol contents were found in matured fruit pulp (5 mg).

## A study on Strengthening Preservice Teachers' Resilience to Enhance the Quality of Teacher Education Programs in Modern Educational Systems.

Fr. Baiju Thomas
Research Scholar
Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore, Tamil Nadu

**Abstract**–

The present study strengthens preservice teachers' resilience to enhance the quality of teacher education programs in modern educational systems. Resilience is essential in our current educational system, then. Preservice teachers need to possess this quality because they are integral to the educational system. They face various challenging situations in their professional and personal lives. Resilience in preservice teachers has been connected to several significant outcomes, including work satisfaction, devotion, efficacy, engagement, motivation, well-being, and a strong sense of belonging. Most of the initial TEP is devoted to instructing preservice teachers on lesson planning, instruction delivery, and evaluating students' intellectual and social development. However, a teacher's responsibilities could go far beyond the classroom and involve handling challenging or contentious circumstances. The concepts of teacher resilience and well-being are often addressed when discussing preservice teachers' personal and professional lives. However, the fact that these terms are frequently used, commonly associated, and without context highlights the need for TEP to enhance a deeper understanding and understanding of the interrelationship between resilience and wellbeing. Preservice educators can develop fundamental practices and pedagogies based on exploring human flourishing by sowing the resilience seed within TEP. Initiating a discourse about how essential it is to give preservice teachers' resilience and well-being a priority is the primary goal of the present study. Each learner in the classroom needs to have the teacher's full attention. Only a resilient teacher could manage difficult conditions while yet maintaining family responsibilities. It should be possible for any preservice teacher to bounce back from difficult situations. Education programs are successful because they enable learners to live successful lives in society thanks to preservice teachers' hard effort and effectiveness. Resilience is an important trait for preservice teachers. Thus there are concerns about how it might be developed in teacher schools. Teacher educators agree that there are challenges associated with learning to teach, some of which students may overcome, but some of which some students find challenging to overcome when faced with pressure or challenging conditions. How to develop and integrate a resilience-focused curriculum into TEP in the context of external demands presents a challenge for teacher educators to enhance the quality of TEP in modern educational systems.

# Formulation And Assessment Of Herbal Gel For Pustule Management

Anil Sharma, Shailesh Sharma, Girish Kumar Vyas, Manmohan Sharma
Research Scholar
Department of Pharmacy & Health Science Dr. K. N. Modi University Newai, Tonk

## Abstract –

Introduction: About 80% of adolescents experience acne vulgaris, a long-term inflammatory skin condition, during the puberty stage. The use of antibiotics to treat this issue more frequently explores several negative effects. As a result, the herbal formulation must be the primary focus of treatment. Objective: Curcuma longa, and Aloe barbadensis, two medicinal plants with high antibacterial activity, were chosen for the current investigation to create a polyherbal gel for the treatment of acne vulgaris. Method: Curcuma longa, and Aloe barbadensis extractions were carried out and studied. Topical gels with various concentrations of aloe vera, and turmeric extract was created. The produced gel was assessed after 24 hours of storage at room temperature. Results: Based on this research, polyherbal anti-acne gel significantly reduced Staphylococcus aureus and Staphylococcus epidermis germs without causing any skin irritation. The proposed formulation was found to be transparent, uniform, and particle- and fiber-free by physicochemical analysis. With pH closer to skin, it was also noticed that the consistency and spreadability were good. Conclusion: The results of the trial showed that a polyherbal gel formulation was a good option for the first-line topical therapy of acne vulgaris. It contained extracts of Aloe barbadensis, and Curcuma longa at concentrations of 0.2%, 1%, and 0.8%, respectively. Key Words: Acne vulgaris, Polyherbal Gel, Anti-Acne Formulation, and Curcuma longa.

