



# Online International Conference on Research Methodology (ICRM-2022)

(OCT 28-30, 2022)

Jointly Organized By

**Dr Shakuntala Misra National Rehabilitation University**  
(D.S.M.N.R.U, Established by Government of Uttar Pradesh)

&

**Science Tech Institute, Lucknow UP**

**(Run by: Manraj Kuwar Singh Educational Society)**

(Registered by : Govt. of U.P & Ordinance No. 21 of 1860, Reg. No. LUC/03140/2019-2020, INDIA)

(Registered by : Govt. of India , NITI Aayog, Reg. No. UP/2019/0248444)



Edited by

Dr. Susheel Kumar Singh  
Dr. Dinesh Kumar Singh  
Dr. Praveen Kumar Mishra  
Prof. (Dr.) Chandra. K. Dixit

# **Online International Conference on Research Methodology (ICRM-2022)**

## **Editors**

**Dr. Susheel Kumar Singh**  
**General Secretary**  
**MKSES Educational Society,**  
**Lucknow, UP, India**

**Dr. Dinesh Kumar Singh**  
**Assistant Professor**  
**Department of Information Technology**  
**D.SM.N.R.U, Lucknow,**  
**UP, India**

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**Department of Mathematics**  
**and Statistics**  
**D.SM.N.R.U, Lucknow,**  
**UP, India**

**Prof. (Dr.) Chandra. K. Dixit**  
**Dean**  
**Faculty Science**  
**Dr. Shakuntala Misra National Rehabilitation University,**  
**Lucknow, UP**



# **Online International Conference on Research Methodology (ICRM-2022)**

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# **Dr Shakuntala Misra National Rehabilitation University**

**(D.S.M.N.R.U, Established by Government of Uttar Pradesh)**

**Lucknow, UP, India**

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Dr. Shakuntala Misra National Rehabilitation University, established by Government of Uttar Pradesh in the year 2008, is a highly innovative that proactively brings together under one umbrella-the academia and social responsibility. The potent synergies of this blending open up huge possibilities for translating ideas into action, taking science to soil, and lab to land. First of its kind in India, the University not only offers accessible and world class higher education to all but also addresses the educational needs of the physically challenged in a seamless and sensitive academic environment.

The impressive and modern University campus is spread over 131 acres of land in Lucknow-the state capital of Uttar Pradesh. Wi-Fi equipped campus with barrier-free infrastructural and educational environment; technology-friendly smart classrooms with modern audio-visual education aids like Computers, CCTV, Projectors etc.; Multimedia educational approach; well-equipped computer lab with JAWS (Job Access with Speech); and green eco-friendly campus-all combine to offer the student a world-class educational experience for all-round development. The Library in the University caters to the students with a rich collection of international and national books, journals, reports and reading material on a wide range of The allied facilities of the University include Post-Office, Bank, Electricity Sub-Station, Students Hostel (Boys' & Girls'), Guest House, Staff Quarters, Computer Center, Placement Cell, RTI Cell, Disability Cell and Bus Shuttle Services to name a few. The state-of-the-art infrastructure of the University makes it a self-sufficient academic microcosm.

The University encourages inter-disciplinary and multi-disciplinary approach for holistic academic development of faculty and students alike. Dedicated and distinguished faculty with wide exposure in their respective disciplines make for lively transaction of knowledge and vibrant class room atmosphere. The course curricula of various courses in the University are designed to meet the international standards of that are comparable with the best. The uniqueness of the University lies in imparting quality education based on international parameters and the paradigm of inclusive empowerment of differently abled people. The University firmly believes that knowledge and comprehensiveness are glorious attributes of a civilized society. Hence, our endeavour is to educate and inculcate moral values in students for making them good individuals and good citizens.

## **Science Tech Institute, Lucknow UP**

(Run by: Manraj Kuwar Singh Educational Society)

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The Science-Tech is one of the premier institutes of Lucknow dedicated to organize various academic activities like conferences, seminars, workshops and training programmes in collaboration with many national & international organizations and Institute have own Publication house and Journals' to be published Edited books, Course books and research papers. The institute is run by Manraj Kuwar Singh Educational Society, Lucknow. The society is working for the development of deprived socio-economic students by providing them quality education.

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## **Online International Conference on Research Methodology (ICRM-2022)**

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Dr. Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP are going to organize Online International Conference on Research Methodology (ICRM-2022). This Conference will provide a platform to the researchers and academicians to enrich their methodological and analytical skills. Currently, the research fraternity is missing their lively and interactive conference due to COVID-19 Pandemic. To address the present situation we are conducting this organize Online International Conference on Research Methodology (ICRM-2022) for faculty members, research scholars and students of all the disciplines in the country and abroad from Oct 28- 30, 2022.

As we are aware about the fact that currently world is suffering from Covid-19 pandemic. This has brought us to a juncture where innovation and interdisciplinary research are crucial for the survival of humanity. It has become a moral imperative these days to have exchange of ideas using available advanced technologies.

Hence, the global scientific community must become a key player on scientific and technological innovations, not only to combat the COVID-19 emergency, but also to impart true education to the academia and industry across the globe. In the era of social distancing, Dr Shakuntala Misra National Rehabilitation University, Lucknow, , UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP has chosen an e-platform for the scientific community to share their ideas and research by organizing a three day Online International Conference on Research Methodology (ICRM-2022) Conference will include Keynote lectures, Invited lectures , Oral presentations and Poster presentations.

**Chief Patron**

Prof. Rana Krishna Pal Singh Vice-Chancellor Dr. Shakuntala Misra National Rehabilitation University, Lucknow

**Patron**

Prof. (Dr) Chandra. K. Dixit, Dean Faculty Science Dr. Shakuntala Misra National Rehabilitation University, Lucknow

**Co-Patron**

Mrs. Shweta Singh, Chairman, Governing Body, MKSES Educational Society, Lucknow, UP, India

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2. Prof. N.B. Singh, (Emeritus Professor Chemistry, SBSR & RTDC Sharda University, Greater Noida, UP)
3. Prof. D.S. Hooda, (G. J. University of Science & Technology, Hisar, Haryana)
4. Prof. Somesh Shukla, Professor Department of Commerce, University of Lucknow, Lucknow
5. Prof. R. K. Shukla (Professor, Department of Physics, University of Lucknow, Lucknow, UP)

**❖ Program Chair**

Prof (Dr) R.R. Singh, Professor & Head, D.S.M.N.R.U, Lucknow, UP, India

**❖ Chairperson**

Prof.(Dr.) B.B Srivastava, Professor & Head, Dept. of Physics, Shia PG College Lucknow

**Convener**

Dr. Dinesh Kumar Singh, Department of Information Technology D.S.M.N.R.U, Lucknow, UP, India

**Co-Convener**

Dr. Praveen Kumar Misra, Department of Mathematics and Statistics D.S.M.N.R.U, Lucknow, UP, India

Dr. Dilshad Ahmad, Dept. of Commerce, AIDC, Lucknow, UP, India

**Organizing Secretary**

Dr. Susheel Kumar Singh, General Secretary, Science Tech Institute, MKSES Educational Society Lucknow, UP, India

Dr. Dharmendra Kr. Yadav, Assistant Professor, Department of Statistics & Demography NIHF, New Delhi

## Advisory Committee

- ❖ Prof. D.K Sharma, University of Maryland, USA
- ❖ Prof. O. P. Yadav, North Dakota State University, USA
- ❖ Dr. Akansha Singh, Durham University, United Kingdom (UK)
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- ❖ Prof. Amrica Singh Vice-Chancellor, MLSU Rajasthan, India
- ❖ Prof. S.P. Tripathi, Vice-Chancellor, IGNTU, MP, Amarkantak, India
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- ❖ Prof.V.K. Pandey, MMMUT Gorakhpur, UP, India
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- ❖ Prof. B.C. Yadav , BBAU Lucknow UP, India
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- ❖ Prof. Ramesh kundal, Government Medical College Patiyala, Panjab, India
- ❖ Prof. Somesh Kumar Shukla, University of Lucknow, Lucknow
- ❖ Prof. Munna Singh, University of Lucknow, Lucknow
- ❖ Prof. A.P. Mishra, Sagar University, India
- ❖ Prof. (Dr.) Kaman Singh, BBAU Lucknow. UP
- ❖ Prof. D.K. Awasthi, Jai Naryan PG College, Lucknow, UP
- ❖ Prof.(Dr.).Om Prakash Singh, Prinncipal, Digvijay Nath P.G College Gorakhpur, UP
- ❖ Prof. S. Shabihe Raza Baqri Principal, Shia PG.College, Lucknow, UP, India
- ❖ Dr. Abdul Qayum Principal, AIDC, Lucknow, UP, India
- ❖ Dr.Mohd. Miya, Shia PG.College, Lucknow, UP, India
- ❖ Prof. Parikshit Singh, Digvijay Nath P.G College Gorakhpur, UP
- ❖ Dr. Mahendra Agnihotri, University of Lucknow, Lucknow, UP, India
- ❖ Dr. Atul Srivastava, University of Lucknow, Lucknow, UP, India
- ❖ Dr. K.K Yadav, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow
- ❖ Dr. Sushila, K.M Govt. Girls P.G. College, Noida, U.P
- ❖ Dr. Zeenat Kashmeeri Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur
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- ❖ Dr. Jahan Ara Karamat Hushain Degree College Lucknow
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- ❖ Dr. Tanveer Hasan, Shia PG College, Lucknow, UP, India

### **Local Advisory Committee**

- ❖ Dr Pramod Kumar Singh , Head of the Department Hindi DSMNRU, Lucknow UP, India
- ❖ Dr. Vinodini Katiyar, , Head of the Department of IT DSMNRU, Lucknow UP, India
- ❖ Dr. Devesh Katiyar, Head of the Department of CS DSMNRU, Lucknow UP, India
- ❖ Dr Alok Kumar, Head of the Department History, DSMNRU, Lucknow UP, India
- ❖ Dr Ashutosh Pandey, Head of the Department Political Science & Public Administration, DSMNRU, Lucknow UP, India
- ❖ Dr Pushpendra Misra, Head of the Department of Commerce, DSMNRU, Lucknow UP, India
- ❖ Dr. D. C. Sharma, Department of Microbiology, , DSMNRU, Lucknow UP, India
- ❖ Dr Pushpendra Singh, Department of Chemistry, DSMNRU, Lucknow UP, India
- ❖ Dr Ashok kumar Mishra, Department of Physics, DSMNRU, Lucknow UP, India
- ❖ Dr D. B. Singh, Department of Physics, DSMNRU, Lucknow UP, India

### **❖ Awards**

**1.Manraj Kuwar Singh Educational Society Award for Best Research Presentation “Theme based” (1000/- Cash Prize).**

प्रो. आर. के. पी. सिंह  
कुलपति

Prof. R. K. P. Singh  
Vice-Chancellor



डॉ. शकुन्तला मिश्रा राष्ट्रीय पुनर्वास विश्वविद्यालय, लखनऊ  
दिव्यांगजन सशक्तिकरण विभाग  
उत्तर प्रदेश सरकार, भारत  
Dr. Shakuntala Misra National Rehabilitation University  
Department of Divyangjan Empowerment  
Government of Uttar Pradesh



### MESSAGE

It is a matter of great pleasure that Dr. Shakuntala Misra National Rehabilitation University in collaboration with Science-Tech Institute under MKSES Educational Society, Lucknow is organizing an International Conference on "Research Methodology" (ICRM-2022) from October 28-30, 2022.

In my opinion this three day International Conference on "Research Methodology" would be a feast and delight the researchers in these areas. I hope that the conference will provide an excellent platform for developing new ideas and technologies.

I expect that this conference will prove to be an interdisciplinary platform for researchers, Scientists and Educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges of all the disciplines in the country and abroad to enrich their methodological and analytical skills and will also provide encounters and possible solutions in all the domains.

I congratulate the members of the organizing committee and wish all the participants to gain fruitful knowledge during the scientific and technical sessions ensuring the relevance and success of the seminar.

Prof. Rana Krishna Pal Singh

Office: Mohaan Road, Lucknow - 226017, INDIA, Phone (Off.): 0522-2891382  
Email: [vc@dsmnru.ac.in](mailto:vc@dsmnru.ac.in) | Website: <http://dsmnru.up.nic.in>



**Prof. (Dr) Chandra. K. Dixit,**  
**Dean Faculty Science**  
**Dr. Shakuntala Misra National Rehabilitation University,**  
**Lucknow**



### **Message**

It gives me immense pleasure to know that **Dr.Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize **Online International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022**. I am sure that this conference will provide a forum to national and international students, academicians, researchers and industrialists to interact and involve in Research and Innovation. Such academic events benefit the students, teachers and researchers immensely and widen the horizons of their knowledge and work experience in the field of Research, Analytics and Innovation.

I give my best wishes to all delegates and organizing committee to make this event a grand success.

**Date: 23/10/2022**

**Prof.(Dr.) C.. K. Dixit**



**University of Lucknow**  
Lucknow, UP, India, 226007

**Department of Commerce**  
**Lucknow University**  
**Mobile: 919450378945**

**Email: Prof.someshshukla@gmail.com**



**Prof. Somesh Kumar Shukla**  
**Director,**  
**Bhao Rao Devras Shodhpeeth**  
**University of Lucknow,**  
**Lucknow,**  
**UP, India**

### **Message**

It gives me immense pleasure to know that **Dr.Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize **Online International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022**. I am sure that this conference will provide a forum to national and international students, academicians, researchers and industrialists to interact and involve in Research and Innovation. Such academic events benefit the students, teachers and researchers immensely and widen the horizons of their knowledge and work experience in the field of Research, Analytics and Innovation. I sincerely appreciate the humble efforts of the Institute in providing a platform for students, academicians, researchers and industrialists to share their ideas and research outcome through the forum of this Conference. I give my best wishes to all delegates and organizing committee to make this event a grand success.

**Date: 21/10/2022**

[Prof. Somesh Kumar Shukla]



लखनऊ विश्वविद्यालय  
University of Lucknow

Department of Physics  
University of Lucknow  
Lucknow-226007 U.P. (India)  
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Prof. R. K. Shukla,  
Professor,  
University of Lucknow, UP



### Message

It is indeed matter of great pleasure that the **Dr Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize **Online International Conference on Research Methodology (ICRM-2022) during Oct 28-30, 2022**. The invited speakers are experts in their area of specialization. I hope that the interaction between various participants will serve as a springboard for newer opportunities and challenges. I am confident that the participants of this conference and students will greatly benefit from attending this meeting and interacting with experts in the field. I compliment organizing committee for this great effort. With warm regards,

Your sincerely

[R. K. Shukla]



# MANRAJ KUWAR SINGH EDUCATIONAL SOCIETY

(Registered by : Govt. of U.P. & Ordinance No. 21 of 1860)

**Reg. Office :** Hydel Nahar Chauraha, Housing Society Sarojini Nagar, Lucknow - 226008, UP India

**Head Office :** 1ST Floor Building No.85 A (Nanak Arcade) Near Shani Mandir,

Parag Road, LDA Colony, Kanpur Road, Lucknow-226012, UP India

**Contact No. :** +91 9838298016, +91 8299547952 | **E-mail :** manrajkuwarsec@gmail.com

**Mrs. Shweta Singh**  
**Chairman,**  
**MKSES Educational Society**  
**Lucknow, UP, India**  
**Chairperson, ICRM-2022**



## Message

It gives me immense pleasure to share that **Dr Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize **Online International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022.**

The theme of the conference is “**International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022**”. The conference will offer a great opportunity to discuss important issues, researches and topics from varied fields and will allow exchange of knowledge, ideas.

This conference is also an opportunity to meet virtually many eminent faculty, scholars and public health specialists of national and international repute on a common platform.

I & my team ensure that the audience will experience the exchange of scientific knowledge and return with a satisfactory take home message.

[Shweta Singh]



# MANRAJ KUWAR SINGH EDUCATIONAL SOCIETY

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**Head Office :** 1ST Floor Building No.85 A (Nanak Arcade) Near Shani Mandir,

Parag Road, LDA Colony, Kanpur Road, Lucknow-226012, UP India

**Contact No. :** +91 9838298016, +91 8299547952 | **E-mail :** manrajkuwarsec@gmail.com

**Dr. Susheel Kumar Singh**  
**General Secretary,**  
**MKSES Educational Society**  
**Lucknow, UP**  
**Co-Convener, ICRM-2022**



## Message

On behalf of the whole organizing team, it gives me immense pleasure to invite you to  
**“International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022.**

I am sure that this online gathering will provide a common platform for academicians of different branches (Medical sciences, Humanities etc.), public health experts & researchers to put forth their research studies and works.

I take this opportunity to acknowledge all the concerned authorities or persons for their permission, continuous support and guidance in arranging this conference. I am sure that this conference will succeed in the walk on Commerce this path for improving the various soft skills of faculties and students in varied fields.

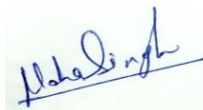
[Dr. Susheel Kumar Singh]

**Dr. Neha Singh (PhD, Postdoc)**  
**(Sr. Scientist)**  
**Virology lab, Dept. of Microbiology**  
**Pt. JNM, Medical College, Raipur, C.G. India**  
**Email: nevi0007@gmail.com**  
**Organizing Secretary ICRM-2022**



### **Message**

I'm incredibly happy to send my greetings on this historic occasion to the core committee of the **Dr Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize **Online International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022**. In current scenario interdisciplinary research is foundation of every country and humanity has directly benefited from its results. Interdisciplinary research grounding and education are essential to future competitiveness, because knowledge creation and innovation frequently occur at the interface of disciplines. Interdisciplinary agendas widen the horizon of knowledge and aids to ensure better educational programs. This conference offered opportunity to connect all researchers, scientists and faculties together at one single platform to share their innovative ideas and skills which is helpful to carry out future research in well-organized way.



**Dr. Neha Singh**



**Dr.Dharmendra Kumar Yadav**  
**Assistant Professor**  
**National Institute of Health & Family Welfare**  
**(NIHFW), New Delhi, India**  
**Email: drdkyadav@nihfw.org**  
**Organizing Secretary-ICRM-22**

### **Message**

I feel great pleasure and pride in hosting the **International Conference on Research Methodology (ICRM-2022) Oct 28-30, 2022**, organized by **Dr Shakuntala Misra National Rehabilitation University, Lucknow, UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP** are going to organize. The conference is envisaged to be a congregation of academicians, researches, practitioners, educators and students. The deliberations and discussions shall enable the participants to take up new challenges and initiatives in the field of interdisciplinary research. We are pleased to present this souvenir to the academic and research community. The abstract of the papers included shall be helpful to chart a road-map in future. I welcome you all in ICRM-2022 and hope that your presence turns out to be intellectually stimulating and professionally enriching. I am sure ICRM-2022 leaves long lasting memories and a strong legacy to emulate.

[D. K. Yadav]



**Dr Shakuntala Misra National Rehabilitation University**  
(D.S.M.N.R.U, Established by Government of Uttar Pradesh)  
Lucknow, UP, India



&

**Science Tech Institute**

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## Online International Conference on Research Methodology (ICRM-2022)

Details of Programe Schedule

DAY-1 (28<sup>th</sup> Oct, 2022)

For Technical Support Contact

Dr. Susheel Kumar Singh (8299547952)

Dr. Dharmendra Kumar Yadav (8840112492)

WhatsApp group Chat link: <https://chat.whatsapp.com/HYtO0q8i6Y19468Y1Wb01E>

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Inaugural Session Hosted by: Dr. kaushiki Singh</b><br><b>Zoom link:</b> <a href="https://us02web.zoom.us/j/83682456140?pwd=N0lHaIZibm52RDRGeDFycVQrNjF6dz09">https://us02web.zoom.us/j/83682456140?pwd=N0lHaIZibm52RDRGeDFycVQrNjF6dz09</a><br><b>Meeting id- 836 8245 6140 Password- 872068</b> |                                                                                                                                   |
| 11:00 AM-12PM                                                                                                                                                                                                                                                                                        | INAUGURATION AND WELCOME ADDRESS BY Conference Chair/Conveners/<br>Organizing Secretaries                                         |
| 11:45-12:15 PM<br><b>Key Note<br/>Speaker</b>                                                                                                                                                                                                                                                        | <b>Prof. Rama Shankar Tripathi</b> “ Challenges of Research Methodology in Various Disciplines ”                                  |
| 12:15-12.45 PM<br><b>IT01</b>                                                                                                                                                                                                                                                                        | <b>Prof. N.B. Singh:</b> - “Different aspects of Research “                                                                       |
| <b>Session Chair Prof. B.K. Pandey</b><br><b>Zoom link:</b> <a href="https://us02web.zoom.us/j/83682456140?pwd=N0lHaIZibm52RDRGeDFycVQrNjF6dz09">https://us02web.zoom.us/j/83682456140?pwd=N0lHaIZibm52RDRGeDFycVQrNjF6dz09</a><br><b>Meeting id- 836 8245 6140 Password- 872068</b>                 |                                                                                                                                   |
| 12:45-1:10 PM<br><b>IT02</b>                                                                                                                                                                                                                                                                         | <b>Dr. Puneet Misra:-</b> “Research Misconduct: Issues and Concerns”                                                              |
| 1:10-1:35 PM<br><b>IT03</b>                                                                                                                                                                                                                                                                          | <b>Dr.Kamakhya Prakash Mishra:-</b> “ Microstrain, Band Gap and Photoluminescence in Sol-Gel Derived RE Doped ZnO Nanostructures” |
| 1.35-2.00 PM<br><b>IT04</b>                                                                                                                                                                                                                                                                          | <b>Prof. B. K. Pandey:</b> - “Strategy for the publication of research articles in the journals of high impact factor”            |
| 2.00- 2.30 PM<br><b>IT05</b>                                                                                                                                                                                                                                                                         | <b>Dr. S.K Yadav :-</b> “Prediction of Infectious Disease Spread Through Different Statistical Approaches”                        |

2.30 to 3.30 PM Day 1 (28<sup>th</sup> Oct,2022)

Session Chair: Prof. Alpana Srivastava  
Dr. Dinesh Kumar Singh  
Mobile No.- 9450210623

**Oral Presentation**

Zoom link: <https://us02web.zoom.us/j/83682456140?pwd=N0lHalZibm52RDRGeDFycVQrNjF6dz09>

Meeting id- 836 8245 6140 Password- 872068

**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER                         | TOPIC                                                                                        |
|-------------|---------------------------------|----------------------------------------------------------------------------------------------|
| A1          | Dr.Priyadarshani Baliram Kamble | Pearl Millet: An underrated super-food from dry regions                                      |
| A2          | Dr. SHOBHA MISRA                | Elements of subjectivity and objectivity in history writing                                  |
| A3          | Dr.Rawal Singh Aulakh           | Examining Content analysis in qualitative research – Case of public spaces in Urban Planning |
| A4          | Mr.Chetram Meena                |                                                                                              |
| A5          | Prof.Nisha Kumari               | Gender Disparity in Education                                                                |
| A6          | Dr.Srishti Srivastava           | Importance of action research in modern scenario                                             |

2.30 to 3.30 PM Day 1 (29<sup>th</sup> Oct,2022 ) **Parallel Session** Session Chair: Prof. Manoj Kumar Sharma

Email: [susheelsingh489@gmail.com](mailto:susheelsingh489@gmail.com)

Mobile No.- 8299547952

**Oral Presentation**

Zoom link: <https://us04web.zoom.us/j/76877001191?pwd=12nYxjBPafG6VZZ6ZLC3ly23mHge4.1>

Meeting id- 768 7700 1191 Password: 1BrHnw

**Note: You will get only 10 min for oral Presentation**

|     |                            |                                                                                                          |
|-----|----------------------------|----------------------------------------------------------------------------------------------------------|
| A7  | Dr.Jyotika Rathore         | Relevance of Expost facto Research method in Applied Psychology                                          |
| A8  | Dr.Rashmi Jaiswal          |                                                                                                          |
| A9  | Dr.Kripa Mani Mishra       | Charge and Mass Movement in alkali Metaborate                                                            |
| A10 | Dr.Rajendra Kumar Tripathi | QUADRUPLE SERIES EQUATIONS CONTAINING JACOBI POLYNOMIALS                                                 |
| A11 | Prof. Jagmohan Singh Negi  | Analysis of Soil Samples for its Physico-Chemical Parameters from District Nainital(Uttarakhand) India . |
| A12 | Dr.Shilpa Premchand Badhe  | Skin- Ayurvedic Perspective                                                                              |

**3.30 to 4.30 PM Day-1 (28<sup>th</sup> Oct,2022)**

**Session Chair:**

**Prof. B.C Yadav and Dr. Dharmendra Kumar Yadav**

**Mobile No. -8840112492**

**Oral Presentation**

**Zoom link:** <https://us02web.zoom.us/j/83682456140?pwd=N0lHalZibm52RDRGeDFycVQrNjF6dz09>

**Meeting id- 836 8245 6140 Password- 872068**

**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER                 | TOPIC                                                                                                      |
|-------------|-------------------------|------------------------------------------------------------------------------------------------------------|
| A13         | Mrs.Manpreet Kaur       | Bio-psychosocial well-being and family support among menopausal women: A Descriptive study                 |
| A14         | Mrs.Reena Singh         | Development of a creative and low vision educational technique for primary school and ngo organized school |
| A15         | Dr.Sheo Prakash Dwivedi | NEP 2020 challenges to teachers education                                                                  |
| A16         | Dr.SANJEEV KUMAR SINGH  | Knowledge Management: With Special Reference to Banking Sector in Lucknow                                  |
| A17         | Dr.KAUSHIKI SINGH       | Knowledge Management: With Special Reference to Banking Sector in Lucknow                                  |
| A18         | Dr.Rashmi Bala          | Changing Role of Teacher in 21st century                                                                   |

**3.30 to 4.30 PM Day1 (28<sup>th</sup> Oct,2022)**

**Parallel Session**

**Session Chair : Prof. R.R. Singh**

**Email: susheelsingh487@gmail.com**

**Dr. Abhishek Tripathi**

**Oral Presentation**

**Mobile Number: 8299547952**

**Zoom link:** <https://us04web.zoom.us/j/75814290487?pwd=kS6ENgQsLezLRZAYyCUqBNL49BZSaZ.1>

**Meeting id- 758 1429 0487 Password- iql5Xt**

**Note: You will get only 10 min for oral Presentation**

|     |                                |                                                                                                                                                                           |
|-----|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A19 | Dr.B.Kannan                    | GST for small traders                                                                                                                                                     |
| A20 | Dr.Mariyam afaq                | Comparison Of Clinical tests And Electrodiagnostic Testing In The Diagnosis Of Pregnancy Related Carpal Tunnel Syndrome (PRCTS)                                           |
| A21 | Dr.Sunitha K                   | A comparative study of the efficacy of teucium marum verum mother tincture and it's 30c potency in the treatment of nasal polyps                                          |
| A22 | Dr.Yogesh Kumar                | Study to assess the knowledge of Education Professionals about Uses of Digital Education Technology in Higher Educational Institutions during COVID-19 Lockdown in India. |
| A23 | Dr.Laxman Prabhu Chikhale      | Structural and gas sensing properties of Ce doped Tin dioxide nanocrystalline materials                                                                                   |
| A24 | Prof.Battalapalli Sri Hari Rao | DOPS                                                                                                                                                                      |

**4.30-5.00 PM INVITED TALK (IT06-IT07)**

**Session Chair: Dr. Shiba Shethi**

**Mobile No. 7082859537**

**Zoom link:** <https://us02web.zoom.us/j/83682456140?pwd=N0lHalZibm52RDRGeDFycVQrNjF6dz09>

**Meeting id- 836 8245 6140 Password- 872068**

**IT 06 Prof. Mohammad Miyan: - "Analysis of Porous Bearings with respect to Second Order Rotatory Theory of Hydrodynamic Lubrication" for conference"**

**IT07 Dr. Pankaj Tripathi: "Research methods in social sciences"**

5.00 - 6.00 PM Day-1 (28<sup>th</sup> Oct,2022)

Oral Presentation

Session Chair : Dr. Praveen Kumar Misra

Dr. Nirmal Srivastava

Mobile No. -9807025822

Zoom link: <https://us02web.zoom.us/j/83842412951?pwd=aHRyZjVXTXUwckhUaTdyajQwWmQ5Zz09>

Meeting id- 836 8245 6140 Password- 872068

Note: You will get only 10 min for oral Presentation

| ABSTRACT ID | SPEAKER              | TOPIC                                                                                                                |
|-------------|----------------------|----------------------------------------------------------------------------------------------------------------------|
| A25         | Dr.Ritika            | Effect of addition of quinoa flour and date seed flour on cooking and sensorial characteristics of gluten free pasta |
| A26         | Miss.Nikita Tiwari   | COMPUTATIONAL ASPECTS OF ORGANOCHLORINE COMPOUNDS: DFT STUDY AND MOLECULAR DOCKING CALCULATIONS                      |
| A27         | Dr.M.Usha Rani       | Only participation                                                                                                   |
| A28         | Dr. Harish Rajak     | Design of novel oxadiazole based hydroxamic acid as histone deacetylase inhibitors                                   |
| A29         | Dr.M.Usha Rani       | To study the perceptions of 1st year MBBS students towards ECE(early clinical exposure) in physiology.               |
| A30         | Dr.Tarun Kumar Panda | Role of antioxidants in Diabetic retinopathy                                                                         |

5.00 - 6.00 PM Day1 (28<sup>th</sup> Oct, 2022)

Parallel Session

Session Chair: Prof Ngaendra Yadav

Dr. Shweta Singh

Mobile No. – 8299547952

Email:sciencetech487@gmail.com

Oral Presentation

Zoom link: <https://us04web.zoom.us/j/74749052822?pwd=yIBJkhMJUGhZscimk7ksgRLZaTZa6.1>

Meeting id- 747 4905 2822 Password- wXxWH7

Note: You will get only 10 min for oral Presentation

|      |                        |                                                                                                                                          |
|------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| A31  | Dr.Rajeshwari M. Desai | Farm mechanisation - for drudgery reduction of farm women and sustainable agriculture                                                    |
| A 32 | Dr.Rajeshwari M. Desai | Farm mechanisation - for drudgery reduction of farm women and sustainable agriculture                                                    |
| A 33 | Dr.Vandana Gaur        | Role of social media in higher education system                                                                                          |
| A 34 | Dr. Anil Bhatt         | Social Change And Law                                                                                                                    |
| A 35 | Dr.Daya Shanker        | THE STUDY OF GROUP VELOCITIES OF SEMICONDUCTORS WHICH IS TUNABLE WITH A BROAD FREQUENCY RANGE IN THE PRESENCE OF SURFACE MAGNETOPLASMONS |
| A 36 | Dr.Roopa R Mendagudali | Pilot Study to test module on Stroke in the field as a part of LEAP project for better implementation as adolescent program              |

**6.30 to 7.30 PM Day-1 (28<sup>th</sup> Oct,2022)** **Session-Chair: Prof. V.K Singh**  
**Dr. Alka Singh Bhatt**  
**Mobile No. -9454947000**  
**Oral Presentation**  
**Zoom link: <https://us02web.zoom.us/j/83842412951?pwd=aHRydjVXTXUwckhUaTdyajQwWmQ5Zz09>**  
**Meeting id- 836 8245 6140 Password- 872068**  
**Note: You will get only 10 min for oral Presentation**

|             |                                   |                                                                                                     |
|-------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>A 37</b> | Dr.Awanindra Kumar Tiwari         |                                                                                                     |
| <b>A 38</b> | Dr. Nitin Joseph                  | Post recovery experience among COVID-19 patients: A population based study done in Mangalore, India |
| <b>A 39</b> | Dr.Shallu Sachdeva                | METAL IONS AND CHELATES IN MEDICINE                                                                 |
| <b>A 40</b> | Dr.S. Srivara Buddhi Bhuvaneswari | Mobile apps in agriculture                                                                          |
| <b>A 41</b> | Dr.Neelu Dheer                    | Metal ions and chelates in medicine                                                                 |
| <b>A 42</b> | Dr.Manisha Verma                  | Gaussian Modelling of Solar Flares                                                                  |

**6.30 to 7.30 PM Day-1 (28<sup>th</sup> Oct, 2022) Parallel Session** **Session Chair: Prof. Akhilesh Kumar**  
**Dr. Rashmi Singh**  
**Mobile No.- 8299547952**  
**Oral Presentation**  
**Email: [singhshweta38384@gmail.com](mailto:singhshweta38384@gmail.com)**  
**Zoom link: <https://us04web.zoom.us/j/75023243471?pwd=EERZNXIbZG9YbXHPfhgewecfb4H6R.1>**  
**Meeting id- 750 2324 3471 Password- T5sWDS**  
**Note: You will get only 10 min for oral Presentation**

| <b>ABSTRACT ID</b> | <b>SPEAKER</b>           | <b>TOPIC</b>                                                                                   |
|--------------------|--------------------------|------------------------------------------------------------------------------------------------|
| <b>A 43</b>        | Dr.Sanjeeta Rani         | Gaussian Modelling of Solar Flares                                                             |
| <b>A 44</b>        | Dr.Dinesh Kumar Verma    | Gaussian Modelling of Solar Flares                                                             |
| <b>A 45</b>        | Dr.Parminder Singh       | Gaussian modelling of solar flares                                                             |
| <b>A 46</b>        | Dr.Deepti Nandlal Wadhwa | Not applicable                                                                                 |
| <b>A 47</b>        | Dr.B.S. Parimal          | The need of the hour of Pragmatic research to unmute Pre- menstruators' Psychological distress |
| <b>A 48</b>        | Miss.Kavita Gupta        | The need of the hour of Pragmatic research to unmute Pre- menstruators' Psychological distress |

**DAY-2(29th Oct 2022)****9.00 AM to 12.00PM Day 2 (29<sup>th</sup> Oct,2021)****Session Chair: Prof. R.K. Shukla****Dr. Nishant Kumar Pandey****Mobile No. -9450210623****Oral Presentation****Zoom link: <https://us02web.zoom.us/j/84399668701?pwd=aHk4WUxqNi9QaU44WUZaQjhQQ3JyZz09>****Meeting id- 843 9966 8701 Password- 582180****Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER                        | TOPIC                                                                                                                                                                                                                                                                                                         |
|-------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A164        | Dr.Poonam Parihar              | Chemico-biological interactions and recent advances of Novel Chiral Imides                                                                                                                                                                                                                                    |
| A165        | Dr.Anjana Verma                | Herbs: Therapeutic or Harmful ?                                                                                                                                                                                                                                                                               |
| A166        | Mr.Shiv Shankar Shankar Soni   | An Improved estimation of population mean in agricultural survey by using sample size information                                                                                                                                                                                                             |
| A167        | Dr.Dhyanadipta Panda           | The existentialism of Artificial Intelligence in the revolution of Organizational Development.                                                                                                                                                                                                                |
| A168        | Dr.Suman Devi                  | Impacts of skill India Movement in India                                                                                                                                                                                                                                                                      |
| A169        | Dr.Suman Devi                  | An overview of special economic zones in Haryana                                                                                                                                                                                                                                                              |
| A170        | Mr.Sunkesula Venkatakrishnaiah | The Significant Role of Religion in Khushwant Singh's Novel "I Shall Not Hear The Nightingale"                                                                                                                                                                                                                |
| A171        | Miss.Sumant Meena              | Corporate Social Responsibility, Environment firm's Financial Performance: A Literature Review                                                                                                                                                                                                                |
| A172        | Mr.Md.Kamal Ahmad              | Qurratul An Haider                                                                                                                                                                                                                                                                                            |
| A173        | Mr.Navneet Singh               | APPLICATIONS OF MACHINE LEARNING IN CABCR PROPHECY AND DIAGNOSIS                                                                                                                                                                                                                                              |
| A174        | Mrs.Madhavi Singh              | MANAGEMENT OF SMART DENTAL PRACTICE MODERN ERA                                                                                                                                                                                                                                                                |
| A175        | Mrs.Saumya Agrahari            | Decontamination of chromium from polluted water using activated carbon obtained from the waste pulp of Citrus limetta                                                                                                                                                                                         |
| A176        | Mr.Anant kumar                 | Synthesis, spectroscopic analysis ( <sup>1</sup> H NMR, <sup>13</sup> C NMR ,UV, FT-IR) of 17-ethynyl-13-methyl-3-oxo-2,3,6,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-17-yl 1-ethyl-7-methyl-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate a novel norethisterone prodrug. |
| A177        | Mr.Satish Kumar Verma          | Facile synthesis of M2(m-dobdc) Metal organic frameworks for record hydrogen storage application                                                                                                                                                                                                              |
| A178        | Mr.Anil Kumar Vishwkarma       | A DFT study on the interaction between carbon nanotubes and favipiravir as an antiviral drug                                                                                                                                                                                                                  |
| A179        | Mrs.Preeti Kashyap             | Insulin resistance in patients of Hypothyroidism. A review of association between thyroid hormones and insulin sensitivity                                                                                                                                                                                    |
| A180        | Mrs.Manju Yadav                | Ruthenium III complexes of schiff bases derived from isatin and sulphadugs.                                                                                                                                                                                                                                   |
| A80         | Miss.Nikhila yaladanda         | Modelling the impact of perfect and imperfect vaccination strategy against SARS CoV-2 by assuming varied vaccine efficacy over India.                                                                                                                                                                         |
| A182        | Mr.Saad Ahmad                  | Ethical Considerations and Implications in Research with Ethnic and Tribal Groups                                                                                                                                                                                                                             |

**INVITED TALKS- DAY-2(29th Oct 2022)**  
**(IT07-IT08)**

**Session chair: Prof. R.K. Shukla**  
**Dr. Seeta Ram Pal**  
**Mobile No. -8299547952**

**Zoom link:** <https://us02web.zoom.us/j/84399668701?pwd=aHk4WUxqNi9QaU44WUZaQjhQQ3JyZz09>  
**Meeting id- 843 9966 8701 Password- 582180**

|                                |                                                                            |
|--------------------------------|----------------------------------------------------------------------------|
| 12:00-12.20 PM<br><b>IT08</b>  | <b>Dr. Nishant Kumar :- ""</b>                                             |
| 12-20- 12:40 PM<br><b>IT09</b> | <b>Dr.Neha Singh "Setting up molecular RT-PCR laboratory for COVID-19"</b> |
| 12.40-1:00 PM<br><b>IT10</b>   | <b>Dr.Nisha Mani Pandey:-" Ethics in Research"</b>                         |

**1.00 to 2.00PM Day 2 (29<sup>th</sup> Oct,2021)**

**Session Chair: Dr. Dilshad Ahmad Anshari**  
**Dr. Nishant Kumar Pandey**  
**Mobile No. -9450210623**

**Oral Presentation**

**Zoom link:** <https://us02web.zoom.us/j/84399668701?pwd=aHk4WUxqNi9QaU44WUZaQjhQQ3JyZz09>  
**Meeting id- 843 9966 8701 Password- 58218**  
**0Note: You will get only 10 min for oral Presentation**

| <b>ABSTRACT ID</b> | <b>SPEAKER</b>              | <b>TOPIC</b>                                                                                                                                     |
|--------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A49</b>         | Mr.Manish Arya              | Identification and isolation of terpenes from aromatic plants.                                                                                   |
| <b>A 50</b>        | Mrs.Sushma Singh            | Quality of intervention in early childhood care and education for children with intellectual disabilities in U.P                                 |
| <b>A 51</b>        | Dr.Arati Pal                | bal sahitya parampara avam ahunikta bodh                                                                                                         |
| <b>A 52</b>        | Dr.Rahul Shrivastava        | A snapshot of socio-demographics and utilization of maternal health services in urban slum settings in India - a preliminary data representation |
| <b>A 53</b>        | Mrs.Nithya Karnam           | A SYSTEMATIC REVIEW OF CONVULVULACEAE PLANTS WITH CENTRAL NERVOUS SYSTEM EFFICACIES                                                              |
| <b>A 54</b>        | Mr.Prabhash Chandra Katiyar | Manufacturing of Cobalt-Chromium Particulate Composite PLA Filament for Biomedical Applications                                                  |

**1.00 PM to 2.00 PM Day-2 (29<sup>th</sup> Oct,2022) Parallel Session**

**Session chair: Prof. Sanjeev Trivedi**

**Oral Presentation**

**Dr. K.C. Dubey**

**Email: susheelsingh489@gmail.com**

**Mobile No. 7082859537**

**Zoom link: <https://us04web.zoom.us/j/77321622298?pwd=BhqnuTlApigGqztPsGX6ELgnTg2ibw.1>**

**Meeting id- 773 2162 2298 Password- L25QMp**

**Note: You will get only 10 min for oral Presentation**

|             |                            |                                                                                                                                                                                   |
|-------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A55</b>  | Dr.Ankit Kumar Vishwakarma | Sensing performance of the Pd-SnO <sub>2</sub> thick film sensor                                                                                                                  |
| <b>A 56</b> | Mr.Praveen Kumar Pandey    | Charge and Mass Movement in alkali Metaborate                                                                                                                                     |
| <b>A57</b>  | Mrs.Anjula                 | Giloy-A ray of hope, when world was threatened during Corona Pandemic-A study                                                                                                     |
| <b>A58</b>  | Mr. Shivam Srivastava      | Electrical and structural behaviour of some ferroelectric materials: a review                                                                                                     |
| <b>A59</b>  | Miss.Prashasti Sinha       | Quantum Chemical and Molecular Docking Studies of Derivatives of 6,6-dimethyl-3-azabicyclo[3.1.0] hexane-2-carboxamide against Main Protease 3CLpro of SARS-CoV-2 Viral Infection |
| <b>A60</b>  | Mrs.Gulshan Roy Chowdhury  | Non-Pharmacological Intervention Approaches for Common Symptoms in Advanced CKD patients on hemodialysis: Narrative Review                                                        |

**INVITED TALK (IT09-IT11)**

**2:00 -4:00 PM**

**Session Chair: Dr. Alka Singh Bhatt**

**Dr. S.K. Singh**

**Mobile. No.8299547952**

**Zoom link: <https://us02web.zoom.us/j/84424305266?pwd=ZkpUSExTTnQ4emZMTC9OTXl3TzQ1dz09>**

**Meeting id- 843 9966 8701 Password- 582180**

|                                 |                            |                                                                                                                         |
|---------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>A</b>                        | Miss.Prachi Singh          | Dielectric and phase transition study of some ceramic materials:a review                                                |
| <b>A62</b>                      | Mrs.Varna Sabu. V          | POSITIVE AND NEGATIVE IMPACT OF GST- A STUDY AMONG RETAILERS IN KOLLAM DISTRICT                                         |
| <b>A63</b>                      | Miss.S.Pavithra            | GST for small traders                                                                                                   |
| <b>A64</b>                      | Miss.Shivangi Singh        | Impact of Ecommerce on Indian Economy in the Modern Era                                                                 |
| <b>A65</b>                      | Mr.Anshaj A                | The Impact of Covid-19 on Tourism Industry in Kerala                                                                    |
| <b>A66</b>                      | Miss.Naghmi Nigar Siddiqui | Recent advancements in the chemistry and pharmacology of imidazoles and substituted imidazoles                          |
| <b>A67</b>                      | Mr. J S Juhu Raju          | Powerful Pandemic Insights through Namita Gokhale's "The Blind Matriarch"                                               |
| <b>A68</b>                      | Mr.Aditya Kumar Yadav      | Sulfonamide analogs of isatin as antimicrobial agents                                                                   |
| <b>A69</b>                      | Miss.Zoya Amreen           | Molecular Docking Studies of Phytochemicals of Datura stramonium Against Tropinone reductase (2AE1) Enzyme              |
| <b>A70(Poster Presentation)</b> | Miss.kavita dhariyal       | Density Functional Theory Calculations of Ru(II) thiosemicarbazone                                                      |
| <b>A71</b>                      | Miss.Jinal Patel           | Retrospective analysis of suspected clinical cases of human brucellosis in Anand, Gujarat.                              |
| <b>A72</b>                      | Miss.Dolly Anil Sharma     | Diffusion Tensor MR imaging of brain in healthy adult population : Normative Fractional Anisotropy(FA) values at 3T MRI |

4.00 PM to 5.00 PM Day-2 (29<sup>th</sup> Oct,2022)

Session Chair: Prof. B.B. Srivastava

Oral&Poster Presentation

Dr. S.K. Singh

Mobile. No.8299547952

Zoom link: <https://us02web.zoom.us/j/84399668701?pwd=aHk4WUxgNi9QaU44WUZaQjhQQ3JyZz09>

Meeting id- 843 9966 8701 Password- 582180

Note: You will get only 10 min for oral Presentation

| ABSTRACT ID | SPEAKER                | TOPIC                                                                                                                |
|-------------|------------------------|----------------------------------------------------------------------------------------------------------------------|
| A73         | Mr.Sugandha Singh      | computer science                                                                                                     |
| A74         | Anant Prakash Awasthi  | A Survey of memory utilization of data objects in R (A survey with respect to leading frameworks and platforms)      |
| A75         | Mr.Sudhakar Chauhan    | Fabrication and Characterization of Nickel Oxide (NiO) Nanoparticle and its Effect on Vigna Radiata Seed Germination |
| A76         | Mr.Madhav Kumar        | Characterization of Extracellular polymeric substances from marine bacteria that forms biofilm.                      |
| A77         | Miss.Harshita Agrahari | Bamboos of Central India and its Research Status                                                                     |
| A78         | Mr.Vivek Verma         | Azaddhirakt - Nature's True Wonder                                                                                   |

4.00 PM to 5.00 PM Day-2 (29th Oct,2021)

Parallel Session

Session Chair: Dr. Rajendra Tripathi

Oral Presentation

Dr. Alka Singh Bhat

Email:susheelsingh487@gmail.com

Mobile No. -8840112492

Zoom link: <https://us04web.zoom.us/j/73162288621?pwd=4GUhRO5HQ9UI7BJRdL15Jok4jBqtgX.1>

Meeting id- 731 6228 8621 Password- 0ZNEuG

Note: You will get only 10 min for oral Presentation

|     |                            |                                                                                                                                               |
|-----|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| A79 | Mr.Harsh Sonker            | A New Wilt Disease of Litsea glutinosa (Maida Chhal)                                                                                          |
| A80 | Miss.Devyani Srivastava    | Sulfido- Bridged 1,2-Bis(diphenylphosphino)ethane (dppe) appended Trinuclear Nickel(II) Clusters: Crystallographic and computational analysis |
| A81 | Miss. Rashimi Yadav        | THE STUDY OF GROUP VELOCITIES OF SEMICONDUCTORS WHICH IS TUNABLE WITH A BROAD FREQUENCY RANGE IN THE PRESENCE OF SURFACE MAGNETOPLASMONS      |
| A82 | Dr.Rishi                   | Impact on Elaeocarpus ganitrus plant growth on the soil containing Abiotic Stress                                                             |
| A83 | Mr.Subhash Nanasaheb Varpe | Nutritional, anti-nutritional, mineral and heavy metal assessment of Chlorophytum tuberosum leaf                                              |
| A84 | Miss.Shelly                | GLOBAL AMPHIBIAN DECLINE CRISIS: DIVERSITY, THREATS AND CONSERVATION STRATEGIES                                                               |

**5.00 PM to 7.00 PM Day2 (29<sup>th</sup> Oct,2022)**  
**Oral&Poster Presentation**

**Session Chair: Dr. Neha Singh**  
**Dr. Gunjan Singh**  
**Mobile. No.8299547952**

Zoom link: <https://us02web.zoom.us/j/84424305266?pwd=ZkpuSExTTnQ4emZMTC9QTXl3TzQ1dz09>

Meeting id- **843 9966 8701** Password- **582180**

**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER                    | TOPIC                                                                                                                                                                                      |
|-------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A85         | Mrs.Jyoti                  | Effect of Cultivars on the Solvent Retention Capacity and Particle Size Distribution Characteristics of Wheat ( <i>Triticum aestivum</i> )                                                 |
| A86         | Mr.Mohd Kashif Aziz        | Lead Oxide Nanodots Synthesized by Solvothermal and Microwave Assisted Method and its Comparative Characterization                                                                         |
| A87         | Mr.Gyanendra Kumar Bharati | Synthesis and characterization of Ru (II) complexes with macrocyclic ligands                                                                                                               |
| A88         | Dr.Ruksana farooq          | Post-cesarean surgical site infection: incidence and associated risk factors. A hospital based study                                                                                       |
| A89         | Miss.Reeha Mashirin K      | A SURVEY OF MICROPLASTICS ACROSS THE MALABAR COAST, NORTHWEST KERALA                                                                                                                       |
| A90         | Dr.Ashok Kumar             | Graft copolymerization of N-(vinyl-2-Pyrrolidone) onto carboxymethylcellulose using potassium peroxydisulphate initiator and their application for controlled release of levofloxacin drug |
| A91         | Miss.Rashmi                | The Relationship between MMP2 rs243865, MMP-9 rs398242 and CXCL-12 rs1801157 gene Polymorphisms with Japanese Encephalitis disease and disease outcome in North Indian population          |
| A92         | Mr.Bal Dev Singh           | One pot synthesis of (E,E)-4,6-bis(styryl)-pyrimidines                                                                                                                                     |
| A93         | Mrs.Komal                  | Economic Analysis of an Electronic System with Human Failure                                                                                                                               |
| A94         | Mr.Nikhil John             | Acute toxicity of carbamazepine and associated behavioral modifications in the mosquitofish, <i>Gambusia affinis</i>                                                                       |
| A95         | Mr.Vikhyat Sharma          | Gaussian Modelling of Solar Flares                                                                                                                                                         |
| A96         | Miss.Roshni Kumari         | Adolescent health                                                                                                                                                                          |

**5.00 PM to 6.00 PM Day-2 (29<sup>th</sup> July,2022) Parallel Session**  
**Oral Presentation**

**Session Chair: Dr. Jaha Ara**  
**Dr. Anjani Pandey**

Email: [sciencetech487@gmail.com](mailto:sciencetech487@gmail.com)

**Mobile. No.8299547952**

Zoom link: <https://us04web.zoom.us/j/73063668300?pwd=aC7aUjYrGyGuzYTouP3baYSXF4HB.1>

Meeting id- **730 6366 8300** Password- **7dxxDw**

**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER               | TOPIC                                                                                                                                                                                                                            |
|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A97         | Miss.Mani Prabha      | Preparation and Characterization of Gum Acacia capped Cu-Ag Bimetallic Nanoparticles and Their Effect on Growth of Gram seeds                                                                                                    |
| A98         | Dr.Nishu Sharma       | Optimization of cultural conditions of euryhaline microalgae <i>Scenedesmus</i> sp. MKB (MN796425) for biofuel production by Response Surface Methodology (RSM)                                                                  |
| A99         | Miss.Worthing Yangle  | Preliminary test estimation in two-stage sampling using ranked set sampling in the second stage with double sampling                                                                                                             |
| A100        | Miss.Priya Singh      | DOTA coupled Acetamidobenzoxazalone vehicle for evaluating 18 kDa translocator protein during Pulmonary Inflammation                                                                                                             |
| A101        | Mr.Arjun Mishra       | Theoretical Study Of UV Surface Waves in AIAs and AIN                                                                                                                                                                            |
| A102        | Miss.Astha Srivastava | Enhancement of biological activity and bioavailability of (1E,6E)-1,7-bis (4-hydroxy- 3-methoxyphenyl) -1,6- heptadiene-3,5-dione via synthesis of its potential derivatives, spectroscopic characterization and in silico study |

**6.00 PM to 7.00 PM Day-2 (29<sup>th</sup> Oct, 2022) Parallel Session** Session Chair: Mrs. Sushma Singh  
**Oral & Poster Presentation** Dr. S.K. Singh  
 Email: singhshweta38384@gmail.com Mobile. No.8299547952  
 Zoom link <https://us04web.zoom.us/j/75494377798?pwd=fpCVrU1fPcRNNpCAAdRF9WJlMjN9CrKrS.1>  
 Meeting id- 754 9437 7798 Password- mg3MD1  
**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER                | TOPIC                                                                                                                                                                                                                                                 |
|-------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A103        | Miss.F Lalthlamuanpuui | Optimization of Cluster Size under Superpopulation Model                                                                                                                                                                                              |
| A104        | Mr.Swami Madhav Titame | Effect of salt tollerent Bacteria on growth and yield of Triticum aestivum L. cultivated in saline sodic soils.                                                                                                                                       |
| A105        | Miss.Maneesha P        | Alteration in the levels of brain neurotransmitters after exposure to sublethal concentration of malathion in the freshwater fish Oreochromis mossambicus (Peters, 1852)                                                                              |
| A106        | Mr.Mayank Jaiswal      | Synthesis & Biological Studies Of Organometallic Compounds (Antimony & Bismuth)                                                                                                                                                                       |
| A107        | Miss.Saumya Pandey     | Synthesis, characterization and insilico studies of (1S)-1-((10S,13S,17S)-10,13-dimethyl-3-oxo-2,3,8,9,10,11,12,13,14,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthren-17-yl)ethyl 1-ethyl-7-methyl-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate |
| A108        | Mr.Prashant Singh      | "Synthesis and in silico studies of schiff's base metal (II) complexes as anticancer agents                                                                                                                                                           |

**7.00 PM to 10.00 PM Day2 (29<sup>th</sup> Oct,2022)** Session Chair: Dr Deepti Wadhwa  
**Oral&Poster Presentation** Dr. S.K. Singh  
 Mobile. No.8299547952  
 Zoom link: <https://us02web.zoom.us/j/84424305266?pwd=ZkpUSeExTTN0Q4emZMTC9QTjI3TzQ1dz09>  
 Meeting id- 843 9966 8701 Password- 582180  
**Note: You will get only 10 min for oral Presentation**

| ABSTRACT ID | SPEAKER          | TOPIC                                                                                                                                                     |
|-------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| A203        | Mrs.Rekha AK     | Government Schemes Towards MSMEs During Pandemic-An Analysis                                                                                              |
| A204        | SEEJA R G        | Customer Satisfaction of SBI Life insurance Products- A Study with Reference to Trivandrum City                                                           |
| A205        | Dr.Bai MK        | Catatonnia Scores Improvement With Drugs Modulating RAS System: An Experimental In-Vivo Study                                                             |
| A206        | Dr.Mythili B     | Small Group Teaching Methods Significantly Improved The Scores In Sessional Examinations Among First Year Nursing Students: A Systematic Randomized Trial |
| A207        | Dr.Karamthoti MB | A Snapshot of Knowledge, Attitude and Practices of Research Methodology Including Bioethics Principles Among Intern Dental Doctors                        |
| A208        | Dr.Bai K Mythili | Awareness of Bioethics and Informed Consent Document Principles Among Medical Postgraduates In A Southern Teaching Tertiary Care Centre and Hospital      |
| A209        | Dr.Kuppasad PG   | Drugs Modulating Renin Angiotensin -Aldosterone System Had Significantly Exhibited In Improving The Motor Functions in Neurodegenerative Disorders        |
| A210        | Dr.G Prakash K   | Evaluation of Anti-Depressant Properties of Angiotensin Receptor Antagonists In Experimental Laboratory Models                                            |

|      |                    |                                                                                                                                                           |
|------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| A211 | Dr.Saniya K        | Drug Inhibiting Angiotensin Receptor Had Significant Anti-anxiety Properties In Wistar Albino Rats                                                        |
| A212 | Dr.Chavan M        | Evaluation of Effect of Second Generation Piperazines on Motor Functions In Laboratory Animal Models                                                      |
| A213 | Dr.Damla CM        | Drugs Modulating RAAS Had Significant Anti-anxiety Properties in Standard Experimental Animals                                                            |
| A214 | Dr.Madhav RC       | Piperidines Exhibits Significant Effect on Behavioural Parameters: A Preclinical Experimental Study                                                       |
| A215 | Dr.CM Rao          | Informed Consent Document Procedure in Human Research Studies: A Working Model Among Students of Southern Tertiary Care Nursing Centre                    |
| A216 | Dr.Chavan Rao M    | Broad Spectrum Antimicrobial Agents and Their Effect on Induced Anxiety in Laboratory Animals: An In vivo Randomized Experimental Study                   |
| A217 | Dr.Prakash KG      | Second Generation H1 Receptor Antagonists and Motor Functions: An Exploratory Study in Screening Models                                                   |
| A218 | Dr.Gurusiddappa PK | Preclinical Screening of 5-HT <sub>3</sub> Receptor Modulation and Anti-anxiety Properties                                                                |
| A219 | Dr.Udma S          | Biomedical Health Research and Ethics Principles: An Exploratory Study Among Dental Faculty                                                               |
| A220 | Dr.UK Saniya       | Effect of Selective Serotonin Reuptake Inhibitors on Anxiety: A Preclinical Screening Study Standard Laboratory Models                                    |
| A221 | Dr.Saniya Udma     | Behaviour Parameters in Experimental Induced Neurodegenerative Disorder In Comparison to ACE Inhibitors                                                   |
| A222 | Dr.Kumar SS        | Anti-inflammatory Parameters are Attenuated with Ca <sup>2+</sup> Channel Blockers in Pilocarpine Induced Seizures in Wistar Albino Rats                  |
| A223 | Dr.Suresh S        | Perceptions About ICD in Biomedical Health Research In Final Year Dental Students: A Cross-sectional Study                                                |
| A224 | Dr.Srinivas SK     | Experimental Induced Parkinson's Disease: Evaluation of Effect of Currently Used Atypical Anti-depressant Drugs                                           |
| A225 | Dr.Suresh Kumar S  | Evaluation of Anti-anxiety Effect of MAO Inhibitors in Laboratory Induced Experimental Screening Animal Models                                            |
| A226 | Dr.Kurra SB        | SSRIs Antidepressants and Their Role in Chronic Progressive Neurodegenerative Disorders: An Experimental Randomized In vivo Study                         |
| A227 | Dr.Sharath Babu K  | A Snapshot of Awareness of Documentation of Consent in Human Research Among Students In Southern Based Medical Teaching Tertiary Care Centre and Hospital |
| A228 | Dr.Babu SK         | Role of Vitamins in Attenuation of Catatonic Scores in Experimental Animal Models of Parkinson's Disease                                                  |
| A229 | Dr.Sharath BK      | Role of Peroxisome Proliferator-Activated Receptor $\gamma$ (PPAR $\gamma$ ) Agonists in Anxiety: A Preclinical Screening Study                           |
| A230 | Mr.Deepak Kapgate  | Integration of facial visual stimuli into hybrid brain computer interface system for the purpose of increasing system performance                         |
| A231 | Mr.BAFI UDDIN      | A STUDY TO ASSESS REPRODUCTIVE AND CHILD HEALTH PROFILE OF WORKING WOMEN RESIDING IN URBAN SLUMS OF GWALIOR CITY.                                         |

**DAY-3 (30<sup>th</sup> Oct 2022)****9.00 - 12:00 PM Day-3 (30<sup>th</sup> Oct,2022) Session-Chair:****Prof. R.K. Shukla****Dr. Neha Singh****Mobile No- 8299547952****Oral & Poster presentations****Zoom link: <https://us02web.zoom.us/j/85704417508?pwd=eFpLU1ZZWUF1RlJ2RzBXcmc2MW9BUT09>****Meeting id- 857 0441 7508 Password- 584963****Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

| ABSTRACTID | SPEAKER                      | TOPIC                                                                                                                                                |
|------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| IT11       | Dr.Mirza Mohammad Abu Tayyab | The economic, Political, and Social Implications of Environmental Crises                                                                             |
| IT12       | Dr. Dharmendra Yadav         | Prevalence of Non-Communicable Diseases and its Determinants among Reproductive Aged Women in India: Evidence from Indian Demography Health Survey-5 |
| IT13       | Dr. Susheel Kumar Singh      | Investigation on PANI/CuO nanocomposites for ammonia gas sensing applications                                                                        |
| A109       | Mr.Nand Kumar Ram            | In silico studies and synthesis of schiff base derivatives as Anti-Alzheimer Agents                                                                  |
| A110       | Anju Arora                   | Economic Analysis of Hinges Manufacturing System considering Repairs by External Repairman                                                           |
| A111       | Miss.Jayati Dwivedi          | Design and Synthesis of isatin analogs as anti-HIV agents                                                                                            |
| A112       | Miss.Rupa Raj                | Design, Synthesis and In-silico evaluation of novel pyrimidine derivatives as kinase inhibitors and anticancer agents                                |
| A113       | Miss.Urfi Jahan              | Effect of sewage sludge amendment on Indian barley cv. BH393                                                                                         |
| A114       | Mr.Surya Pratap Verma        | One Pot and three-component synthesis of 1,2-Dihydroquinazoline derivatives                                                                          |
| A115       | Miss.Aayushee                | Influence of gum acacia supported bimetallic Cu/Zn nanoparticle of growth of Cicer arietinum                                                         |
| A116       | Dr.Jimmy Kagathara           | A CROSS-SECTIONAL STUDY ON ASSOCIATION BETWEEN DIETARY EATING HABITS AND MENTAL HEALTH AMONG MEDICAL COLLEGE STUDENTS OF WESTERN CITY OF GUJARAT.    |
| A117       | Mr.Vaibhav Mishra            | Electrical Behavior of Piezoelectric Material                                                                                                        |
| A118       | Miss.Alka Bharti             | EVOLUTION OF INDIA AND NEPAL RELATION DURING THE PRIME MINISTER SHIP OF SHRI NARENDRA MODI : A STUDY                                                 |
| A119       | Mr.Sanjeev Kumar Ranjan      | NARI VIMARSH KE PARIPREKASHYA MEIN RANJENDRA YADAV KA KATHA SAHITYA                                                                                  |
| A120       | Mrs.Kalpna                   | MAHATAMA GANDHI KE RACHANATAMAK KARYAKARMON MEIN AWADH PRANT KI MAHILAON KA YOGDAN (1920-1942)                                                       |
| A121       | Miss.Tripti Bhaskar          | Political Defections and Impact Of Anti Defection Law In India                                                                                       |
| A122       | Mr.Ryan John Laverne         | The String Theory                                                                                                                                    |
| A123       | Dr.Adesh Agarwal             | Type 2 Diabetes: The evolving epidemic of 21 <sup>st</sup> century                                                                                   |
| A124       | Devvrata                     | Type 2 Diabetes: The evolving epidemic of 21 <sup>st</sup> century                                                                                   |
| A125       | Miss.Astha Mishra            |                                                                                                                                                      |
| A126       | Miss.Sonalika Rawat          | Brief history of time                                                                                                                                |

**11.00 - 12:00 PM Day-3 (30<sup>th</sup> Oct,2022)** **Parallel Session** **Session-Chair: Dr. S.K. Singh**  
**singhshweta38384@gmail.com** **Dr. Kanchan lata Misra**  
**Oral & Poster presentations** **Mobile No- 8299547952**  
**Zoom link: <https://us04web.zoom.us/j/77698517901?pwd=jF5iKb6ub7ucV1vwQ6P9hrEsZxg3h1.1>**  
**Meeting id- 776 9851 7901 Password- FMu056**  
**Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

| ABSTRACT ID | SPEAKER                | TOPIC                                                                         |
|-------------|------------------------|-------------------------------------------------------------------------------|
| A127        | Mr.Shivam Shukla       | Alpha beta gamma decay                                                        |
| A128        | Miss.Yashi Bajpai      | Photoelectric Effect                                                          |
| A129        | Miss.Nishita Agnihotri | Nuclear and particle physics; Type of attraction between elementary particles |
| A130        | Mr.Amit Pandey         | Superconductivity                                                             |
| A131        | Mr.Asheesh kumar       | Nuclear binding energy                                                        |
| A132        | Dr.Vedha vathi A       | Physical and psychological impact of smartphone usage during covid lockdown   |

**12.00 - 5:00 PM Day-3 (30<sup>th</sup> Oct,2022)** **Session-Chair: Dr. Anuradha Misra**  
**Dr. S,K.Singh**  
**Dr. Heena Upadhya**  
**Oral & Poster presentations** **Mobile No- 8299547952**  
**Zoom link: <https://us02web.zoom.us/j/85704417508?pwd=eFpLU1Z2WUF1RlJ2RzBXcmc2MW9BUT09>**  
**Meeting id- 857 0441 7508 Password- 584963**  
**Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

| ABSTRACT ID | SPEAKER                     | TOPIC                                                                                                                                                                                |
|-------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A133        | Dr.Foram Jayantilal Raiyani | A study on prevalence of alcohol consumption among adults of village.                                                                                                                |
| A134        | Dr.C.Jayasree               | The study of Alice in Wonderland syndrome associated with migraine and it's homoeopathic treatment                                                                                   |
| A135        | Miss.Aastha Sahu            | Carbon Nanotubes                                                                                                                                                                     |
| A136        | Dr.Nitish Kumar             | A CROSS SECTIONAL STUDY TO ASSESS THE DEMOGRAPHIC PROFILE AND THE TREATMENT COMPLIANCE OF PATIENTS ATTENDING "ANTI RABIES CLINIC" IN JAY AROGYA GROUP OF HOSPITALS, GWALIOR.         |
| A137        | Mr.Amit Kumar Mishra        | Astrophysics and Astronomy                                                                                                                                                           |
| A138        | Dr.Dhirendra Vaidya         | A COMPARATIVE STUDY OF THE EFFECT OF BODY MASS INDEX ON SYMPATHOVAGAL ACTIVITIES IN HYPERTENSIVE INDIVIDUALS                                                                         |
| A139        | Miss.Pihu                   | The Rights of Animals                                                                                                                                                                |
| A140        | Miss.Kuhu                   | Nanomedicines and it's application                                                                                                                                                   |
| A141        | Dr. EMIL Sankar S           | Aprepitant versus Olanzapine as add-on Therapy for Prophylaxis of Chemotherapy Induced Nausea and Vomiting (CINV) in Patients of Carcinoma Breast: A Prospective Observational Study |
| A142        | Miss.Archana.R              | A survey review on difficulties faced in accessing health care during COVID-19 lockdown in North Bangalore                                                                           |

|             |                                 |                                                                                                                                                                      |
|-------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A143</b> | Mr.Somsuvra Das                 | Gaussian Modelling of Solar flares                                                                                                                                   |
| <b>A144</b> | Dr.Rajshree Gupta               | Determining Pattern of Smartphone Usage and Association of Academic Stress with Sleep Quality of First Year Medical Undergraduate Students - A Cross-Sectional Study |
| <b>A145</b> | Dr.P.Jersey Shiny               | Will flipping physiology UG class lead to better learning by the students?- a crossover trial                                                                        |
| <b>A146</b> | Dr.P.Jersey Shiny               | Effect of aging on platelets                                                                                                                                         |
| <b>A147</b> | Miss.Divya Dubey                | Proteome analysis of Rice under Nitrogen application at two developmental stages                                                                                     |
| <b>A148</b> | Dr.likhit Garre                 | Evaluation of levels of proteinuria in elderly patients of chronic hypertension associated with other hormonal disorders like diabetes and thyroid.                  |
| <b>A149</b> | Dr.Alok Ranjan                  | PARTIAL VERSUS FULL VACUUM SUCTION DRAINAGE AFTER MODIFIED RADICAL MASTECTOMY FOR BREAST CANCER                                                                      |
| <b>A150</b> | Miss.Swarali Deshmukh           | A survey on the knowledge of general public about Digital Currencies and Cryptocurrencies.                                                                           |
| <b>A151</b> | Dr.Luckystar Sungoh             | Assessment of Knowledge, Attitude and Practice regarding Antimicrobial Resistance among General Population of Bishnupur District: A Cross Sectional Study            |
| <b>A152</b> | Dr.Thoudam Reena Devi           | Mental health care seeking intention and attitude among population of Imphal, Manipur: a cross sectional study                                                       |
| <b>A153</b> | Dr.Irengbam Homendro Ningthouja | KNOWLEDGE AND ATTITUDE REGARDING CONTRACEPTION AMONG COLLEGE STUDENTS IN IMPHAL: A CROSS SECTIONAL STUDY                                                             |
| <b>A154</b> | Dr.Vuppuluri Keerthana          | Association of anxiety and depression with anaemia; A cross-sectional study among medical students                                                                   |
| <b>A155</b> | Dr.Rangla James                 | Mental well-being among undergraduate medical students in a tertiary care institute in Manipur: a cross-sectional study                                              |
| <b>A156</b> | Dr.Ibotomba Khuraijam           | Assessment of Knowledge, Attitude and Practice on food safety among food handlers of Imphal West, Manipur: A cross sectional study                                   |
| <b>A157</b> | Dr.Devvrata                     | Determining Pattern of Smartphone Usage and Association of Academic Stress with Sleep Quality of First Year Medical Undergraduate Students - A Cross-Sectional Study |
| <b>A158</b> | Dr.Ibotomba Khuraijam           | Psychosocial impact of covid-19 on vendors of Ima market, Manipur: A cross-sectional study                                                                           |
| <b>A159</b> | Dr.P.Maneesh                    | FACTORS HINDERING THE ECONOMIC EMPOWERMENT OF SRI LANKAN TAMIL CAMP LIVING REFUGEES IN TAMIL NADU, INDIA                                                             |
| <b>A160</b> | Dr.Vinita Mod                   | Sustainable Interior Design for Homes                                                                                                                                |
| <b>A161</b> | Dr. Dinesh Kumar Mishra         | Computational Aspects Of Organochlorine Compounds: DFT Study And Molecular Docking Calculations                                                                      |
| <b>A162</b> | Dr.Priyanka Pandey              | Bamboo seeds: limitations and prospects                                                                                                                              |
| <b>A163</b> | Dr.Laxmi Tanwar                 | Enormous versatility of essential oils as significant sources of natural fragrances in cosmetics and cosmeceuticals                                                  |

**12.00 - 1:00 PM Day-3 (30<sup>th</sup> Oct,2022)** **Parallel Session** **Session-Chair: Dr.Akhilesh Singh**  
**susheelsingh489@gmail.com** **Dr. Shweta Singh**

**Oral & Poster presentations Mobile No- 8299547952**

**Zoom link** <https://us04web.zoom.us/j/71705618015?pwd=b6G8Yfy6Z2uCUwcVbGWTSCf41Nx6vI.1>

**Meeting id- 717 0561 8015 Password- 60x8Fa**

**Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

| ABSTRACT ID | SPEAKER                    | TOPIC                                                                                                                                    |
|-------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| A183        | Miss.Swati Shukla          | National Educational Policy And Inclusive Education For Persons With disabilities                                                        |
| A184        | Dr.Amrutha R               | A Cross Sectional Study to Assess the Prevalence of Depression, Anxiety And Stress in Patients Attending Dermatology OPD in Gwalior M.P. |
| A185        | Dr.Koduvayur Roopa Lakshmi | Association of blood groups with Overweight and obesity;a cross-sectional study among medical students                                   |
| A186        | Miss.Saliha Rafat          | Treating Urinary Incontinence among females with telerehabilitation - A systematic review                                                |
| A187        | Miss.Khushboo Anjum        | Impact of kinesiotaping in upper extremity among chronic stroke patients : A narrative review                                            |
| A188        | Miss.Anjali Raghuwanshi    | AWARENESS AND KNOWLEDGE OF PELVIC FLOOR DYSFUNCTION AND REHABILITATION AMONG PHYSIOTHERAPY STUDENTS: AN ONLINE CROSS SECTIONAL SURVEY    |

**2.00 - 3:00 PM Day-3 (30<sup>th</sup> Oct,2022)** **Session-Chair: Dr. Dilshad Ahmad Anshari**  
**sciencetech487@gmail.com** **Dr. Shweta Singh**

**Oral & Poster presentations**

**Mobile No- 8299547952**

**Zoom link** <https://us04web.zoom.us/j/74087536739?pwd=VAFaUlaBAQuObVzyQiamzXnesZBTmO.1>

**Meeting id- 740 8753 6739 Password- 4RJg9R**

**Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

| ABSTRACTID | SPEAKER             | TOPIC                                                                                                             |
|------------|---------------------|-------------------------------------------------------------------------------------------------------------------|
| A189       | Miss.Sadiya Rafat   | GENDER DISPARITY IN OVERALL HEALTH MEASURES DURING COVID 19 ERA                                                   |
| A190       | Dr.Suchismita Datta | A STUDY TO ASSESS REPRODUCTIVE AND CHILD HEALTH PROFILE OF WORKING WOMEN RESIDING IN URBAN SLUMS OF GWALIOR CITY. |
| A191       | Dr.SAKSHI SAHNI     | Examining Content analysis in qualitative research â€œ Case of public spaces in Urban Planning                    |
| A192       | Miss.Gulpreet Kaur  | Examining Content analysis in qualitative research â€œ Case of public spaces in Urban Planning                    |
| A193       | Dr.Seema Singh      | IMPORTANCE OF DISTANCE EDUCATION IN PRESENT SCENARIO                                                              |
| A194       | Mr. Anand Kumar     | Study of Contribution of Macro Nutrients in Chickpea Yield                                                        |

**2.00 - 3:00 PM Day-3 (30<sup>th</sup> Oct,2022)**

**sciencetech487@gmail.com**

**Oral & Poster presentations**

**Zoom link: [https://us04web.zoom.us/j/76040192770?pwd=KsTAL0Pe1w9\\_socfn4En7kDyS3iOzP.1](https://us04web.zoom.us/j/76040192770?pwd=KsTAL0Pe1w9_socfn4En7kDyS3iOzP.1)**

**Meeting id- 740 8753 6739 Password- 4RJg9R**

**Note: You will get only 10 min for oral Presentation & 05 min for Poster presentation**

**Session-Chair: Dr. Dharmendra Yadav**

**Dr. Shweta Singh**

**Mobile No- 8299547952**

| ABSTRACTID | SPEAKER                   | TOPIC                                                                                                             |
|------------|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| A195       | Dr.Swati Dharmaraj Shinde | Study of Contribution of Macro Nutrients in Chickpea Yield                                                        |
| A196       | Mr.Amitesh Singh          | IMPACT OF COVID-19 ON INDIAN ECONOMY                                                                              |
| A197       | Miss.Annuja Anandaradje   | Molecular docking of curcumin and curcuminoids as human Zn dependent Histone deacetylase (HDAC) enzyme inhibitors |
| A198       | Miss. Gunjan Shokeen      | HR Competency                                                                                                     |
| A199       | Miss.S Sandya Rani        | A Study of Research Methodology                                                                                   |
| A200       | Dr.Amrit Mishra           | Fabrication and characterization of the PCDTBT: PTB7 (organic blend material) for solar cell application          |
| A201       | Dr.V. Sai Shanmukh        | To study the perceptions of 1st year MBBS students towards ECE(early clinical exposure) in physiology.            |
| A202       | Mr.Praveen kumar singh    | Optical fiber for long span and high speed                                                                        |

**Announcement of Winners of Awards & valedictory session: 5:00 PM**

**Zoom link: <https://us02web.zoom.us/j/85704417508?pwd=eFpLU1ZZWUF1RIJ2RzBXcmc2MW9BUT09>**

**Meeting id- 857 0441 7508 Password- 584963**

**Note: All Participants will Join this session.**

## KEY SPEAKERS IN NCAIR-2022

IT-01



**Prof. N.B. Singh**  
**Emeritus Professor**  
**Department of Chemistry and Biochemistry and**  
**Research Development Cell**  
**Sharda University, Greater Noida, India**  
**Email: n.b.singh@sharda.ac.in**

### Different aspects of Research

**N. B. Singh**  
**Department of Chemistry and Biochemistry**  
**Sharda University, Greater Noida**  
**(nbsingh43@gmail.com)**

### Abstract

Research methodology is the approach in which a researcher solves a problem thoroughly. It is a science of studying how research is conducted systematically. Different steps used in studying a research problem are elaborated. The term Research is related to seek out the information and knowledge on a particular topic or subject. In other words, research is an art of systematic investigation. According to Clifford Woody, research comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last, carefully testing the conclusions to determine whether they fit the formulating hypothesis. In the lecture, different steps such as review of literature, finding out the research gaps, methodology and interpretation of data will be discussed.



**Dr. Puneet Misra**  
**Department of Computer Science**  
**University of Lucknow**  
**Lucknow 226007**  
**E-mail: puneetmisra@gmail.com**

### **Research Misconduct: Issues and Concerns**

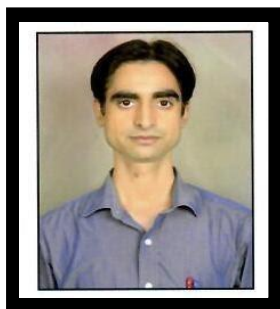
**Dr. Puneet Misra, Department of Computer Science,**  
**University of Lucknow, Lucknow PIN-226007**  
**Email: <puneetmisra@gmail.com>**

#### **Abstract**

Research misconduct is a severe problem that endangers the entire academic and research enterprise by weakening public trust, thereby risking public funding. The Office of Research Integrity of the U.S. Department of Health & Human Services defines research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results." Fraudulent research published in otherwise reputable journals can have a life of its own, being cited by many other researchers or even forming the basis of honest researchers' work. Propagating fraudulent research in this way is itself a form of research misconduct.

Publishing houses and government funding agencies take research misconduct in all its forms very seriously. Publishers will retract articles in which research misconduct has been detected, indicating that the research is not to be trusted. Government funding agencies, on the other hand, can impose sanctions on individual researchers or on entire institutions, ranging from letters of reprimand all the way to prohibiting any further participation in sponsored programs.

Misconduct was defined as: "...Fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data." But still there is lack in policies and procedures for checking and judging whether the misconduct is happened or not. So it is the responsibility of the researcher to have the knowledge of ethical practices and have a checklist in advance to prepare oneself so that misconduct can not take place.



**Kamakhya Prakash Misra**  
**Assistant Professor**  
**Department of Physics,**  
**School of Basic Sciences,**  
**Manipal University Jaipur, Jaipur,**  
**Rajasthan 303007, India**  
**Email: misra.kamakhya@gmail.com**

**Significance of Microstrain in Impacting Band Gap and Photoluminescence of Sol-Gel  
Derived RE Doped ZnO Nanostructures**

**Kamakhya Prakash Misra**  
**Department of Physics, School of Basic Sciences, Manipal University Jaipur, Jaipur,**  
**Rajasthan 303007, India**  
**Email: misra.kamakhya@gmail.com**

**Abstract**

Here, we elucidate the significance of microstrain in impacting band gap and photoluminescence (PL) intensity of sol-gel synthesized RE-doped ZnO nanostructures. Microstrain is seen to affect the crystallite size, which results in band structure modification thereby causing a substantial impact on transitions happening within the band gap. Rare earth (RE) elements, particularly when they are doped in ZnO during the process of nucleation, they are found to influence the microstrain. In a study on spin coated Ce doped ZnO thin films, the crystallite size varied from 25-50 nm, and micro-strain observed a significant decrease on doping with Ce. Increase in band gap was in the range of 3.19 to 3.44 eV for Ce-doped ZnO. PL spectra showed no shift in the peak of UV emission on doping with Ce. However, the reduction in PL intensity was governed by microstrain induced by doping ZnO with Ce. FESEM suggested that undoped ZnO film morphology had spherical particles with rod-like growth structures, which was modified to nanorod-like structure with small nanorods attached to a long rod for Ce-doped ZnO thin films. Similar study was carried out with Eu doped ZnO system, that too demonstrated significant changes in the band gap and PL properties of ZnO governed by microstrain. Such microstrain governed optical properties can to the development of mechano-optical devices.

IT-04



**Dr. S. K. YADAV**

**Associate Professor, Department of Statistics,  
School of Physical and Decision sciences,  
Babasaheb Bhimrao Ambedkar University, Lucknow  
E-mail: drskystats@gmail.com**

### **Prediction of Infectious Disease Spread Through Different Statistical Approaches**

**Subhash Kumar Yadav  
Department of Statistics  
Babasaheb Bhimrao Ambedkar University, Lucknow, INDIA**

#### **Abstract**

For a variety of infectious diseases, including the current COVID-19 epidemic, we will present three statistical modelling and prediction strategies in this talk: distribution fitting, time series modelling, and epidemiological modelling. Illustrations are provided for distribution fitting, time series modelling predictive monitoring techniques, and epidemiological modelling. The general normal distribution and other theoretical distributions are fitted when the epidemiological data is sufficient to do so, and the best-fitting distribution is derived for the prediction of the spread of the disease on the basis of how well it fits the data. Different time series models are fitted as the infectious diseases evolve through time, and the prediction is based on the model that fits the data the best. More biological characteristics are included in the models used for epidemiological modelling, and the fitted compartmental model is used to forecast the spread of the disease. Thus, the best policies and applicable steps to control the further spread of the infectious disease may be determined based on the findings from various ways to evaluating and predicting the transmission of infectious diseases.

**Keywords:** Distribution Fitting, Time Series Regression Models, Epidemiological Models, Parameters, Estimation, Prediction.



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**A Critical Role of Molecular Virology Laboratories during  
COVID-19 Pandemic**

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**Abstract:** Molecular virology laboratories are crucial in a pandemic crisis because they define our awareness by boosting our ability to discover and identify about new viruses and their linkages to specific diseases before viral infections cause widespread morbidity and mortality. In critical occasion, such as COVID-19 pandemic, right time diagnoses were utmost urgency. These laboratories were useful to diagnose and treat the patient in effective manner and highlight the importance of molecular, rapid antigen, serology and viral culture techniques to detect target virus at scale. One of the important learning from the COVID-19 pandemic as well as other outbreaks, was to reinforce the virology laboratories for early diagnosis as they are vital for disease surveillance, management of patients, as well as in research and development. There has been an organized effort from the central and state governments to establish molecular virology labs during pandemic. There are yet enormous numbers of other microbes to be exposed and it is critical to understand these microbes and their mutation that may spread from one host to another, endangering human life. Expansion and advancement of these labs is the need of hour and will be helpful to identify emergence of novel viral pathogens in community and further will be helpful in rapid infection control.

**Key Words:** Virology labs, Molecular techniques, COVID-19, Outbreaks, Diagnosis

**IT-06**



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**Analysis of Porous Bearings with respect to Second Order Rotatory Theory of  
Hydrodynamic Lubrication**

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**ABSTRACT**

The second order rotatory theory of hydrodynamic lubrication was founded on the expression obtained by retaining the terms containing first and second powers of rotation number in the extended generalized Reynolds equation. In the present paper, there are some new excellent fundamental solutions with the help of geometrical figures, expressions, calculated tables and graphs for the porous bearings in the second order rotator theory of hydrodynamic lubrication. The analysis of equations for pressure and load capacity, tables and graphs reveal that pressure and load capacity are not independent of viscosity and increases slightly with viscosity. Also the pressure and load capacity both increases with increasing values of rotation number. In the absence of rotation, the equation of pressure and load capacity gives the classical solutions of the classical theory of hydrodynamic lubrication. The relevant tables and graphs confirm these important investigations in the present paper.

**Keywords:** Lubrication theory, Pressure, Reynolds equation, Rotation,



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**Effect of Mg Doping in Photoluminescence and Photoconductivity of thin ZnO films**

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**Abstract:** ZnO being a versatile direct wide band gap semiconductor material having large exciton binding energy of 60 meV at room temperature, much larger than those of ZnSe (19meV), GaN (24meV) and ZnS (39meV) is unique property. ZnO nanostructures such as nanorod, nanowires and thin films etc. are widely studied as they are prospective candidate for application in optoelectronic devices such as UV–blue light-emitting diodes, solar blind UV-photodetectors, laser diodes, phototransistor and resonant tunneling devices. . Here undoped and 5, 10 and 15 at% Mg doped ZnO films obtained by sol-gel method. The films are optically transparent with crystallite size less than 16nm. Optical band-gap is tuned between 3.15 to 3.41eV by increasing the Mg doping slightly which compares favourably well with earlier reports. The NBE emission in the ultraviolet at 395nm, from 5at% Mg doped sample, is remarkably good with suppressed defect-emissions and six-fold higher intensity as compared to that from undoped sample. The rise and decay times decrease for 10at% Mg doping and the photosensitivity increases by approximately 10 times rendering the sample very useful for switching and UV detector applications. Consistent switching behavior is obtained throughout.

**Keywords** – XRD, Optical Transmission, Band Gap, PL, PC.

**IT-08**



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**Ethics in Research**

Nisha Mani Pandey<sup>1</sup>

Every profession sets some standards or norms that prescribe a particular way to perform the work, so in research. Ethics in research sets certain principles of does and don'ts that need to be followed during planning, developing, executing, and reporting a study. These principles consist of some of the basic values like dignity, truthfulness, fairness, responsibility, and freedom. In any field of education be it science/commerce-related subjects, be it Arts/ Humanities or social sciences ethical considerations are significantly required to avoid any type of misconduct. It will be worth mentioning that in academic research many times such mishappening are observed as often the committees formed for ethics review either due to lack of knowledge and expertise of particular ethical contexts or some kind of pressure. In educational and academic research follow-up of ethical issues often become complex and sometimes people feel hard to follow or don't appreciate the significance of the same. In the present lecture an overview of research and ethics along with major guidelines for academic research, key responsibilities, rights, and duties of a researcher will be discussed.

IT-09



**Dr. Dharmendra Kumar Yadav**  
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**Prevalence of Non-Communicable Diseases and its Determinants among Reproductive Aged Women in India: Evidence from Indian Demography Health Survey-5**

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**Abstract:**

**Background:** Non-communicable diseases are the world's largest cause of mortality, accounting for more fatalities than all other causes combined they disproportionately affect low and middle-income countries. The present study examines the prevalence of Non-communicable diseases and its determinants among reproductive aged women in India using NFHS-5 data.

**Data and Methods:** The data were derived from the National Family Health Survey (NFHS-5) Descriptive statistics, bivariate, Chi-square and logistic regression were performed for analyzing the data.

**Results:** The results regarding the percentage of NCD among women aged 15-49 years show that about 2.0% of women were diabetics and 4.7% were hypertension. Additionally, 1.6% had asthma, whereas 2.7% were having thyroid, 0.7% had heart diseases and 0.1% had cancer, and 0.6% had chronic kidney diseases. Moreover, 9.9% of the women had any NCDs. Women who consumed smokeless tobacco had 28% significantly higher odds of having NCDs than women who did not consume smokeless tobacco. Besides, the odds of having NCDs among women who consumed alcohol were 18% significantly lower than those who did not consume alcohol. The odds of any NCD in richest women had 1.57 times more likely having NCD than Poorest women in India.

**Policy Implications:** The present study suggests that during the formulation of various maternal health related programs, policymakers should also give special attention on this NCD component among the women. Some provision of screening and early detection of various NCDs can help in improving the health of mothers and children.

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**The economic, Political, and Social Implications of Environmental Crises**  
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**Abstrat:**

International Environmental crises are intensifying to a worrisome degree, and more and more intertwined. Anthropogenic weather alternate, for instance, threatens human safety via more frequent and severe severe weather occasions like warmth waves, droughts, and floods. on the equal time, it aggravates problems related to soil degradation, biodiversity loss, sickness spreading, and water .An interdisciplinary group of scientists working on human–surroundings interactions discussed the country of understanding on the financial, political, and social implications of environmental crises and diagnosed pathways for future research.