# The Analysis Of Antioxidant Activity For Individual And Combination Of Cymbopogon Citratus, Azadiracta Indica, And Curcuma Longa

Manmohan Sharma, Anil Sharma, Shailesh Sharma, Girish Kumar Vyas
Department of Pharmacy & Health Science Dr. K. N. Modi University Newai, Tonk

## Abstract –

Introduction: In the food sector, substances like turmeric (Curcuma longa), neem leaves (Azadirachta indica), and lemongrass (Cymbopogon citratus) are widely employed. the evaluations, however, were almost never done in groups. Objective: the goal of this study was to investigate the interactions that can occur when antioxidant qualities are combined. 14 specific formulations in a range of proportions were found in design expert® 6.0. Materials and methods: The 2, 2-diphenyl-2-picryl hydrazyl (DPPH) radical scavenging assay was used to assess the antioxidant activity of all the newly decocted extracts. Results: The combination of turmeric and lemongrass demonstrated an antagonistic interaction that was 3.38% less than the expected value (86.24%). a synergistic interaction with a DPPH radical scavenging activity value of 89.38 % was found for a single plant expecting a predicted value of 72.75 %. DPPH radical scavenging activity of turmeric extract in 6.25 % was combined with 1.25 % of neem extract, 12.5% of turmeric extracts also shown a good result in activity. the combination of lemongrass and neem leaves has antagonistic effects since the percentages of inhibition recorded by the mixture of lemongrass and neem leaves were lower than the expected values (91.14%). the formulation no 11 was the combination of neem leaves extract in 6.25 % concentration and others in 1.25 % concentration result 88 % of predicted value and 93.49 % of DPPH radical scavenging activity. the formulation no 13 was the combination of all three extractions in equal amounts showed the result 80.08 % of predicted value and 92.07 % of DPPH radical scavenging activity. Conclusion: In this research study most plant combinations shown synergistic interactions in the DPPH radical scavenging assay, but three combinations equal mixture of lemongrass and neem leaves, lemongrass and turmeric exhibited antagonistic interactions. in my opinion double combinations of antagonistic activity drugs should be avoided and triple combination should be used.

# Burn Wound Model In Albino Rats: Wound Healing Activity Of A Traditionally Used Polyherbal Product

Girish Kumar Vyas, Manmohan Sharma, Anil Sharma, Shailesh Sharma
Department of Pharmacy & Health Science Dr. K. N. Modi University, Newai, Rajasthan

## Abstract –

Introduction: Burns are among the most prevalent and harmful types of injuries, with a wide range of effects. Burn wound healing has remained a difficulty for modern medicine despite the discovery of several antibacterial and antiseptic medicines. In recent years, researchers have looked at plants as potential medicines for the diagnosis and treatment of diseases. The medicinal effects of herbal products should, however, be verified using contemporary scientific methodologies. Objective: In this work, a rat burn wound model was used to assess the wound-healing capabilities of a poly herbal cream (PHC) derived from Indian Traditional Medicine (ITM). Method: PHC comprising aqueous extracts of Eucalyptus leaves and Curcuma longa rhizomes were utilized in this experimental study. Four sets of five rats each received second-degree burn injuries. In order to evaluate the effectiveness of PHC with the negative and positive control groups, groups 2, 3, and 4 got cream base, silver sulfadiazine (SS) 1%, and PHC, respectively. Group 1 did not receive any treatment. On days 2, 6, 10, and 14, the proportion of healed wounds was evaluated, as well as the histological characteristics of those cured wounds. Utilizing the micro-dilution and 2, 2-diphenyl-1-picrylhydrazyl (DPPH) techniques, antioxidant, and antibacterial properties of PHC were assessed. Results: At the end of the treatment period, the percentage of rats that had healed much better than the other groups (87.0% ± 2.1% for PHC vs. 32.2% ± 1.6%, 57.0% ± 5.3%, and 70.8% ± 3.5% for the control, cream base, and SS groups, respectively). Additionally, the lesions that had healed in the PHC-treated mice had less inflammatory cells and had admirable neovascularization along with acceptable re-epithelialization. PHC demonstrated antibacterial efficacy against Staphylococcus aureus in addition to antioxidant properties. Conclusion: Experimentally and histopathologically tested poly herbal cream indicated a burn wound healing activity that was likely brought on by the antioxidant, anti-inflammatory, and antibacterial properties of the phytochemicals present. This study thus supports the use of Curcuma longa rhizomes and Eucalyptus leaves in Indian Traditional Medicine burn prescriptions. Key Words: Burn Wound Healing, Indian Traditional Medicine (ITM), Polyherbal Formulation, Eucalyptus; Curcuma longa Rhizomes.