**KEYWORDS:** I-Intensifying, B-Biodiversity, S-Sickness, I-Implication, D-Diagnosed

## OP 1

**Gender Disparity in Education****Nisha Kumari****Assistant Professor, Department of Geography, Govt. College, Chamba (HP), 176314****E-mail: nishakumari728@gmail.com**

**Abstract:** The most noticeable differentiation in educational opportunity in Indian society is probably 'gender'. This is because the Indian society is mainly characterized by men; where the females are not only degraded but also deprived of their right to be educated. In the present study, an attempt has been made to analyze gender disparity in education at each level in Himachal Pradesh. Along with this, the study also looks at this difference in case of education among two social groups i.e., scheduled caste and general population in the state. The state has noticeable scheduled caste (SC) population as compare to ST population. SC population is the second largest segment of population in the state after general population. Discrimination with the SC's has been seen from long time in employment case. But, whether this discrimination lies in education or not; this study attempts to see this. To see the regional variation or spatial difference, district has been taken as unit of the study. Data for the research has been taken from census of India. So this is the spatial-temporal study. The state bears a good position in case of education after Kerala; however there are differences among male female acquired education among different social groups. Analysis shows that gender disparity increases as we go to the higher level of education. It was also seen that gender disparity was lower in the low levels of education i.e., primary and secondary level education but higher in the high level of education which reflects the continuation of traditional and discriminative attitude towards females in these districts. It was also observed from the interpretation of the data that gender disparity was higher among scheduled caste population as compare to general population.

**Keywords:** SC Population, General Population, Gender Disparity, Primary Education, Secondary Education, Higher Education

## OP 2

**Charge and Mass Movement in alkali Metaborate**

**K.M. Mishra\*, P.K. Pandey, F.Z. Haque<sup>#</sup>, M.K. Diwedi, P. Prasad, Aparajit Tripathi, Gargi Tiwari<sup>§</sup> and S.N. Tiwari**

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**Abstract:** Alkali metaborate  $\text{LiBO}_2$ ,  $\text{NaBO}_2$  and  $\text{KBO}_2$  have been prepared using high temperature solid state reaction technique employing oxides of respective alkali metals and  $\text{B}_2\text{O}_3$  as starting materials. Thermoelectric powers ( $S$ ) and electrical conductivity ( $\sigma$ ) of pressed pellets of these compounds have been measured in the temperature range from 440K to the melting point of each material. Results have been reported as  $\log \sigma T$  Vs  $T^{-1}$  and  $S$  Vs  $T^{-1}$  plots. It has been observed that  $\sigma$  jumps by a factor of  $10^2$  at a particular temperature for each solid and reaches the value of the order of 5 around 1000K.  $S$  value show anomaly at the same temperature for each solid, this temperature has been referred to as a phase transition temperature ( $T_P$ ) of that solid. The ionic ( $\sigma_i$ ) and electronic ( $\sigma_e$ ) parts in total conductivity have been evaluated using time dependence study of dc electrical conductivity. It has been observed that contribution of  $\sigma_i$  to  $\sigma$  above  $T_P$  is more than 99% for each solid, below  $T_P$  it decreases but remains close to 96% up to 500K. From these data, it has been concluded that each of these materials exists in two phases. The phase above  $T_P$  is superionic and below  $T_P$ , mixed conductor. The phase transition temperature  $T_P$  has also been inferred by the temperature variation of dielectric and magnetic susceptibility studies. The values of  $T_P$  have been found the same in  $\sigma$ ,  $S$ , Dielectric and magnetic susceptibility studies.

**Keywords:** Electrical conductivity, Ionic conductivity, Electronic conductivity, Phase transition temperature, Magnetic Susceptibility, Dielectric constants, Thermo-electric Power

**OP 3**

**Quadruple Series Equations Containing Jacobi Polynomials**

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**Abstract:** Formal solution of four series equations involving Jacobi Polynomial given in this paper. Finally the solution of four series equations is reduce to Fredholm integral equation of second kind in one independent variable which can be solved by some numerical methods.

**OP 4****Analysis of Soil Samples for its Physico-Chemical Parameters from District Nainital  
(Uttarakhand) India****Dr.Jagmohan Singh Negi****Department of Chemistry, P.N.G.Govt P.G.College, Ramnagar, Nainital, Uttarakhand, India****E-mail: drjsn@rediffmail.com**

**Abstract:** In the present study it was preferred to investigate the soil samples for its physico-chemical analysis of some parameters. A proper soil analysis helps to analyse nutrients which are available to plant and which must be supplied to them for a productive crop, through soil variation can be seen within and a small region a small analysis of Nainital district, The natural environment is clean, but due to multifarious activities of man, it gets polluted resulting in what is called environmental pollution. Uttarakhand State, soil has been done with major macronutrients present. These results will empower future the product development by identifying target in soil microorganisms and the most viable fields. It was preferred to investigate the soil samples for its physico-chemical analysis of some parameters. Ten representative samples were obtained and analyzed for its pH, EC, Phosphorus, Potassium, Sulfur and Organic Carbon

**Keywords:** Physico-chemical, EC, PH, Phosphorus, Potassium, Sulfur and Carbon.

## OP 5

**Skin-Ayurvedic Perspective****Dr. Shilpa Premchand Badhe****Department of Shalyatantra,****SMBT Ayurved College & Hospital, Igatpuri Nashik 422403****E-mail: akpc74@gmail.com**

**Abstract:** Ayurveda is considered as one of the oldest of the traditional systems of medicine accepted worldwide. Ayurveda, a natural system of medicine, originated in India more than 3,000 years ago. The term *Ayurveda* is derived from two Sanskrit words *ayur* means life and *veda* means science or knowledge. Thus, Ayurveda is *knowledge of life*. The ancient wisdom in this traditional system of medicine is still not exhaustively explored. Ayurveda believes that healthy body requires Healthy mind also. Based on the idea that disease is due to an imbalance or stress in a person's consciousness, Ayurveda encourages certain lifestyle interventions and natural therapies to regain a balance between the body, mind, spirit, and the environment. Many of Ayurvedic treatment follow skin as a route of transmission. Hence there is lot of explanations of skin anatomy and physiology. We will try to understand the importance of skin through this article. Skin is supposed to be the largest organ in human body. Ayurved explained skin or Twacha as a Sparshanendriya means organ which senses touch.

**Keywords-**Ayurveda, anatomy, physiology, Twacha, Sparshanendriya

## OP 6

**Bio-psychosocial well-being and family support among menopausal women: A Descriptive study****Manpreet Kaur, Anu Dhaka and Dr. Yogesh Kumar****Maharishi Markandeshwar Institute of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala****E-mail: manpreet.kalka@gmail.com****Abstract**

**Introduction:** Menopause is an inevitable reproductive phase between 45-55 years of age when various physical and mental changes impair the life of women. The objective of the study was, to assess the bio-psychosocial well-being and family support among menopausal women.

**Methods:** A descriptive survey design was used to conduct the study among 300 menopausal women by using purposive sampling technique. An Interview Session was conducted and Bio-psychosocial well-being and family support was assessed by using structured bio-psychosocial well-being and family support assessment scale. Data were analyzed by SPSS software ver.13 via statistical test such as correlation coefficient and chi-square test.

**Results:** Overall, more than half (56%) of the menopausal women have good bio-psychosocial well-being and majority (92%) of the menopausal women have good family support.

**Key words:** Bio-psychosocial well-being, Family support and Menopausal women.

## OP 7

**Knowledge Management: With special reference to Banking sector in Lucknow****Dr. Sanjeev Kumar Singh<sup>1</sup> and Dr. Kaushiki Singh<sup>2</sup>**<sup>1</sup>Assistant Professor, Department of Business Management, CSJM University<sup>2</sup>Assistant Professor, Department of Commerce, DSMNR University

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**Abstract:** Innovation has taken centre stage in today's rapidly evolving business landscape. A good business venture combines a few key factors and has a propensity for innovation. Employees in this field are encouraged to think critically, find potential alternatives, and are given enough room to develop their ideas. Numerous industrial sectors have introduced knowledge management and research projects. The purpose of this paper is to examine the effect of knowledge management process on innovation in banking sector. It discusses what banks may do to encourage knowledge sharing to boost effective innovation. To test the hypothesis using regression models, the research employs custom-tailored measuring scales and collected a sample of 149 respondents from knowledge-intensive banks, notably PNB and BOB. The findings show that the knowledge management process has a positive impact on innovation, but only for businesses found in knowledge-intensive clusters can generalizations be made.

**Keywords:** Knowledge management process, knowledge acquisition, knowledge transfer, knowledge application, knowledge integration, innovation

## OP 8

**Comparison of Clinical Tests and Electrodiagnostic Testing in the Diagnosis of Pregnancy Related Carpal Tunnel Syndrome**

**Dr. Mariyam Afaq<sup>1</sup>, Dr. Gul Ar Navi Khan<sup>2</sup> and Dr. Nazia Ishrat<sup>3</sup> and Prof. Mohd Aslam<sup>4</sup>**  
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**Abstract:**

**Purpose:** To determine whether clinical tests can be an alternative method to nerve conduction study (NCS) in the diagnosis of pregnancy related carpal tunnel syndrome (PRCTS), by comparing clinical methods with nerve conduction study using clinical diagnosis as the reference standard.

**Methods:** 100 females were enrolled in this study. 75 pregnant females (cases) and 25 healthy age matched non-pregnant females (controls) were enrolled from the ANC clinic and gynaecology OPD of Jawahar Lal Nehru Medical College and Hospital, AMU, Aligarh. All the females were evaluated for CTS by the clinical tests as well as the electrodiagnostic test in the department of physiology, JNMCH, AMU. The testing was done at the wrist joint in order to evaluate the normal functioning of median nerve.

**Results:** There was a highly significant difference found between the two methods for the diagnosis of PRCTS. Out of the total 75 pregnant females enrolled, only 2 were found to be positive for PRCTS via the clinical testing where as in the electrodiagnostic techniques, 48% of the pregnant females were diagnosed as a case of PRCTS.

**Conclusions:** Clinical tests are not the right method to diagnose PRCTS. Electrodiagnostic testing is the gold standard and safest technique to diagnose the syndrome.

**Type of Study:** cross-sectional study.

**Key words:** pregnancy related carpal tunnel syndrome, nerve conduction study, diagnosis.

## OP 9

**A comparative study on the efficacy of teucrium marum verum mother tincture and its 30 potency in the treatment of nasal polyps****Sunitha K<sup>1</sup>, Anupama Deshmukh<sup>2</sup>, Anwesh K<sup>3</sup>****<sup>1</sup>Professor & head, Department of Practice of Medicine, Bhagawan Buddha Homoeopathic Medical College & Hospital affiliated to RGUHS, Bengaluru, Karnataka****<sup>2</sup>Professor & head, Department of Community Medicine, Bhagawan Buddha Homoeopathic Medical College & Hospital affiliated to RGUHS, Bengaluru, Karnataka****<sup>3</sup>Homoeopathic practitioner****E-mail: drsuni2003@gmail.com****Abstract:**

**Introduction:** Nasal polyps are abnormal lesions that originate from any part of nasal mucosa and paranasal sinuses. The most seen polyps are benign semi-transparent nasal lesions that arise from the mucosa of the nasal cavity from one or more paranasal sinuses often at the outflow tract of the sinuses. Nasal polyps are found in 36% of patients, 7% of those with asthma, 0.1% in children and about 20% in those with cystic fibrosis. Homoeopathy has a better scope in treating nasal polyps as well as in reducing the size of the polyps and help the body's own restorative process for complete treatment

This comparative study is to explain how well the remedy acts on the progression of Nasal polyps when administered Teucrium Marum Verum [TMV] mother tincture as nasal drops and its 30c potency administered orally.

**Key words:** Nasal polyps, Teucrium Marum Verum, homoeopathic mother tincture, potency

**OP 10****Study to assess the knowledge of Education Professionals about Uses of Digital Education Technology in Higher Educational Institutions during COVID-19 Lockdown in India****Dr.Yogesh Kumar<sup>1</sup>, Ms.Manpreet Kaur<sup>2</sup> and Dr.Sumit Mittal<sup>3</sup>****<sup>1</sup>Principal, MM Institute of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala****<sup>2</sup>Assistant Professor, MM Institute of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala****<sup>3</sup>Registrar, Maharishi Markandeshwar, (Deemed to be University), Mullana, Ambala  
E-mail: yogesh.dhakar@gmail.com****Abstract:**

Technology has its directions, its directional roots become more wide and strong if anyone has much interest and hard work with technology in particular fields. The field of education has grown up with more advanced technologies and its growing day by day to combat with day today hurdles. As the technology in the field of education is advanced, the Education professionals are also being familiar and advanced with the technology. The study aimed to assess the knowledge of Education Professionals about Uses of Digital Education Technology in Higher Educational Institutions during COVID-19 Lockdown in India. The research approach adopted for the study was non-experimental Descriptive survey design. The present study was conducted from Higher Educational Institutions of India, from Departments like Medical, Dental, Nursing, Physiotherapy, Engineering, Management and pharmacy working IN India. The sample comprised of 113 teaching professionals from various states of India. The tools developed and used for data collection were Section-A: Demographic Characteristics and Section-B: Knowledge questionnaire Sub sections: A=True/False, B=MCQs, C=Short. The validity was ensured in consolidation guide and experts, the reliability of tools was established by Cronbach alpha. After obtaining consent from participants of respective institutions, data was collected via Google forms. The results showed that 32% Teaching professionals have 9-15 years of teaching experience, 49% reported that their organization provide them wi-fi facility, more than half have 4G facility at their homes, 95% using internet for teaching –learning purpose, 88% professionals were aware about digital teaching learning platform, 58% aware about cloud access, 48% aware regarding Cloud Computing, 73% aware about Open

Educational Resources, 38% aware regarding MOOCs and 39 % aware about Digital Data Repositories. Further the study findings reported that 47% participants were having good knowledge, 35% had excellent and only 18% had average knowledge level regarding Uses of Digital Education Technology.

**Conclusion:** The study concludes that majority of participants were using digital educational technology for their teaching learning purpose and out of total 45 % participants had good knowledge regarding Digital Education Technology.

**Keywords:** Education Professionals, Digital Education Technology

## OP 11

**Structural and gas sensing properties of Ce doped Tin dioxide nanocrystalline materials****Laxman P. Chikhale****Department of Physics, Venkatesh Mahajan Senior College, Osmanabad (M.S.)****E-mail: laxmanchikhale@gmail.com**

**Abstract:** The work present to study effect of pure and Ce doped tin dioxide thick films on their structural and gas sensing properties of the oxide powders were prepared by the chemical co-precipitation method. The thick films of Ce doped  $\text{SnO}_2$  were prepared by the screen-printing technique. Thick films of functional material were prepared by using a screen printing technique and then sintered at  $750^\circ\text{C}$  for 2 h. The samples were characterized by X-ray diffraction (XRD), transmission electron microscopy (TEM), scanning electron microscopy (SEM) techniques. XRD studies reveal formation of fine nanocrystalline material. The particle size of sintered powder of pure and Ce (1 to 3 mol %) doped  $\text{SnO}_2$  powders were 15, 11, 10 and 8 nm respectively. The gas sensing characteristics have been investigated for various gases at different operable temperatures. Doped  $\text{SnO}_2$  samples have exhibited significant enhancement in sensor response to ethanol and reduction in optimum operable temperature as well.

**Keywords:** Transmission Electron Microscopy (TEM), Scanning Electron Microscope (SEM), Screen Printing, Thick Film.

## OP 12

**Effect of addition of quinoa flour and date seed flour on cooking and sensorial characteristics of gluten-free pasta****Ritika B. Yadav\*, Akansha Sharma and Jyoti Narwal****Department of Food Technology****Maharshi Dayanand University, Rohtak (Haryana)-India****\*E-mail: ritikafoodtech@gmail.com**

**Abstract:** Pasta has high acceptability in the world but use of gluten-free flour for pasta preparation leads to crumbly dough with very poor processability. The gluten-free (GF) food is the only remedy for persons suffering with celiac disease. Quinoa flour and date seed powder can be used in GF foods to enhance the nutritional and sensorial properties. The objective of the research study was to assess the suitability of quinoa flour and date seed powder for gluten free pasta preparation and also to analyze the impact of addition of quinoa flour and date seed powder on cooking and sensorial characteristics of pasta. Pasta was prepared by mixing of quinoa flour and date seed flour in different concentration which were encoded as T<sub>1</sub> (25:75), T<sub>2</sub> (50:50), and T<sub>3</sub> (75:25). The native flour and their blends were analysed for physicochemical properties such as water and oil absorption capacity, bulk density, swelling capacity and solubility index. The pastas formed from different blends were examined for their cooking and sensory properties.

**Keywords:** Gluten-free pasta, Date seed flour, Quinoa flour, Cooking properties, Sensory properties.

## OP 13

**Computational Aspects of Organochlorine Compounds: DFT Study and Molecular Docking Calculations****<sup>1</sup>Nikita Tiwari\*<sup>2</sup>, D. K. Mishra and <sup>3</sup>Anil Mishra****<sup>1,2</sup>Department of Chemistry, Shri Ramswaroop Memorial College of Engineering & Management, Lucknow, Uttar Pradesh, 226010****<sup>3</sup>Department of Chemistry, University of Lucknow, Uttar Pradesh, 226007****\*E-mail: nikitalko23@gmail.com**

**Abstract:** The paper and pulp industry generates enormous amounts of wastewater containing high quantities of chlorinated toxicants. These volatile organochlorine compounds are widespread toxic chemicals that may cause harmful effects to human via interaction with human  $\alpha$ -amino- $\beta$ -carboxymuconate- $\epsilon$ -semialdehyde decarboxylase (hACMSD) which is a vital enzyme of the kynurenine pathway in tryptophan metabolism. It averts the accumulation of quinolinic acid (QA) and supports in the maintenance of basal Trp-niacin ratio. Herein, we report the optimization of organochlorine compounds employing density functional theory (DFT) with B3LYP/6-311G+(d,p) basis set to elucidate their frontier molecular orbitals as well as the chemical reactivity descriptors. The DFT outcome revealed that organochlorine compounds show the lower HOMO-LUMO gap as well as higher electrophilicity index and basicity as compared to the substrate analogue, Dipicolinic acid. To assess the structure based inhibitory action of organochlorine compounds, these were docked into the active site cavity of hACMSD. The docking simulation studies predicted that organochlorine compounds require lower binding energy (-3.86 to -6.42 kcal/mol) which is in good agreement with the DFT calculations and might serve as potent inhibitors to hACMSD comparable with its substrate analogue, Dipicolinic acid which has binding affinity -4.41 kcal/mol. Organochlorine compounds interact with the key residues such as Arg47 and Trp191 and lie within the active site of hACMSD. The high binding affinity of organochlorine compounds was attributed to the presence of number of chlorine atoms, important for hydrophobic interactions between the organochlorine compounds and the critical amino acid residues of the receptor (hACMSD). The results emphasized that organochlorine compounds can structurally mimic the binding pattern of Dipicolinic acid to hACMSD.

**Keywords:** Organochlorine compounds, hACMSD, Dipicolinic acid, DFT calculations, docking.

## OP 14

**Factors Hindering the Economic Empowerment of Sri Lankan Tamil Camp Living Refugees in Tamil Nadu, India****<sup>1</sup>Dr. P. Maneesh\*, Dr. C.Muniyandi<sup>2</sup> and Dr. Aicha El Alaoui<sup>3</sup>****<sup>1</sup>Assistant Professor of Economics, School of Liberal Arts and Applied Science, Hindustan Institute of Technology and Science (Deemed to be University), Chennai, Tamil Nadu, India****<sup>2</sup>Assistant Professor, Department of Econometrics, School of Economics, Madurai Kamaraj University, Madurai, Tamil Nadu, India.****<sup>3</sup>Associate Professor, Faculty of Economics and Management, Sultan Moulay Slimane University, BéniMellal, Morocco****\*E-mail: maneeshpanakkeel21@gmail.com**

**Abstract:** This study intends to identify the factors hindering the economic empowerment of Sri Lankan Tamil refugees in Tamil Nadu. The Sri Lankan Tamil refugees have faced difficulty for accessing employment and sustainable livelihood. However, they are confined in the camps through the government mechanism. Moreover, the refugees do not have the legal right to purchase properties in India. Therefore, they lead vulnerable and deprived lives. The educated refugees do not have access to employment in the public sector and they are coerced to rely on manual labour to meet their daily needs. Invariably, they are forced to work for low/lower wages under poor conditions. There is no appropriate space to rear livestock in the surroundings of home. Camps are highly congested and there is no social privacy. This study intends to identify the factors hindering the economic empowerment of Sri Lankan Tamil refugees in Tamil Nadu.

**Keywords:** Camp Living Refugees, Economic Empowerment, Deprivation, Livelihood Sustenance, Livelihood Security.

## OP 15

**Sustainable Interior Design for Homes****Dr. Vinita Mod****I/C Dean-School of Vocational Studies,****Vanita Vishram Women's University,****Vanita Vishram, Surat, Gujarat-395001****E-mail: dean.svs@vvwusurat.ac.in****Abstract**

**Objectives:** The study analyzes the interior design in the dimension of sustainability, especially for homes, while shedding the light on the obstacles that influence it and establishing some recommendations. **Methods/Statistical Analysis:** The study used the analytical approach. It analyzed the interior design different elements, and then demonstrated how sustainability can be achieved under these elements in a successful way. It validated its work frame through using many examples from current practices and works in the field. **Findings:** Sustainable design is a way of thinking that considers the impact of various issues on the environment and on human welfare. Interior design is an integral part of any building construction or renovation and choices made in designing the inner space have environmental and human welfare implications. Thus, the practice of interior design is also considered in the context of sustainability, being a key aspect of any green building process. Building's interiors are fitted with materials, products and systems, while the occupants of those spaces use energy and other resources in ways that are driven, at least in part, by the design of the space itself. Good sustainable interior design must be informed by all these interconnections and impacts, where interior designers help to mitigate these impacts through a certain process that involves themselves, integrated design, clients and rating systems. In addition, many practices work currently to develop different sustainable items and ideas for the interior spaces for our homes, however there are three main obstacles; costs, materials and education. **Application/Improvements:** Raising the awareness about the importance of sustainability in interior design should start in the universities passing by the governments and ending with the clients.

**Keywords:** Elements of Sustainable Interior Design, Homes Interior Design, Interior Design, Sustainable Materials, Sustainability

## OP 16

**Enormous versatility of essential oils as significant sources of natural fragrances in cosmetics and cosmeceuticals****Laxmi Tanwar****Department of Chemistry, Sri Aurobindo College, University of Delhi, 110017****E-mail: laxmitanwar65@gmail.com**

**Abstract:** Fragrances are used by nearly everyone, everywhere, and represent truly worldwide cultural phenomena. Numerous smells and flavors have made their way into our daily lives over the years, most notably in our food, drink, and confectionary goods; our personal care products (such soaps, toothpastes, mouthwashes, deodorants, bath lotions, and shampoos); our cosmetics; and our pharmaceuticals. Tastes and fragrances are added to such items to enhance their appeal or to cover up the taste or smell of ones that consumers might find less desirable. The development of plant-based goods has been given a new boost in recent years thanks to green consumerism and the renaissance of the usage of "naturals." Industries across the board rely on laboratory-created synthetic perfumes to replicate the natural, plant-based oils used in their competitors' products, they have a far higher production price. While genuine plant-based essential oils have been shown to have several health benefits, synthetic perfumes may lack these benefits and possibly be harmful to humans. The endocrine-disrupting phthalates and the carcinogenic benzene derivatives found in synthetic scents are only two examples. However, essential oils and other natural fragrances are becoming increasingly popular as people seek to avoid the potential health risks of synthetic fragrances and instead enjoy the benefits of using them in aromatherapy. Not only does well-known cosmetics lines use essential oils into their products, but the finest perfumes also employ pure essential oils, giving them the rare and exotic aromas that have made them so highly sought after. Essential oils have been shown to have a number of health and cosmetic benefits, but this does not mean they are immune to potential side effects and contraindications. The large-scale commercial harvesting of aromatic plants can lead to the extinction of some species. It is crucial to develop systematic cultivation of these plants to safeguard biodiversity and endangered species. Eco-conceived fragrant compounds that span every olfactory family without further endangering biodiversity may be created through the sustainable extraction of natural resources, the use of novel technologies, the intensification of processes, and the use of agro-based solvents.

**Keywords:** Essential Oils, Perfumes, Fragrances, Bio-Diversity, Flavors

## OP 17

**Examining Content Analysis in Qualitative Research – Case of Public Spaces in Urban Planning****Rawal Singh Aulakh<sup>1</sup>, Sakshi Sahni<sup>2</sup> and Gulpreet Kaur<sup>3</sup>**<sup>1</sup>Department of Architecture, Guru Nanak Dev University, Amritsar, Punjab<sup>2</sup>Guru Ram Das school of Planning, Guru Nanak Dev University, Amritsar<sup>3</sup>Guru Ram Das school of Planning, Guru Nanak Dev University, Amritsar

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**Abstract:** In research methodology, qualitative research is important research in human and social research which is measured through empirical research approach as stated by Gelo, 2012. Content Analysis is a method for gathering i.e. collecting and analysing of text (Neuman, 2006, p. 322). The content denotes to words, meanings, pictures, symbols, ideas, themes, or any message that can be connected as well as communicated (Neuman, 2006, p. 322). In this paper, an attempt has been made to do content analysis of Public Space paper in Urban Planning and generating various themes in which numerous authors have worked. The database is all secondary data with no field visits and parameters and aspects of public spaces have been derived from various angles by analysing the content of the research papers. Research papers from years 1999 to 2019 were analysed for the results and various themes generated are discussed in the paper.

## OP 18

**Mean cross sectional area of hamstrings following application of high intensity laser therapy: A Case Report****Dr. Adarsh Kumar Srivastav (PT)<sup>1</sup> and Prof. (Dr.) Manu Goyal<sup>2</sup>**<sup>1</sup>Assistant Professor, Department of Physiotherapy, School of Health Sciences,  
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Mullana-133207. Haryana, India**E-mail: adarshsrivastava13@gmail.com; adarshkumarsrivastava@csjmu.ac.in**

**Abstract:** One of the most frequent injuries in healthy individuals is a hamstring strain. Sedentary lifestyle or reduced physical activity with spending too much time sitting down can make your hamstring muscles tight, which also increase the risk of recurring injuries and produce post-exercise soreness. Because of the high recurrence rates, management is challenging. Numerous randomized controlled trials have demonstrated the effectiveness of exercise training in preventing hamstring injuries, but there is a paucity of prospective rehabilitation evidence. Although there is a dearth of published research on high intensity laser therapy (HILT) effects on rehabilitation or recurrence of injury, it has been claimed to be helpful in the management of tightness and cross sectional area of hamstring muscle. The purpose of this case report is to present the management and outcomes of a patient with hamstring muscle tightness, treated with HILT. The subject was a 26-year-old college-going individual who presented to physical therapy with an acute hamstring strain on bilateral lower extremity. He was treated three times per week for 2 weeks with HILT. By day 06, his hamstring muscle length and cross sectional area by ultrasonography on the involved extremity was assessed and he reported clinically meaningful improvement in outcome scores. This case illustrates the use of HILT intervention leading to a favorable outcome in a patient with hamstring muscle tightness.

**Level of evidence:** Level 4**Keywords:** Laser therapy, Photobiomodulation, Hamstring, Young adults

## OP 19

**To study the perception of first year MBBS students towards ECE (Early Clinical Exposure) in physiology****Dr.M. Usha Rani M.D<sup>1</sup> and Dr. Sai Shanmukh<sup>2</sup>****<sup>1,2</sup>Department of Physiology, Andhra Medical College, Visakhapatnam,  
Andhra Pradesh, 530001.****E-mail: ushaprasad6@outlook.com**

**Abstract:** Early Clinical Exposure is a recently started training and teaching method for first year MBBS students to expose them to real world case scenarios right from the beginning to improve the effectiveness of learning and to cultivate the required clinician mindset. This study was conducted to determine the student's perception towards Early Clinical Exposure integrated teaching. The study was conducted in department of physiology at Andhra Medical College, Visakhapatnam. One hundred first year MBBS students were selected based on simple random sampling and divided into two groups of fifty each, namely A and B. Group A and B were taught the topic Basal Ganglia, Group A in traditional Chalk-board and PowerPoint method and Group B in Early Clinical Exposure integrated teaching demonstrating and explaining clinical features on a patient after obtaining written and informed consent from the patient. A second topic Thyroid was taught to both groups, interchanging the teaching methods. To assess the knowledge between two groups a pre-test and post-test were conducted. A 5-point Likert scale questionnaire was used to assess the attitude of students towards ECE. Mean score values were higher in ECE integrated teaching compared to traditional method with significant p value of 0.001. As per the Likert scale 80% of students showed positive attitude towards ECE. Knowledge of students with ECE teaching is much better than the traditional teaching method.

**Keywords:** Early Clinical Exposure, Physiology, Perception, Attitude, First MBBS Students.

## OP 20

**Perception of first year MBBS students towards Early Clinical Exposure in department of physiology****Dr. M. Usha Rani M.D.****HOD, Department of Physiology, Andhra Medical College, Visakhapatnam,  
Andhra Pradesh, 530001.****E-mail: ushaprasad6@outlook.com****Abstract**

**Background:** Early Clinical Exposure is a recently started training and teaching method for first year MBBS students to expose them to real world case scenarios right from the beginning to improve the effectiveness of learning and to cultivate the required clinician mindset. This study was conducted to determine the student's perception towards Early Clinical Exposure integrated teaching.

**Methodology:** The study was conducted in department of physiology at Andhra Medical College, Visakhapatnam. One hundred first year MBBS students were selected based on simple random sampling and divided into two groups of fifty each, namely A and B. Group A and B were taught the topic Basal Ganglia, Group A in traditional Chalk-board and PowerPoint method and Group B in Early Clinical Exposure integrated teaching demonstrating and explaining clinical features on a patient after obtaining written and informed consent from the patient. A second topic Thyroid was taught to both groups, interchanging the teaching methods. To assess the knowledge between two groups a pre-test and post-test were conducted. A 5-point Likert scale questionnaire was used to assess the attitude of students towards ECE.

**Results:** Mean score values were higher in ECE integrated teaching compared to traditional method with significant p value of  $< 0.001$ . As per the Likert scale 80% of students showed positive attitude towards ECE.

**Conclusion:** 80% of students showed positive attitude towards ECE. Knowledge of students with ECE teaching is much better than the traditional teaching method.

## OP 21

**Farm mechanization: For drudgery reduction of farm women and sustainable agriculture****Rajeshwari Desai<sup>1,\*</sup>, Geeta Chitagubbi<sup>2</sup> and Shobha Kasar<sup>3</sup>****<sup>1</sup>Senior Scientist, <sup>2</sup>Senior Scientist and <sup>3</sup>Junior Research Fellow****All India Coordinated Research Project-Women in Agriculture****(Family Resource Management)****Main Agricultural Research Station, University of Agricultural Sciences, Dharwad 580005****\*E-mail: rajeshwarimanohardeasi@gmail.com**

**Abstract:** Women play a key role in agriculture. The increased participation of women's workforce in agriculture demand more emphasis on development of gender-friendly tools, equipment and workplaces. The farm mechanization level of Indian agriculture has increased considerably. The main objective of advances in farm mechanization is to increase the overall profitability, productivity and energy use efficiency with lowest production cost. Apart from this, the technological empowerment of women is also the need of the day. With this background the present study was conducted with an objective to bring farm machinery within the reach of small and marginal farmers by popularizing the use of small agricultural tools and technologies and establishing a 'Farm Tool Centre' at UAS, Dharwad. To achieve these objectives an attempt was made to create awareness among farm women through demonstrations and trainings on proper and safe operation of improved farm tools and machinery. The purposive random sampling method was used to select 100 farm women from two villages of Dharwad taluk viz., Mulmuttal and Uppinbetageri villages of Dharwad taluk from Karnataka state. The pre and post test results of the training programmes revealed that the farm women had less knowledge regarding improved technologies before the training programme and the post test scores revealed that farm women had maximum knowledge gain. The farm tool centre is providing an innovative custom service for improved gender friendly and high-cost farm machinery to reduce the cost of operation on small farms. More than 1000 farmers are getting the benefits from this tool centre. Hence it can be concluded that such training programmes on improved tools/implements & machinery have to be organized to increase the technical knowledge and enhance the farm profitability of the farming community.

**Keywords:** Farm mechanization, Drudgery, Farm women, Farm Tool Centre

## OP 22

**Role of Social Media in Higher Education System****Dr. Vandana Gaur****Associate Professor, Department of Psychology****SDM Govt PG College, Doiwala, Dehradun, Uttarakhand****E-mail: vandanagaur97@gmail.com**

**Abstract:** With the advent of technology, offline medium of communication and interaction has got replaced by online communication medium names as social media..Social media has gained credibility over the years as a reliable source source of information and platform where students can interact with teachers. Human always tries to live in social networks to fulfill his needs. The kind of services available with social include blogs, social networking sites, virtual world content, and media sharing sites i.e. Instagram, you tube etc. Human strives to develop such media which is the fastest communication channel used by individuals for exchanging information from one part to other part of the world within a fraction of second. In the context of education, this media improves students' learning opportunities and expands their opportunities for constant communication with teachers. The importance and influence of social media in the field of education is evident from the fact that Govt. of India is taking initiatives to launch its own educational network. The role of social media in the field of education is demonstrated by the following points:

- Self –paced Learning,
- self-knowledge
- Skill-development,
- Flexibility in learning
- Collaborative learning, Enhancement in student interaction
- Rapid spread of information and higher level of engagement,
- Inclusive learning,
- Geographical distance is no more constrain for attaining educational experience,
- Fast curriculum delivery system,
- 24x7 scope for teacher student interaction.

The bottom line is that social media is a big part of education system and the benefits are obvious starting with healthier student-teacher relationships and all the way to permanently changing the way our students will learn. The function of social media in education is highlighted in this research piece.

## OP 23

**Social Change and Law****Dr Anil Bhatt****Assistant Professor, Department of Sociology****SDM Govt PG College, Doiwala, Dehradun, Uttarakhand****E-mail: bhattanil557@gmail.com**

**Abstract:** Jurisprudence and Sociology are closely related to each other. Jurisprudence is the science of Law and Sociology deals with the study of society including social change. In fact social legislation is a factor of social change and vice-versa. The function of Law is not only to maintain social order but also to bring social change as it influences our behaviour, beliefs and values. However there have been multifarious social changes which have led to the making and enforcement of law. It can be said that both Society and Law are dynamic as they change with time as per the need and pertinence in society. In the pre-independent India social legislations such as Hindu Widow Remarriage Act 1856, female Infanticide Prevention Act 1870, Special Marriage Act 1872, Child Marriage Restraint Act 1929 etc could gain success leading to social changes as they were in line with the trends and demands of the time. On the contrary certain legal enactments' are found to be ahead of demand and acceptability of society and not so aligned with the prevalent public opinion of people at large for e.g. Untouchability Offences Act 1955. This Act made the practice of Untouchability a punishable offence but Harijans still suffer from variety of social disabilities and humiliation. There have been social movements that have majorly influenced parliaments for new legal enactments as they are backed by mass public support and opinion. Therefore law too is affected with social Change and plays an important role in the catering to the social needs by the provision of constitutional amendment and this is the responsibility of judiciary that law which violates the constitutional provisions, public interests and fundamental rights should be done away with. Law plays an important indirect role in regard to social change by shaping have a direct impact on society like setting up a compulsory educational system. On the other hand, law interacts in many cases indirectly with basic social institutions in a manner constituting a direct relationship between law and social change like bringing in a law designed to prohibit polygamy. There have been 105 Amendments in the Indian Constitution so far which clearly showcases the flexibility and reciprocal approach

towards social change as law has to keep itself abreast with social dynamism for the sustenance of a just social order

**Keywords:** Social Change, Law, Jurisprudence, Society, Constitution

## OP 24

**A pilot study to test module on Stroke, as a part of LEAP project for better implementation as adolescent program****Roopa RM<sup>1\*</sup>, Manjula R<sup>2</sup>, and Rashmi Kundapur<sup>3</sup>**<sup>1</sup>Assistant Professor, Department of Community Medicine, MRMC, Kalaburagi, 585105<sup>2</sup>Professor, Department of Community Medicine, SNMC, Bagalkot, 587102<sup>3</sup>Additional Professor, Department of Community medicine and Family Medicine, All India Institute of Medical Sciences, Bibinagar, Telangana, 508126

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**Abstract**

**Introduction:** Stroke, the brain attack, is one among important causes of premature death and disability in low and middle income countries like India. Most readily applicable and affordable part of knowledge on stroke is its prevention. Professional and public awareness regarding identifying correctly signs and symptoms is the first step to action. Childhood and Adolescent are the most important age groups when most of the behaviors are formed. Hence the present study is undertaken to assess the change in knowledge, acceptability and utility of modules among adolescent age group through school based intervention using structured module on Stroke.

**Methodology:** After obtaining permissions, school based intervention study was conducted in 2 English medium schools over a period of 6 months from the sample of 73 students using cluster randomization method to select the class. Data was collected using validated pretested questionnaires to check the knowledge and on need of knowledge and interest towards Stroke. Post-test was taken after 3 months the intervention. The data on acceptability and utility of the module was also collected from the students. The data was analysed in terms of proportions, means and standard deviation and significant tests were applied.

**Results:** Of the total 73 student participants 84% were boys. Post intervention knowledge scores showed significant change ( $<0.05$ ) among both boys and girls in both the schools. 53.4% students strongly agreed that awareness improved. 73.9% students strongly agreed that understanding the topic was good and 71.2% agreed that module was easy to comprehend. Difficulty rating was rated 4-5 out of 10 score by majority (85%) of the students.

**Conclusion:** The present study through school based intervention using structured module on Stroke among the students revealed that it has significant effect on improving knowledge and attitude. Further the module is acceptable and can be utilized to bring awareness among all the adolescents.

**Keywords:** stroke, adolescents, school, module.

## OP 25

**Post recovery experience among COVID-19 patients: A population based study done in Mangalore, India****Dr. Nitin Joseph,****Associate Professor, Dept. of Community Medicine,****Kasturba Medical College, Mangalore, Karnataka****E-mail: drnitinjoseph@gmail.com****Abstract**

**Objectives:** To study the experiences and the various persistent morbidities faced by the people during the post recovery phase following COVID-19 disease.

**Methods:** This population based cross-sectional study was conducted in Mangalore in March 2022. Data were collected using a semi-structured questionnaire designed as a Google Doc. Post COVID-19 conditions was defined as adverse health consequences that was returning, new or were persistent beyond 1 month after SARS-CoV-2 infection. The experiences in the post recovery phase in COVID-19 were assessed based on a scoring system for related items in the questionnaire.

**Results:** 204(86.8%) out of 235 participants reported post COVID-19 conditions within the first 6 months following Corona virus infection. Majority of them reported fatigue [114(55.9%)]. Self-perceived health status and social relationships were significantly poor among participants in the post COVID-19 phase compared to the period prior to infection. In the multivariable analysis, unmarried/divorced/widow status, staying within city limits, and severe COVID-19 requiring hospital admission were independently associated with presence of post COVID-19 conditions among the participants. In multiple linear regression analysis, tobacco chewing status, severity of COVID-19 symptoms, and being admitted in the hospital for various COVID-19 related emergencies were associated with number of post COVID-19 conditions among participants who developed the same. COVID-19 severity status was associated with a positive experience in the post recovery period among the participants.

**Conclusion:** Considering the varied problems experienced by COVID-19 patients in the post recovery phase a multi-disciplinary care and rehabilitation program is required for their long-term management.

## OP 26

**Metal Ions and Chelates in Medicine****Shallu Sachdeva****Associate Professor, Acharya Narendra Dev College****Delhi University, Delhi****E-mail: shallusachdeva@andc.du.ac.in**

**Abstract:** Metal ions are an essential part of the biological system. The study of metal ions in biological system is called bioinorganic chemistry. Metal ions are present in the biological system and also are introduced into it. Metal ions introduced into the biological system are the essential ones. Excess and deficiency of metal ions causes toxicity which needs to be overcome, since the metal ion concentration in the biological system should be within fine limits. Apart from this, metal ions are also present in antitumour drugs and in antibiotics. The biological parameters to study the effectiveness of a drug however should be taken into consideration before formulating such a drug. The antitumour drugs generally involve Platinum as the metal ion and its interaction with DNA is studied since tumour is formed due to the uncontrolled division of cells. The two isomers of cis platin, which is the anti tumour drug containing platinum, have different mode of action, one isomer being preferred over the other in terms of more efficiency and less toxicity. Thus, metal ions apart from being present in a number of enzymes and catalysing important metabolic reactions in the biological system, are also serving as constituents of drugs.

## OP 27

## Gaussian Modelling of Solar Flares

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**Abstract:** Solar Flares are the eruption of intense high energy electromagnetic radiation from the sun originating from the release of immense magnetic energy associated with sunspots. In this study we are interested in solar flares of upper X class (Intensity,  $I > 10^{-4}$  W/m<sup>2</sup>) and M class ( $I \sim 10^{-4}$ - $10^{-5}$  W/m<sup>2</sup>). Solar flares of such high intensities can impact radio communications, electric power grids, navigation signals and can threaten astronauts and spacecrafts. To reduce the damage to technological infrastructures on earth, a prior intimation about the occurrence of solar flares would be highly advantageous. This work is focussed on developing a robust and predictive model which provides a timely alert about the nature and time of upcoming solar flares based on the data of previously occurred solar flares. We analysed the measured intensities as per data recorded by **GOES** (*Geostationary Operational Environmental Satellite*) observatory of the upper X class and M class solar flares for three cycles in time domain. We also investigated the frequency of occurrence of the flares with *respect to the* number of days. By considering the gaussian model as a prior  $f(x) = A \exp(-(x-a)^2/2\sigma^2)$ , we determined the values of the model parameters  $A$ ,  $a$  and  $\sigma$  using the chi square minimisation method for all the three curves of solar flares. The gaussian curves in our work show a reasonably good fit with the data set and can be used to give an estimate about the occurrence and nature of the future solar flares which would help in better preparedness to deal with its effects.

**Keywords:** Solar flare, Sunspots, Gaussian model, Chi square minimization, GOES

## OP 28

**The Need of the Hour of Pragmatic Research to Unmute Fully to Menstruated Females****Dr. B.S. Parimal and Kavita Gupta****Assistant Professor, Department of Psychology, Maharaja Sayajirao University of Baroda,  
Vadodara (Gujarat), India****E-mail: kavita.gupta-psy@msubaroda.ac.in**

**Abstract:** The present mixed method study examines the premenstrual experiences and coping behaviors of college students in two phases. The first phase was the Quantitative phase, the objective was to explore the relationship between psychological distress, perceived social support, and coping behaviors in Premenstrual phase among 228 college students pursuing BA in Psychology at the University in Vadodara. The data in the survey was collected through self-reported standardized tools. The second phase was the Qualitative phase where the objective was to examine and explore the participant's experience of coping behavior and social support during Premenstrual phase. In the second phase, 8 in-depth interviews through semi-structured questionnaire were conducted. In Quantitative phase, it was observed that there existed a significant negative relationship between Social support and Levels of PMS distress; and adaptive Coping behaviors and levels of PMS distress. Moreover, there existed a significant positive relationship between Social support and adaptive coping behaviors among college students.

In Qualitative data analysis, two major themes were consistently identified reflecting participant's strategies of premenstrual self-regulation and coping: *'Self-monitoring and awareness: recognition and acceptance of premenstrual change'*; *'Coping through self-regulation of premenstrual distress', including: 'avoidance of stress and conflict', and 'care of the self'*. These findings challenge the view of PMS as a fixed unitary syndrome, suggesting that premenstrual change is an ongoing process of negotiation, in which women are agentic subjects. This has implications for therapists working with women reporting moderate-severe PMS, suggesting that the reframing of 'symptoms' as normal change, behavioural coping strategies, and self-monitoring, can effectively reduce premenstrual distress.

**Keywords:** PMS; social support; coping; self-regulation; psychological distress; qualitative and quantitative research

## OP 29

**Herbs: Therapeutic or Harmful?****Dr. Anjana Verma****Department of Botany, Patna Women's College, Autonomous****Patna University, Patna-800001, Bihar****E-mail: anjana.nath.verma@gmail.com**

**Abstract:** The use of herbal medicinal products and supplements has increased tremendously over the past three decades. Although therapies involving these agents have shown promising potential with the efficacy of good number of herbal products but many of them remain untested. Inadequate knowledge of their constituents, potential adverse reaction, over use, interaction with existing orthodox pharmaceuticals and irrational use as food supplement have caused severe and harmful results. Since safety continues to be a major issue with the use of herbal remedies, it becomes imperative, therefore, that relevant regulatory authorities should work in this direction to protect public health by ensuring that all herbal medicines are safe and of suitable quality. This review discusses toxicity related issues and major safety concerns arising from the use of herbal medicinal products. This is very challenging as it is a common belief among people that “herbal means safe”, but it is highly pertinent and need of the hour to evaluate each and every herbal supplements before providing a clean chit to all herbal products.

**Keywords:** Herbal, Therapeutic, toxicity, medicines, Food supplements, Safety concern, efficacy.

## OP 30

**An Improved Estimation of Population Mean in Agricultural Survey by USING Sample Size Information****Shiv Shankar Soni****Research Scholar, Department of mathematics and Statistics****DDU Gorakhpur University, Gorakhpur, UP****E-mail: sonishivshankar@gmail.com**

**Abstract:** The present Manuscript is about to the problem of estimation of Population Mean of the variable under study  $Y$  (say) with the use of the information on the auxiliary variable  $X$  and sample size  $n$ . It is observed that the sample size is an important characteristic for estimating population parameters in context of Scio-Economic Survey. It is well known fact that precision of the Estimator of population parameter is influenced by sample size. In this Manuscript, we are suggesting a ratio type estimation method which is more efficient than existing method of estimation. The expression for the Bias and MSE is obtained up to the first order of approximation. An efficiency comparison is done between the proposed estimators and other existing estimators. To support the theoretical findings an empirical study is done.

**Keywords:** Auxiliary Variable, Sample size, Bias, MSE.

## OP 30

**The existentialism of Artificial Intelligence in the revolution of Organizational Development****Dr. Dhyanadipta Panda****Assistant Professor-II****KIIT Deemed to be University, Bhubaneswar, Odisha****E-mail: dhyanadipta.panda@gmail.com**

**Abstract:** From the primitive, technology has been one of the most important and vital functioning elements in each and every organization. Computers have found a new base to the organizational development era while technology acts as its important infrastructure that not only supports it to the fullest but uplifts it towards its prime. Artificial Intelligence (AI) of machine language has revolutionized the organization forthcoming from the top to the bottom in a fully idealized manner. Artificial Intelligence is like the language of computers to automatize the processes which earlier required quite a lot of amounts of human resource involvement. This not only minimizes time and saves human resource management, but also makes complex tasks which seemed impossible at a certain point of time, complete within some fraction of seconds. In the Human resource management (HRM) field, artificial intelligence acts as a boon that solved problems which were a major concern a few years ago. Starting from managing the whole workforce of an organization in a systematic manner till contributing into the innovative developmental ideas that act as the vital factors during the developmental course of period. In this article, the essentialism of Artificial Intelligence in the field of Human Resource Management has been successfully depicted. The challenges previously in the field of HRM, the ways in which AI helped HRM to develop from its primitive state and the essential integration of various factors that initiated the forthcoming of human Resource management into the most important sector in any organization, are discussed in this paper. An overall idea of the indulgence of Artificial intelligence and its very vital role in the field of developmental progress of organizations which is now, one of the most trending points of interest, is fully discussed and analyzed clearly in this paper.

**Key words:** Technology, Artificial Intelligence, Human Resource Management, Automation, essentialism.

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## OP 31

**Study of Contribution of Macro-Nutrients in Chickpea Yield****Swati D. Shinde, V. S. Wani, M. R. Patil and Kranti B. Patil****Assistant Professor, Dept. of Statistics, MPKV, Rahuri****E-mail: watidshinde@rediffmail.com**

**Abstract:** The fertilizer prescription equation for Chickpea with and without Farm Yard Manure on Inceptisol was developed in the AICRP on Soil Test Crop Response Scheme, Dept. of Soil Science and Agril. Chemistry, Mahatma Phule Krishi Vidyapeeth, Rahuri during 2018. Farm Yard Manure (FYM) acts as a complimentary to deficient nutrients or supplementary for the additional contribution to support the availability of major nutrients because of the decomposition in the soil. The direct contribution of FYM in control plot is 73 per cent; while, the contribution of FYM, chemical fertilizer Nitrogen, Phosphorus were 24, 15 and 15 per cent respectively in treated plot. The Chickpea yield ( $q\ ha^{-1}$ ) was increased 124.65 percent with the application of FYM  $10\ t\ ha^{-1}$  over no application of FYM. It was found that for increasing use efficiency of added nutrients, maintaining soil health and avoiding the mining of soil nutrients, it is recommended to apply the chemical fertilizers as per yield target (STCR) approach for chickpea grown on Inceptisol soil.

**Keywords:** Chickpea, direct and indirect path coefficients, correlation coefficient, macro nutrients, FYM, Inceptisol soil, STCR.

## OP 32

**Quality of Intervention in Early Childhood Care and Education for Children with Intellectual Disabilities in the State of Uttar Pradesh****Sushma Singh<sup>1\*</sup> and Dr. Sushanta Kumar Roul<sup>1</sup> and Dr. Mrutyunjaya Mishra<sup>2</sup>**<sup>1</sup>Amity Institute of Education,  
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**Abstract:** Many children with intellectual disability live with medical comorbidities. This study examined the impacts of comorbidities on quality of life (QOL) of children with intellectual disabilities and whether impacts varied with caregiver perceptions that medical needs had been met. The disability is a life-long condition that can only be managed. This paper examines the place of early childhood education in enhancing the quality of life of persons with intellectual disabilities. Early childhood education is given as soon as possible to tackle problems with disability in children, or to assist children that are at risk of developing intellectual disabilities. The relevance of early childhood education/intervention in the development of educational and daily living skills by children with an intellectual disability is equally examined. Challenges facing early intervention for children with intellectual disabilities are discussed. Federal and state governments should provide early intervention centres in every local government area in the country for easy access to the services. Economic empowerment should be provided for indigents parents of children with intellectual disabilities to be able to provide for their children.

**Keywords:** Early Childhood Education, Children, Intellectual Disability

## OP 33

**A snapshot of socio-demographics and utilization of maternal health services in urban slum settings in India - a preliminary data representation****<sup>1,2</sup>Dr. Rahul Shrivastava\*, <sup>3</sup>Dr. Manmohan Singhal\*, <sup>4</sup>Dr Ashish Joshi, <sup>5</sup>Dr Nivedita Mishra, <sup>6</sup>Neeraj Kashyap, <sup>7</sup>Pragati Srivastava, <sup>3</sup>Dr Bhavna Kumar****<sup>1</sup>Biotechnology Industry Research Assistance Council (BIRAC), National Biopharma Mission, Department of Biotechnology, New Delhi - India****<sup>2</sup>Ph.D. scholar, Population Health Informatics, DIT University, Dehradun – India****<sup>3</sup>Associate Professor, Department of Pharmacology, DIT University, Dehradun – India****<sup>4</sup>Dean, The University of Memphis, The University of Texas Health Science Centre at Houston, Memphis, Tennessee, USA****<sup>5</sup>Consultant, ECHO India, New Delhi – India****<sup>6</sup>Deputy Director, The INCLEN Trust International, New Delhi – India****<sup>7</sup>Analyst Level Personnel (Remote sensing & GIS expert), Mahalanobis National Crop Forecast Centre, New Delhi – India****\*E-mail: rahul.shrivastavamph14@gmail.com; manmohan.singhal@dituniversity.edu.in****Abstract:**

**Background:** Utilization of maternal healthcare services has major influences on maternal mortality rate. Although there are number of studies looking into demographic and socioeconomic factors; and disparity in distribution and utilization of services between rural and urban, there is a paucity of studies focusing on urban slums.

**Objectives:** To examine trends and determinants of utilization of maternal healthcare services during antenatal period in urban slums including estimates of fertility, family planning practices, dietary practices, quality of health and impact of Covid on pregnancy.

**Methods:** This cross-sectional survey was conducted in four urban slums of South Delhi, between April and June 2022 amongst pregnant women (aged 18-44 years). Data were collected electronically using SOMAARTH tool on an android-based platform, adopted from National Family Health Survey (NFHS-5) from 250 currently pregnant women visiting Anganwadi centres. Detailed methodology was adopted from study protocol [doi: 10.2196/35452].

**Results:** Out of 250 women, 98% were less than 40 years of age and 169 (67%) were less than 28 years of age. 93% of sample population was educated; 23% being graduates. 234 (93%) were homemakers while remaining engaged in various occupations. Of 250 women, 54% had borne

children, and 82% of them had a single child. While all the respondents had knowledge of antenatal services, only 2.8% had a high level and majority (78%) had medium level of knowledge. Only 47% (118) women had exposure to media and only 51% adopted some form of family planning. While all women had antenatal check-ups, 98%, 97%, and 94% had received iron and folic acid, tetanus toxoid and ultrasound examination, respectively during the present pregnancy. Only 2 (15.4%) women had Covid exposure during pregnancy.

**Conclusions:** This preliminary study indicates that exposure to media and adoption of family planning continues to be low. However, majority had knowledge of ANCs, and all had accessed ANC services. Therefore, comprehensive strategies need to be planned to improve women education, and awareness about importance of MCH during ANC period. Also, public health infrastructure needs to be strengthened utilization of maternal services. Detailed statistical analysis of data obtained would be conducted.

**Keywords:** antenatal care, pregnancy, urban slums, e-data, India

## OP 34

**A systematic review on Convolvulaceae plants with central nervous system efficacies****Nithya Karnam****Research scholar, pharmacology, vinayaka missions research foundation,salem****E-mail: nithyasree13@gmail.com**

**Abstract:** Central nervous system (CNS) illnesses show a chief influence on individual lives and place a severe strain on health care funds. Convolvulaceae is a family including about 1,600–1,700 species gathered in 55–60 genera, and numerous species are described to have a result on CNS roles. A systematic review of the literature studies was carried out to summarize available indications on Convolvulaceae plants with CNS efficiencies. This review is based on numerous databases such as Google Scholar, Web of Science, Scopus, PubMed, and Wanfang Data. Bestowing to the research outcome, 54 Convolvulaceae species are optional to display CNS efficiencies factually, and 46 species have been assessed for their CNS efficiencies. Despite great development made through pharmacology and phytochemistry studies on CNS active Convolvulaceae species, more exploratory research is needed to gain a better understanding of the CNS efficacies of this plant family.

**Keywords:** CNS efficacies, Convolvulaceae, ethnopharmacology, pharmacology, phytochemistry

## OP 35

**Manufacturing of Cobalt-Chromium Particulate Composite PLA Filament for Biomedical Applications****Prabhash Chandra Katiyar<sup>1\*</sup>, Bhanu Pratap Singh<sup>1</sup>, Munish Chhabra<sup>2</sup> and Dattatraya Parle<sup>3</sup>**<sup>1</sup>Maharishi School of Engineering & Technology, Maharishi University of Information Technology, Lucknow, Uttar Pradesh, India – 226013<sup>2</sup>Department of Mechanical Engineering, Moradabad Institute of Technology, Moradabad, Uttar Pradesh, India – 244001<sup>3</sup>Nuclear Advanced Manufacturing Research Centre, Rotherham, South Yorkshire, United Kingdom – S605WG

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**Abstract:** The process of 3D printing involves layer by layer material deposition to create a three-dimensional part. In 3D printing, a variety of materials are used, including ceramics, polymers, and metals. Polylactic acid (PLA) is most popular polymer filament used by Fused Deposition Modeling (FDM) based 3D printing users. Since PLA is a biodegradable plastic, it has a major advantage over other traditional plastics along with some drawbacks such as 3D printed PLA parts are brittle. Moreover, 3D printing using PLA is revolutionizing biomedical industry as PLA is biocompatible. Despite biocompatibility and safety of PLA in biomedical industry, insufficient mechanical strength, as well as inappropriate degradation rate, necessitates further research in this field for improvement. Many researchers have attempted to alter the brittle nature of PLA by various methods such as using different raw materials, altering manufacturing processes and using additives in PLA. Composite PLA filament is viewed as one of the viable options to overcome some of the drawbacks of pure PLA filament in biomedical applications. Recently, numerous attempts have been made to enhance the bio-performance and other properties of PLA using particulate composites of PLA. Different biocompatible metallic particles have shown different enhancements in 3D printed parts using particulate composites PLA for biomedical applications. However, 3D printing using particulate composite PLA filament is challenging as filament breakage and nozzle clogging may occur during 3D printing. Literature review indicates that none of the previous work used two different metallic particles simultaneously to in particulate composites of PLA filament. Besides none of the previous work reported use of bioinert metals such as Cobalt (Co) and Chromium (Cr) particles in particulate

composites of PLA. Therefore, the objective of this work is to manufacture particulate composite of PLA filament of 1.75 mm diameter containing Co and Cr particles followed by investigations on load, microstructure and challenges of 3D printing using low-cost 3D printer.

**Keywords:** 3D Printing, Fused Deposition Modeling, PLA Composite, Biomedical Applications

## OP 36

**Giloy- A ray of hope, when world was threatened during corona Pandemic: A study****Anjula****Research Scholar, Department of Botany****Maharishi University of Information Technology, Lucknow****E-mail: dr.satishkgmu@gmail.com****Abstract**

**Introduction:** Treatment and management for SARSCOV-2 was doubtful in the initials of the corona pandemic. Health system was preparing itself to tackle with the rapidly evolving pandemic. The potential of Ayurveda, which is one of the 5000 year old branch of traditional Indian medicine (TIM) system, employing medicines obtained from plants and other natural sources, for SARS COV 2 has been explored by this comparative and open label retrospective study.

**Methods:** Here we reported the medicinal effects of Ayurvedic medicines along with Allopathic drugs on 50 COVID-19 patients with mild symptoms, in one of the hospital of the Lucknow. The cases were diagnosed for COVID-19 infection by RT-qPCR of nasopharyngeal swabs and throat swab. Informed consents was taken from the patients, and the data was categorised into 'Allopathic plus Ayurvedic' (n = 25) and 'Allopathic only' (n = 25) groups, on the basis of type of therapy the patients decided to receive, that is Ayurvedic along with Allopathic medicines or Allopathic medicines only, respectively. Ayurvedic medicines were given in oral forms extract of *Tinospora cardifolia*. The Allopathic drugs given were Acetamphinone, Vitamin C, Zinc, Azithromycin, Ivermectin and anti-histamines. All patients of both the groups were observed for symptomatic releif.

**Results:** The key outcome of this research was the symptomatic improvement from SARS COV 2. Data were gathered for a period of one month, showed more number of patients exhibiting symptomatic relief in Allopathic plus Ayurvedic' (80.33 %) than in the Allopathy group (60.78 %) within the first 10 days of treatment. There was no any significant side effect observed. This was found that early and safe symptomatic relief among patients treated with Ayurvedic plus Allopathy medicines.

**Conclusion:** Covid-19 patients receiving Allopathic along with Ayurvedic medicines on average were symptomatically improved faster in comparison to those receiving Allopathic medicines only.

**Keywords:** *Tinospora cardifolia*, SARS COV-2, Ayurveda, Allopathy.

## OP 37

**Quantum Chemical and Molecular Docking Studies of Derivatives of 6,6-dimethyl-3-azabicyclo[3.1.0] hexane-2-carboxamide against Main Protease 3CLpro of SARS-CoV-2 Viral Infection**

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**Abstract:** In the reported study, three derivatives of 6,6-dimethyl-3-azabicyclo[3.1.0] hexane-2-carboxamide were designed using Fragment Based Drug Designing (FBDD) method. To understand their materialistic behaviors, the physical and chemical properties of the compounds were studied in quantum chemical system by implying ab initio method. Further, QSAR analysis involving drug-likeness properties and ADMET is studied to gain insight about the biological behavior of the hit compounds. Molecular docking calculations were carried out to investigate the interaction between derivatives of 6,6-dimethyl-3-azabicyclo[3.1.0] hexane-2-carboxamide against 3CLpro of SARS-CoV-2. On comparing the docking results, it was found that the three designed compounds possess 37.16%, 39.31% and 38.26% better binding affinity as compared to Boceprevir against 3CLpro main protease of SARS-CoV-2, respectively. Best docked complex was selected for molecular dynamic simulation which was performed at 100ns. The system attained equilibrium after 3ns and the RMSD was observed within the range of 1.50-4.23Å. Other calculations involving hydrogen bond analysis and MM-PBSA signifying the strength and stability of the complex in the binding cavity, it was found that our complex is 70.79% more stable than Boceprevir. Therefore, these results can be used in future to synthesize compounds in laboratory followed by their clinical trials.

**Keywords:** FBDD, AutoDock, Boceprevir, Main Protease 3CLpro, SARS-CoV-2.

## OP 38

**Non-Pharmacological Intervention Approaches for Common Symptoms in  
Advanced CKD patients on haemodialysis: Narrative Review****Gulshan Roy Chowdhury<sup>1</sup> and Dr. Yogesh kumar<sup>2</sup>**<sup>1</sup>Ph.D Scholar of MMU & faculty of College of Nursing<sup>2</sup>Principal, MMIN, Mullana, Ambala.

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**Abstract:** Patients with advanced chronic kidney disease (CKD) experience many bothersome symptoms, affecting their quality of life (QOL). The majority of these patients do not have the opportunity to receive a kidney transplant and need other treatments for these burdensome symptoms in order to improve their QOL and prognosis. With growing attention to the significance of symptom management in advanced CKD on haemodialysis, the evidence regarding symptoms is increasing. In this review, we briefly summarize the current evidence of only non-pharmacologic interventions to improve symptoms and QOL in patients with advanced CKD, on dialysis. We focused on symptoms that are commonly experienced by patients, such as pain, fatigue, sleep disturbances, itching, nausea and vomiting, cognitive impairment, and anxiety and depression. We noted that research in symptom focused on improving symptom management in CKD is still very limited. In addition to the lack of clinical practice guidelines to address those common symptoms, the evidence to how to incorporate effective symptom intervention approaches into clinical care is also rare. Although improving mortality remains as an important area in the kidney community, there is an urgent need to focus on improving symptom management to improve QOL in advanced CKD on haemodialysis.

**Keywords:** chronic kidney disease; dialysis; quality of life; symptoms; Fatigue; Pain; Malnutrition; Sleep disorders; Nausea and vomiting; Depression and Anxiety; Non-Pharmacological Intervention approaches.

## OP 39

**Positive and Negative Impact of GST: A Study among Retailers in Kollam district****Varna Sabu.V<sup>1</sup> and Dr. R. Rathiha<sup>2</sup>**<sup>1</sup>Research Scholar<sup>2</sup>Associate Professor**St. Johns College of Arts and Science, Ammandivilai, Affiliated to Manonmaniam Sundaranar University, Abishekapatti Tirunelveli, Tamilnadu, India, 627012****E-mail: varnasabu31@gmail.com; rathihaedwin@gmail.com**

**Abstract:** Retail industry is flourishing day by day and become one of the largest industries in the world. Growth of retail sector in India paved way for GST era. GST came into effect from 1<sup>st</sup> July 2017 in order to eliminate cascading effect of taxes on goods and services. GST impacted retail industry in both positive and negative way. GST changes the dynamics of retail sector in India in various ways such reduced taxes, increased supply chain efficiency, incumbent increase of cost of some goods and services, use of IT ecosystem etc. Additionally e-way bill and e-invoice procedures cause more distortions in retail sector. This study covers both positive and negative impact of GST on retail sector in Kollam district.

**Keywords:** Retail Sector, Goods and Service Tax, Impact.

## OP 40

## GST For Small Traders

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**Abstract:** The Goods and Services Tax (GST) system aims to simplify and clarify taxation for consumers while also bolstering India's economy. Every step of value creation will be subject to this indirect tax based on where the final product will be used. It is a plan to merge all indirect taxes collected by local, state, and federal governments into a uniform national market tax. Since our nation's independence, no tax reform plan has been more ambitious than this one. Advantages in the form of input tax credits were also planned for enterprises who registered for the GST. Our prior research has shown that GST has the potential to significantly improve the current tax system by introducing uniformity and increasing transparency. The results of this survey demonstrate, however, that merchants and consumers have a positive opinion and acceptance of GST, which is excellent news when thinking about the short-term implications of GST. Goods and Services Tax (GST) has been in force instead of a plethora of indirect taxes. This tax overhaul is the most significant in India's history. The primary goal of implementing GST in India is to eliminate the country's complex web of indirect taxes, as well as the resulting cascading impact and tax burden. GST, as the name suggests, is applicable on both goods and services. The Goods and Services Tax (GST) is a consumption tax levied on consumers upon the provision of goods and services. All vendors and service providers must collect GST. There are two main groups of people that would be affected by GST: the business and the customers. The primary goal of the research is to assess the extent to which small businesses are cognizant of GST and its effects. With GST, all transactions are recorded centrally and in accordance with the same set of laws in every state.

**Keywords:** Goods and Service Tax (GST), Small Traders, Impact, Awareness, Challenges.

## OP 41

**Impact of E-Commerce on Indian Economy in the Modern Era****Shivangi Singh****Research Scholar in Commerce****APS University Rewa, M.P.****E-mail: shivangisingh54@yahoo.com**

**Abstract:** E-commerce is booming in today's economic world. E-commerce is the term used to describe online transactions. E-commerce represents a paradigm shift that has implications for both customers and marketers. E-commerce is more than just a fresh approach to grow an existing company's activities. It signals a fundamental shift in how businesses operate. Although the idea is commonly used in modern corporate contexts, further research hasn't been done on it. It was expected that the e-commerce market would enjoy a commensurate uptick given the exponential growth of the internet and online infrastructure in India. The solid foundation needed for e-commerce is provided by rising internet penetration rates and expanding organized sector dominance in retail markets. Because of the Corona Virus Disease of 2019 (COVID-19), which affected every aspect of our existence, 2020 will be remembered in history. The Covid-19 pandemic has significantly changed the e-commerce sector. The epidemic has brought both advantages and disadvantages to the sector. Online shopping is more popular since it can be safer for preventing the transmission of disease. According to statistics, the ecommerce sector as a whole is experiencing increased revenue growth. The e-commerce sector is employing a variety of strategies to offset the negative effects that the Covid-19 outbreak had on internet sales. The economy won't ever be the same as it was before to COVID-19. This study aims to describe the condition of e-commerce in India at the moment.

**Keywords:** E-commerce, COVID, Economy, Digital commerce.

## OP 42

**The Impact of Covid-19 on Tourism Industry in Kerala****Anshaj A<sup>1</sup> and Dr. M. Edwin Gnanadhas<sup>2</sup>**<sup>1</sup>Research scholar, Department of Commerce<sup>2</sup>Principal

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**Abstract:** Kerala the tourism industry has been a huge supporter of the economy of Kerala for quite a long time with income of Rs. 45019 crores to the sector in 2019 and giving work to around 1.5 million individuals, directly or indirectly. Kerala is the first state in quite a while announces the tourism as an industry. The travel industry sets up 10% of Kerala's GDP, according to true insights, and reportedly contributes around 23.5 percent total employment in the state. Even as the tourism industry in the state was recovering from the dip in footfall following the 2018 flood and the Nipah virus scare, it has collapsed again with the COVID-19 outbreak. The first case of the COVID-19 pandemic in Kerala (which was additionally the first in the entirety of India) was affirmed in Thrissur on 30 January 2020. The main objective of this study is to find out major impact of Covid- 19 on Tourism sector and to study major challenges faced by the tourism stakeholders due to Covid-19 pandemic.

**Keywords:** Covid-19, Lockdown, Stakeholders of tourism industry

## OP 43

**Recent advancements in the chemistry and pharmacology of imidazoles and substituted imidazoles****Naghmi Nigar Siddiqui and Amrita Srivastava\*****Department of Chemistry, University of Lucknow, Lucknow UP, India****E-mail: amrita.sri18@gmail.com, naghminigar@gmail.com**

**Abstract:** Imidazole is a major source of interest for many of medicinal chemist to explore its various pharmacological potentials since it is being synthesized in many of its derivative form from past few years. In present article, we understand the chemistry of imidazole and its pharmacological actions as antihelmintics, anticancer, antifungal, anti-protozoal and antiinflammatory agent by studying its various synthesized derivatives such as Tinidazole and Ornidazole. 5-Nitro imidazole derivatives have been used in the treatment of various intestinal protozoal infections for many years. Among these agents, Tinidazole is a common antiprotozoal agent that is used worldwide, while ornidazole is a relatively new derivative that is used in some countries in treating particular protozoal infections, and that has higher patient compliance because of its longer half-life. Imidazoles are, by far, less sensitive in extra intestinal parasites (particularly intravascular and intestinal dwelling parasites than gastrointestinal parasites). Thus, we can say imidazole moiety had been exploited in the past years for synthesizing various compounds having different and diversely vast pharmacological activities. It can still be further utilized for future prospective against various pathological conditions and other uses.

**Keywords:** Imidazoles, Anti-Cancer, Medicinal, Anti-helmentics, Anti-inflammatory

## OP 44

**Powerful Pandemic insights through Namita Gokhale's "The Blind Matriarch"****J.S. Jehu Raju<sup>1</sup> and Prof. V.B. Chitra<sup>2</sup>**<sup>1</sup>Research Scholar in English, Jawaharlal Nehru Technological University, Anantapur<sup>2</sup>Professor of English & Head, Jawaharlal Nehru Technological University, Anantapur

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**Abstract:** The paper explores the life of a joint family that passes through the apocalyptic era, the lockdown of that trying and unprecedented time that India had ever witnessed. Matangi-Ma the eponymous character of The Blind Matriarch helps the whole family to reexamine their life and purpose. She enables the family to reconcile with old secrets and form new ties. The novel is an epitome of resilience of the human spirit seen through the characters of Matangi- Ma, Shanta, Suryaveer, Satish, Ritika, Rahul and Samir. Gokhale with her skill of introspective writing examines the truths retrospectively. The novel depicts undigestible realism, the sense of 'suspended animation' and disconnection felt during COVID-19. It puts bare the events of the plight of the migrant laborers and the prevailing helplessness of the general public, loss of jobs, breaking down of the tourism industry. The novel also explores the search for identity through the character of Samir, who is an adopted son of Suryaveer. He is the special person in the joint family. As the fate had it, and as the time unfolds, his identity is disclosed by Suryaveer. It's the strangest and mysterious story that Samir reunites with his paternal uncle. The novel is noticeable for its weft of the queerness of our times against the backdrop of the woof of multiple back-stories of a joint family living under one roof. Its Gokhale's earliest reaction to the new normal brought about by curfews, containment zones, extended lockdowns, self-isolation fear and panic-stricken situation.

**Keywords:** Lockdown, joint-family, resilience, introspective, retrospection, reconciliation, realism

## OP 45

**Sulphonamide analogs of isatin as antimicrobial agents****Aditya Kumar Yadav, Nand Kumar Ram, Rupa Raj, Jayati Dwivedi, Prashant Singh,  
Yugandhar Maurya and Ramendra K Singh\*****Bioorganic Research Laboratory, Department of Chemistry****University of Allahabad Prayagraj-211002, India****\*E-mail: rksinghsrk@gmail.com**

**Abstract:** As bacteria have been discovered to be capable of developing resistance to the majority of antibiotics being used in clinical settings, bacterial infections have recently become a severe issue to deal with. The current focus has been on creating antibacterial medicines with improved therapeutic potential and advantageous pharmacological characteristics. Peptide Deformylase (PDF) is an essential metalloenzyme that removes the formyl group from methionine at *N*-terminus of nascent polypeptide chain followed by protein mutation. All pathogenic bacteria express this protein. Novel isatin derivatives that are likely antibacterial agents have been designed and synthesized. The molecules have been examined for their *in silico* biological activity and stability by using Biovia Discovery Studio v20.1.0.19295. The docking studies showed that all compounds formed hydrogen bond with amino acid Gly89, Cys90, Glu95, Arg97, His132, Gly43 at a distance of 2.58 – 3.20 Å and also exhibited  $\pi$ - $\pi$ ,  $\pi$ -cation,  $\pi$ -anion interactions with Arg97, Glu42, His132. On the basis of *in silico* studies, some novel molecules are conceived and synthesized as effective antibacterial agents.

**Key Points:** PDF, *In-silico*, isatin, antibacterials

## OP 46

**Molecular Docking Studies of Phytochemicals of *Datura stramonium* Against Tropinone reductase (2AE1) Enzyme****Zoya Amreen<sup>1</sup> and Meenakshi Singh<sup>2\*</sup>**<sup>1</sup>Department of Chemistry, Lucknow University, Lucknow-226007, UP, India<sup>2</sup>Departments of Chemistry, Isabella Thoburn College, Lucknow-226007, UP, India

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**Abstract:** *Datura stramonium* is a medicinal factory used traditionally as bio catalytic activity. The main objects of this study are to identify phytochemical composites that have bio catalytic parcels from the splint excerpts of *Datura stramonium* and to search for Tropinone reductase (2AE1) enzyme impediments through molecular docking. From the GC-MS analysis of splint excerpts of this factory, colorful phytochemicals were linked. About 10 of these phytochemical composites were anatomized for their medicine likeliness grounded on Lipinski's rule of five and asset property against the Tropinone reductase (2AE1), a protein responsible for bio catalysis. Tropinone reductases (TRs) are short-chain dehydrogenases/reductases (SDRs) involved in tropane alkaloid biosynthesis. TRs reduce Tropinone stereo specifically either to tropine (3a-tropanol), precursor of neither classical tropane alkaloids like hyoscyamine and scopolamine, or to pseudotropine (3b-tropanol), precursor of nor tropane alkaloids e.g. calyste genes. The phytochemical composites which satisfy the Lipinski's rule similar as 1H-Benzocycloheptene,-hexahydro-, (R) and Sulfurous acid, dipentyl ester were subordinated to docking trials using Bus Wharf Vina. The results from molecular docking study revealed that 1H-Benzocycloheptene,-hexahydro-, (R)-, Sulfurous acid, dipentyl ester and-Benzene dicarboxylic acid, bis (2-methylpropyl) ester bind effectively to the active point region of 2AE1 with a list energy of -8.9, -8.4, and -7.9, independently. The list energy of the phyto- composites were compared with the known medicine validamycin that inhibit 2AE1 enzyme. It was plant that the phytochemical composites from splint excerpts of *Datura stramonium* have strong inhibitory effect on Tropinone reductase enzyme and as a result they've implicit influence the spectrum of tropane esters found in transformed root cultures of *Datura stramonium*. Therefore the study puts forth experimental confirmation for traditional cure and these phyto- composites could be further promoted as implicit lead patch.

**Keywords:** Tropane ester influence, phyto composites, *Datura stramonium*, molecular docking, Tropinone reductase enzyme

## OP 47

**Density Functional Theory Calculations of Ruthenium (II)****Cyclopentadienylthiosemicarbazone****Kavita Dhariyal and Ashok Kumar Singh****Department of Chemistry, University of Lucknow, Lucknow, UP****E-mail: dhariyalkavita@gmail.com**

**Abstract:** The present paper reports the density functional theory calculations of highest occupied molecular orbital (HOMO)-lowest unoccupied molecular orbital (LUMO) energy band gap as measure of reactivity, molecular electrostatic potential surface (MESP) of the Ruthenium (II)cyclopentadienyl based thiosemicarbazones. The HOMO-LUMO energy band gap has been found to be reasonably small 0.13677 eV for RTLS, 0.14636 eV for RTLSN, 0.13275 eV for RTLMS and to predict reactive sites for the electrophilic and nucleophilic attack of the title molecule, molecular electrostatic potential (MEP) at the B3LYP/6-311G (d,p) optimized geometry is calculated. Further it also reports global reactivity parameters like ionisation potential values (0.20244 eV, 0.20962 eV, 0.19660 eV), electron affinity (0.06567 eV, 0.06326 eV, 0.06385 eV) electronic potential values (-0.134055 eV, -0.136735 eV, -0.130225 eV) electronegativity (0.134055 eV, 0.136735 eV, 0.130225 eV), chemical hardness (0.068385 eV, 0.14636 eV, 0.066375 eV), global softness (14.6230 eV, 6.8324 eV, 15.0659 eV) and global electrophilicity index (0.131139387 eV, 0.06387 eV, 0.12774802 eV) for RTLS, RTLSN and RTLMS respectively. Chemical descriptors give an important understanding of chemical reactivity and hence biological activity of the molecule.

## OP 48

**The Significant Role of Religion in Khushwanth's I Shall Not Hear the Nightingale****Sunkesula Venkatakrishnaiah<sup>1</sup> and Dr. V.B.Chitra<sup>2</sup>****<sup>1</sup>Research Scholar; <sup>2</sup>Professor of English****JNTUA College of Engineering, Ananthapuramu****E-mail: venkat114492@gmail.com**

**Abstract:** Khushwanth Singh was a famous Indo-Anglian writer, a spiritualist and social reformer. His second novel I SHALL NOT HEAR THE NIGHTINGALE represented pre-independent India's the background of The Quit India Movement during 1940-42 but it was not a political novel. It entirely revolved around Butta's family members. Butta Singh was a senior magistrate officer in the British government. Sabrai was Butta's wife. She was highly religious woman. His son Sher Singh was a revolutionist. Butta's daughter was Beena and Sher's wife was Champak. The aim of the research paper is to display the vital role of religion in the lives of Sabrai and Shunnoo who was the maid servant in Butta's house. The both of them sought solutions and remedies for their problems and challenges. The novel starts with the religious ritual-the baptism of blood before the Goddess Durga or Kali but he was arrested for the village headman who blackmailed him. After receiving the arrest of her son, she arranged the non-stop reading of holy book Guru Granth. She got message for her son's safe and secure life. At the same time, the woman Shunnoo got ailment from her co-worker for her bullying and beating. Finally she got solution by visiting holy man.

**Keywords:** Religion Holy Secure Challenges

## OP 49

**Corporate Social Responsibility, Environment and Firm's Financial Performance: A Literature Review****Sumant Meena<sup>1</sup> and Parveen Chauhan<sup>2</sup>**<sup>1</sup>Research Scholar, Jagannath University, NCR, Haryana, India<sup>2</sup>Associate Professor, Jagannath University, NCR, Haryana, India

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**Abstract:** This paper aims to present the literature review of recent studies on the relationship between corporate social responsibility and environmental factors' effect on a firm's financial performance (FP) and to provide a path for future research. Using the content analysis method, a total of 50 papers published in renowned journals from 1988-2021 were selected for the review. The purpose of this study is to examine whether corporate social responsibility and environmental factors affect companies' financial performance. The help of this spending creates a positive, negative or no impact on companies' financial performance. The logic of relating Environmental and Social factors with the firm's performance lies in the reasoning that if Environmental and Social factors are significant for explaining the performance then a company is an ethical and responsible company. We found that the contribution of CSR to firm financial performance has received considerable support from the literature. Upcoming research should, therefore, pay attention to the different depending on variables that are likely to affect the studied relationship.

**Keywords:** Corporate Social Responsibility (CSR), Financial performance (FP), Return on equity (ROE), Return on Assets (ROA), Earning per share (EPS).

OP 50

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कुर्तुल ऐन हैदर उत्तर प्रदेश के अली गढ़ शहर में 20 जनवरी 1926 ई0 को पैदा हुई। उनके पिता सज्जाद हैदर यलदरम ऊर्दू के जाने माने लेखक होने के साथ-साथ ब्रिटिश शासन के राजदूत के हैसियत से अफगानिस्तान, तुर्की इत्यादि देशों में तैनात रहे थे। उनकी माँ नजर बिनते-बाकिर भी ऊर्दू की लेखिका थी। वफात 21 अगस्त 2007 को दिल्ली के पास कैलाश अस्पताल, नोएडा भारत 78 वर्ष की उम्र में हुई।

ऊर्दू कहानी के दो अहम सतुन में प्रेमचंद और कुर्तुल ऐन हैदर का नाम है। कुर्तुल ऐन हैदर को ऐनी आपा भी कहा जाता है। प्रेम चंद्र ऊर्दू के रुजहान साज अफखाना निगार थे। जबकि कुर्तुल ऐन हैदर के अफसानों में मौज्जू मवाद तनुव और नया पन पाया जाता है। इबतेदाई तालीम लाल बाग उत्तर प्रदेश मौजुद गाँधी स्कूल से हासिल की अलीगढ़ से हाई स्कूल पास किया। लखनऊ के आई टी कॉलेज से बी.ए. व लखनऊ विश्व विद्यालय से एम. ए. पास किए। फिर लंदन के हीदर लेस आर्ट्स स्कूल में शिक्षा ग्रहण की। हिन्दूस्तान-पाकिस्तान विभाजन 1947 में उनके भाई बहन व रिस्तेदार पाकिस्तान चले गए। पिता के वफात के बाद लखनऊ से कुर्तुल ऐन हैदर भी अपने बड़े भाई मुस्तफा हैदर के साथ पाकिस्तान चली गईं। लेकिन 1951 में वे लंदन चली गईं। वहाँ स्वतंत्र लेखक व पत्रकार के रूप में वह बीबीसी लंदन से जुड़ी-1953 में भारत भ्रमण में आईं। उनके पिता के अभिन्न मित्र मौलाना अबुल कलाम आजाद ने उनसे पूछा कि क्या तुम भारत आना चाहती हो कुर्तुल ऐन हैदर ने हामी भरने की कोशिश करने की बात कही। वे लंदन से भारत आकर मुम्बई में रहने लगीं।

उनकी पहली कहानी छः वर्ष की अल्पायु में ही लिखर थी। वी चुहिया उनकी प्रथम प्रकाशित कहानी थी।

जब वह 17-18 साल की थी तब उनकी कहानी का संकलन शीशे का घर सामने आया।

मो० कमाल अहमद

मो० कमाल अहमद

हबीबपुर, साहेबगंज, झारखण्ड।

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## OP 51

**A Study of Research Methodology****S Sandya Rani****Research Scholar, Department of Commerce and Business Management****Kolhan University (Chaibasa)****E-mail: Sandya.indu@gmail.com**

**Abstract:** Research Methodology is a way to methodically describe the research problem. It might be seen implicitly as a branch of science that studies how scientific inquiry is conducted. In it, we examine the various approaches typically used by a researcher to analyze their research challenge, as well as the reasoning that follows them. It is necessary for the researcher to specify both the approach and the research methods/techniques. A researcher must make various choices when developing a study approach. One of the most crucial decisions is whether to employ qualitative, quantitative, or a combination of the two data methodologies. A methodology explains how a researcher will conduct the study in order to produce accurate, legitimate data that meet their goals and objectives. Researchers need to know how to relate specific research techniques, how to analyze the mean, median, mode or normal distribution or how to increase confidence in indices or tests. They also need to know which of these methods or techniques are significant and which are not, and what they mean, what would they denote, why, and in what way. Researchers also need to understand the fundamental assumptions underlying various methodologies, as well as the standards by which they can decide which occurrences and practices are certain to be linked to specific evils and which ones are not. All of this means that the researcher must tailor his methodology to the issue at hand because it may change from problem to problem.

**Keywords:** Research Methodology, Research Problem, Scientific Inquiry, Research techniques.

## OP 52

**Government Schemes towards MSMEs during Pandemic: An Analysis****Rekha A K<sup>1</sup> and Dr. R.Mabel Sulochana<sup>2</sup>**<sup>1</sup>Research Scholar<sup>2</sup>Assistant Professor,

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**Abstract:** The Covid-19 epidemic has had a devastating effect on the global economy. Among other things, Micro, Small and Medium Enterprise are the worst hit. Many small, medium and micro enterprises have temporarily closed their businesses due to the impact of the COVID-19 disaster. So, the Government of India announced Atma Nirbhar package to assist MSME sectors. so the study focuses on how much extend the government schemes adopted in MSMEs during this pandemic period. The study is taken both primary and secondary data. Convenience sampling method is used here. 100 samples are taken from different parts of India. Percentage analysis, Likert point scaling techniques and mean is used for primary data analysis. The findings and recommendations were also discussed in this paper.

**Keywords:** Government Schemes, MSME, Pandemic period.

## OP 53

**Customer Satisfaction of SBI Life Insurance Products –A Study with Reference to Trivandrum City****Seeja R.G<sup>1</sup> and Dr. R. Mabel Sulochana<sup>2</sup>**

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**Abstract:** Life insurance has emerged as an important industry. Life insurance has emerged as the most vibrant segment in the financial sector in India particularly since the liberalization of the market in the year 2000. The growth of life insurance was fuelled by the nationalization of the industry. There was a tremendous development in the field of insurance after the New Economic Policy which results in the entry of private parties in the insurance sector. SBI Life Insurance is a joint venture between the State Bank of India and BNP Paribas Cardif. SBI Life is one of India's leading private life insurers. The present study is an attempt to know how the customers perceive life insurance products, the service quality, and the satisfaction level of policyholders towards the SBI Life Insurance. The sample size of the study is 100. The investigator adopted a convenience sampling technique for choosing the sample and the primary data collected through a well-structured questionnaire. Secondary data are collected from books, journals, websites etc.

**Keywords:** Life Insurance, liberalization, New Economic Policy, customer satisfaction.

## OP 54

**Retrospective analysis of suspected clinical cases of human brucellosis in Anand, Gujarat****Jinal Patel<sup>1</sup> and Dr. Suman Singh<sup>2</sup>**<sup>1</sup>PhD scholar, Department of Microbiology, Pramukhswami Medical College, Bhaikaka University, Gokalnagar, Karamsad – 388325, Anand, Gujarat, India.<sup>2</sup>Professor, Department of Microbiology, Pramukhswami Medical College, Bhaikaka University, Gokalnagar, Karamsad – 388325, Anand, Gujarat, India.

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**Abstract** Brucellosis is a zoonosis that is emerging in some parts of the world. Although brucellosis is a mandatory reporting disease and is not eliminated in Gujarat. The aim of the present study was to study the prevalence of human brucellosis in Anand district of Gujarat along with the trend of the disease over a period of six years. We also tried to study the common clinical presentations and diagnostic test used for confirmation of cases. In this study, we retrospectively analyzed the data available at the Shree Krishna Hospital, Karamsad during the past 6 years (2015±2021) in order to get insight into the prevalence of human brucellosis in Gujarat. According to the available data, 113 samples had positive serology for *Brucella* spp. Out of 113, 55 patients were positive for *B. abortus*, while only 9 patients were positive for *B. melitensis*. The age of the patients enrolled in the study ranged from 12 to 78 years with an average age of 35.58. The majority were males 96 (85%), Out of 113 patient total 37 patients admitted to the hospital in year 2019. As this study constitutes a retrospective analysis, some of its methodological limitations relate to the lack of information that would allow a more comprehensive analysis of risk factors (such as occupation, risk factors and area of residence of patients).