## Important Dates

| | |
|---|---|
| Last Date of Paper Submission | 15th December 2022 |
| Notification of Acceptance | 30th December 2022 |
| Registration of Accepted Paper | 10th January 2023 |
| Conference Date | 27th-28th January 2023 |

## Registration Fee

| Category | Amount |
|---|---|
| Industrialist | 3000 INR |
| Academician/Research Scholar | 1500 INR |
| Student | 500 INR |
| Attendee/Co-Author | 300 INR |
| Foreign Participant | 100 USD |

* Charges for Publication in UGC/Web of Science/Scopus Journal - As Per Journal Cost (Excluding Registration
Fees) and Recommendation of Review Committee Members.

* Charges for Publication in PEER-Reviewed Journal–1000 INR (Excluding Registration Fees)

For Paper Submission Click
**Below https://forms.gle/m8UGt7bczQ6xPuZx7**

## REGISTRATION PAYMENT MODE

1. **Through Demand Draft [DD] - DD should be made in favor of DKNMU, Newai & payable at Newai.**
   **Send DD to Organizing Chairman ICMAS-2023, Dr. K.N. Modi University, INS-1, RIICO Industrial Area Ph.-II, Newai, Distt. Tonk, Rajasthan - 304021 (India)**

2. **Through Electronic Fund Transfer**

**For Domestic Delegates**

| | | |
|---|---|---|
| **Account Holder** | **:** | **Dr. K. N. Modi University** |
| **S/B Account Number** | **:** | **679901700111 at ICICI** |
| **Branch Code** | **:** | **6799** |
| **IFSC Code** | **:** | **ICIC0006799** |
| **UPI ID** | **:** | **drknmodiuniversity@icici** |

**For International Delegates**

| | | |
|---|---|---|
| **Account Holder** | **:** | **Dr. K. N. Modi University** |
| **Swift Number** | **:** | **SBININBB235 through SBI S.M.E. Branch - Church Road, Jaipur** |
| **S/B Account** | **:** | **35430857182** |
| **Number Branch** | **:** | **0007259** |
| **Code IFSC Code** | **:** | **SBIN0007259** |

# *ICMAS-2023*

**CHIEF PATRONS :**

**Prof. (Dr.) D. K. Modi**
Hon'ble Chairman, Dr. K.N. Modi Foundation

**CHIEF MENTOR :**

**Prof. (Dr.) R. K. Khandal**
Former Vice Chancellor UPTU, Lucknow

**PATRON :**

**Mr. Sanjay Gupta**
Trustee
Dr. K.N. Modi University

**Mr. U.N. Mishra**
Registrar
Dr. K.N. Modi Foundation

**Prof. (Dr.) V. K. Dwivedi**
Pro-President, DKNMU

**CONVENER :**

**Prof. (Dr.) Jay Prakash Dubey**
Dean Academics &
Director: IQAC

**CO-CONVENER :**

**Dr. Pradeep Kr. Sharma**
Dean Student Welfare

**Dr. Sandeep Gupta**
HoD, Electrical and Electronics Engineering

DR. K.N. MODI UNIVERSITY
NEWAI, (NEAR JAIPUR), DIST. TONK, RAJASTHAN, INDIA


Established under "Dr. K.N. Modi University, Newai (Tonk) Act, 2010 (Act No. 8 of 2010)", and approved u/s 2(f) of UGC Act, 1956

TOLL FREE : 1800 300 12010 Call : 8875010001/02, 8875010003/05

**CAMPUS** : INS-1, RIICO Industrial Area, Ph-II, Newai, Dist.- Tonk, Rajasthan - 304021 (India)
Visit us : www.dknmu.org
Email : admission@dknmu.org, pro@dknmu.org