**Keywords:** Human brucellosis, clinical presentations, diagnosis, treatment.

## OP 55

**Diffusion Tensor MR Imaging of Brain in the Healthy Adult Population: Normative Fractional Anisotropy (FA) values at 3T tesla MRI****Dolly Sharma<sup>1</sup> and Dr. Deepak V. mehta<sup>2</sup>****<sup>1</sup>Phd Scholar, Department of Medical Imaging Technology, Bhaikaka University, Bhaikaka University, Gokalnagar, Karamsad – 388325, Gujarat, INDIA****<sup>2</sup>Professor, Department of Radio diagnosis, Pramukhswami Medical College and Shree Krishna Hospital, Bhaikaka University, Gokalnagar, Karamsad – 388325, Gujarat, INDIA****E-mail: sdolly468@gmail.com**

**Abstract:** Diffusion tensor imaging technique and its clinical applications are increasing in clinical routine, but still very less normative data is available. It is important to be aware of regional difference in FA (fractional Anisotropy) measurements when routinely DTI is used in clinical Magnetic Resonance Imaging. This study aimed to find out the normative FA values data at 3T MRI and to determine the degradation of FA values in various regions of brain values with age. A total of 52 Participants who all came for brain scanning at 3Tesla MRI and confirmed normal after reporting were included in the study. A DTI protocol was set for the healthy patient's brain scanning. The color codes images were post post-processed to draw a circular ROI in the required areas of the white matter of brain and FA values were noted. Descriptive statistics were used to find out the normative data in 11 regions of brain on right and left side, however the changes on both sides of each region were very less, so they were combined and averaged. The highest FA values were observed in the splenium, genu, body of the corpus callosum and posterior limb of internal capsule, rest areas shown low to moderate FA values. Pearson correlation was used to find the variation in the FA values with age in three age group, where moderate changes in FA values with age were seen. Present study set a DTI MRI protocol and normative data in 11 regions of brain, however the FA values intend to change with the presence of multiple tracts areas, field strength, coil sensitivity and partial volume averaging. FA values also get affected as the human ages.

**Keywords:** Diffusion Tensor Imaging (DTI), White matter (WM), Fractional Anisotropy (FA)

## OP 56

**Characterization of Extracellular polymeric substances from marine biofilm-forming bacteria****Madhav Kumar<sup>1,2</sup>, Riya Soni<sup>1</sup>, Doongar R. Chaudhary<sup>1,2\*</sup>**<sup>1</sup>Central Salt and Marine Chemicals Research Institute, G. B. Marg, Bhavnagar, Gujarat, India<sup>2</sup>Academy of Scientific and Innovative Research (AcSIR), Ghaziabad- 201002, India

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**Abstract:** Bacteria in the marine environment adapt to either planktonic or biofilm lifestyles. In bacterial biofilms, the cells attach to the surfaces with the help of extracellular polymeric substances (EPS). EPS produced by microorganisms have been regarded as environmentally friendly as it is non-toxic compared to synthetic polymers. In this study, we examined the chemical composition of EPS extracted from marine bacteria (strain AML). The EPS was extracted after incubating the bacteria for three days in Zobell marine broth media. The total amount of EPS produced was 2212.4 mg L<sup>-1</sup> (dry weight). Antibiotic susceptibility assay of the bacterial strain showed that the bacteria were sensitive to a range of antibiotics. The highest sensitivity was observed against Clindamycin and Azithromycin. The extracted EPS showed antimicrobial properties against several known pathogenic strains. The total carbohydrate content of the extracted EPS was estimated to be 0.08 mg mL<sup>-1</sup>. The EPS was further characterized using SEM, EDX, FTIR, and GC-MS. SEM imaging of the EPS showed that the EPS was porous in nature and irregular in shape. EDX analysis showed an abundance of carbon, oxygen, and chlorine. FTIR spectroscopic analysis confirmed the presence of aliphatic groups, hydroxyl groups, amino sugars, saccharides (galactose and mannose), proteins, and uronic acids. GC-MS analysis showed the presence of arabinose, mannose, galactose, and glucose in the extracted EPS. The antioxidant activity of bacterial EPS showed 17% DPPH scavenging activity and 19% ABTS scavenging activity. Strain AML showed strong biofilm-forming ability. The strain AML was identified using 16S rRNA gene sequence analysis as *Psychrobacter* sp. and the same bacterial genus has been reported in the marine environment. The extracted EPS can be checked further for their anti-biofilm forming activity.

**Keywords:** Biofilm, Extracellular polymeric substances, Antibacterial activity, Antioxidant activity, EPS characterization.

## OP 57

A New Wilt Disease of *Litsea glutinosa* (Maida chhal)

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**Abstract:** *Litsea glutinosa* (Lour.) C.B. Robinson is an important medicinal plant. It is a rainforest tree in the laurel family, Lauraceae. The powdered bark, known as jigat is used as an adhesive paste in incense stick production. This species is native to India, South China to Malaysia, Philippines, Australia and the western Pacific islands. A new wilt disease of *Litsea glutinosa* caused by *Fusarium solani* is very common. The average disease occurrence is 7.94% and it can be control by application of 0.1% ridomil. The plant was reported as red listed plant and considered as critically endangered in the state of Andhra Pradesh, India. The species is critically endangered due to its indiscriminate collection as raw material for pharmaceutical industry. Fungal diseases are a serious problem in forest regeneration and sometime fungi can cause heavy mortality in nurseries. Maida chhal is an endangered species so its conservation is necessary to raise seedlings in nursery for its large scale plantation. The seedling in nursery beds as well as in polythene containers suffer from many disease causing mortality and affecting the health and vigorous of plants. Wilt disease is very common in forest nurseries particular in dry climate as in central India. Wilt disease symptom started from the tip of the plant and along the margin of the leaves. The plant shows yellowing of primary leaves followed by sudden wilting and drying of seedling within a few days. *Fusarium solani*, *Macrophomina phaseolina* and *Rhizoctonia solani* are the species which are mostly responsible for this disease. Tree species are susceptible when congenial condition for infection exists and the incidence of disease ranged between 10-20 percent in various nurseries and young plantations. The present note reports a new wilt disease of *Litsea glutinosa* caused by *Fusarium solani* in nursery.

## OP 58

**Sulfido-Bridged 1, 2-Bis(diphenylphosphino)ethane(dppe) appended Trinuclear Nickel (II) Clusters: Crystallographic and Computational Analyses****<sup>1</sup>Devyani Srivastava,<sup>1</sup> Amita Singh,<sup>2</sup> Gabriele Kociok-Köhn,<sup>1</sup> Abhinav Kumar.****<sup>1</sup>Department of Chemistry, University of Lucknow, Lucknow, 226007****<sup>2</sup>Department of Chemistry, University of Bath, BA27AY, Bath, UK**

**Abstract:** The cluster compounds are still gaining considerable attention due to their peculiar behaviour and M-M bonding or M...M interactions. In this report, two sulfido-bridged, 1,2-Bis(diphenylphosphino)ethane (dppe) appended trinuclear Ni(II) clusters viz.  $[\text{Ni}_3\text{S}_2(\text{dppe})_3] \cdot 2\text{BPh}_4$  ( $\text{Ni}_3\text{S}_2\text{-1}$ ) and  $[\text{Ni}_3\text{S}_2(\text{dppe})_2(4\text{-pyCH}_2\text{OH})_2] \cdot 2\text{PF}_6$  ( $\text{Ni}_3\text{S}_2\text{-2}$ ) have been reported which have been obtained from the same starting reactants viz. 4-PyCH<sub>2</sub>OCS<sub>2</sub>Na, Ni<sup>2+</sup> and dppe using two different reaction pathways. These compounds have been characterized by micro analyses, IR, UV-Vis, <sup>1</sup>H and <sup>13</sup>C NMR spectroscopy as well as by single crystal X-ray diffraction technique. The X-ray analyses revealed that in both compounds possess three Ni(II) centers held by two sulfido-ligands and appended with dppe. In  $\text{Ni}_3\text{S}_2\text{-1}$  only dppe and sulfido ligands are stabilising the trinuclear cluster cation while in  $\text{Ni}_3\text{S}_2\text{-2}$  along with sulfido and dppe ligands, two units of 4-pyCH<sub>2</sub>OH are also present. Both  $\text{Ni}_3\text{S}_2\text{-1}$  and  $\text{Ni}_3\text{S}_2\text{-2}$  display different non-covalent interactions alongwith the Ni...Ni interactions. The nature of these interactions has been addressed with the aid of Hirshfeld surface analysis, density functional theory and quantum theory of atoms-in-molecules (QTAIM) analyses. Also, Weiberg bond index and Mayer bond order calculations have been performed to assess the nature of Ni...Ni interactions.

**Keywords:** Trinuclear cluster, sulfido bridged complex, single crystal XRD, QTAIM, Hirshfeld analysis.

## OP 59

**The Study of Group Velocities of Semiconductors Which is Tunable with a Broad Frequency Range in the Presence of Surface Magnetoplasmons****Daya Shanker and Rashimi Yadav****Department of Physics****University of Lucknow, Lucknow (UP), India, 226007****rashmiyadav4020@gmail.com**

**Abstract:** In this paper, we study the effects of an external magnetic field in the band structure of C-insulator-SiC materials in presence of surface magneto plasmons concerning plasma frequency below and above the surface band structures. In this, both group velocity and frequency wave can be tuned with an applied external magnetic field when we increase the magnetic field from 0-4 tesla the frequency range can be reduced for given semiconductor materials. The excitation of the two layers of semiconducting material propagating band structures can be explained by the oscillations of electrons in semiconductors on applying the magnetic field, the surface magneto plasmon bands get excited and show the dispersion relation with frequency range. The higher dispersion band moves in faster than the lower dispersion band structure of semiconducting material. The most energy is stored in a lower surface of magneto plasmon. When we increase the magnetic field, the surface of the semiconductor moves opposite to the lower surface of the semiconductor material. Here, we use semiconducting materials instead of metals because metal cannot support a wide frequency range on the magneto plasmonic surface providing a good tuning property and more flexibility in this mechanism. This study is widely more promising due to its wavelength confinements of electromagnetic fields on semiconducting and insulating layers. Due to nonreciprocal effects, the dispersion of frequency waves varies with different band structures and group velocity also varies with two propagating directions between semiconductor-insulator-semiconductor layers. This mechanism is useful in magneto plasmonic devices, data processing, and telecommunications.

**Keywords:** surface magneto plasmon, group velocity, semiconducting materials, plasmonic devices.

## OP 60

**Nutritional, anti-nutritional, mineral and heavy metal assessment of *Chlorophytum tuberosum* leaf****Varpe S.N.<sup>1\*</sup>, Padwal A. D.<sup>1</sup>, Khedkar S.A<sup>1</sup>****<sup>1</sup>Department of Botany, Maulana Azad College of Arts, Science and Commerce , Dr. Rafiq Zakaria Campus, Rauza Baugh, Aurangabad, Maharashtra-431001****\*E-mail: subhash.varpe.1111@gmail.com**

**Abstract:** *Chlorophytum tuberosum* (Family: Liliaceae) popularly known as Safed musli is important plant which is used in different systems of medicine. Present study shows the Nutritional, anti-nutritional, mineral and heavy metal assessment of *Chlorophytum tuberosum* leaf. Results showed that the species is rich in nutritional and mineral content while the estimated concentration of anti-nutritional components and heavy metal was found to be below permissible limit. Present study will be important for agricultural sector to study cultivation practices for *Chlorophytum tuberosum* as well as important link in biochemical sciences.

**Keywords:** *Chlorophytum tuberosum*, nutritional, mineral, anti-nutritional.

## OP 61

**Global amphibian decline crisis: Diversity, threats and conservation strategies****Shelly and Rajwinder Singh****Department of Zoology, PAU Ludhiana-141027 Punjab, India****E-mail: shelly-1964003@pau.edu; rajwinder-singh@pau.edu**

Amphibians are ectothermic tetrapod's containing frogs, toads, caecilians and salamanders. These are considered to be the connecting link between land and water dwelling organisms. Amphibians constitutes ancient group which evolved in the devonian period and became dominant during carboniferous and permian period. Amphibians play a very significant role in ecosystem stability, pest control, food chain and act as environmental bio-indicators. There are over 8,500 species of amphibians known all over the world and nearly 447 species from India inhabiting water habitats. Amphibians have existed on earth for over 300 million years and have survived major mass extinctions, yet a rapid decline in their population has been seen during the past two decades. The International Union for Conservation of Nature (IUCN)'s Red List of threatened species estimates that at least one-third of known amphibian species are threatened with extinction, a rate much higher than that for other vertebrate groups. Amphibian population decline represent a leading example of biodiversity catastrophe as they are continuously disappearing from their habitats on a global scale. Also, amphibians do cutaneous respiration hence, temperature and moisture content directly affect their physiology, ecology and behavior. Factors responsible for the amphibian decline are numerous and complex. Habitat destruction, alien species invasive, over exploitation, climate change, drainage of wetlands, pollution, deforestation, infectious diseases such as chytrid fungus and ranaviruses, heavy metals and pesticide contamination and UV radiation exposure constitute the major threats. Amphibians are the crucial component of the ecosystem so their conservation becomes the need of hour. The conservation priority should include the population monitoring and environment sensing. The other strategies should include programs for reservation of wetlands, reservoirs, ponds, habitat restoration and management, minimizing the use of pesticides, captive breeding program for endangered species and also awareness among local people about the importance of frogs and toads.

**Keywords:** Bio-indicator, Pest control, Ecosystem stability, Threats, Conservation.

## OP 62

**Effect of Cultivars on the Solvent Retention Capacity and Particle Size Distribution  
Characteristics of Wheat (*Triticum aestivum*)****Jyoti Narwal\* and Ritika B. Yadav****Department of Food Technology****Maharshi Dayanand University, Rohtak (Haryana)-India****\*E-mail: jyotinarwal28april@gmail.com**

**Abstract:** Wheat cultivars growing at different geographical area in India were analyzed for their physical and chemical quality, particle size distribution, and solvent retention capacity characteristics to assess their end product utilization. Grains from ten newly released cultivars of *T. aestivum* were procured from authorized sources. Wheat flours of different cultivars were analyzed for their solvent retention capacity characteristics, particle size distribution, alkaline water retention capacity. The values for water SRC, sodium carbonate SRC, lactic acid SRC, and sucrose SRC were reported to be 74.33 to 97.66%, 87.33 to 104.66%, 103.66 to 126.66% and 81.33 to 98.00 %, respectively for different wheat flours. The particle size distribution Dv (90) of wheat flour was ranged from 98.43 to 149.66  $\mu\text{m}$ , while, the Dv (10) and Dv (50) was varied from 11.03 to 16.56  $\mu\text{m}$  and 40.43 to 54.20  $\mu\text{m}$  respectively. A significant ( $P < 0.05$ ) difference was observed in different parameters such as D (4,3) (50.30 to 67.93  $\mu\text{m}$ ), and D (3,2) (20.46 -27.80  $\mu\text{m}$ ). The flour obtained from wheat grains of different cultivars was assessed for alkaline water retention capacity. A significant ( $P < 0.05$ ) difference was observed in different wheat cultivars for alkaline water retention capacity (85.44-117.08%). The results of this study would provide the information regarding the quality parameters of newly released wheat cultivars and to assess the suitability of different wheat cultivars for development of specific products.

**Keywords:** Solvent retention capacity, particle size distribution, alkaline water retention capacity.

## OP 63

**Lead Oxide Nanodots Synthesized by Solvothermal and Microwave Assisted Method and its Comparative Characterization.**

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**Abstract:** In this paper, we synthesized a nanodots (quantum dots) lead oxide by two methods; microwave assisted (B) and solvothermal method (A) followed by calcination at 390 °C in muffle furnace. The outcome of microwave assisted method show a little bit differences in comparison to solvothermal method. Both the methods of PbO NPs have been investigated by powder X-Ray Diffraction (XRD), Fourier Transform Infrared Spectroscopy (FTIR), Selective Area Electron Diffraction (SAED), Ultraviolet Visible Spectroscopy (UV-vis) and Transmission Electron Microscopy (TEM). The morphology of both PbO are nanoplates look like nanodots, average crystallite size are 2.7 nm (B) and 3.7 nm (A), crystallinity 99% (B) and 96% (A) and the optical band gap energy is 5.5 eV. It was observed that the formation of  $\beta$ -PbO NPs started at below 390°C and mostly this type is formed in microwave assisted method.

**Keywords:** Lead oxide, Nanoparticles, Microwave, Crystallinity, Nanodots and Nanoplates.

## OP 64

**Synthesis and characterization of Ru (II) complexes with macrocyclic ligands****Gyanendra Kumar Bharati and Shekhar Srivastava****Department of Chemistry, University of Allahabad, Prayagraj-211002 (U.P.), INDIA****E-mail: gkbharati.phd2020@allduniv.ac.in**

**Abstract:** Ten complexes of  $[\text{RuCl}_2(\text{L1-10})]$  (where L= macrocyclic Schiff base ligands) have been synthesized by reaction of  $[\text{RuCl}_2(\text{DMSO})_4]$  with ten macrocyclic Schiff base ligands. These complexes were characterized by elemental analysis (EDX), molar conductance, Infrared (IR), magnetic movement (BM), and X-ray photoelectron spectroscopy (XPS). On the basis of physical and chemical analysis, octahedral geometry was established for each of these complexes. The C, H, N, and Cl elemental analyses were within + 0.5 % with the proposed structure of complexes  $[\text{RuCl}_2(\text{L1-10})]$ . The molar conductance was obtained below  $12\text{-}22 \text{ ohm}^{-1} \text{cm}^2 \text{mol}^{-1}$  suggesting a nonelectrolyte nature. Aromatic rings in the expected region in all these complexes  $[\text{RuCl}_2(\text{L1-10})]$  also showed characteristic IR bands. The negative values of magnetic susceptibility and magnetic moment values below 1.0BM at room temperature correspond to the diamagnetic nature of  $[\text{RuCl}_2(\text{L1-10})]$  complexes.

**Keywords:** Ru (II) complexes, X-ray photoelectron spectroscopy, macrocyclic Schiff base complexes.

## OP 65

**A Survey of Microplastics across the Malabar Coast, Northwest Kerala****Reeha Mashirin and KC Chitra\*****Endocrinology and Toxicology Laboratory, Department of Zoology, University of Calicut,  
Malappuram district, Kerala - 673 635****E-mail: 999mashirin@gmail.com**

**Abstract:** There is an emerging concern that microplastics concentrate on various compartments in the aquatic ecosystem, primarily on waterbodies which threatens the life of marine organisms. Microplastics due to their high resistance to degradation persists in environment for longer time exerting negative impacts to the survival of living organisms including humans. The Indian coast was extensively contaminated with microplastics and the present study reflects the occurrence and distribution of microplastics in water, sediment and selected commercially important fishes from four fish landing sites of Malabar Coast, Northwest Kerala. The microplastics polymers were identified through Fourier Transform Infrared spectroscopy (FTIR), which observed six major types of polymers. It showed great variation in their distribution which, was due to anthropogenic activities. Gut and gill tissues of selected fishes showed the presence of microplastics, especially transparent fragments less than 1mm. The direct disposal of plastics wastes, urban runoff, over use of single use plastics, and improper waste management could be possible reasons for the abundance of microplastics. The study recommends to implement strict regulations to prevent the entry of plastic wastes into waterbodies, promote bioremediation methods to eliminate or reduce microplastics contamination, and awareness to the public about the hazards of microplastics.

**Keywords:** Microplastics; FTIR; Sediments; Marine organisms; Malabar coast; Kerala

## OP 66

**The Relationship between MMP2 rs243865, MMP-9 rs398242 and CXCL-12 rs1801157 gene Polymorphisms with Japanese Encephalitis disease and disease outcome in North Indian population**

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**Abstract:**

**Background:** Japanese encephalitis virus (JEV) is one of the most important causes of acute and uncontrolled inflammatory disease in Asia. MMPs and chemokines are playing a detrimental role in the host response to JE disease, aetiology, and disease outcome. Evidently, MMPs are widely circulated in the brain and regulate various process including microglial activation, inflammation, blood-brain barrier disruption as well as affects central nervous system (CNS). The present study was to assess the association of single nucleotide polymorphisms of MMP-2, MMP-9 and chemokine (CXCL-12/SDF') in north Indian population.

**Methods:** We performed case-control study and comprised 125 patients and 125 healthy controls in north Indian population. Genomic DNA was extracted from whole blood and gene polymorphisms have been determined by PCR-RFLP method.

**Results:** MMP-2, MMP-9 and CXCL-12 gene was not significantly associated with JE disease, but homozygous (T/T) genotype of MMP-2 was statically associated with disease outcome ( $p=0.05$ ,  $OR=0.110$ ). A/G and G/G genotype of CXCL-12 was significantly associated with severity of disease. ( $p=0.032$ ,  $OR=5.500$ ,  $p=0.037$ ,  $OR=9.167$ ). The serum level of MMP-2 was observed significantly increased in JE patients with homozygous (T/T) genotype whereas increased MMP-9 level was associated with heterozygous genotype.

**Conclusion:** MMP-2, MMP-9 and CXCL-12 gene polymorphism were not associated with JE susceptibility, but MMP-2 may be contributed to disease protection. CXCL-12 was associated with disease severity. In our concern this is the first report from northern India.

## OP 67

**One pot synthesis of (E,E)-4,6-bis(styryl)-pyrimidines****Bal Dev Singh and Dr. Jyoti Pandey\*****Department of Chemistry, School for Physical and Decision Sciences, Babasaheb Bhimrao  
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**Abstract:** A green method protocol for the efficient and facile one pot synthesis of (E,E)-4,6-bis(styryl)-pyrimidines has been developed. It involves the formation of pyrimidine ring from acetylacetone and urea via [3+3] annulation in water which underwent aldol condensation with different aromatic aldehydes to result desired products in moderate to good yield.

## OP 68

**Economic Analysis of an Electronic System with Human Failure****Sangeeta Malik<sup>1</sup>, Komal\* and N. Kadian<sup>2</sup>**<sup>1</sup>\*Department of Mathematics, Baba Mastnath University, Asthal Bohar, Rohtak-124001,  
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**Abstract:** In this paper, a probabilistic model is developed by assuming the human failure. Here, one unit is considered as electronic system comprises of h/w and s/w and another unit as human which will take action after failure of electronic system. There are two servers for handling the service smoothly. The components of electronic system and human have constant failure rates. The arbitrary distributions are taken as the repair rates of h/w and s/w components. The semi-Markov process and regenerative point technique are used to determine the performance measures in steady state. The tabular and graphical presentations of important measures have been shown for arbitrary values of parameter.

## OP 69

**Acute toxicity of carbamazepine and associated behavioral modifications in the mosquitofish, *Gambusia affinis*****John Nikhil and KC Chitra\*****Endocrinology and Toxicology Laboratory, Department of Zoology,****University of Calicut, Malappuram district, Kerala - 673 635****E-mail: yarisjohn127@gmail.com**

**Abstract:** There is a growing concern that the presence of pharmaceutical drugs in aquatic ecosystems, and their resistance on biodegradation could cause detrimental effects on non-target aquatic organisms including fish. Carbamazepine (CBZ), an aromatic anticonvulsant widely used to treat epilepsy and trigeminal neuralgia is most frequently found in Indian water bodies. Exposure to carbamazepine has been known to impair neuronal development and proved lethal to aquatic organisms. The present study was attempted to investigate the acute toxicity of CBZ and associated behavioral modifications in the mosquitofish *Gambusia affinis*. Seven different concentrations of CBZ i.e., 21, 22, 23, 24, 25, 26, and 27 mg L<sup>-1</sup> were exposed to the fish for 96 h along with vehicle and negative control groups. At the end of 96 h, 24 mg L<sup>-1</sup> group showed 50% mortality, and was confirmed by Probit analysis. The behavioral responses of the fish were monitored regularly for one hour at every 24 h interval during the treatment period. Fish were active initially and became lethargic where they settled at the bottom of the tank with an intermittent air engulping and surfacing. Later, fish showed vertical swirling movement, and at the end of treatment period exophthalmia and skin hemorrhage were observed. Stress-induced premature birth to young ones was observed in few female fish, which showed teratogenicity leading to neonatal and postneonatal deaths. The present results suggest that the median lethal concentration of CBZ in the mosquitofish was 24 mg L<sup>-1</sup>, and the exposure to narrow range of concentrations for a short period affected the early development and impaired behavior of the fish, *G. affinis*. Such impacts are suspected to cause adverse consequences in the natural environment by declining the fish population.

**Keywords:** Carbamazepine; *Gambusia affinis*; Acute toxicity; Behavior; Teratogenicity

## OP 70

**Preparation and Characterization of Gum Acacia capped Cu-Ag Bimetallic Nanoparticles and Their Effect on Growth of Gram seeds****Mani Prabha, Vandana Singh\*****Department of Chemistry, University of Allahabad, Prayagraj- 211002****E-mail: maniprabhaoct1996@gmail.com; vschemau@gmail.com**

**Abstract:** A gum acacia capped Cu-Ag bimetallic nanoparticles behaved as an efficient micronutrient carrier for plants. An investigation was carried out to study the effect of gum acacia capped Cu-Ag bimetallic nanoparticles to understand its possible benefits. The structural, morphological, compositional and optical properties of bimetallic NPs have been determined by FTIR, XRD, FESEM, HR-TEM and UV–visible analyses. The present study demonstrates an effect of Cu-Ag bimetallic nanoparticles on the growth of plant seedling of gram. Various concentrations of gum acacia capped Cu-Ag NPs in suspension form were introduced and their effect on growth of the seedlings was examined. The results showed that Cu-Ag bimetallic nanoparticles can enter into the plant cell through roots and leaves. The obtained experimental results provided conclusive evidence to indicate that nanoparticles considered under this study could enter into the plant cell, easily be assimilated by plants and also enhance its growth.

**Keywords:** Bimetallic nanoparticles, Seed germination, Micronutrient

## OP 71

**Optimization of cultural conditions of euryhaline microalgae *Scenedesmus* sp. MKB (MN796425) for biofuel production by Response Surface Methodology (RSM)****Nishu Sharma<sup>1</sup> and Urmila Gupta<sup>2</sup>****<sup>1</sup>Department of Microbiology, Punjab Agricultural University, Ludhiana-141004, Punjab, India****<sup>2</sup>Department of Renewable Energy Engineering, Punjab Agricultural University, Ludhiana-141004, Punjab, India****E-mail: nishusharma028@gmail.com**

**Abstract:** In recent years, microalgae are capturing global attention for replacing petroleum-derived fuels due to many astounding attributes of biofuel production. The present investigation analyzes the interactive effect of five significant independent variables viz. luminescence, pH, temperature, incubation time, and inoculum concentration on five dependent variables viz. biomass, chlorophyll, carbohydrates, lipids, proteins for enhancing biomass production by euryhaline microalgae *Scenedesmus* sp. MKB (MN796425) for biofuel generation by using RSM (Central Composite Design). Statgraphics Centurion XVI.I. software was adopted for this which generated a matrix of 24 runs. The optimization experiment was executed in 250 ml Erlenmeyer flasks containing (100 ml) sterilized ACM (Algal Culture Media) media adjusted at different levels of pH (7.50, 9.50, and 11.50) and inoculated under aseptic conditions with the different inoculum concentrations and incubated at different temperatures (20, 30 and 40 °C) and luminosities (4000, 6000 and 8000 Lux) for different incubation time (20, 30 and 40 days). Biomass harvested by filtration after the completion of the respective growth period was studied for various response variables. The results obtained were analyzed by ANOVA (analysis of variance) which is required for testing the significance of the model. The significance of the interactions varied from response to the response variable. The  $R^2$  and adjusted  $R^2$  of the model for biomass, chlorophyll, carbohydrates, lipids and proteins were 99.88%, 99.81%, 99.14%, 99.08%, 96.40%, respectively and 99.06%, 99.28%, 97.53%, 95.79% and 89.65%, respectively. Results obtained from the model for different responses revealed that a pH of 11.17, a temperature of 26.03 °C, a luminescence of 4000.02 Lux for a growth period of 39.37 days, and an inoculum concentration of 10.00% were found to be the optimal and most desired conditions for enhanced biomass production.

**Keywords:** Euryhaline, *Scenedesmus* sp. MKB, Response Surface Methodology, Optimization.

## OP 72

**Preliminary test estimation in two-stage sampling using ranked set sampling in the second stage with double sampling****Worthing Yangle<sup>1\*</sup> and Phrangstone Khongji<sup>2</sup>**<sup>1</sup>Department of Statistics, NEHU, Shillong, 793022<sup>2</sup>Department of Basic Science and Social Sciences, NEHU, Shillong, 793022

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**Abstract:** A sampling scheme called ranked set sampling (RSS) can be adopted where measurement of the study variable is difficult or time-consuming but the ranking is possible. So, RSS is used in the second stage of the usual two-stage sampling, and under this technique, an estimator for population mean in double sampling with two auxiliary variables is suggested. The use of an auxiliary variable can increase the efficiency of the estimator. When the population mean is known, a regression estimator can be used and when it is unknown, a preliminary test can be performed and construct an estimator from the result. Considering a situation where partial information on both auxiliary variables is available, a preliminary test estimator is suggested for this study. Its bias, mean square error, and relative efficiency are analyzed.

**Keywords:** Ranked Set Sampling, Two-Stage Sampling, Regression Estimator, Double Sampling, Preliminary Test Estimator, Partial Information.

## OP 73

**DOTA coupled Acetamidobenzoxazolone vehicle for evaluating 18 kDa translocator protein during Pulmonary Inflammation****Priya Singh, Deepika Singh and Anjani Kumar Tiwari****Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow-226025****E-mail: priyalcdc2015@gmail.com**

**Abstract:** 1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic acid (DOTA) appended Acetamidobenzoxazolone system named as DOTA-MPB has been designed and synthesized as a specific marker for 18kDa Translocator protein (18kDa, TSPO). During neuroinflammatory conditions the role of this protein is very important as the density of this protein upregulated and if we have specific marker for it, we can identify the progression of inflammatory condition. Synthesis of DOTA-MPB was performed in 8 steps with overall yield 93%. After synthesis it has been characterized by UV, NMR, IR and HRMS spectroscopic techniques. The stability of this ligand was accessed with two metals Gd(III) and Tc(III) for their possible application in SPECT and MRI. The Stability constant of DOTA-MPB is sufficient to make it intact in presence of essential metal ions Zn/Cu. The radiopharmaceutical efficiency was analysed through Blood kinetics, Biodistribution and in-vivo imaging. These results confirm the potential of this ligand as a specific TSPO marker for neuroinflammatory conditions.

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## OP 74

**Theoretical Study of UV Surface Waves in AlAs and AlN****Arjun Mishra<sup>1</sup> and Daya Shanker<sup>2</sup>**<sup>1,2</sup>**Department of Physics, University of Lucknow, Lucknow, UP, India****E-mail: misharju25@gmail.com**

**Abstract:** Surface waves excited at the interface between polar semiconductor surface and a dielectric medium, when electromagnetic waves of appropriate frequency is incident on it. The dispersion relation is very helpful to study these excitations so here this relation is employed, which gives the frequency dependent dielectric function  $\epsilon(\omega)$  and for the existence of surface waves the dielectric function must be negative. Here planar interface between semiconductors and vacuum is taken for the study of coupled optical phonon-plasmon surface oscillations. The ratio between incident frequency ( $\omega$ ) and plasmon frequency ( $\omega_p$ ) is calculated for different values of dielectric function. Two coupling frequency modes  $\left(\frac{\omega}{\omega_p}\right)_+$  and  $\left(\frac{\omega}{\omega_p}\right)_-$  are obtained. For Aluminium Arsenide (AlAs) and Aluminium Nitride (AlN), these surface waves exists, when  $\left(\frac{\omega}{\omega_p}\right)_+ < 0.35$  and  $\left(\frac{\omega}{\omega_p}\right)_+ < 0.46$  respectively which is obtained in the ultraviolet (UV) region ( $10^{16}$  Hz). The  $\left(\frac{\omega}{\omega_p}\right)_-$  mode remains nearly constant with values 0.0033 and 0.0036 for AlAs and AlN respectively and this mode lie in the infrared (IR) region ( $10^{13}$  Hz). AlAs and AlN have wide range of applications in opto-electronics, micro-electronics, quantum wells and others. Different modifications in the material such as variation in its geometrical shape, doping with different dopants etc can also tune the properties of surface excitations. Such investigations on different materials lead researchers to obtain those, which are required for different technological developments and making modern sophisticated devices.

**Keywords:** Dispersion relation, Dielectric function, Surface plasmon, Surface phonons, Coupled phonon-plasmon.

## OP 75

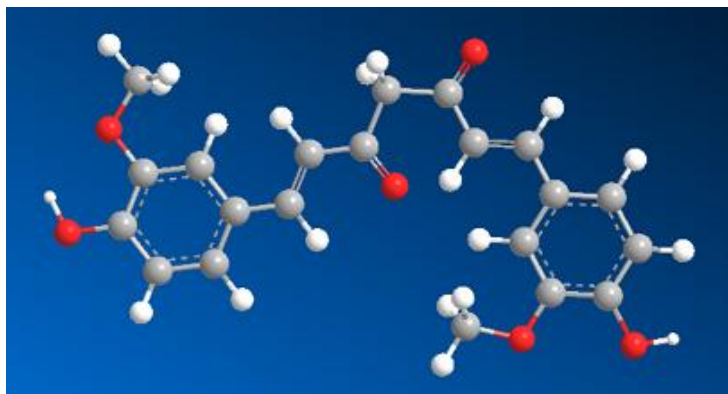
**Enhancement of Curcumin (1E,6E)-1,7-bis (4-hydroxy- 3-methoxyphenyl) -1,6-heptadiene-3,5-dione biological activity and bioavailability via synthesis of its potential derivatives and in silico study**

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**Abstract:** Curcumin (1), one of the kinds of natural product which is a polyphenol, is a bio-active constituents isolated from the well-known medicinal plant *Curcuma longa* (family: Zingiberaceae)[1], commonly known as Indian saffron. The rhizome part of the *C. longa* is important due to the presence of various volatile oils including tumerone, atlantone, and zingiberone and curcuminoids. Curcumin is the active principal of the curcuminoids. Curcuminoids contains curcumin (77%), demethoxycurcumin (17%) and bisdemethoxycurcumin (3%). The contribution of plant derived drug in modern times is still significant and has been focused on exploiting the wide diversity of medicinal plants in both traditional systems of medicine and modern drug development. Curcumin isolated from *C. longa* have variety of pharmacological activities like anti-oxidant, anti-bacterial, anti-cancer [2-6], anti-inflammatory[7] , antibacterial[8], wound healing [9]. Curcumin is a polyphenolic compound and has many potent active sites. Curcumin was reacted with with hydrazine hydrate in ethanol and refluxed for 8 hours thus pyrazole derivative was obtained. The newly synthesized compound was purified by column chromatography and subjected to spectroscopic studies such as  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, I.R spectroscopy. Esterification of this biologically active compound was carried out to further enhance its biological stability as well as biological efficacy. It was esterified using steglich method of esterification. Structure of this monoester derivative was confirmed by the UV-VIS,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, HR-MS and FT-IR spectroscopy. In silico studies were performed so as to figure out the exact binding site and binding energy thus, ensuring its biological activity.

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## OP 76

**Optimization of Cluster Size under Superpopulation Model****F. Lalthlamuanpuii****Department of Statistics, North-Eastern Hill University, Shillong, Meghalaya, India****E-mail: mpfanai4@gmail.com**

**Abstract:** In cluster or area sampling, the sampling unit is a group of elements or an area segment. In the cases of unavailability of sampling frame or infeasibility of using elements as sampling units, the role of cluster sampling comes into play. Clusters are generally constituted by contiguous elements or elements which can be conveniently surveyed together. The size of cluster is the main factor, inter alia, that have effect on the efficiency of cluster sampling with clusters of equal size. This paper deals with the problem of determination of optimum cluster size in cluster sampling based on study variable  $Y$  and auxiliary variable  $X$  which is highly correlated with  $Y$  under a superpopulation model. Equation giving optimum cluster size for the characteristic under study in terms of the variable  $X$  has been obtained. The derived optimum cluster size so obtained is numerically illustrated using live data.

**Keywords:** Cluster Sampling, Cost Function, Optimum Cluster Size, Mean square between and within clusters, Socio-economic Variable, Superpopulation model.

## OP 77

**Alteration in the levels of brain neurotransmitters after exposure to sublethal concentration of Malathion in the freshwater fish, *Oreochromis mossambicus* (Peters, 1852)**

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**Abstract:** Malathion, an organophosphate insecticide, is widely used in residential landscaping and agriculture for the control of mosquitoes, therefore, becomes a part of the Malaria Eradication Programme in India. Malathion has been known to enter the water bodies either by direct spray to control mosquitoes or indirectly through surface runoff from agricultural sites. The present study aimed to evaluate the effects of Malathion in the brain neurotransmitters of the freshwater fish, *Oreochromis mossambicus*. Malathion at sublethal concentration, i.e., 50 ng L<sup>-1</sup> exposed to the fish for 1, 4, 7, and 15 d declined body weights and elevated mucus deposition indicating toxicity stress. A remarkable reduction in the brain weight of the fish after Malathion exposure denotes treatment-related tissue damage. Sublethal exposure to Malathion inhibited acetylcholinesterase enzyme activity while elevated the levels of aminergic neurotransmitters such as dopamine, and serotonin suggesting a disturbance in normal behavior. The concentrations of catecholamine hormones namely adrenaline and noradrenaline increased in the brain tissues, which denote the stress response. Malathion also inhibited the activity of monoamine oxidase, and this could be due to hyperserotonemia in the brain of the fish, and reduction in the level of 5-hydroxy-3-indoleacetic acid (5-HIAA), a metabolite of serotonin, could be due to the inhibition of the monoamine oxidase enzyme, which failed to convert serotonin into its metabolite. To summarize, Malathion at a sublethal concentration induced neurotoxicity in the teleost fish, *Oreochromis mossambicus*. Hence the study recommends restricting the use of pesticide applications in the vicinity of water bodies, and prevents release of untreated effluents by creating buffer zones.

**Keywords:** Malathion; *Oreochromis mossambicus*; Neurotransmitters; Neurotoxicity; Brain.

## OP 78

**Synthesis & Biological Studies of Organometallic Compounds (Antimony & Bismuth)****Mayank jaiswal<sup>1</sup>, Prem Raj<sup>2</sup> and Santosh Kumar Singh<sup>3\*</sup>**<sup>1&3</sup>**Department of Chemistry, Sri JNPG College Lucknow, 226001**<sup>2</sup>**Department of Chemistry, University of Lucknow, Lucknow, 22007****E-mail: santoshsinghjnp@gmail.com**

**Abstract:** The synthesis and characterization of a number of group 15 organometallic derivatives (v) of  $R_3MX_2$ ,  $R_4MX$ ,  $R = CF_3$ ,  $C_6F_5$ ,  $M = Ar$ ,  $Sb$ ,  $Bi$ ;  $X =$  an anionic group viz. halide, psuedohalide, or carboxylate group etc. have been studied considerably. The structure conclusion has been arrived at with the aid of spectroscopic evidence and X-ray studies. The investigation is mainly concerned with solving the problem of trigonal-bipyramidal (TBP) or square-pyramidal (SP) geometry, which has been frequently established in the case of phosphorous. The preferred geometry of group 15 elements is a trigonal-bipyramidal, which is a fluxional, stereochemically non-rigid or pseudorotating arrangement rapidly interconvertible with the alternative square pyramidal structure, a delicate balance exists between the trigobal-bipyramidal and square-pyramidal forms, both in solution and in the solid state. An appreciation of the pseudo-rotational process occurring during the life time of a five-coordinate co-ordinate intermediate is clearly important for predicting and ultimately controlling product stereochemistry. Organobismuth compounds exhibit antitumor and antimicrobial activity. The nature of organo antimony varies depending on the organic group, anionic ligand, and bismuth oxidation state. The discovery of ionic organobismuth (III) derivatives as antitumor agents with reduced toxicity, as well as the antimicrobial activity of cyclic derivatives of organobismuth, has tremendously enhanced the scope of non-platinum group metals as solid tumour inhibiting substances. The difference with organobismuth compounds is that the Bi-C bond is biodegradable and inorganic bismuth is non-toxic. Antileishmaniasis activity will be exclusively carried out for compounds based on the Bi-O-Bi skeleton parallel to stibogluconate (Sb-O-Sb). Metal-containing compounds may often have certain advantages over purely organic compounds in drug therapy. For example, coordination of an organic molecule to a metal centre may alter the metabolic pathway and/or may lead to a slow release mechanism for delivery of the organic molecule.

**Keywords:** Organobismuth, Organoantimony, Antimicrobial, Antitumour.

## OP 79

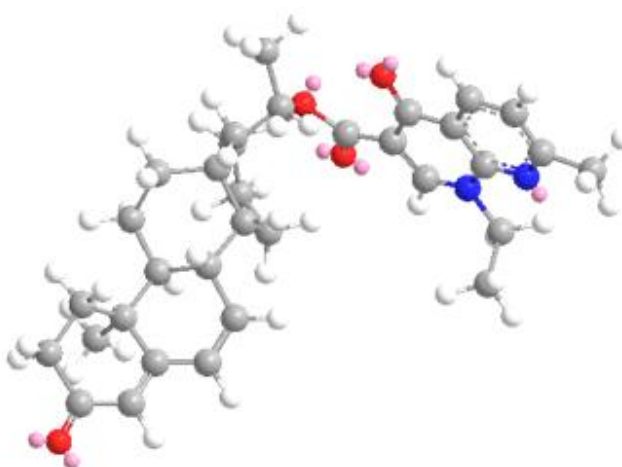
**Synthesis, Spectroscopic characterisation and Molecular Docking studies of (1S)-1-((10S,13S,17S)-10,13-dimethyl-3-oxo-2,3,8,9,10,11,12,13,14,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthren-17-yl)ethyl 1-ethyl-7-methyl-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate**

**Sangeeta Srivastava and Saumya Pandey\***

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**Abstract:** A steroid is a biologically active organic compound with four rings arranged in a specific molecular configuration. Steroids are perhaps one of the most widely used group of drugs in present day. Beside the established utilization as immunosuppressive, anti-inflammatory, anti-rheumatic, progestational, diuretic, sedative, anabolic and contraceptive agents, recent applications of steroid compounds include the treatment of some forms of cancer, osteoporosis & HIV infection. My present work focuses on the synthesis of ester derivative of the steroid (10S, 13S, 17S)-17-acetyl-10,13-dimethyl-8,9,10,11,12,13,14,15,16,17-decahydro-1H-cyclopenta[ $\alpha$ ]phenanthren-3(2H)-one with Nalidixic acid but firstly reducing the keto group present at C-17 regioselectively as well as chemoselectively by sodium borohydride. The structures of these steroid derivatives were elucidated by <sup>1</sup>H, <sup>13</sup>C, UV, HR-MS and FT-IR. *Insilico* study of the ester derivative was performed to get the exact binding site and binding energy ensuring better activity to cure various diseases.



## OP 80

**Synthesis and in silico studies of schiff's base metal (II) complexes as anticancer agents****Prashant Singh, Aditya K. Yadav, Nand K. Ram, Rupa Raj, Jayati Dwivedi,  
Yugandhar Maurya and Ramendra K Singh\*****Bioorganic Research Laboratory, Department of Chemistry  
University of Allahabad, Prayagraj-211002, India****\*E-mail: rksinghsrk@gmail.com**

**Abstract:** One of the most common diseases with a very high mortality rate is cancer. Chemotherapy is a powerful and efficient method of treating cancer, however, conventional chemotherapy has major adverse effects, such as drug resistance and a lack of selectivity where the anticancer agents affects both normal and malignant cells. Consequently, it is crucial to create new chemotherapeutic drugs. The design of metal-based complexes as anti-cancer drugs has drawn a lot of attention in the hunt for innovative pharmacological agents. Solid tumor cells are treated with cisplatin and its analogues, however, there are a number of side effects. Nephrotoxicity, neurotoxicity, vomiting, and other adverse effects are associated with the use of cisplatin and its derivatives. In this series, novel molecules consisting of the metals, Cu(II), Zn(II), Co(II), Mn(II), and Ti(IV) have been synthesized and their in silico pharmacological properties have been assessed in light of the significance of Schiff's base complexes in cancer treatment. Docking was carried out using Biovia Discovery studio v20.1.0.19295 to examine the biological activity and stability of these compounds. All qualified molecules have been synthesized and characterized by several spectroscopic techniques.

**Keywords:** DS, anti-cancer agents, chemotherapy, *in silico*, organometallics

## OP 81

**In silico studies and synthesis of Schiff's base derivatives as Anti- Alzheimer's Agents  
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**Abstract:** Alzheimer's disease (AD) is the most common form of dementia and age-related neurodegenerative disease. The current treatment of Alzheimer's disease (AD) is not sufficient. AD can be treated by inhibiting either  $\beta$ -amyloid protein deposition or acetylcholinesterase enzyme activity. Many treatments for AD are directed at these two targets. The efforts have been focussed at the development of anti-Alzheimer's agents with enhanced therapeutic potential and favourable pharmacological properties. Some novel chromone Schiff's base Derivatives of chromone with required structural features have been designed and synthesized as probable anti-Alzheimer's agents. Design of molecules is done by keeping the Lipinski's Rule of five in focus and molecular docking using DS v20.1.0.19295 software. Designed compounds showed very promising in silico results with considerable interaction pattern against AChE receptor and in some cases, showed even better interaction with amino acids such as Gly45, Leu91, His132 and Arg97 than the reference compounds Rivastigmine and Tacrine. These compounds are expected to prove as effective lead molecules to fight out different neurodegenerative diseases including Alzheimer's.

**Keywords:** AChE, DS, AD, In silico studies, Lipinski's Rule of five.

## OP 82

**Economic Analysis of Hinges Manufacturing System considering Repairs by External Repairman****Sangeeta Malik<sup>1</sup>, Anju Arora\* and Reena<sup>2</sup>****<sup>1&\*</sup>Department of Mathematics, Baba Mastnath University, Asthal Bohar, Rohtak-124001, India****<sup>2</sup>Department of Mathematics, Gurugram University, Gurugram-122003, India****E-mail: <sup>1</sup>sangeetastat@gmail.com; \*vermaanju1982@yahoo.in and****<sup>2</sup>phogat.reena026@gmail.com**

**Abstract:** The purpose of this paper is to analyse the hinges manufacturing system economically in terms of reliability measures. Here, two units of hinges manufacturing machine are taken in which one unit is in operation where as another is in cold standby. An external repairman gives the service to the system for smoothly working. The machine functions properly to do the assigned jobs with full efficiency after repairs. The rate of short circuit in machine, hardware and power failure rates follow the Weibull distribution. Also, the distributions of all the repair rates are taken as Weibull. The reliability measures in steady state are determined by using of semi- Markov process and regenerative point technique. The behaviour of the important measures is shown graphically for arbitrary values of parameters.

**Keywords:** Hinges Manufacturing System, Repairman, Hardware, Electric Wire, Reliability Measures, Economic Analysis.

## OP 83

**Design and Synthesis of isatin analogs as anti-HIV agents**

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**Abstract:** The exposition of human immunodeficiency virus (HIV) as the causative agent of acquired immunodeficiency syndrome (AIDS) and the inefficacy of modern medicine to find a definite cure, has made HIV one of the most dreaded pathogens of the present era. Therefore, in view of the requirement of novel anti-HIV drugs, we utilized the strategy of structure-based molecular hybridization and substituent decoration to design and synthesize a series of isatin analogs as HIV-1 non-nucleoside reverse transcriptase inhibitors (NNRTIs). Designing of isatin derivatives was performed, based on the analysis of some physically significant descriptors and pharmaceutically relevant properties of compounds, like molecular weight, H-bond donors and acceptors, log P, on the basis of Lipinski's rule of five, using Molinspiration and ChemDraw softwares. Their ADMET properties were also evaluated using pkCSM software to check their drug-likeness. Molecular docking tool, DS v20.1.0.19295 was used for computer-assisted drug design to predict predominant binding modes of the ligand with a viral protein of known three-dimensional structure.

Analysis of the bioactivity scores, ADMET values, and molecular docking studies showed optimistic results compared to the reference drugs. Major factors responsible for the activity are extensive main-chain hydrogen bonding interactions and isatin, heterocyclic motif maximizing interaction with the binding pocket.

## OP 84

**Design, Synthesis and In- silico evaluation of novel pyrimidine derivatives as kinase inhibitors and anticancer agents****Rupa Raj, Jayati Dwivedi, Nand Kumar Ram, Aditya K. Yadav, Prashant Singh, Yugandhar Maurya and Ramendra K. Singh\*****Bioorganic Research Laboratory, Department of Chemistry, University of Allahabad, Prayagraj-211002, India****E-mail: rksinghsrk@gmail.com; ruparajau@gmail.com**

**Abstract:** In recent years, a large number of structurally diverse kinase inhibitors as potent anticancer agents have entered clinical trials to treat numerous tumors and malignancies. Pyrimidine derivatives possess diverse pharmacological properties including anticancer properties as potential kinase inhibitors. We, therefore, designed and synthesized such derivatives and their *in-silico* study was executed. Designing of molecules was performed based on the analysis of some physically significant descriptors and pharmaceutically relevant properties according to Lipinski's rule of five, using Molinspiration and ChemDraw software. To check their drug-likeness, their ADMET properties were also evaluated using pk CSM software. To identify the most probable protein targets Swiss Target Prediction was also performed. Molecular docking studies were performed on kinase receptor using DS v20.1.0.19295 Software to study their possible binding modes.

As compared to reference drugs, the new pyrimidine analogs showed promising properties. A deep investigation of *in silico* studies supported by bioactivity score and ADMET properties suggested that pyrimidine derivatives including thiazole and indazole showed compelling scores as kinase inhibitors. Swiss Target Predictor showed various protein targets in which kinase protein is paramount. Molecular docking studies proved that designed derivatives exhibited better interaction with the kinase receptor used.

**Keywords:** anticancer, kinase inhibitors, pyrimidine, target prediction, molecular docking

## OP 85

**Effect of sewage sludge amendment on Indian barley cv. BH393****Urfi Jahan\*, Fareed Ahmad Khan****Plant Ecology and Environment Laboratory, Department of Botany, Aligarh Muslim University, Aligarh, Uttar Pradesh- 202002, India.****\*E-mail: urfijahan111@gmail.com**

**Abstract:** The use of sewage sludge in agriculture has been prevalent worldwide for many decades, and India is no exception. The contamination of agroecosystems due to the presence of trace metals in commonly used agricultural materials is a serious issue. The most contaminated material is usually sewage sludge, and the sustainable use of this material within agriculture is a significant concern. The present study was conducted to examine the suitability of sewage sludge amendment in soil for Indian barley by evaluating the heavy metal accumulation, growth and biochemical responses of barley plants grown at varying sewage sludge amendment rates. Sewage sludge amendments modified the properties of soil by decreasing pH and increasing organic carbon, total nitrogen and heavy metals in resulting soil-sludge mixtures. Still, there is a need to lay down specific guidelines for the recommended dose of sewage sludge in agriculture.

**Keywords** Sewage sludge; Barley; Heavy metal; Growth; Biochemical

## OP 86

**One Pot and three-component synthesis of 1,2-Dihydroquinazoline Derivatives****Surya Pratap Verma, Fatima Tufail, Mohammad Saquib, Jagdamba Singh\*****Department of Chemistry, University of Allahabad, Prayagraj-211002****E-mail: dr.jdsau@gmail.com**

**Abstract:** Spiroquinoxalines are privileged structures having immense biological importance. A simple, green, efficient and three-component procedure has been developed for synthesis of these molecules and their derivatives by the reaction of 2-aminobenzophenones, isatin and ammonium acetate in excellent yield under catalyst-free condition using glycerol as a solvent. This method provides several advantages such as operational simplicity, higher yield, shorter reaction time and catalyst-free condition with glycerol as a solvent making this method eco-friendly as well as economical. The spiroquinazolines so synthesised will be screened for their antimicrobial activity.

**Keywords:** Catalyst-free, Quinazoline, Spirooxindole, Antimicrobial

## OP 87

**Influence of gum acacia supported bimetallic Cu/Zn nanoparticles on growth of *Cicer arietinum*****Aayushee, Tulika Malviya, Mani Prabha, Puneet Tiwari, Vandana Singh\*****Department of Chemistry, University of Allahabad, Prayagraj-211002****\*E-mail: vschemau@gmail.com**

**Abstract:** The hybrid of Gum Acacia supported Cu/Zn nanoparticles (GA-Cu/Zn NPs) were synthesized through chemical reduction method. Successful synthesis of bimetallic GA-Cu/Zn nanoparticles were demonstrated through scanning electron microscopy (SEM), which showed the irregular shaped particles embedded in gum acacia matrix and transmission electron microscopy (TEM), which gives the information about particle size of approximately 6nm. Fourier Transform Infrared Spectrometer (FTIR) exhibited the corresponding bands of gum acacia confirming that the gum acacia acted as capping agent in the GA-Cu/Zn hybrid nanostructure. Uv-visible spectrophotometer (UV) gives the absorbance peak at 578nm, which confirmed the formation of GA-Cu/Zn nanoparticles. The growth impact of various nanoparticles on *Cicer arietinum* (chickpea) was analyzed with reference to parameters such as germination percentage, root and shoot length. The GA-Cu/Zn NPs showed best results on growth and germination both. The growth parameters of *Cicer arietinum* were observed for 20 days. This statistical analysis showed that GA-Cu/Zn NPs can be used as a micronutrient nanofertilizer.

**Keywords:** Bimetallic, Capping, Germination percentage, Nanofertilizer

## OP 88

**Decontamination of chromium from polluted water using activated carbon obtained from the waste pulp of *Citrus limetta*****Saumya Agrahari<sup>1</sup>, Mahesh Kumar Gupta<sup>2</sup>, Mubashra Afroz<sup>3</sup>, Vijay Pandey<sup>4</sup>, Harendra Singh<sup>5</sup> and Praveen Kumar Tandon<sup>6\*</sup>****<sup>1</sup>Department of Chemistry, University of Allahabad, Prayagraj-211002, UP, India****\*E-mail: pktandon1@gmail.com**

**Abstract:** Present study proposes the preparation of low-cost and biodegradable activated carbon derived from inexpensive waste pulp of mosambi (*Citrus limetta*) after extracting the juice which serves as an effective adsorbent for the removal of hexavalent chromium from water. Physicochemical properties of activated carbon were characterised by different techniques such as X-ray diffraction (XRD), scanning electron microscopy (SEM), energy dispersive X-ray (EDX), and Fourier transform infrared spectroscopy (FTIR) analysis. The effect of different parameters on the removal efficiency including initial concentration of chromium, pH, contact time and adsorbent dose were studied to obtain the optimum conditions for maximum adsorption of chromium. Maximum removal efficiency of acid activated carbon obtained by burning the waste pulp of *Citrus limetta* was found at pH 2.5 when 100 mg of the adsorbent was able to remove 99% of 10 ppm initial concentration of hexavalent chromium within 60 min. The experimental data were analyzed using pseudo-second order, second order, and first order lageregren kinetic models. Results show that the adsorption process is well described by pseudo second-order kinetic model. The adsorption of Cr (VI) on the surface of the adsorbent was analyzed by Freundlich and Langmuir isotherms.

**Keywords:** Activated carbon, *Citrus limetta*, chromium, pseudo-second order, Freundlich and Langmuir.

## OP 89

**Synthesis, spectroscopic analysis ( $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, UV, FT-IR) of 17-ethynyl-13-methyl-3-oxo-2,3,6,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-17-yl 1-ethyl-7-methyl-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate a novel norethisterone prodrug.**

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**Abstract:** In recent years drugs have been used as ‘lead’ compound for the synthesis of newer drugs sometimes with high biological efficacy and higher yield. Norethisterone is a synthetic oral progestin used for contraception or to treat other hormone related conditions such as menopausal symptoms and endometriosis. As a synthetic progestin, norethisterone acts similarly to endogenous progesterone but with a much higher potency. The oral bioavailability of norethisterone is approximately 64%. Prodrug norethisterone acetate, which is completely and rapidly deacetylated to norethisterone following oral administration – the disposition of norethisterone acetate is indistinguishable from that of orally administered norethisterone. Nalidixic acid is a synthetic 1,8-naphthyridine antimicrobial agent which is used in the treatment of bacterial infections. In the present work another prodrug 17-ethynyl-13-methyl-3-oxo-2,3,6,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-17-yl 1-ethyl-7-methyl-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate was synthesized using Steglich esterification and the structure of the synthesized compound was characterized with the help of  $^1\text{H}$ ,  $^{13}\text{C}$  NMR, UV, IR and mass spectrometry.



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## OP 90

**Facile synthesis of M<sub>2</sub> (m-dobdc) Metal-organic frameworks for record hydrogen storage application****Satish Kumar Verma<sup>1</sup>, Mohammad Abu Shaz<sup>1</sup>, and Thakur Prasad Yadav<sup>1,2\*</sup>**<sup>1</sup>Hydrogen Energy Centre, Department of Physics,  
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**Abstract:** Metal-organic frameworks (MOFs) are emerging as promising candidates for hydrogen storage owing to their highly porous and tunable hydrocarbon structures coordinated with the metal element. In the present work, we have synthesized M<sub>2</sub> (m-dobdc) (M= Fe and Mn; m-dobdc 4- = 4,6-dioxido-1,3-benzenedicarboxylate) metal-organic frameworks via simple glass vial method for hydrogen storage application. These metal-organic frameworks are known to have open metal cation sites that strongly interact with H<sub>2</sub>. Hydrogen storage studies shows that Mn<sub>2</sub> (m-dobdc) has hydrogen storage capacity of 1.3 wt. % at ambient temperature (30 o C) under 100 atm H<sub>2</sub> pressure. The hydrogen storage capacity at liquid nitrogen temperature (-195.8 o C) under 100 atm H<sub>2</sub> pressure has been found to be 8 wt. %, which is one of the highest storage capacity reported so far for MOFs. The X-ray diffraction, transmission electron microscope, scanning electron microscope, energy dispersive X-ray analysis, and nuclear magnetic resonance spectroscopic studies has also been undertaken to understand the relation between the structural, microstructural and electronic properties of M<sub>2</sub> (m-dobdc) with the hydrogen storage capacity.

**Keywords:** Metal-organic frameworks, Hydrogen storage.

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## OP 91

**A DFT study on the interaction between carbon nanotubes and favipiravir as an antiviral drug****A. K. Vishwkarma\*, T. Yadav and A. Pathak****Department of Physics, Institute of Science****Banaras Hindu University, Varanasi- India****\*E-mail: akv1993.au@gmail.com**

**Abstract:** Favipiravir (FAV) is a drug used to treat viral infections and is also a corona virus antipandemic drug. We present the interaction between favipiravir (FPV) and carbon nanotube (CNT) using density functional theory (DFT) at the B3LYP/6-31G\* level in gas as well as in aqueous phase. The adsorption and electronic properties of the target molecule were studied in order to understand the nature of the CNT complex's interaction with the antiviral FPV drug. The calculations suggest that the carbon nanotube may be used as a drug delivery system for FPV drug. Moreover, we calculated frontier molecular orbitals (HOMO and LUMO), natural bond orbital (NBO) analysis, and density of state (DOS) spectra for the FPV@CNT complex which reveals that charge transfer occurs from the FPV molecule to the carbon nanotube.

**Keywords:** FPV, Adsorption, Carbon Nanotubes, Density functional theory

## OP 92

**Ruthenium (III) complexes of Schiff bases derived from isatin and sulpha drugs****Manju Yadav****Research scholar, Department of chemistry, University of Lucknow, Lucknow****E-mail: ochemmanju@gmail.com**

**Abstract:** A new series of Schiff base complexes of Ruthenium derived from Isatin and various sulpha drugs (sulphanilamide, sulphamerazine, sulphaguanidine, sulphadiazine, sulphacetamide and sulphapyridine) have been synthesized. These Schiff base ligands behave as monoanionic bidentate ligand coordinating to metal center through deprotonated phenolic oxygen and azomethine nitrogen. The prepared complexes were analyzed by elemental analysis, spectroscopic analysis, and magnetic moment measurements. All the compounds are coloured, powdered form and soluble in THF, DMF and DMSO. The compounds are stable in air with colour variation. The magnetic moment studies reveals that all the complexes are low spin and paramagnetic. The molar conductance of the complexes in DMF indicate the 1:1 electrolytic behaviour. Thus, the complexes may be formulated as  $[RuL_2(H_2O)_2]Cl$ . The comparison of IR spectral studies of free ligands and complexes elucidated the mode of binding of Schiff bases to metal ions. All the physicochemical properties of the complexes support bidentate chelation of the ligand with metal ion. Lowering of stretching frequency of azomethine nitrogen (C=N) at 1615-1694  $cm^{-1}$  in the ligand by 20-35  $cm^{-1}$  in the complexes result in the chelation of the N to the metal ion. The bands in the ligand's spectra at 3040 – 3200  $cm^{-1}$  and 1672-1680  $cm^{-1}$  assigned to N-H and C=O vibrations of isatin moiety. These bands disappear in ruthenium (III) complexes due to enolization of keto group.

**Keyword:** Ligand, Complex, Schiff base, Isatin, Sulpha drug

## OP 93

**Modelling the impact of perfect and imperfect vaccination strategy against SARS CoV-2 by assuming varied vaccine efficacy over India****Yaladanda Nikhila and Srinivasa Rao Mutheneni\*****Applied Biology Division, CSIR-Indian Institute of Chemical Technology (CSIR-IICT),  
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**Abstract:** The global coronavirus disease outbreak (COVID-19) has quickly disrupted public health and socioeconomic development in numerous nations. Making effective public health policies to slow the spread of COVID-19 has benefited greatly from epidemiological modelling research using SIR based compartmental models. The goal of the present study is to determine the optimal vaccination strategy for controlling the COVID-19 pandemic in India. The susceptible-vaccination-infectious-removed (SVIR) model was used in conjunction with a variety of vaccine efficacy scenarios to predict the number of people to be covered for vaccination each day in India as well as at the state level. The model estimated that >5 million people would need to be vaccinated daily to flatten the epidemic curve of COVID-19 in India by assuming that the vaccine has 100% efficacy. The effectiveness of various vaccination strategies, such as "all-or-nothing" (AoN) and leaky vaccines, does not differ significantly from one another at higher efficacies (>70%). When given at the higher coverage strategies, the AoN vaccine was discovered to be just slightly more successful than leaky at lower efficacies (70%). Further state-level assessments were conducted, and it was discovered that Andhra Pradesh, Gujarat, Kerala, and Maharashtra, where it is assumed that vaccine efficiency is 70%, require 0.3, 0.3, 0.2, and 1 million immunizations each day. The suggested modelling technique outlines a number of assumptions on vaccine efficacy, which aids health authorities in prioritising vaccination strategies to prevent the transmission as well as disease. This study helps to understand the dynamics of vaccination to fight against the COVID-19 disease and the same approach can be applicable to a broad range of emerging infectious diseases.

**Keywords:** Vaccination; COVID-19; SVIR compartmental model; Efficacy; All or nothing; Leaky; India.

## OP 94

**Ethical Considerations and Implications in Research with Ethnic and Tribal Groups****Saad Ahmad****Centre for Linguistics, Jawaharlal Nehru University, New Delhi 110067****E-mail: msdad88@gmail.com**

**Abstract:** Ethics is a matter of systematised and principled sensitivity to the rights of others. Research ethics has recently been receiving a great deal of attention, and there are debates about the extent to which research with less empowered participants and marginalised sections differs from research with other groups. While in various ways, ethics can limit the choices researchers have in pursuit of truth or knowledge, ethics form an integral part of any research as respect for human dignity is inarguably of paramount importance. It can be argued that ethics can impose limits on methods applied or can impinge research itself, particularly in the human sciences. While working with endangered languages among the tribal population, it becomes worth deeper consideration as researchers encounter value systems and codes of interpersonal and social behaviour different from the more conventional ones. Thus, when it comes to cross-cultural research, consideration of ethicality in the research methodology is even more important, as the researchers deal with individuals who have been exploited, who are more marginalised and vulnerable in many ways. Often, they are people living in poverty, who do not have enough education to deal with the formality of research, and who feel too powerless to express their concerns or to resist the power of researchers. I will discuss and propose that methods of data collection and interaction with populations such as these need to develop through a deeper understanding of the historical and cultural background within those populations to be sensitive and responsive to historical lack of access to power and privilege and therefore exposure to discrimination, oppression and exploitation. This discussion also focuses on some ethical dilemmas raised during research with tribal participants/informants, and concludes with a discussion of broader issues related to dissemination and the policy implications of research.

**Keywords:** ethics of research, research methodology, ethnic groups, tribal groups

## OP 95

**Molecular docking of curcumin and curcuminoids as human Zn<sup>+</sup> dependent Histone deacetylase (HDAC) enzyme inhibitors****Annuja Anandaradje<sup>1</sup>, Bikashita Kalita<sup>2</sup>, Mohane Coumar<sup>2</sup>, Sandhiya Selvarajan<sup>1</sup>****<sup>1</sup>Department of Clinical Pharmacology JIPMER; <sup>2</sup>Department of Bioinformatics Pondicherry University****E-mail: annujaanandaradje@gmail.com**

**Abstract:** Chemotherapy is one of the most well-established and effective cancer treatments available. However, non-tumor-associated damage restricts the treatment's effectiveness and safety. Our growing understanding of cancer epigenetics has resulted in new therapeutic options and the potential of better patient outcomes in recent decades. In cancer, epigenetic changes are widespread, particularly increased expression and activity of histone deacetylases (HDACs). Epi-drugs are chemical agents that modify the structure of DNA and chromatin facilitating disruption of transcriptional and post-transcriptional changes. First generation epi-drugs include HDACi (approved to treat hematological malignancies) harbor various adverse effects demanding the discovery and development of potential natural HDACi that might benefit cancer treatment especially in hematological malignancies. Curcumin (diferuloylmethane), a polyphenolic, component of *Curcuma longa*, is a well-known anti-inflammatory, anti-oxidative, and anti-lipidemic agent and has recently been shown to be a pan HDAC inhibitor. Yet the potential of other curcuminoids in *Curcuma longa* as pan HDACi remains unexplored. Our study revealed that BDMC followed by DMC and curcumin had high inhibitory effect by interacting at the active site of Zn<sup>+</sup> HDACs similar to that of the standard HDACi. The study was validated by re-docking the ligands (curcumin, DMC, BDMC, Belinostat, Chidamide, Romidepsin, Panobinostat, Trichostatin A and Vorinostat) and superimposing them onto co-crystallized complex. The ligands with low binding energy were further predicted for pharmacokinetic properties and Lipinski's rule of 5. These findings could be validated with invitro investigations and by clinical trials to evaluate the survival outcomes in cancer patients when treated with the natural HDACi along with standard chemo regimen.

**Keywords:** HDACi, curcumin, curcuminoids, docking, pharmacokinetic property.

## OP 96

**Catatonnia Scores Improvement with Drugs Modulating RAS System: An Experimental In-Vivo Study****Bai MK<sup>1\*</sup>, Chavan M<sup>2</sup>, Prakash KG<sup>3</sup> and Saniya K<sup>4</sup>**<sup>1</sup>Dept. of Physiology, <sup>2</sup>Dept. of Pharmacology, <sup>3,4</sup>Dept. of Anatomy,

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**Abstract:** Exploratory motor behaviour parameters were studied in standard animal models of neurodegeneration. It was well understood and hypothesized that drugs modulating EAS will have favorable outcomes in neurodegenerative disorders. The ACEI were selected and administred at their equivalent doses in animals and motor behaviour parameters including catatonnia scores were recorded and compared among the groups in the study. This study established that, catatonnia scores were improved significantly with drugs modulating RAS system with  $P < 0.01$ .

**Keywords:** Neurodegeneration, Dopaminergic Fibers, Renin Angiotensin Aldosterone System, Behavioural Parameters, ACE Inhibitors

## OP 97

**Small Group Teaching Methods Significantly Improved the Scores in Sessional Examinations among First Year Nursing Students: A Systematic Randomized Trial****Mythili B<sup>1\*</sup>, Chavan M<sup>2</sup>, Prakash KG<sup>3</sup>, Saniya K<sup>4</sup>****<sup>1</sup>Dept. of Physiology, <sup>2</sup>Dept. of Pharmacology & <sup>3,4</sup>Department of Anatomy, SMIMS, Tamil Nadu, AIMS, Kerala, VBMC, Andhra Pradesh and GMCH Rajasthan, India****E-mail: drmythili4u@gmail.com**

**Abstract:** Medical education technologies place an important role in understanding the subject concepts. The appropriate use of T & L methodologies including at the right place and right time is crucial. This study had specific objective to understand the effectiveness of small group teaching on academic performance. The study participants were randomized into two different groups based on random numbers after obtaining valid written informed consent. In one group, the study participants were given intervention of small group teaching and in other as traditional teaching and learning technologies/methods. The Pre and post tests were performed as per the defined protocol procedure and compared among groups. The intervention group with small group teaching methods significantly improved the scores in sessional examinations in comparison with the traditional T & L methods.

**Keywords:** Medical Education, Tutorials, Teaching and Learning Technologies, Professional Examination, Academic Performance

## OP 98

**A Snapshot of Knowledge, Attitude and Practices of Research Methodology including Bioethics Principles among Intern Dental Doctors****Karamthoti MB<sup>1\*</sup>, Chavan M<sup>2</sup>, Saniya K<sup>3</sup>, and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Physiology, <sup>2</sup>Dept. of Pharmacology & <sup>3,4</sup>Dept. of Anatomy, SMIMS, Tamil Nadu, AIMS, Kerala, PSIMS, Andhra Pradesh and GMCH Rajasthan, India****E-mail: madhavraochavan78@gmail.com**

**Abstract:** Bioethics is plays important role and its adherence in the research is must to maintain the four universal principle of bioethics. The research principles are essential in obtaining the results data are authentic, credible and have both internal as well as external validity. In this study, the prevalence of awareness of these important factors among intern dental doctors was studied. The study participants were enrolled into the study after inclusion and exclusion criteria. It was highlighted that, research principles including bioethics were satisfactory among dental intern residents.

**Keywords:** Awareness, KAP, Bioethics, Research Methods, Consent, ICD, ICMR, IEC

## OP 99

**Awareness of Bioethics and Informed Consent Document Principles among Medical Postgraduates in a Southern Teaching Tertiary Care Centre and Hospital****Bai K Mythili<sup>1\*</sup>, Rao M<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup>**<sup>1</sup>Dept. of Physiology, <sup>2</sup>Dept. of Pharmacology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** ICD is an integral part of Good Clinical Practice [GCP]. Documentation of voluntary consent is crucial for any research involving human participants. To become a good researcher, one should have sound knowledge in the research methodology principles including bioethics. With this background, the primary objective of this study was to understand and estimate the prevalence of awareness bioethics and informed consent document principles among medical postgraduates in a southern teaching tertiary care centre and hospital. After adhering to the all ICMR guidelines on human research participants, the study was conducted. The results of the study had shown that, the awareness of bioethics and informed consent document principles among medical postgraduates in a southern teaching tertiary care centre and hospital was satisfactory. The study participants had positive opinion and gave positive feedback with they would like further strengthen their knowledge in this arena.

**Keywords:** Bioethics, Biomedical Research, Informed Consent Document, Ethics Committee [EC]

## OP 100

**Drugs Modulating Renin Angiotensin -Aldosterone System had Significantly Exhibited in Improving the Motor Functions in Neurodegenerative Disorders****Kuppasad PG<sup>1\*</sup>, Madhavrao C<sup>2</sup>, Saniya K<sup>3</sup> and Mythili K<sup>4</sup>**<sup>1,3</sup>Dept. of Anatomy, <sup>2</sup>Dept. of Pharmacology & <sup>4</sup>Dept. of Physiology,

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**Abstract:** Motor functions are affected in the chronic progressive neurodegenerative disorders. It has been well documented that, central RAAS has indirect link with the etiopathogenesis of chronic progressive neurodegenerative disorders. With this background it was hypothesized that, drugs modulating renin angiotensin -aldosterone system will have significant role in improving the motor functions in neurodegenerative disorders. The drugs modulating the RAAS were selected and their equivalent doses in animals were administered as per the standard protocol. The CPCSEA guidelines were followed while conducting the research. It was seen that, drugs modulating renin angiotensin -aldosterone system had significantly exhibited in improving the motor functions in neurodegenerative disorders.

**Keywords:** Neurodegeneration, Motor, Behaviour, Preclinical, RAAS, ARBs

## OP 101

**Evaluation of Anti-Depressant Properties of Angiotensin Receptor Antagonists in Experimental Laboratory Models****G Prakash K<sup>1\*</sup>, Madhavrao C<sup>2</sup>, Saniya K<sup>3</sup> and Mythili K<sup>4</sup>**<sup>1,3</sup>Dept. of Anatomy, <sup>2</sup>Dept. of Pharmacology & <sup>4</sup>Dept. of Physiology,

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**Abstract:** Depression belongs to the psychoses with absence of insight among individuals. The current drugs have many ADRs including drug-drug interactions. Hence it is warranted to explore the newer drugs for the same. The objectives of this research were to evaluate the effect of ARBs in depression in laboratory screening animal models. The animal equivalent doses of ARBs were administered to the corresponding groups. The standard drug including vehicle control group was also included in the study. The various parameters in the TST and FST were recorded and compared among groups with application of appropriate statistical tests. It was concluded that, angiotensin receptor antagonists had significant anti-depressant properties in experimental laboratory animal models.

**Keywords:** Depression, Preclinical, Screening, Animal Research, ARBs

## OP 102

**Anti-Inflammatory Parameters are attenuated with Ca<sup>2+</sup> Channel Blockers in Pilocarpine Induced Seizures in Wistar Albino Rats****Saniya K<sup>1</sup>, Chavan M<sup>2</sup>, Prakash KG<sup>3</sup>, Bai MK<sup>4</sup> and Kumar SS<sup>5\*</sup>**<sup>1,3</sup>Dept. of Anatomy, <sup>2,5</sup>Dept. of Pharmacology & <sup>4</sup>Dept. of Physiology,

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**Abstract:** Epilepsy is a complex CNS disorder. The etiopathogenesis of epilepsy involved excitatory and inhibitory neurotransmitters in the brain and which include like Aspartate, Glutamate and GABA. Many of the available drugs used in the clinical practice acts through one or the other these neurotransmitters and finally balance these neurotransmitter so that excitation is reduced and inhibition is enhanced. However the available drugs have many drawbacks with potential drug-drug interactions, narrow therapeutic index, severe ADRs, therapeutic lag, therapeutic failure etc. Inflammation also contributes in the generation of seizures. The study had a primary objective of understanding the mechanism including the evaluation of efficacy of Ca<sup>2+</sup> channel blockers in Pilocarpine induced seizures in Wistar albino rats. The animals were randomized into different groups and the parameters like onset, duration, number and scores of seizures were recorded. The parameters were compared among different groups with application of appropriate statistical tools. The P value of less than 0.05 was considered to be statistically significant. In conclusion, anti-inflammatory parameters were attenuated with Ca<sup>2+</sup> channel blockers in Pilocarpine induced seizures in Wistar albino rats.

**Keywords:** Epilepsy, Seizures, Preclinical Research, Pilocarpine, CCBs, Screening,

## OP 103

**Evaluation of Effect of Second Generation Piperazines on Motor Functions in Laboratory Animal Models****Chavan M<sup>1\*</sup>, Mythili Bai K<sup>2</sup>, Saniya K<sup>3</sup> and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Second generation H<sub>1</sub> receptor blockers have many advantages over the first generation H<sub>1</sub> receptor blockers. However it has been known that second generation H<sub>1</sub> receptor blockers also to have sedating properties. The experiment was designed to evaluate their effect on motor functions in standard laboratory animal models. The study was approved by the Institutional Animal Ethics Committee [IAEC] and all CPCSEA guidelines were adhered throughout the experimentation. The animals were randomized to various groups including standard and vehicle controls. It was seen that, second generation piperazines group of H<sub>1</sub> receptor blockers also had declined motor performance in various experiments conducted in the laboratory animal models.

**Keywords:** H<sub>1</sub> Antihistaminics, Motor Co-ordination, Sedation, Grip strength, Piperazines

## OP 104

**Drugs Modulating RAAS had Significant Anti-Anxiety Properties in Standard Experimental Animals****Damla CM<sup>1\*</sup>, Mythili Bai K<sup>2</sup>, Saniya K<sup>3</sup> and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy, SMIMS, Tamil Nadu, AIMS, Kerala and GMCH Rajasthan, India****E-mail: madhavraochavan1978@gmail.com**

**Abstract:** Renin Angiotensin Aldosterone System [RAAS] is an integral system and is connected even at the central level with many pathophysiological roles. Drugs modulating RAAS were selected to evaluate their effect on anxiety in standard laboratory animal models. The experimental drugs were selected based on their favorable pharmacokinetic properties. The drugs were prepared and administered as per the standard protocol. The various parameters including exploratory behaviors were studied in the animals. The experimental drugs were able to exert their significant anti-anxiety properties in comparison to the vehicle control.

**Keywords:** Renin Angiotensin Aldosterone System, ACEIs, Anxiety, Elevated Plus Maze

## OP 105

**Piperidines exhibits Significant Effect on Behavioural Parameters: A Preclinical Experimental Study****Madhav RC<sup>1\*</sup>, Mythili Bai K<sup>2</sup>, Saniya K<sup>3</sup>, and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy, SMIMS, Tamil Nadu, AIMSR, Kerala and GMCH Rajasthan, India****E-mail: vsrathod1974@gmail.com**

**Abstract:** Second generation Piperidines with H1 receptor blocking properties were evaluated in the laboratory animal models for their effect on motor performance. The motor performance in animals was studied using actophotometer, rota rod apparatus and grip strength methods. The number of counts in actophotometer, the fall of time in rota rod apparatus including in grip strength were recorded. The parameters were compared to the respective groups at significance level of  $P < 0.05$ . The comparison was done using appropriate statistical methods and tools. The study results revealed that Piperidines exhibited significant effect on behavioural parameters in preclinical experimental study.

**Keywords:** Sedation, Second Generation, Preclinical Screening, H1 Antihistaminics, Piperidines

## OP 106

**Informed Consent Document Procedure in Human Research Studies: A Working Model  
among Students of Southern Tertiary Care Nursing Centre****CM Rao<sup>1\*</sup>, Mythili Bai K<sup>2</sup>, Prakash K<sup>3</sup> and Saniya K<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
SMIMS, Tamil Nadu, AIMS, Kerala and GMCH Rajasthan, India****E-mail: madhavrao.acme9.kottayam@gmail.com**

**Abstract:** The fundamental core universal principle of bioethics is autonomy and voluntariness. The documentation of valid written informed consent is an integral part of any research. The fundamental principles of ICD are very important for investigators, so that every study participant is respected for their voluntariness and decision. It was planned to study the awareness of ICD procedures among students in Southern based teaching and tertiary affiliated nursing centre. It was seen that, study participants had poor knowledge on ICD, However had positive attitude in understanding about the facts of ICD through various educational events.

**Keywords:** Biomedical Health Research, Bioethics, ICD, Consent, Perceptions, Awareness

## OP 107

**Broad Spectrum Antimicrobial Agents and their Effect on Induced Anxiety in Laboratory****Animals: an in Vivo Randomized Experimental Study****Chavan Rao M<sup>1\*</sup>, K Mythili<sup>2</sup>, Prakash KG<sup>3</sup> and Saniya K<sup>4</sup>**<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Anxiety is associated inflammation in the central Nervous System [CNS]. The role of inflammation in the anxiety is supported by the medical literature and published reports. The role broad spectrum antimicrobial agents and their effect on induced anxiety were studied in appropriate laboratory animal models. The anxiety in the laboratory animals were studied using elevated plus maze apparatus and exploratory hole board tests. The recommended and animal equivalent doses of broad spectrum antimicrobial agents were administered and various parameters were studied and compared among the groups. The experimental drugs had significant anti-anxiety properties in animal models.

**Keywords:** Anxiety, Plus Maze, Laboratory Animals, Preclinical Screening, Antimicrobial Agents

## OP 108

**Second Generation H<sub>1</sub> Receptor Antagonists and Motor Functions: An Exploratory Study in Screening Models****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Prakash KG<sup>3\*</sup> and Saniya K<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Second generation H<sub>1</sub> antihistamines are associated with less sedation property when compared to the classical H<sub>1</sub> antihistamines. However it has been reported sedation as ADR of these for many times in human beings. To understand and evaluate the real effect of second generation H<sub>1</sub> receptor antagonists and motor functions including their exploratory behavior, this study was designed using appropriate instrumental techniques in standard laboratory animal models. The study showed that, there was no difference between the second generation H<sub>1</sub> antihistamines when compared to their classical drugs in relation to their motor functions.

**Keywords:** H<sub>1</sub> Receptor Blockers, Sedation, Motor Co-ordination, Preclinical Research, Screening Animal Models

## OP 109

**Preclinical Screening of 5-HT<sub>3</sub> Receptor Modulation and Anti-Anxiety Properties****Chavan M<sup>1</sup>, Mythili Bai K<sup>2</sup>, Saniya K<sup>3</sup> and Gurusiddappa PK<sup>4\*</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
SMIMS, Tamil Nadu, AIMS, Kerala and GMCH Rajasthan, India****E-mail: drmythili4u1981@gmail.com**

**Abstract:** Anxiety is an important psychiatric disorder associated with many pathophysiological consequences. It was understood that, many neurotransmitters including proteins plays important role in its etiopathogenesis. The aim of the study was to evaluate the preclinical screening of 5-HT<sub>3</sub> receptor modulation and anti-anxiety properties. The 5-HT<sub>3</sub> receptor modulation was done by using appropriate selective drugs. All drugs are administered in their corresponding doses to the animals in different groups. This study concluded that, 5-HT<sub>3</sub> receptor modulation had significant anti-anxiety properties in preclinical screening tests in experimental laboratory animal models.

**Keywords:** 5-HT<sub>3</sub> Receptor Blockers, Anxiety, Elevated Plus, Preclinical Research, Screening Models

## OP 110

**Biomedical Health Research and Ethics Principles: An Exploratory Study among Dental Faculty****Karamthoti MB<sup>1</sup>, Chavan M<sup>2</sup>, Udma S<sup>3\*</sup> and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Physiology, <sup>2</sup>Dept. of Pharmacology & <sup>3,4</sup>Dept. of Anatomy,****SMIMS, Tamil Nadu, AIMS, Kerala, PSIMS, Andhra Pradesh and GMCH Rajasthan, India****E-mail: remamenong1950@gmail.com**

**Abstract:** It is important to know more about the various national and international guidelines pertaining to the ethics to carry the research work in a better way. It is also important to update the knowledge periodically by the researchers/Investigators. As a faculty, it requires them to carry out the original research in adherence to the universal principles of bioethics. The core principle of research methodology is critical to make the research more meaningful and obtained data is in more accepted form by the worldwide professional society/scientists. With this, this study had taken the snapshot of awareness of biomedical health research and ethics principles among dental faculty. It was understood that, awareness of biomedical health research and ethics principles among dental faculty was good with positive opinion and majority willing to take further updates in this field periodically.

**Keywords:** Dental, Research Principles, IEC, Ethics Committee [EC], ICD, Biomedical Research [BMR], Consent

## OP 111

**Effect of Selective Serotonin Reuptake Inhibitors on Anxiety: A Preclinical Screening Study Standard Laboratory Models****Damla CM<sup>1</sup>, Mythili Bai K<sup>2</sup>, UK Saniya<sup>3\*</sup> and Prakash KG<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy, SMIMS, Tamil Nadu, AIMS, Kerala and GMCH Rajasthan, India****E-mail: sarathbabupharm18@gmail.com**

**Abstract:** Serotonin also plays an important role in the etiopathogenesis of anxiety. Anxiety is a complex psychological disorder which needs to be understood in detail. The current available drug molecules have their own advantages and disadvantages. With this underlying background and mechanisms, it was decided to evaluate the effect of SSRIs in the anxiety experimental models in animals. The SSRIs were selected and given in the appropriate doses to the animals. The research proposal was approved by the IRB and the experiments were carried as per the guidelines of CPCSEA. The results of the study confirmed that, SSRIs exhibited significant anti-anxiety properties in preclinical screening laboratory animal models.

**Keywords:** SSRIs, Anxiety, Preclinical, Screening, Animal Models, Plus Maze, Hole Board

## OP 112

**Behaviour Parameters in Experimental Induced Neurodegenerative Disorder in  
Comparison to ACE Inhibitors****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya Udma<sup>3\*</sup> and KG Prakash<sup>4</sup>****<sup>1</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Neurodegenerative disorders are complex and progressive in nature. Many neurotransmitters like DA, Ach, and Glutamate are involved in the pathogenesis of chronic neurodegenerative disorders. It was also reported in the medical literature that, central RAS system also plays an important role in the etiopathogenesis of these chronic progressive neurodegenerative disorders. With this hypothesis, the study was aimed to evaluate the role of ACEIs in chronic progressive neurodegenerative disorders. The standard animal models were selected and the experimental drugs, including standard, vehicle control and negative groups were randomized and the laboratory animals were induced with the chemical models of neurodegeneration. It was found that, modulation of RAS system with ACEIs had significant effect in attenuating the behaviour parameters when compared to the vehicle control and the results were also in comparison to the standard drug(s) used in the experimentation.

**Keywords:** Parkinson's Disease, Neurodegeneration, Dopamine, ACEI, Motor, Catatonia, Preclinical Research

## OP 113

**Perceptions about ICD in Biomedical Health Research in Final Year Dental Students: A Cross-Sectional Study****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup> and Suresh S<sup>5\*</sup>****<sup>1,5</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
SMIMS, Tamil Nadu,****GMCH Rajasthan and KMC, Kerala, India****\*E-mail: madhavchavan1978@gmail.com**

**Abstract:** Ethics in research is of paramount and its application in human research is essential to maintain the harmony. Informed Consent Documentation [ICD] is highly crucial before enrolment of human study participants into any research. It is a well-known fact that, good understanding of bioethics including sound research methodology principles brings the good quality of research which can be widely accepted across the globe with more credibility and generalizability. With this background, it was decided to estimate the prevalence of awareness of ICD in biomedical health research in final year dental students. The study was done after adhering to the all national and international guidelines on human research. The GCP principles were followed while conducting the research project. The study concluded that, perceptions about ICD in biomedical health research in final year dental students were below the hypothesized level. The study participants opined to undergo various training modules in this area for better understanding and its application in their career profession.

**Keywords:** KAP, Informed Consent Document [ICD], Awareness, Biomedical Research, Bioethics, ECs, IEC, ICMR

## OP 114

**Experimental Induced Parkinson's Disease: Evaluation of Effect of Currently used  
Atypical Anti-Depressant Drugs****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup> and Srinivas SK<sup>5\*</sup>****<sup>1,5</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Chronic neurodegeneration is the hallmark of Parkinson's disease. It is important to understand the pathology of this disease in more detail to improve QoL in these individuals. Keeping in mind with the current available therapeutics in clinical practice, it is important to explore this arena and understand the various pathways involved in this chronic progressive neurodegenerative disorder. Atypical antidepressants play a unique role in the treatment of depression and acts through novel mechanisms when compared to the traditional/classical antidepressants. The efficacy of these drugs in Parkinson's disease is neither clear or nor explored. With this basic understanding, the role of these atypical antidepressants was studied using experimentally induced laboratory animal models. The study results were in favour and had promising role.

**Keywords:** Neurodegeneration, PD, Dopamine, Preclinical Research, Antidepressants, Screening, Animal Models

## OP 115

**Evaluation of Anti-Anxiety Effect of MAO Inhibitors in Laboratory Induced  
Experimental Screening Animal Models****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup> and Suresh Kumar S<sup>5\*</sup>**<sup>1,5</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** The experiments were conducted in the laboratory animal models to understand the significant role of MAOI in the treatment of anxiety. The human equivalent doses of MAOI were converted into the equivalent animal doses based on their surface area. The research protocol received the approval from the Institutional Research Committee [IRC] and Institutional Animal Ethics Committee [IAEC] which was registered under the CPCSEA. The experiments were carried as per the standard protocol in adherence to the Good Laboratory Practice [GLP]. The randomized experimental animals were administered the appropriate doses of corresponding drugs and were compared with analysis using appropriate statistical tests;  $P < 0.05$  was considered as statistically significant. It was confirmed that, MAOIs exhibited significant anti-anxiety effect in laboratory induced experimental screening animal models.

**Keywords:** Anxiety, Preclinical Research, Animal Models, Elevated Plus, Hole Board, MAOI

## OP 116

**SSRIs Antidepressants and their Role in Chronic Progressive Neurodegenerative Disorders: An Experimental Randomized In Vivo Study****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup>, Kurra SB<sup>5\*</sup> and Kumar S<sup>6</sup>****<sup>1,5,6</sup> Dept. of Pharmacology, <sup>2</sup> Dept. of Physiology & <sup>3,4</sup> Dept. of Anatomy,  
SMIMS, Tamil Nadu,****GMCH Rajasthan and KMC, Kerala, India****\*E-mail: madhavchavanacademic78@gmail.com**

**Abstract:** The role of SSRIs in chronic progressive neurodegenerative disorders has scanty information in the medical literature. The effect of these drug molecules in chronic progressive neurodegenerative disorders need to be explored for understanding the alternate pathways and treatment options in the coming future. With the basic understanding of the pathology of chronic progressive neurodegenerative disorders, study had a primary objective to evaluate the role of SSRIs in chronic progressive neurodegenerative disorders. The standard animal models as published in the medical literature were selected and induced with chemical models to explore and meet the primary objectives of the study. The motor behaviour parameters were recorded and analyzed with statistical tools for any significance among the experimental groups. This study showed that, SSRIs had significant role in attenuation of motor behaviour parameters in chronic progressive neurodegenerative disorders induced with chemicals in preclinical screening models in laboratory animals.

**Keywords:** SSRIs, Neurodegeneration, Parkinson's Disease, Preclinical Screening

## OP 117

**A Snapshot of Awareness of Documentation of Consent in Human Research among Students in Southern Based Medical Teaching Tertiary Care Centre and Hospital****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup>, Sharath Babu K<sup>5\*</sup>, Kumar S<sup>6</sup>**<sup>1,5,6</sup> Dept. of Pharmacology, <sup>2</sup> Dept. of Physiology & <sup>3,4</sup> Dept. of Anatomy,

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**Abstract:** Application of bioethics principles in any human research is important and highly crucial. The awareness of bioethics principles varies among different health care professionals. The same may also varies from place to place and from time to time. It is also highly essential for every researcher to be acquainted with the updated knowledge in this field. A cross-sectional study was planned to understand the level of awareness of ICD principles in human research among students in southern based medical teaching tertiary care centre and hospital. A prevalidated questionnaire was used in the study and which obtained approval from the Institutional Human Ethics Committee [IHEC]. The GCP and ICMR guidelines were followed in conducting the research. A prior operational definition of levels of awareness was clearly defined before the start of the research project. The study participants had positive opinion with their willingness to update knowledge in ICD documentation including other bioethics principles involved in the human research.

**Keywords:** ICD, ECs, Institutional Ethics Committee [IEC], Biomedical & Health Research.

## OP 118

**Role of Vitamins in Attenuation of Catatonic Scores in Experimental Animal Models of Parkinson's Disease****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup>, Babu SK<sup>5\*</sup> and Kumar S<sup>6</sup>**<sup>1,5,6</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** Vitamins play many important roles in the physiological homeostasis. Vitamins do possess antioxidant properties and it was supported by the many published studies in the medical literature. The role of vitamins in many chronic medical disorders has been tried to understand their role including underlying mechanisms. The role of vitamins in chronic neurodegeneration has not been explored or the available literature is too scanty. Hence this study was conducted to understand and evaluate the effects vitamins in chronic neurodegeneration of Parkinson's disease which was induced with the chemicals in experimental laboratory animal models. As per the standard procedure(s) the experiments were carried out and the recorded data was analyzed with statistical tests. The study found that, vitamins had significant role in attenuation of catatonic scores in experimental animal models of Parkinson's disease.

**Keywords:** Catatonia, Preclinical, Screening, Animal Models, PD, Neurodegeneration, Dopamine, Vitamins

## OP 119

**Role of Paroxisome Proliferator-Activated Receptor  $\alpha$  (PPAR $\alpha$ ) Agonists in Anxiety: A Preclinical Screening Study****Chavan M<sup>1</sup>, Bai MK<sup>2</sup>, Saniya K<sup>3</sup>, Prakash KG<sup>4</sup>, Sharath BK<sup>5\*</sup> and Kumar S<sup>6</sup>**<sup>1,5,6</sup>Dept. of Pharmacology, <sup>2</sup>Dept. of Physiology & <sup>3,4</sup>Dept. of Anatomy,  
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**Abstract:** The Paroxisome Proliferator-Activated Receptor  $\alpha$  (PPAR $\alpha$ ) stimulation has many physiological and biochemical functions in the humans. The modulation of these receptors may have many therapeutic roles in combating the pathogenesis of medical disorders. The primary goal of the research work was to test the role of Paroxisome Proliferator-Activated Receptor  $\alpha$  (PPAR $\alpha$ ) agonists in anxiety. The study was approved by the IRB [CPCSEA registered]. The animals were procured from the institutional central animal house and were acclimatized to the experimental laboratory for a week. The protocol followed the GCLP guidelines. The  $P < 0.05$  was considered to be as statistically significant. The results of this preclinical screening confirmed that, Paroxisome Proliferator-Activated Receptor  $\alpha$  (PPAR $\alpha$ ) agonists possess significant anti-anxiety properties when compared to the control group in preclinical screening laboratory animal models.

**Keywords:** Anxiety, PPAR $\alpha$ , Hole Board, Preclinical research, Elevated Plus Maze

## OP 120

**Integration of Facial Visual Stimuli into Hybrid Brain-Computer Interface Systems  
for the Purpose of Increasing System Performance****Deepak D. Kapgate<sup>1\*</sup> and Krishna Prasad K.<sup>2</sup>**<sup>1</sup>Research Scholar, Institute of Engineering and Technology,  
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Srinivas University, IndiaE-mail: E-mail: deepakkapgate32@gmail.com;  
krishnaprasadkcci@srinivasuniversity.edu.in**Abstract**

*Purpose:* In non-invasive electroencephalogram (EEG) based brain computer interface (BCI) systems, EEG signals are acquired from the brain scalp by placing electrodes on the surface of the human scalp. These signals are then processed to create control commands for the computer. This study proposes a hybrid BCI that simultaneously evokes Steady State Visual Evoked Potentials (SSVEP) and Event Related Potentials (P300). Previous studies have proved that facial stimuli provide more robust event related (ERP) responses with additional information as N170 and N400 ERP responses. These ERPs result in increased accuracy and communication rate of facial stimuli based BCI systems compared to non-face stimuli. Hence, this study proposes the incorporation of facial visual stimuli in hybrid SSVEP+P300 systems to evoke stronger cortical potentials.

*Methods:* Visual stimulus paradigms such as non-face, neutral-face, and emotional-face are implemented to elicit both SSVEP and P300 responses. In addition, we examined the neutral-face and flicker paradigm and the emotional-face and flicker paradigm, where non-face stimuli elicited SSVEP and face stimuli elicited P300. Figure 1 demonstrates the block diagram of the proposed hybrid SSVEP+P300 VBCI system.

*Results and Conclusions:* The results demonstrated that the emotional-face and flicker paradigm elicited more robust cortical responses compared to other paradigms, resulting in improved system accuracy and ITR. The average accuracy of the emotional-face and flicker paradigm was 95.6 percent, with an average system communication rate of 25.4 bits per second. When facial stimuli activate both the SSVEP and P300 signals at the same time, they provide a negative interface for the SSVEP, which in turn elicits SSVEP responses that are of lower quality. This

differs from paradigms in which only one signal is triggered by a face and the other signal is triggered by something else. Future efforts will concentrate on evaluating stimuli with various face orientations, inversions, and combinations in an SSVEP+P300 hybrid BCI.

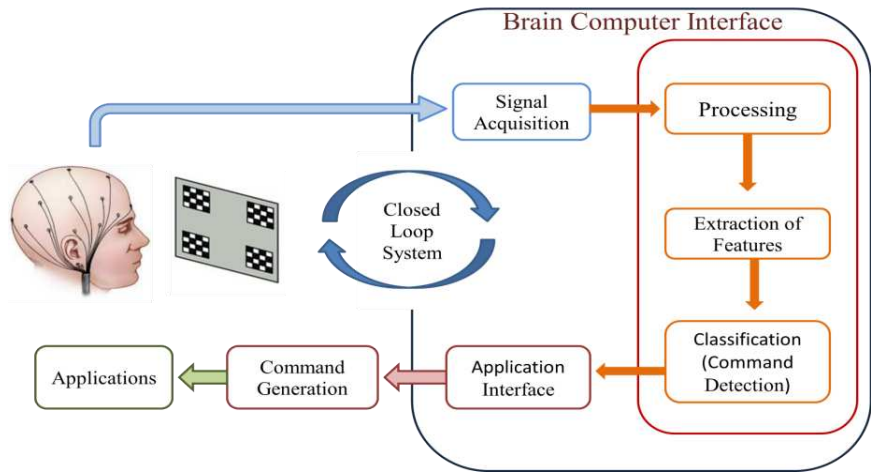


Figure 1: Block diagram of hybrid VBCI system.

## OP 121

**Piezoelectric Material****Vaibhav Mishra****Department of Physics, Dr. Shakuntala Misra National Rehabilitation University, Lucknow,  
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**Abstract:** Piezoelectric materials are a class of smart materials with reproducible and stable electromechanical responses when subjected to electrical or mechanical stimuli. There are different types of piezoelectric materials, including single crystals, ceramics, and polymers, that are integrated into an increasing number of applications, such as sensors and actuators, energy generation and storage, biomedical, structural, and environmental applications, among others. Within piezoelectric materials, polymeric piezoelectric materials do not show a high piezoelectric coefficient when compared to ceramic materials, but they are lightweight, flexible, and chemically and mechanically resistant, and can be easily processed into a large variety of configurations. Further, their physicochemical properties can be also tailored over a wide range by appropriate modifications. These materials can be processed using different techniques, including electro spinning, printing techniques, or template patterning, among others, allowing to process materials in the form of films, fibers, microspheres, and porous membranes. The main advantage of the techniques is the easy process ability, control of morphology, efficiency, and scalability of the process. Among the different processing techniques, printing technologies are strongly being implemented in recent years, as they allow obtaining materials with low cost, large areas, high volume, and lightweight, allowing simple integration or direct fabrication of devices. Taking into account the recent technological and scientific advances, future trends are the processing of these materials directly on the device, the production of different multifunctional composites and layers, and increasing interface compatibility in multilayered materials and materials with complex geometries. Thus, organic piezoelectric materials processed by unconventional techniques will be the future for many applications and could be the basis for the next generation of lighter, flexible, and customizable devices with improved and tailored properties.

## OP 122

**Type 2 Diabetes: The evolving epidemic of 21<sup>st</sup> century**

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**Abstract:** Type 2 diabetes is now a pandemic and shows no signs of abatement. The overall global prevalence of type 2 diabetes is rising steadily. The prevalence of type 2 diabetes worldwide is set to increase from its present level of 150 million, to 225 million by the end of the decade and to as many as 300 million by 2025. Shocking as they are, these figures represent only clinically diagnosed diabetes, and many more cases of diabetes remain undiagnosed and untreated. Previously, type 2 diabetes was predominantly a disease of middle-aged and older people. In recent decades, the age of onset has decreased and type 2 diabetes has been reported in adolescents and children worldwide, particularly in high-prevalence populations. The incidence of type 2 in the young is rising in parallel with the incidence of overweight and obesity, suggesting a possible causal relationship, particularly when the obesity is central and in relation to decreased physical activity. Other factors include family history, gestational diabetes in the mother, and low birth weight. All of these are associated with insulin resistance, although decreased insulin secretion is also required. Additional cardiovascular risk factors are often associated with type 2 diabetes in the young. Furthermore, evidence is accumulating that young-onset type 2 diabetes has a more aggressive disease phenotype, leading to premature development of complications, with adverse effects on quality of life and unfavorable effects on long-term outcomes, raising the possibility of a future public health catastrophe. Given that diabetes is a major cause of mortality, morbidity, and health care expenditures, addressing this chronic disease represents one of the greatest global health challenges of our time.

**Keywords:** Type 2 diabetes mellitus, adolescents, obesity,  $\beta$ -cell function.

## OP 123

**Physical and Psychological impact of Smartphone Usage during COVID lockdown- A survey review****Dr Anupama Deshmukh<sup>1</sup>, Vedhavathi A<sup>2</sup>, B.S. Lakshmi<sup>3</sup>, and.C. Jayshree<sup>4</sup>****<sup>1</sup>Professor and HOD, Department of Community Medicine, Bhagawan Buddha Homoeopathic Medical College and Hospital, Bengaluru-56.****<sup>2</sup>Final year UG Scholar, Bhagawan Buddha Homoeopathic Medical College and Hospital, Bengaluru.****<sup>3</sup>Final year UG Scholar, Bhagawan Buddha Homoeopathic Medical College and Hospital, Bengaluru.****<sup>4</sup>Final year UG Scholar, Bhagawan Buddha Homoeopathic Medical College and Hospital, Bengaluru.****E-mail: ashwathvedu15@gmail.com**

**Abstract:** The evolution of mobile phones just from a communication device to a device that supports multi-tasking is enormous. The recent technologies have contributed immensely to the development in the world of mobile phones. The features provided in the recent days have attracted the consumers to the extent of mobile addiction, which is a common problem today worldwide. The present study analyses the physical and psychological parameters in different age groups of people on the basis of smartphone usage during the pandemic COVID-19.

## OP 124

**A Study on Prevalence of Alcohol Consumption among Adults of Village****Dr. Foram Jayantilal Raiyani****M.B.B.S, Pacific Medical College and Hospital, Udaipur, 313001****E-mail: foramraiyan96@gmail.com**

**Abstract:** Alcohol consumption is an important public health problem, especially in developing countries like India. The drinking habit usually begins during adolescence. The majority of drinkers start consuming alcohol at age of NINETEEN. 2.3 billion people consume alcohol every year of which 3 million people die worldwide; 1 Indian die every 96 minutes through alcohol consumption. Prevalence of alcohol consumption is high, especially among males. Despite the facts, that the harmful effects of alcohol drinking are widely known, many young people start drinking during adolescence, largely because they believe that drinking will boost their social acceptability and image. Health educational interventions and proper treatment may help in reducing the burden of alcohol consumption. A cross-sectional study was conducted among adults of age group 20 and above of Pratappura village, Udaipur. Out of the total adults in village, randomly 100 adults were selected as sample and were distributed the questionnaire to them. Collected data was compiled and descriptive and analytical study methods were used to prepare result in which it was found that friends is main inducing factor for getting indulge to alcohol beverages and main perception for consumption was to relieve stress.

**Keywords:** Alcohol, Prevalence, adolescence, health education intervention, relieve stress.

**OP 125****A Study of Alice in Wonderland Syndrome Associated with Migraine and its  
Homoeopathic Treatment****Dr. Anupama Deshmukh B.H.M.S, MD (HOM), Dr. C. Jayasree B.H.M.S****Professor & HOD. Dept of Community Medicine****Bhagawan Buddha homeopathic medical college Bangalore****E-mail: jayasree7852@gmail.com****Abstract**

Alice in Wonderland syndrome (AIWS) is a rare neurological disorder characterized by distortions of visual perception (metamorphopsias), the body image, and the experience of time, along with derealization and depersonalization. The role of migraines in Alice in Wonderland syndrome is still not understood, but numerous literature support a strict relationship between migraine and AIWS, which could be considered in many patients as an aura or a migraine equivalent.

**Methods**

A literature review was carried out in PubMed using "AIWS", "Migraine" that produced 106 results. The articles that were not indexed in PubMed were found by consulting the references included in selected publications. This broad eligibility was adopted due to the lack of availability of studies on a rare condition like AIWS, as there are about 169 cases have been published in literature.

**Result**

Out of 169 cases of AIWS published, the most common etiology is migraine (27.1%), followed by infections (22.9%), principally EBV (15.7%). There are no research studies that has been conducted to evaluate the role of Homoeopathy in AIWS.

**Conclusion**

Although 60 years have passed since then, very little is known yet about the syndrome. Homoeopathy can be an alternative mode of treatment to not only help in improving this condition but also treat the same, and improves the quality of life .There are no research studies

that has been conducted to evaluate the role of Homoeopathy in AIWS. Homoeopathy is rapid, gentle, permanent treatment which is based on totality of symptoms (mental and physical generals) and individualization, so it can be used as an effective method of treatment but to establish the efficacy of it, more research studies have to be conducted.

**Keywords:** Alice in Wonderland, Distortion, Migraine, Metamorphopsias, Homoeopathy

## OP 126

**“A Cross Sectional Study to Assess the Demographic Profile and the Treatment Compliance of Patients Attending “Anti-Rabies Clinic” in Jay Arogya Group of Hospitals, Gwalior”**

**Dr. Nitish Kumar**

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**Abstract**

**Introduction:** Dog bites in human are one of the major public health concern in India. Rabies, a neglected tropical disease which is 100% fatal yet preventable by proper and adequate post exposure prophylaxis which includes wound wash, full course of anti-rabies vaccination and wound infiltration of rabies immunoglobulin in all category 3 bites. In India majority of the disease is caused by bite of dogs, whereas bite of several other animals such as cats, donkeys, monkeys, pigs, jackals and wolves can cause rabies. Hence the current study is done to know the demographic profile and the treatment compliance among the patients attending Anti-rabies clinic.

**Methods:** A hospital based cross-sectional study is being conducted using document analysis in ARV clinic of Jay Arogya group of Hospitals, Gwalior from 16<sup>th</sup> August, 2022 to 15<sup>th</sup> October, 2022. The document analysis of all patients attending Anti rabies clinic during the study period was included in the study. The information regarding age, sex, date of bite, site of bite, category of bite, category of animal, various treatment given like injection tetanus toxoid, anti-rabies vaccine its complete schedule on different dates and anti-rabies immunoglobulin would be collected and analysed appropriately.

**Results:** The study is under process and the results are awaited.

**Expected Outcome:** This study is expected to reveal the age and sex distribution of patients attending ARV clinic. The hotspots for animal bite would be identified and most importantly the compliance of the patients for complete doses of ARV would be known based on which appropriate recommendations would be made for the betterment of patients and community as a whole.

**Keywords:** Rabies, Anti Rabies Vaccine, Jay Arogya group of Hospitals, Gwalior.

## OP 127

**Dark Matter and Dark Energy – An Unsolved Mystery of Astronomy and Astrophysics****Amit Kumar Mishra****M.Sc Physics, Department of Physics, Faculty of Science and Technology****Dr. Shakuntala Misra National Rehabilitation University, Lucknow, 226017****E-mail: mishramit99@gmail.com**

**Abstract:** Our universe is dominated by mysterious and invisible forms of matter and energy that have yet to be understood. Though we can't see or touch it. Most astronomers say the majority of the cosmos consists of dark matter and dark energy. They cannot see dark matter directly, but can study its effects. They can see light bent from the gravity of invisible objects (called gravitational lensing). They can also measure that stars are orbiting around in their galaxies faster than they should be. This can all be accounted for if there were a large amount of invisible matter tied up in each galaxy, contributing to its overall mass and rotation rate. Most of the universe is made up of dark energy, a mysterious force that drives the accelerating expansion of the universe. The next largest ingredient is dark matter, which only interacts with the rest of the universe through its gravity. Normal matter, including all the visible stars, planets and galaxies, makes up to less than 5 percent of the total mass of the universe. Galaxy clusters can contain hundreds or thousands of galaxies, each of which have their own dark matter halo. However, the cluster has its own dark matter, which outweighs everything else put together. This dark matter influences how individual galaxies and hot gas move inside the cluster. Astronomers can measure how much invisible mass is inside a cluster by the motion of the visible material, much as they do with galaxies. Researchers can also determine the amount of cluster dark matter by the way its gravity affects light. This effect is called gravitational lensing, and it provides an independent measure of how much mass is in a cluster and where it resides. Scientists are using a variety of techniques across the disciplines of astronomy and physics to hunt for dark matter. Particle colliders such as the Large Hadron Collider, Cosmology instruments such as WMAP and Planck, Direct detection experiments including CDMS, XENON, Zeplin, WARP, ArDM, Indirect detection experiments including: Gamma ray detectors (Fermi from space and Cherenkov Telescopes from the ground); Neutrino telescopes (IceCube, Antares); Antimatter detectors (Pamela, AMS-02) and X-ray and radio facilities.

**Keywords:** Dark matter, Dark Energy, Large Hadron Collider, Cosmology instruments, CDMS, XENON, Zeplin, WARP, ArDM, Gamma ray detectors, Neutrino telescopes, Antimatter detectors.

## OP 128

**A comparative study of the effect of Body Mass Index on Sympathovagal activities in Hypertensive individuals**

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**Abstract:** The rising rates of obesity and hypertension can be traced to a combination of factors including decreased physical activity, increased psychological stress, and increased work-related stress. Sympathetic overactivity is the primary pathophysiologic process in the development of obesity and hypertension, regardless of origin. Many clinical diseases can be traced back to a sympatheticovagal imbalance, or disruption of autonomic functioning due to sympathetic excess activity and vagal withdrawal. Autonomic dysfunction has been linked to obesity, hypertension, and diabetes mellitus separately. The measurement of heart rate variability (HRV) has become a popular, non-invasive method for studying cardiac autonomic dysfunction quantitatively. The current research sought to answer the question of whether or not obesity contributes to the worsening of autonomic dysfunction, especially in hypertension individuals. Adult males and females in their forties and fifties who were patients at the OPD in UPUMS, Saifai, Etawah, India, were enlisted for the study. HRV was measured using the one-minute method while the subjects were in a relaxed state and deep breathing was encouraged. A total of 105 participants were divided into Groups I (obese hypertensive), II (non-obesity hypertension), and III (non-obese normotensive, control). The mean heart rate variability (HRV) of obese hypertension patients was considerably lower than that of non-obese hypertensive

patients ( $p < 0.005$  at  $\alpha 0.05$  HRV, data provided as Mean  $\pm$  SD; inferential statistics by One Way ANOVA and Tukey's Post Hoc test). Our findings suggest that obesity and hypertension may have an additive effect in inducing autonomic dysfunction.

**Keywords:** Hypertension, ANS, Sympathovagal imbalance, BMI, Heart Rate Variability.

## OP 129

**The Rights of Animals****Pihu****Department of Law, Dr. Shakuntala Misra National Rehabilitation University, Lucknow****E-mail: pihubcomllb2018@ gmail.com**

**Abstract:** Animals has always formed central feature of human world. Animals are important part of human life, relied upon food, use for research model, companions, working animals, for sports and recreation. They are not piece of property to be used or tortured. Many animals are victim of crime committed by human.it is not only cruelty but more than that. It's physical abuse, psychological abuse, murder. Many of the cases are not even reported. There is diminishing sense of humanity in the country which is leading to enhancement of crime against animals. Various measures have been adapted globally to secure rights of animals. During past few decades, efforts for animal protection have been expanded. Several countries recognize rights of animals under their constitution. Though India is one of the first countries to constitutionally address animal welfare yet animal welfare is not appreciable. The major legislative development with regards to protection of rights of animals was enactment of Prevention of Cruelty Act, 1960 and Wildlife Protection Act, 1972. The condition of animals is getting worse in spite of legislative framework. The legal regime is mostly for benefit of human being and least for animals. Many times animal rights have been violated in India. There rights are often overlooked. The position of animals is alarming and they are fighting battle for their survival. Cases of animal cruelty are rising day by day. A total of 199 Species are critically engaged in India, as per IUCN RED List, 2021. The Court has played active role to protect rights of animal but in few cases they failed.

Magnifying animal welfare is essential for protecting animals, human and environment. The enforcement mechanism should be made stronger. Comprehensive and holistic legislation is needed to see that legal rights of animals are enjoyed by them in true sense. But alone law cannot change the attitude of people, we also ourselves need to take step. After all, they also deserve life of dignity and care.

**Keywords-** Rights of animals, Constitution of India, Prevention of cruelty to Animals Act, 1960, Wildlife Protection Act, 1972, IPC.

## OP 130

**Nano medicines and its application****Kuhu****Institute of Pharmaceutical Sciences, University of Lucknow, Lucknow (226021)****E-mail: sharmakuhu1@gmail.com**

**Abstract:** For better therapies and cures for various diseases, the biomedical application of various nanotechnology and Nano- science has been discovered by the scientists. Nanomedicines is one of the extensive research fields for the alternatives for better therapies. It helps in improving the existing drug's profile. Many researches going across the world related Nano-medicines to explore healthcare need of society. Scientist also researched the ability of Nano medicine to cure conditions that are currently incurable. With the FDA pipeline of Nano size medicine and its product under development, this progress remarkable optimistic

Nano medicine which is one of the application of nanotechnology. Nanotechnology has wide application in field of medicine either it is treatment or diagnostic imaging. Nano system with the different biological properties and the different composition has been investigated for gene and drug delivery system. This writing focuses on introduction of Nano medicine introduction in pharmaceutical market. Doxil, the first Nano Therapeutics drugs approved in 1995 used by human.

Though it is true that Nano medicines have different toxicity and side effects as compare to the non-Nano formulated drugs or convectional medicines. But then to it have many applications which possess researchers to research on the topic Nano medicines and find out how it is working on the body. The emergence of advanced nanotechnologies is having a significant impact on medicine. Nano medicines is said to be the offshoot of the nanotechnology which is specific for molecular intervention at molecular scale for repairing tissues and curing the diseases. Application of nanotechnology to medicines implies how molecules interact with our body with high degree of specificity. I hope that this review would help in understanding the various important applications of medicines in field of nanotechnology

**Keywords:** Nanotechnology, Nano sciences, pharmaceutical market molecule interaction

## OP 131

**Aprepitant versus Olanzapine as add-on Therapy for Prophylaxis of Chemotherapy Induced Nausea and Vomiting (CINV) in Patients of Carcinoma Breast: A Prospective Observational Study**

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**Abstract**

**Background:** Chemotherapy induced nausea and vomiting (CINV) is the most common side effect of cancer chemotherapy. Nausea being the first and vomiting the third most distressing side-effect, affects up to 80% of patients undergoing chemotherapy and can even interfere with the compliance to treatment.

**Objective:** The objective of the study is to compare the effectiveness of Olanzapine with that of aprepitant in the prevention of chemotherapy induced (acute and delayed) nausea and vomiting (CINV).

**Method:** A Prospective observational study was conducted from May 2022 to Sep 2022 after obtaining approval from Institutional Ethics Committee (IEC). Data was collected from 120 breast cancer patients undergoing highly emetogenic chemotherapy (HEC), admitted to IP Department of Radiotherapy & Chemotherapy, VSSIMSAR, Burla using predesigned questionnaire and MASCC Antiemesis Tool from day 1-3 of chemotherapy. Severity of nausea and vomiting was assessed using Visual Analogue Scale score and CTCAE criteria 1.4.

**Results:** Complete response (CR) i.e. no nausea or vomiting was achieved in 100% of both Olanzapine and Aprepitant groups in acute phase. 96.7% of patients in Olanzapine group and 91.7% in Aprepitant group achieved CR during delayed phase (p value>0.05).

**Conclusion:** Both Aprepitant and Olanzapine were found equally effective in preventing CINV among Carcinoma Breast patients undergoing highly emetogenic chemotherapy.

**Keywords:** Carcinoma Breast, CINV, Olanzapine, Aprepitant.

## OP 132

**A Survey Review on Difficulties faced in Accessing Health Care during COVID-19  
Lockdown in North Bengaluru****Dr. Anupama Deshmukh<sup>1</sup>, B Lohitha Reddy<sup>2</sup> and Archana R<sup>3</sup>**<sup>1</sup>Professor and HOD Department of Community medicine, Bhagwan Buddha Homeopathic Medical College and hospital, Bengaluru, Karnataka, India<sup>3</sup>Final year UG Scholar, Bhagwan Buddha Homoeopathic Medical College and Hospital, Mallathahalli, Bengaluru 570056E-mail: anupamasdeshmukh@gmail.com; Lohitha.b.reddy@gmail.com;  
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**Abstract:** The nationwide COVID 19 lockdown is widely believed to have disrupted critical health services, but its effects on non- COVID health outcomes is largely unknown, for which a study was conducted in order to map the existing literature on health care access after the appearance of COVID 19 lockdown by using Google forms which helped us to formalize, standardize and assess the barriers to and the drivers of access to health care. A total of 177 survey responses had been analyzed for mapping the framework. In contrary to most of the studies which showed that there were significant difficulties to access health care during COVID 19 lockdown. The results obtained here were progressive in accessing the health care & affordability of hospitalization cost set the foundation for discussion and further research in relevant areas.

**Keywords:** Covid-19; lockdown; long-term illness; accessibility of health care.

## OP 133

**Determining Pattern of Smartphone Usage and Association of Academic Stress with Sleep Quality of First Year Medical Undergraduate Students: A Cross-Sectional Study****Dr. Rajshree Gupta<sup>1\*</sup>, Dr. Santosh Kumar Sant<sup>1</sup>, Dr. Rajesh Kumar Gupta<sup>1</sup>,****Dr. Naresh Pal Singh<sup>1''</sup>, Dr. Anamika Singh<sup>1'''</sup>,****Dr. Devvrata<sup>2</sup>, Dr. Pragya Chourasia<sup>2</sup>, Dr. Adesh Agarwal<sup>2</sup>**<sup>1</sup>**Professor & Head, Department of Physiology, U.P.U.M.S., Saifai, Etawah, UP**<sup>1'</sup>**M.B.B.S., M.D. (General Medicine), Rajshree Clinic, Raebareli, UP**<sup>1''</sup>**Professor, Department of Community Medicine, U.P.U.M.S., Saifai, Etawah, UP**<sup>1'''</sup>**Professor, Department of Physiology, U.P.U.M.S., Saifai, Etawah, UP**<sup>1\*</sup>**Junior Resident, Department of Physiology, U.P.U.M.S., Saifai, Etawah, UP**<sup>2</sup>**Junior Resident, Department of Physiology, U.P.U.M.S., Saifai, Etawah, UP****\*E-mail: rajshree3892@gmail.com****Abstract**

**Introduction:** Medical students, encounter considerable stress during prolonged study periods, especially during their exams, and together with excessive smartphone usage for studies and social networking are vulnerable to lack of Sleep. Humans require adequate sleep to survive, as it greatly influences one's capacity for productive and effective daily performance. According to several studies, sleep-deprived students may experience headaches, muscle aches, sweating, palpitations, insomnia, nightmares, difficulties falling asleep, etc.

**Methods:** Methods for gathering data included a Pre-structured & Pre-designed Questionnaire for Smart Phone Usage, Perceived Academic Stress (PAS) Scale & Pittsburgh Sleep Quality Index (PSQI). Surveyed first-year medical students of U.P.U.M.S., Saifai, Etawah.

**Results:** Out of 184 students (116 male and 68 female) the Screen time of Smartphones exceeds 3 hours in 44.6% (82) students, 168 students (91.3%) used their smartphone after 10 pm and 51 students (27.7%) students reported difficulty in eyes or refractive error due to smartphone usage. 86 students (46.7%) think smartphone usage has a negative impact on their sleep quality. The Mean  $\pm$  Standard Deviation of the Perceived Academic Stress (PAS) Scale for all Subjects was  $60.11 \pm 11.29$  ( $>60$  is High Academic Stress and that of Global PSQI Scores was  $9.15 \pm 0.58$  ( $>5$  associated with poor sleep quality)). The association between the variables was determined by analysis of variance that is the value of significance or the p-value was  $p = 0.0001$ .

**Conclusion:** The findings of this study led us to the significant association between academic stresses with sleep quality. There is high academic stress among the students and the pattern of their smartphone usage has a negative impact on their sleep quality.

**Keywords:** Academic Stress, Sleep Quality, Medical Students, Smartphone usage.

**OP 134****Effect of Aging on Platelets in the individuals of 30 - 60 years age group****Dr. Paradeshi Jersey shiny****Department of Physiology, Government Medical College, Srikakulam, Pin - 532001****E-mail: jerseyshiny17@gmail.com; 9sasi999@gmail.com**

**Abstract:** Aging is the progressive deteriorative changes during the adult period of life which underlie an increasing vulnerability to challenges and there by decrease the ability to survive. Aging is not a disease; however the risk of developing disease is increased, often dramatically, as a function of age. According to different studies Platelet count decreased with age. The present study was carried out to find the significant changes in Platelet count with advancing age in both males and females.

## OP 135

**Will flipping Physiology UG class lead to better learning by the students: a Crossover trial****Dr. Paradeshi Jersey shiny****Department of Physiology, Government Medical College, Srikakulam, Pin - 532001****E-mail: jerseyshiny17@gmail.com; 9sasi999@gmail.com**

**Abstract:** Learning from the main mode of teaching in medical colleges, including in the subject of Physiology. The goal is to shift the learning from being instructor - centered to student - centered, flipped class is one such a kind. A flipped class room is a learning methodology that reverses the traditional learning environment, combining online learning, and the face - to - face class room. In flipped learning, students undertake Pre-class learning and the class itself proceeds based on group activities rather than unilateral lecturing thus the interaction between the Professor and the students is dynamic in the flipped learning class. Flipping the Physiology class room is a promising method that allows students to take control of the development of their cognitive skills, whereas the instructor facilitates and supports the student learning process. As it depends on students self-motivation for preparing, further long term studies are required to know the limitations and barriers.

## OP 136

**Proteome analysis of Rice under Nitrogen application at two developmental stages****Divya Dubey****Department of Botany, Aligarh Muslim University, Aligarh (UP)****E-mail: dubeydivya1086@gmail.com****Abstract**

- **Introduction:** Most of the world's population relies on rice as a food source. The most significant crop in the nation is rice (*Oryza sativa* L.), which is farmed on over 75% of the country's land. The creation of high-yielding rice varieties and the usage of chemical fertilisers have increased crop productivity in India during the past 50 years.
- **Problem and Objectives:** About half of the world's population depends on nitrogen fertiliser for food production, but only 50% or less of the applied nitrogen is actually used, with the majority of the rest dissipating in the surrounding environment, having a significant negative impact on the environment and contributing to the toxicity in the atmosphere.

The present work is proposed to screen out total protein content of shoot and differential expression of proteins of rice in response to low nitrogen stress at different growth stages.

- **Methodology:** The final products, proteins, are substances that the plant uses to confirm its morphological and physiological responses. Proteomics is the best method for examining the molecular responses of plants to nitrogen stress. The identification of the crucial molecules involved for nitrogen uptake and assimilation, which may help to explain why cereal crops have high nitrogen efficiency, may be aided by the quantitative as well as qualitative differential expression of protein spots.
- **Results:**

Low nitrogen stress has caused changes in physiological and morphological characteristics. Under Nitrogen starvation rice plants loosed overall morphological appearance.

- **Discussion:** As we discussed that most of the human population relies on Nitrogen, so the use of nitrogenous fertilizers cannot be reduced because of the pressure of more and more food production. The challenge might be solved by developing rice genotypes that can thrive and produce well under low nitrogen conditions. Important metabolic processes can be genetically modified to achieve this.

**OP 138****Evaluation of levels of proteinuria in elderly patients of chronic hypertension associated with other hormonal disorders like diabetes and thyroid.****Lakshmi Srinivasa Likhith Garre<sup>1</sup>, Dedeepya Kobaku<sup>2</sup>, Raga deepthi<sup>3</sup> and Phanindra Dulipala<sup>4</sup>**<sup>1</sup>MBBS final year part 2, Katuri Medical College and Hospital, Guntur 522019<sup>2</sup>Post graduate, Department of Community Medicine, Katuri Medical College and Hospital, Guntur 522019

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**Abstract:****Background:**

Elevated BP leads to the risk of stroke and coronary heart disease, heart failure, peripheral vascular disease, renal impairment, retinal hemorrhage, and visual impairment. Proteinuria is a marker of renal and cardiovascular disease and mortality in diabetic and non-diabetic hypertensive patients.

**Aims and Objectives:**

- i. To estimate the levels of proteinuria in elderly patients with chronic hypertension associated with other hormonal disorders like diabetes and thyroid.
- ii. To determine risk factors associated with the disease

**Settings and Design:**

A cross-sectional study was conducted from April to June 2021 among 200 elderly patients attending General Medicine OPD at Katuri Medical College and Hospital with a history of chronic hypertension in association with diabetes and thyroid disorders. Mid-stream urine samples were collected by simple random technique from the patients and examined using the dipstick method for spot albuminuria. Informed consent was provided by all survey participants prior to their enrolment. Institutional ethical clearance was obtained for this study.

**Data analysis:**

Data was collected and entered into Microsoft Excel. Further, they were analyzed by appropriate statistical tests using SPSS software version 25.0

**Results:**

Out of 200, 168 showed a positive result to urine dipstick and were sent for microalbuminuria estimation. There is a statistically significant association between smoking and proteinuria; alcohol and proteinuria with p values of 0.043 and 0.039 respectively. There is no positive correlation between BMI & proteinuria. There is also a statistical association between disease categories and proteinuria among study participants.

**Conclusion:**

There is a raise in the trend of proteinuria in hypertensive patients with associated hormonal disorders.

**Keywords:** proteinuria, hypertension, diabetes, thyroid, dipstick test.

**OP 139****Usefulness of partial versus full vacuum suction drainage after modified radical mastectomy for breast cancer.****Dr. Alok Ranjan<sup>1</sup>, Dr. Anand Ratra<sup>2</sup>, and Dr. Adeesh Jain<sup>3</sup>****<sup>1</sup>3<sup>rd</sup> year resident, <sup>2</sup>Senior Resident, <sup>3</sup>Additional Professor Department of General Surgery, Baroda Medical College and SSG Hospital, Baroda, 390001****E-mail:alokmfpdbg@gmail.com****Background**

Seroma represents the most common complication after breast cancer surgery, especially when axillary dissection is performed. Suction drainage in the management of mastectomy patient is superior to other drainage method. The mechanism proposed is that the suction helps skin flaps to adhere to the chest wall and axilla sealing off all the leaking lymphatics. This reduces the incidence of post-operative seromas, hematoma formation and flap necrosis. Prolonged drainage on the other hand, may increase the hospital stay and increase the risk of infection by allowing retrograde migration of bacteria.

**Aim and Objectives**

To compare seroma formation, wound infection, dehiscence and hospital stay in partially closed versus fully closed vacuum suction drainage after Modified Radical Mastectomy in breast cancer patients.

**Material and Method Used**

This was a prospective randomized controlled study with 120 patients of breast cancer undergone Auchincloss Modified Radical Mastectomy and 60 in each group were included.

Group A- full vacuum suction

Group B- half vacuum suction

**Results and Conclusion**

This study we found that half vacuum suction drain is better than full vacuum suction by decreasing the amount of drain output, less duration of drainage, shortening the duration of hospital stay and preventing the incidence of seroma in post MRM period. Hence half vacuum suction drainage should be preferred over full vacuum suction drainage.

## OP 140

**A survey on the knowledge of general public about Digital Currencies and Cryptocurrencies****Swarali Deshmukh****2<sup>nd</sup> year UG scholar of 5 year integrated M.Sc Economics, Dr. B. R. Ambedkar School of Economics University, Bengaluru, Karnataka  
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**Abstract:** The Indian government announced the launch of the Digital Rupee, a Central Bank Digital Currency (CBDC), starting with the fiscal year 2022–2023 in the Union Budget that was delivered to Parliament on February 1, 2022. The establishment of CBDC will greatly boost the digital economy, according to the budget statement. With this in mind, a survey was carried out using Google Forms to gauge public knowledge about digital money and cryptocurrency. A total of 100 survey responses had been analysed based on different variables. The bulk of the respondents were unsure about their answers to the questions. The responses given can be correlated with the respondents' age, sex, and qualifications. This suggests that there is a need for extensive education and understanding among the general population about digital currencies, particularly the distinctions between CBDC and cryptocurrencies.

**Keywords:** digital currency, cryptocurrency, and CBDC

## OP 141

**Assessment of Knowledge, Attitude and Practice regarding Antimicrobial Resistance among General Population of Bishnupur District: A Cross Sectional Study****Luckystar Sungoh<sup>a</sup> and Dr Romola P<sup>b</sup>**<sup>a</sup>PGTs, <sup>b</sup>Professor, Department of Community Medicine, RIMS

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**Abstract:** Antimicrobial resistance (AMR) has been identified as a global health threat with serious health, political, and economic implications. In India, 2 million deaths will occur due to AMR by the year 2050.

The objective of the study was to assess the knowledge, attitude, and practice regarding antimicrobial resistance among the general population of Bishnupur district, Manipur.

A cross-sectional study was conducted in Bishnupur during Oct-Nov, 2021 among the general population who were  $\geq 18$  years of age, and a sample of 462 participants were selected using convenience sampling. Data were collected by face-to-face interviews using a structured questionnaire to measure the knowledge, attitude, and practice regarding antimicrobial resistance. Analysis was done using SPSS 26 and summarized using descriptive statistics. The Chi-Square or Fisher's exact test was used to check for the association. A p-value of  $< 0.05$  was considered significant.

Mean age of the participants in years was  $37 \pm 12$ . A majority (54%) of the participants were male. Few (14%) of the participants had not heard of the term 'antibiotic' before. Among those who had heard of antibiotics, 52% and 6% of the participants had good knowledge and favorable attitude respectively. Only 21% 'almost always' completed the entire course of antibiotics. Only 14% 'almost always' consulted a doctor before starting an antibiotic. Higher education was significantly associated with good knowledge (p-value 0.002).

More than half of the participants were found to have poor knowledge. Nearly 1 out of every 19 participants had an unfavorable attitude. Increasing awareness regarding AMR to the general population and emphasizing behavioral change communication is the need of the hour.

**Keywords:** Antimicrobial resistance, Knowledge, Attitude, Practice.

## OP 142

**Mental Health Care Seeking Intention and Attitude among Population of Imphal,  
Manipur: A Cross Sectional Study****Thoudam Reena Devi<sup>a</sup> and Brogen Singh Akoijam<sup>b</sup>****<sup>a</sup>PGTs, <sup>b</sup>Professor & Head, Department of Community Medicine****Regional Institute of medical sciences, Imphal****E-mail:thoudamreena5@gmail.com**

**Abstract:** In India, lifetime prevalence of mental morbidity was estimated at 13.67% and current prevalence was 10.56%. For NE India, the highest lifetime prevalence was in Manipur i.e 19.9% and had current prevalence of 13.9% which was higher than the national levels. The aim of the study was to assess the mental healthcare seeking intention and attitude among population of Imphal. A Cross-sectional study was conducted during May to June, 2022 in Imphal east and west districts of Manipur among 300 residents of 18 years or above who were recruited using convenience sampling. Data were collected using English and Manipuri language via face to face interview with the aid of a validated questionnaire comprising of socio-demographic component, Help-Seeker Stereotype Scale (HSSS), Mental Help Seeking Intention Scale (MHSIS) and Mental Help Seeking Attitudes Scale (MHSAS). Data were analysed using IBM SPSS 26.0 for window and summarised using descriptive statistics. Associations were checked using the chi square and a p-value of <0.05 was considered as significant. The mean score of HSSS was 3.58 ( $\pm 1.26$ ), mean score of MHSIS was 5.13 ( $\pm 1.46$ ) and mean score of MHSAS was 5.94 ( $\pm 1.30$ ). Lesser the distance from the health care centre, being students, medico and unmarried were found to be significantly associated with higher MHSAS score (p-values <0.049). Male gender was found to be significantly associated with higher HSSQ score (p-value 0.015). Lower age, gender, employed, non-medico and Sanamahism were found to be significantly associated with higher MHSIS score (p-values <0.019).

**Keywords:** Mental health, HSSQ, MHSIS and MHSAS

## OP 143

**Knowledge and Attitude Regarding Contraception among College Students in Imphal: A Cross Sectional Study****Dr. Homendro Irengbam<sup>1</sup> and Prof. Brogen Singh Akoijam<sup>2</sup>**<sup>1</sup>1st yr PGT Community Medicine and <sup>2</sup>Professor & Head

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**Abstract**

**Background:** The burden of growing population and unintended pregnancy; the acute and chronic health hazards following an unwanted pregnancy or unsafe abortion, is known to be a major determinant of reproductive health of adults. The study was conducted to assess the adequacy of knowledge and attitude regarding contraceptives among the college students in Manipur.

**Methods:** A cross sectional study was done amongst college students of Imphal West and Imphal east districts of Manipur. Data were collected using a structured self-administered google form questionnaire. Two colleges from each of the districts were selected by lottery method and from the four colleges; convenience sampling was done to collect data till sample size of 440 was achieved. Data analysed using SPSS V.26. Descriptive statistics and chi square test were applied.  $P < 0.05$  was considered statistically significant.

**Results:** The age of participants ranged from 18 to 34 years with a mean age  $20.33 \pm 1.79$  years. Majority (65%) were male. Internet was the main source of information. The study found that majority of the participants had inadequate knowledge (87.5%) and unfavorable attitude (75.7%). There is no significant association between level of knowledge and attitude ( $p = 0.059$ ). Students from science stream had more adequate knowledge compared to arts stream ( $p = 0.01$ )

**Conclusions:** There is a need for improving the knowledge and attitude regarding contraception among college students of Imphal. Health education programme using flipcharts, focused group, interactive discussions among college students be beneficial.

**Keywords:** college students, contraception, unsafe abortion.

## OP 144

**Association of anxiety and depression with anaemia: A cross-sectional study among medical students****Vuppuluri Keerthana<sup>1</sup>, Phanindra Dulipala<sup>2</sup> and Ravi Kiran K<sup>3</sup>**<sup>1</sup>Postgraduate, Department of Community Medicine,  
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**Abstract:**

**Background:** Burden of anaemia is increasing worldwide, mainly in developing countries. The individuals with anaemia show features of psychological disturbances like drowsiness, lack of attention, irritability. There were a smaller number of studies conducted on anaemia and psychological disorders among medical students. Therefore this study is aimed towards determining the association of anaemia with anxiety and depression among medical students.

**Aims and objectives:**

1. To estimate the prevalence of anaemia among medical students.
2. To determine the association of anaemia with anxiety among medical students.
3. To determine the association of anaemia with depression among medical students.

**Methodology:** A cross-sectional study was done in 421 medical students, aged between 18-26 years. Students were asked to fill the sociodemographic details and Hamilton anxiety scale and Center for Epidemiologic studies Depression scale were used to assess the levels of anxiety and depression respectively. Haemoglobin levels were estimated by using HemoCue Hb 301 and the results were compared with the anxiety and depression scores of the students.

**Results:** Among 421 students, 186 (44.18%) were anaemic, 149 (35.39%) have risk of developing depression and 39 (9.26%) were anxious. The prevalence of depression in students with severe anaemia was high when compared to mild and moderate anaemia. There was no significant association of anaemia with depression.

**Conclusion:** With increasing in severity of the anaemia, there is an increase in development of anxiety and depression.

**Keywords:** Anaemia, anxiety, depression.

## OP 145

**Mental well-being among undergraduate medical students in a tertiary care institute in Manipur: a cross-sectional study****Dr. Rangla James<sup>1</sup> and Prof. Jalina L<sup>2</sup>**<sup>1</sup>3rd yr PGT Community Medicine, <sup>2</sup>Asst. Professor Department of Community Medicine

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**Abstract**

**Background:** Mental health is a state of well-being that enables people to cope with the stresses of life. Globally, one in seven 10-19 years old experiences a mental disorder, accounting for 13% of the global burden of disease in this age group. According to national mental health survey report 2015-2016, the overall weighted prevalence for any mental morbidity in India was 13.7% lifetime. The highest lifetime prevalence of 19.9% in Manipur has been reported. Therefore, this study was conducted to assess the mental wellbeing among undergraduate medical students in a tertiary care institute in Manipur.

**Methods:** A cross sectional study was conducted among MBBS students in a tertiary care institute in Manipur. Data were collected using a structured self-administered questionnaire using Short General Health Questionnaire (GHQ-12) through google form from 293 students. Sampling was not done and sample size was not calculated as it was intended to include all MBBS students. Data were entered and analyzed using SPSS V.26. Descriptive statistics and chi square test were applied.  $P < 0.05$  was considered statistically significant.

**Results:** Mean age of study participants was  $21.59 \pm 1.474$ , 50.2% were male and 49.8% were female. More than half of the students (51.5%) responded that they have not been able to concentrate on what they were doing and 41% have felt constantly under strain. 49.1% have poor mental health. There is significant association between academic and mental health status ( $P=0.015$ ).

**Conclusions:** This study found that nearly half of the participants have poor mental health. There is a significant relationship between academic year and mental health status of participants. Mechanism to cope during stressful situation is very important for the students

**Keywords:** Mental well-being, Mental health.

## OP 146

**Assessment of Knowledge, Attitude and Practice on Food Safety among Food Handlers of Imphal West, Manipur: A Cross-Sectional study****Dr. Ibotomba Khuraijam<sup>1</sup> and Jalina L<sup>2</sup>**<sup>1</sup>3<sup>rd</sup> yr PGT Community Medicine, <sup>2</sup>Asst. Professor Department of Community Medicine

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**Abstract**

**Background:** A food handler is defined as “any person who directly handles packaged or unpackaged food, food equipment and utensils, or food contact surfaces and is therefore expected to comply with food hygiene requirements. In India, foodborne diseases contribute to 31.5% illnesses and 8.7% death and, food safety standards are not strictly followed. There has been an increase in the number of food vendors, restaurants and other eateries in Imphal area. Therefore, it is essential to conduct a survey to assess the food safety conditions among the various handlers so as to take up reformatory steps to reduce the mortality and morbidity.

**Methods:** A cross sectional study was done in food handlers belonging to Imphal West district. Data were collected using a pre-tested, validated and structured questionnaire from 329 food handlers. Convenience sampling was done. Level of knowledge was categorized into “adequate” for those who scored more than or equal to mean score and “inadequate” for those who scored less than mean score. Similarly, Level of attitude was categorized into “favourable” and “unfavourable” and Level of practice was categorized into “good practice” and “poor practice”. Data were entered and analyzed using SPSS V.21. Descriptive statistics and chi square test were applied.  $P < 0.05$  was considered statistically significant.

**Results:** Mean age of study participants was  $32 \pm 11.4$ , 54% were male and 46% were female. 56% of the participants had adequate knowledge, 66% had favourable attitude and 54% had favourable practice. There is significant association between attitude and practice towards food safety.

**Conclusions:** The study found that more than half of the participants have adequate knowledge and practice. Two thirds of the participants have positive attitude. Those with adequate knowledge have more positive attitude and practice towards food safety.

**Keywords:** Good handlers, food safety

## OP 147

**Psychosocial Impact of COVID-19 on Vendors of Ima Market, Manipur:  
A Cross-Sectional Study****Dr. Ibotomba Khuraijam<sup>1</sup> and Prof. Romola P<sup>2</sup>****<sup>1</sup>3<sup>rd</sup> yr PGT Community Medicine, <sup>2</sup>Professor, Department of Community Medicine  
Regional Institute of Medical Sciences, Imphal, Manipur- 795004  
E-mail: tombakh@gmail.com****Abstract**

**Background:** COVID-19 caused by SARS CoV- 2 emanated from Wuhan, China spread across major cities and countries. This global spread led WHO to declare the outbreak a PHEIC and as a Pandemic on 11<sup>th</sup> March 2020. Various countries initiated lockdown from March 2020. Manipur implemented on and off period wise lockdowns and curfews to restrict COVID-19 spread. Ima market is the largest all-women market in Asia hosting around 4000 regular licensed women vendors. During the series of lockdown, their regular source of income was interrupted. Impact of COVID-19 on mental health has also been underestimated in these settings. The current research aims to assess the psychosocial impact of COVID-19 on vendors of Ima Market.

**Methods:** A cross sectional study was done among vendors of Ima market. Data were collected using a pre-tested, validated and structured questionnaire from 400 vendors. Convenience sampling was done. Data were entered and analyzed using SPSS V.21. Descriptive statistics and chi square test were applied.  $P < 0.05$  was considered statistically significant.

**Results:** Mean age of the participants was 57 years  $\pm 8.6$ . 51.3% of the participants were the main income earners of the family. Only 2.75% of them were in profit. 11.4% of the participants had anxiety about being infected with covid-19 and 15% of them had more interpersonal conflicts. Only 3% of them had difficulty falling asleep. 42% of them were stressed by the pandemic.

**Conclusions:** The study gave an insight of the women vendors' psychosocial aspects during this pandemic. There was a reduction in their income due to the pandemic. Majority of our

participants had responded positively towards anxiety, mental health impact, COVID-19-specific stressor impact and interpersonal conflicts

**Keywords:** Ima market, Covid-19 impact

## OP 148

**National Educational Policy and Inclusive Education for Person with Disabilities****Swati Shukla<sup>1</sup>, and Mahesh kumar Chaudhary<sup>2</sup>****<sup>1</sup>PG Student, Department of Intellectual Disability, Faculty of Special Education DSMNRU,  
Lucknow, 226017****<sup>2</sup>Assitant Professor Department of Intellectual Disability, Faculty of Special Education DSMNRU,  
Lucknow, 226017****E-mail: swatishukla1134@gmail.com**

**Abstract:** The national policy on education is a policy formulated by the Government of India to encourage education among people of India. The policy encompasses elementary education to higher education in both rural and urban India. It is based on five fundamental pillars that is accessibility, affordability, equity, equality and quality. All these pillars are essential for promotion of inclusive education for persons with disabilities. Children with disabilities have educational problems due to lack of accessibility, rigid curricula and pedagogy, inaccessible classrooms & schools rigid assessment system, lack of information and communication technology in the classroom, negative and deficit mindsets that restricts. National educational policy ensures universal accessibility, early childhood care and education, curriculum and pedagogical structuring, vocational education, assessment reforms, open and distance learning, online and digital education, holistic and multidisciplinary approach. All these promote inclusive education for person with disabilities.

**Keywords:** National Education Policy (NEP), Inclusive Education, Persons with Disability

## OP 149

**A Cross Sectional Study to Assess the Prevalence of Depression, Anxiety and Stress in Patients Attending Dermatology OPD in Gwalior M.P****Dr. Amrutha. R****PG Resident, Department Of Community Medicine  
Gajra Raja Medical College, Gwalior, Madhya Pradesh  
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**Introduction:** Dermatological diseases have a negative effect on the daily life, self-confidence, and self-respect. Emotional and psychosocial distress, in turn, may lead to psycho-somatic skin disorders. The incidence of psychiatric disorders among dermatological patients is estimated at about 30 to 60%.

**Methods:** A Cross-sectional Study was conducted among 100 Patients visiting dermatology OPD from 1<sup>st</sup> July 2022 – 1<sup>st</sup> October 2022. DASS-21 scale was used to screen for symptoms of Depression, Anxiety and Stress. The age group of 18-65 years old was included in the study.

**Results:** Results waiting.

**Conclusion:** Screening for psychological symptoms should be carried out among all dermatology patients and appropriate psychiatric counselling should be provided as required.

There is expected to be significant differences in anxiety and depression among patients with various skin diseases, indicating that different skin diseases have different degrees of psychological damage to patients.

**Keywords:** Depression, Anxiety and Stress, Dermatology, Gwalior

## OP 150

**Association of blood groups with overweight and obesity: A cross-sectional study among medical students****<sup>1</sup>Koduvayur Roopa Lakshmi, <sup>2</sup>Vuppuluri Keerthana, <sup>3</sup>Phanindra Dulipala, <sup>4</sup>Ravi Kiran K****<sup>1</sup>MBBS, <sup>2</sup>Post graduate, <sup>3</sup>Professor and HOD of Community Medicine****<sup>4</sup>Statistician, Department of Community Medicine****Katuri Medical College and Hospital, Guntur, 522019****E-mail: vuppulurikeerthana@gmail.com****Abstract:**

**Background:** Overweight and obesity are increasing at an alarming rate worldwide. There are evidences suggesting the association of ABO gene marker with overweight and obesity. The present study is aimed to determine the association of ABO and Rh blood group with overweight and obesity among medical students.

**Aim:** To determine the association of blood groups with overweight and obesity among medical students.

**Objectives:**

1. To estimate prevalence of overweight and obesity among medical students.
2. To determine the association of ABO blood groups with overweight and obesity.
3. To determine the association of Rh typing with overweight and obesity.

**Methodology:** A cross-sectional study was done on 421 medical students, aged between 17 and 26 years using self-designed, semi-structured questionnaire. Anthropometric measurements height and weight of the subjects were taken and Body Mass Index (BMI) was calculated. Blood group of the individuals was determined by slide agglutination test and the obtained blood groups were compared with BMI of the respective subjects.

**Results:** The prevalence of overweight and obesity was 50.83% (214 students) and was higher in males than females. Among ABO blood groups, O group has high prevalence of overweight and obesity. Rh negative individuals have high prevalence of overweight and obesity.

**Conclusion:** The prevalence of overweight and obesity was more with O blood group and Rh negative group.

**Keywords:** Overweight, obesity, ABO blood groups, Rh typing.

## OP 151

**Treating Urinary Incontinence among females with telerehabilitation: A systematic review****Saliha Rafat<sup>1\*</sup>, Adarsh Kumar Srivastav<sup>2</sup> and Hina Vaish<sup>3</sup>****<sup>1</sup>PG Student, Department of Physiotherapy, School of Health Sciences,  
Chhatrapati Shahu Ji Maharaj University, Kanpur -208024. UP, India****<sup>2-3</sup>Assistant Professor, Department of Physiotherapy, School of Health Sciences, Chhatrapati  
Shahu Ji Maharaj University, Kanpur -208024. UP, India****\*E-mail: rafatsaliha@gmail.com**

**Abstract:** Telerehabilitation (TR) involves health care services, support and information provided remotely via digital communication and devices. Prevalence of urinary incontinence (UI) was reported with 45.1%. UI has a great impact on daily and social activities. However, no systematic reviews are available on TR and UI among female to the best of my knowledge. Our purpose is to perform a systematic review on the use of TR for the treatment of UI. We performed a systematic review of randomized trials by a literature search in several electronic databases (Cochrane, Scopus, PubMed) with use of Boolean terms (“AND”, “OR”, “NOT”). Literature was selected by inclusion criteria for participants (urinary incontinence), interventions (telerehabilitation), comparators (no intervention, sham intervention), and outcome measures (ISIQ-UI SF) for UI and (ISIQ- LUTSqol) for quality of life. Studies were assessed using the Cochrane Risk of Bias tool (CRB), internal validity according to the Pedro scale (04). All included studies (04) with quality of life reported significant improvement. Study quality was assessed and reported in Median and Range of the PEDro score 6.0 (2.0). The overall risk of bias was reported unclear. There is good quality evidence according to Pedro suggests that TR intervention may have clinically relevant effects on improving quality of life in females affected with UI. Further high-quality RCTs are required to establish a valid treatment effect. Application of TR in various pelvic floor dysfunctions, including UI, is shown to be effective. Consequently, TR should be considered as when treating patients with UI.

**Keywords:** Urinary incontinence; female; telerehabilitation.

## OP 152

**Impact of kinesiotaping in upper extremity among chronic stroke patients: A narrative review****Khushboo Anjum<sup>1</sup>\* and Dr Adarsh Kumar Srivastav (PT)<sup>2</sup>****<sup>1</sup>PG Student, <sup>2</sup>Assistant Professor****Department of Physiotherapy, School of Health Sciences****Chhatrapati Shahu Ji Maharaj University, Kanpur -208024, UP India****\*E-mail: khushboo.anjum06@gmail.com**

**Abstract:** Despite present rehabilitation strategies, the global burden of disease in 2021 is 12.2 million cases of stroke worldwide, making it the second highest cause of death in 2019. Stroke is the third highest cause of impairment and fatality. Spasticity is considered as one of the most serious problem in patients with upper extremity synergy pattern of stroke. Kinesio-taping has been implemented as a therapeutic approach for stroke patients to reduce this. This review summarizes the evidence of this kinesio-taping in upper extremity to reduce spasticity. This narrative literature review examined recent peer-reviewed literature (2006–2022), including studies as randomized clinical trials, pilot trials, cross over study that investigated the effect of kinesiotaping. Fifteen studies were included in this narrative review. Out of which seven studies shows improvement in upper extremity hand functions. Two studies shows improvement in motor performance of hand. In addition few studies show the effect of kinesiotaping with several other interventions like acupuncture, motor relearning, and modified constraints-induced movement. This narrative review shows the kinesiotaping improves the upper extremity functions with reduced spasticity and also reduces the disability.

**Keywords:** Kinesiotaping, Stroke, Spasticity Upper Extremity

## OP 153

**Awareness and Knowledge of Pelvic Floor Dysfunction and Rehabilitation among  
Physiotherapy Students: An Online Cross Sectional Survey**  
**Anjali Raghuwanshi<sup>1</sup>, Saliha Rafat<sup>2</sup>, Sadiya Rafat<sup>3</sup>, Hina Vaish<sup>4</sup> and Adarsh Kumar  
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**Abstract:** Pelvic floor dysfunction is very common in both male and female that impacts your physical health as well as decrease the quality of life of individual. Pelvic floor rehabilitation (PFR) is very effective in pelvic floor dysfunctions. The present survey aimed to assess the awareness among physiotherapy students about pelvic floor rehabilitation. An online cross-sectional survey was carried out using a Google form. The questionnaire consisted of queries based on following domains: demographic details, awareness of conditions for which PFR is needed and rehabilitation strategies used for PFR. The sample was collected from 1st May 2022 to 18th May 2022 and 239 responses were recorded from physiotherapy students. A total of 239 responses were recorded; 88.7% responses from undergraduates and 10.46% from post graduate students. 50.6% participants reported that pelvic floor rehabilitation is useful in stress incontinence; 54% in urinary incontinence and 45.2% in hypertonic pelvic floor muscle. Only 1% of the participants reported that PFR is useful in pelvic organ prolapse and in post-surgical conditions. 57.7% reported that Kegel exercises can strengthen the pelvic floor muscle. Only 35.1% reported that vaginal dilatation is a useful strategy in PFR. 22.6% reported that acupuncture and dry needling are also used in pelvic floor rehabilitation. 53.2% participants know that electrotherapy is a basic technique for PFR. There is lack of proper awareness about utility of pelvic floor rehabilitation in different kind of pelvic floor dysfunctions as well as pelvic floor rehabilitation strategies among physiotherapy students and needs attention.

**Keywords:** Pelvic floor muscles; rehabilitation; exercises; electrotherapy

## OP 154

**Gender Disparity in Overall Health Measures During COVID 19 Era****Sadiya Rafat<sup>1</sup>, Hina Vaish<sup>2</sup>, Adarsh Kumar Srivastav<sup>3</sup> and Dr. Digvijay Sharma (PT)<sup>4</sup>****<sup>1</sup>PG Student, Department of Physiotherapy, School of Health Sciences,  
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**Abstract:** In the period of COVID 19 lockdown, the burden of the activity was increased in both male and female gender globally due to 'work from home' and 'work for home'. The purpose of this review is to discuss the gender inequality in health outcomes particularly physical and mental health affected due to 'work from home' and 'work for home' in the Covid-19 era. A search was undertaken in three databases: PubMed, Cochrane and Scopus from January 2020 to April 2022. Selection criteria included studies which involved both male and females who worked from home, and specifically reported health outcomes related to physical or mental health. There have been ten studies that meet the selection criteria which includes 9 online survey and one review study which were performed in 8 different countries (UK, Spain, USA, India, Indonesia, Ireland, Netherlands and Germany). Four outcomes were reported: physical health, mental health, social health and quality of life. Studies reported that males also participated in household activities but to low extent. Physical health was affected in both males and females. The impact on mental health outcomes was strongly influenced by the work load. Overall, females were more affected with mental health when taken work responsibilities both from home and of home. There was gender disparity reported in health outcomes when working from home in covid 19 era. Mental health outcomes were more affected in females as compare to male.

**Keywords:** Gender bias, Mental health, Physical health, Quality of life

**OP 155****A Study to Assess Reproductive and Child Health Profile of Working Women Residing in Urban Slums of Gwalior City****Dr. Suchismita data****PG Resident, Community Medicine/PSM, G.R. Medical College, Gwalior (M.P)****E-mail: suchismitadattababi@gmail.com****Introduction:**

In the past few decades, India has shown enormous growth in the field of industrialization and it has provided plenty of job opportunities in urban industrial areas. However, with limited resources in terms of land and other environmental resources, major proportion of poor migratory people accommodate themselves into small dwellings where water-, food-, and shelter-related hygiene and sanitation parameters are compromised, these settlements on gradual expansion results in slums. In the case of working women of slum because of dual responsibility of family as well as work, high possibility that health of women and their children influenced by her working status.

**Methodology:**

A cross-sectional community-based observational study was carried out in urban slums of Gwalior city from May 2022 to July 2022 using multi-stage sampling method among working and nonworking women. Randomly selected 240 youngest mother's household were included and after getting informed verbal consent then interviewed through pretested semi-structured questionnaire which includes sociodemographic profile, working status, reproductive and child health services variables.

**Results:**

From a total of 240 study participants, working women were 33 (13.75%). Nearly, 73% of employed women were working for 3–6 h a day. Majority of working women were from joint family (45.5%) and from the age group of 26–30 years (65.1%) while a large proportion of working women was illiterate (30.3%). Inadequate antenatal care (ANC) (66.7%) and low birthweight child (36.5%) were more common among working women in comparison to nonworking women. In case of working women, dietary intake in children (59.1%) was inadequate and only 39.4% children were fully immunized and Proportion of underweight in children is 65.2% in working women [nonworking women (55.1%)].

**Keywords:** Reproductive Health, Child Health, Working women, Gwalior slums.

## OP 156

**Effect of Low Back Pain on Respiratory Parameters: A Review Literature****Bafi Uddin<sup>1\*</sup>, Hina Vaish<sup>2</sup> and Dr. Digvijay Sharma (PT)<sup>3</sup>****<sup>1\*</sup>PG Student, Department of Physiotherapy, School of Health Sciences,  
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**Abstract:** Diaphragm is the primary inspiratory muscle and it plays an essential role in controlling the spine during postural control. In low back pain the diaphragm muscle become weak due to which the respiratory functions may decrease. Aim and objective of the study the effect of low back pain on respiratory parameters. The present review includes literature search upto 30th April 2022. Electronic database Pubmed, Scopus, Cochrane and Google Scholar were search. Only article written in English were search, a search strategy developed for selection of the article. In result there have been 6 studies that evaluated the effect of low back pain on respiratory parameters. The study reported that there has been significant effect on FEV1, FVC, MVV and Diaphragmatic mobility in patients with low back pain. The respiratory parameters are affected in low back pain. Further evaluation in studies with large sample size is warranted.

**Keywords:** Diaphragm, postural control, Respiratory parameters.

## OP 157

**Drug Inhibiting Angiotensin Receptor had Significant Anti-Anxiety Properties in Wistar Albino rats****G Prakash K<sup>1\*</sup>, Madhavrao C<sup>2</sup>, Saniya K<sup>3\*</sup> and Mythili Bai K<sup>4</sup>**<sup>1,3</sup>Dept. of Anatomy, <sup>2</sup>Dept. of Pharmacology & <sup>4</sup>Dept. of Physiology,  
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**Abstract:** ACE inhibitors are more commonly used antihypertensive drugs. ACE inhibitors possess anti-inflammatory and antioxidant properties. Anxiety is associated with oxidative stress as documented and reported in the medical literature. With this background, the aim and objectives of this study was to evaluate the effect of ACEI on anti-anxiety properties in Wistar albino rats. The most favorable ACEI on their PK properties were selected and used as experimental drugs. These drugs were administered to the animals following all standard procedures and CPCSEA guidelines. The appropriate other positive control, vehicle control and negative control groups were added for comparison and data authentication including the credibility of results for generalizability. The results of the study highlighted that; drug inhibiting angiotensin receptor had significant anti-anxiety properties in Wistar albino rats.

**Keywords:** ARBs, Anxiety, Plus Maze, Preclinical, Animal Models, Screening, AT<sub>1</sub> Receptor

## OP 158

**Bamboos of Central India and its Research Status****Harshita Agrahari****Junior Project Fellow/PhD scholar, Genetics and Tree Improvement Division****Tropical Forest Research Institute, Jabalpur****E-mail: [agrahariharshita@gmail.com](mailto:agrahariharshita@gmail.com)**

**Abstract:** Bamboo is a woody grass and belongs to subfamily Bambusoideae (family Poaceae), which comprises nearly 1200 species worldwide. Of these, 130 species representing 18 genera of Bambusoideae are found in India, making it a major hot spot of bamboo genetic resources. Bamboo, traditionally known as the “poor man’s timber”. About half of the bamboo in India is used by pulp, paper, rayon, mat boards, furniture, musical instruments, agricultural implements, baskets, bridges, coffins, beds, toys and weapons industries. Bamboo, which is an important forest produce, has high significance in socio economic life of rural Madhya Pradesh. Three species of Bamboo viz., *Dendrocalamus strictus* (Roxb.), *Bambusa bambos* (L.) Vos and *Cephalostachym pergracile* are found in Madhya Pradesh of Balaghat District. The culms of *Dendrocalamus strictus* (Roxb.) or Lathi bans are used for making shaft, walking sticks and axe. The spiny branches of *Bambusa bambos* (L.) Voss or *Bambusa arundinacea* or Katang bans are used for fencing. *B. arundinacea* are emmenagogue and are used as a folk medicine for the treatment of cough, fever and leprosy. In Ayurveda, the entire plant is used as astringent, laxative, for inflammatory conditions and as diuretic. *Cephalostachym pergracile* or Balan bans has good quality canes which are used extensively for cooking and baking sticky rice. In Madhya Pradesh there are two main consumers of bamboo, namely, Basod and Nistari tribes. Basods are the people belonging to community of bamboo craftsmen who are traditionally dependent on bamboo for their livelihood. The Nistaris use bamboo for house repair and crop harvesting and other domestic uses. The Government of Madhya Pradesh has a policy to meet their demand for bamboo. The present note reports that local people practice diverse livelihood activities mainly crop cultivation, livestock husbandry, bamboo products and off-farm activities for survival in Balaghat district of Madhya Pradesh.

## OP 159

**Azaddhirakt – Nature's true wonder**  
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**Abstract:** The margosa tree produces a wide range of peculiar goods that are useful for everyone in the world. Among tropical trees, neem is one of the most useful multipurpose species with a high amount of untapped potential. Due to this tree's amazing biological ability to repel a wide variety of insects and nematodes, interest in it has recently increased. The name is derived from the Persian word "**azaddhirakt**" which means "**noble tree**". The Persian name of the tree, *Azad darakht-i-hindi*, is where the name of the species, *Azadirachta*, originates. Neem is a very significant tree because of its medicinal benefits and other applications, but it also has genetic potential that hasn't been fully realized. In numerous agroecological zones, neem has been shown to be effective against over 25 pests. Despite being well-known as a forest crop with numerous uses, such as a source of fuel, lumber, insecticides, oils, tannins, and medicinal items. The majority of studies that have been published have focused on the isolation, characterization, formulation, and field testing of pest control agents made from seed kernels and leaves. Neem trees should be chosen for general growth, medicinal, insecticidal, antifeedant, and pesticidal maturity and yield of fruits, as well as for their qualities and oil yield. The wide distribution of neem trees is indicative of the presence of genetic variability which could become a good source for making a selection for the required traits. Biotechnology and genetic engineering are advanced technologies that can aid in the genetic improvement of particular features. By air layering or by allowing stem and root cuttings to root, neem can be vegetatively grown. Neem has a lot of therapeutic and biopesticidal characteristics. Neem has been shown to have an inhibiting effect on a variety of microorganisms, according to recent studies. The most well-known physiologically active component in neem is azadirachtin. Neem bark and leaves were employed in Ayurvedic treatments for skin issues, blossoms were used as tonics and stomachics, and fruits were used as purgatives and emollients. Each component of the neem tree has its own significance.

**Keywords:** Azaddhirakt, *Azad darakht-i-hindi*, Margosa tree, Neem, Noble tree, Plant Biotechnology.

## OP 160

**National Educational Policy and Inclusive Education for Persons with Disabilities****Swati Shukla<sup>1</sup>, and Mahesh Kumar Choudhary<sup>2</sup>****<sup>1</sup>PG Student, Department of Intellectual Disability,  
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**Abstract:** The national policy on education is a policy formulated by the Government of India to encourage education among people of India. The policy encompasses elementary education to higher education in both rural and urban India. It is based on five fundamental pillars that is accessibility, affordability, equity, equality and quality. All these pillars are essential for promotion of inclusive education for person with disabilities. Children with disabilities have educational problems due to lack of accessibility, rigid curricula and pedagogy, inaccessible classrooms & schools, rigid assessment system, lack of information and communication technology in the classroom, negative and deficit mindsets that restricts. National Educational Policy ensures universal accessibility, early childhood care and education, curriculum and pedagogical structuring, vocational education, assessment reforms, open and distance learning, online and digital education, holistic and multidisciplinary approach. All these promote inclusive education for persons with disabilities.

**Keywords:** National Education policy (NEP), Inclusive Education, Persons with disability

**OP 161****Impact on *Elaeocarpus ganitrus* plant growth on the soil containing heavy metals  
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Technology, Modipuram, Meerut (UP) India****\*E-mail: r.rishi56@gmail.com**

**Abstract:** Heavy metal stress impact plants in several ways by reducing their development and affecting physiology. In this regard an experiment was conducted to analyze the impact of heavy metals on *Elaeocarpus ganitrus* plants. The experiment was conducted on the plants for short duration. It was observed that with the concentration of heavy metals provided within the soil, has not affected the physiology of plant. *Elaeocarpus ganitrus* plantation may be useful for afforestation, phytoremediation. It may adapt the environment under which it is planted.

## OP 162

Sensing performance of the Pd-SnO<sub>2</sub> thick film sensor

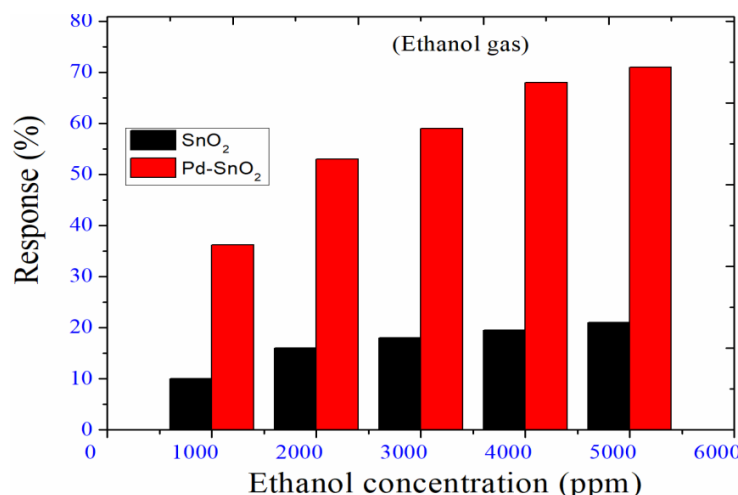
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**Abstract:** The present work deals with the study of the sensing behavior of Pd-doped tin oxide thick film. Two kinds of sensors undoped SnO<sub>2</sub>, 1 wt% Pd-SnO<sub>2</sub> are screen-printed on designed alumina substrate. The sensing performance such as response, transient time, and sensing mechanism of the fabricated sample is investigated. The response of the fabricated sensor is measured with the varying concentration of the ethanol (0-5000 ppm) in the testing chamber at the operating temperature of 200 °C. We observed that Pd doping improved response and the palladium doped sample showed a maximum response of ~71 % for ethanol gas (5000 ppm) at an operating temperature of 200 °C. The experimental result for ethanol gas at 200 °C temperatures has been validated with the theoretical model and observed results are found to be in good agreement with that predicted model.

**Keywords:** Tin oxide; thick film; gas sensor; ethanol gas; transient time



**Figure:** Sensing response of SnO<sub>2</sub> and Pd-SnO<sub>2</sub> thick film for ethanol gas at 200 °C

## OP 163

**Insulin resistance in patients of Hypothyroidism: A review of association between thyroid hormones and insulin sensitivity****Preeti Kashyap<sup>1\*</sup>, Dr. B. Karunanand<sup>2</sup> and Dr. Rajpal Verma<sup>3</sup>**<sup>1</sup>PhD Scholar, Department of Biochemistry, SGT Medical College, Gurugram, Haryana<sup>2</sup>Professor and Head, Department of Biochemistry, SGT Medical College, Gurugram, Haryana<sup>3</sup>Professor, Department of Medicine, SGT Medical College, Gurugram, Haryana**\*E-mail: preetikashyapmamc@gmail.com**

**Abstract:** Approximately 42 million people in India are suffering from thyroid abnormalities. Thyroid gland is the foremost endocrine gland which controls metabolism, development, growth and maintenance of the body. Imbalance in secretions of thyroid hormones affects almost every aspect of health and metabolism. Disturbances in glucose homeostasis are apparent. Hyperthyroidism is associated with insulin resistance but recently hypothyroidism has also been linked to decreased insulin sensitivity. In this review we will discuss, the effect of thyroid hormone deficiency on glucose metabolism and insulin resistance. Thyroid hormones and insulin have collaborative role in maintenance of glucose homeostasis at both cellular and molecular level. Decreased level of thyroid hormones, impairs glucose uptake which is stimulated by insulin, hence slight decrease of thyroid hormones in hypothyroidism is inversely correlated with insulin resistance. It is also observed that in hypothyroidism, flow mediated endothelial vasodilation is impaired which is responsible for insulin resistance. Intracellular T<sup>3</sup> influences some transcriptional regulators of mitochondrial genes, and are also responsible for the development of insulin resistance. In hypothyroidism either insulin level or its signaling pathway is disturbed. Hypothyroidism is correlated with fasting Insulin levels, Insulin resistance and Diabetes

**Conclusion:** Insulin resistance indicates a main key pathogenic mechanism of cardio-metabolic diseases, and its prevention is necessary. Therefore, screening of hypothyroid patients for insulin resistance may be helpful in early detection of comorbidities associated with the disease.

**Keywords:** Hypothyroidism, Thyroid hormones, Insulin resistance, Glucose homeostasis

**OP 164****Enormous versatility of essential oils as significant sources of natural fragrances in cosmetics and cosmeceuticals****Dr. Laxmi Tanwar****Associate Professor, Department of Chemistry,****Sri Aurobindo College, University of Delhi****E-mail: laxmitanwar65@gmail.com**

**Abstract:** Fragrances are used by nearly everyone, everywhere, and represent a truly worldwide cultural phenomenon. Numerous smells and flavors have made their way into our daily lives over the years, most notably in our food, drink, and confectionary goods; our personal care products (such soaps, toothpastes, mouthwashes, deodorants, bath lotions, and shampoos); our cosmetics; and our pharmaceuticals. Tastes and fragrances are added to such items to enhance their appeal or to cover up the taste or smell of ones that consumers might find less desirable. The development of plant-based goods has been given a new boost in recent years thanks to green consumerism and the renaissance of the usage of "naturals."

Industries across the board rely on laboratory-created synthetic perfumes to replicate the natural, plant-based oils used in their competitors' products; they have a far higher production price. While genuine plant-based essential oils have been shown to have several health benefits, synthetic perfumes may lack these benefits and possibly be harmful to humans. The endocrine-disrupting phthalates and the carcinogenic benzene derivatives found in synthetic scents are only two examples. However, essential oils and other natural fragrances are becoming increasingly popular as people seek to avoid the potential health risks of synthetic fragrances and instead enjoy the benefits of using them in aromatherapy. Not only do well-known cosmetics lines use essential oils into their products, but the finest perfumes also employ pure essential oils, giving them the rare and exotic aromas that have made them so highly sought after. Essential oils have been shown to have a number of health and cosmetic benefits, but this does not mean they are immune to potential side effects and contraindications.

The large-scale commercial harvesting of aromatic plants can lead to the extinction of some species. It is crucial to develop systematic cultivation of these plants to safeguard biodiversity and endangered species. Eco-conceived fragrant compounds that span every olfactory family without further endangering biodiversity may be created through the sustainable extraction of

natural resources, the use of novel technologies, the intensification of processes, and the use of agro-based solvents.

**Keywords:** Essential Oils, Perfumes, Fragrances, Bio-Diversity, Flavors.

## OP 165

**Surgical Site Infection Post Cesarean Section: Incidence and Associated Risk Factors. A Hospital Based Study****Ruksana Farooq<sup>1</sup>, Azhar Un Nisa Quraishi<sup>2</sup>, Syed Aadil Shadaab Andrabi<sup>3\*</sup>****<sup>1,2</sup>Department of Obstetrics and Gynecology, Sher-i-Kashmir Institute of Medical Sciences, Soura Srinagar****<sup>3</sup>Department of Surgery, Government Medical College, Srinagar****\*E-mail: syadlan@gmail.com****Abstract**

**Background:** Surgical Site Infection after cesarean section is one of the commonest nosocomial infections, accounting for overall 38% of hospital acquired infections. Therefore the present study was designed to find out incidence of SSIs and associated risk factors following C-section in a tertiary care hospital.

**Materials and Methods:** The present study was conducted in the department of Obstetrics and Gynecology SKIMS MCH Bemina Srinagar from Jan 2019 to March 2020. A total of 470 patients who underwent cesarean section were taken in study. The incidence of SSIs and associated risk factors were studied and data was analysed.

**Results:** The SSIs developed in 13.2% of study patients. The statistically strong risk factors associated with SSIs included emergency C-section, compared to elective, vertical skin incision compared to horizontal and interrupted skin suturing compared to subcuticular.

**Keywords:** C-section, Surgical Site Infection, Risk factors

## OP 166

**A Survey of memory utilization of data objects in R (A survey with respect to leading frameworks and platforms)****A.P. Awasthi\*****Department of Statistics, Amity University, Noida, Uttar Pradesh, India****\*E-mail: anant.awasthi@outlook.com**

**Abstract:** Memory management is a very important component of running large workloads in computing. It takes into account the capacity & limitations of the available memory on the device itself and deallocates memory space when it is not needed or expands the space through virtual memory. Memory management strives to optimize memory usage so that the CPU can efficiently access the instructions and data it needs to execute the various processes. As we know, the R interpreter utilizes the system's memory to execute the submitted instructions either from the console or from the script. It became very important while working with R to follow memory management practices. This work is focused on memory utilization by different data management frameworks in R on different platforms. We have considered Native R, tidyverse, and data.table as data management frameworks which executed over Windows 10 and Ubuntu 20.04 operating systems. The analysis of memory utilization data shows for smaller to medium datasets ( $10^2$  to  $10^5$  records) Native R memory management is better when compared to tidyverse (0%-1% high memory utilization) and data.table (0%-6% higher memory utilization). On larger datasets ( $>10^5$  records) all framework's memory utilization becomes almost equal. Windows 10 and Ubuntu 20.04 have shown similar behaviour. As all framework shows similar behaviour, memory utilization does not play a major role across platforms but efficient memory management is the need of the hour for successful system design.

**Keywords:** R; tidyverse; data.table; Memory utilization in R.

## OP 167

**Effect of Cultivars on the Solvent Retention Capacity and Particle Size Distribution  
Characteristics of Wheat (*Triticum aestivum*)****Jyoti Narwal<sup>1\*</sup> and Ritika B. Yadav<sup>1</sup>**<sup>1</sup>**Department of Food Technology****Maharshi Dayanand University, Rohtak (Haryana)-India****\*E-mail: jyotinarwal28april@gmail.com**

**Abstract:** Wheat cultivars growing at different geographical area in India were analyzed for their physical and chemical quality, particle size distribution, and solvent retention capacity characteristics to assess their end product utilization. Grains from ten newly released cultivars of *T. aestivum* were procured from authorized sources. Wheat flours of different cultivars were analyzed for their solvent retention capacity characteristics, particle size distribution, alkaline water retention capacity. The values for water SRC, and sucrose SRC were reported to be 74.33 to 97.66%, and 81.33 to 98.00 %, respectively for different wheat flours. The particle size distribution Dv (90) of wheat flour was ranged from 98.43 to 149.66 µm, while, the Dv (50) was varied from 40.43 to 54.20 µm respectively. A significant (P<0.05) difference was observed in different parameters such as D (4,3) and D (3,2). The flour obtained from wheat grains of different cultivars was assessed for alkaline water retention capacity. A significant (P<0.05) difference was observed in different wheat cultivars for alkaline water retention capacity. The results of this study would provide the information regarding the quality parameters of newly released wheat cultivars and to assess the suitability of different wheat cultivars for development of specific products.

**Keywords:** Solvent retention capacity, particle size distribution, alkaline water retention capacity.

## OP 168

**Herbal pest management of *Anopheles* mosquito****Reena Kumari Chaudhary and Dr. Kalpana Singh\*****Laboratory of Applied Entomology, Department of Zoology,****University of Lucknow, Lucknow-226007(UP) India****\*E-mail: drkalpanasingh@gmail.com****Introduction:**

Mosquito is a chief health problem as the principal vector of a no. of diseases that affecting human and other faunas. Mosquitoes are diseases causing vector, transmit various diseases like dengue, malaria, chikungunya, filariasis, encephalitis, yellow fever, west Nile virus infection, etc. Every year about 40,000,000 of Indian people were infected. Management of mosquito is important to reduce increasing vector-borne diseases and to improve quality of environment and public health also. In India, the mosquito vector-borne diseases cause high level of mortality and morbidity and but also inflict social disturbance and excessive economic harm (Kanika Tehri and Naresh Singh, 2015). DEET is commonly used as chemical mosquito repellent but it caused poisonous effects as like encephalopathy in children, anaphylaxis, urticaria syndrome, decreased heart rate and hypotension (Peterson Chris, 2001). Phytochemicals obtained from the huge diversity of plant species are most important source for safe and it is recyclable chemicals which used to in screening for mosquito repellent. It can be tested for mammalian toxicity also and therefore can be used as an alternative to synthetic insecticides or along with other insecticides under the integrated vector control (Mittal PK and Subbarao SK., 2003). During last decade, numerous studies on herbal plant products against mosquito vectors indicated them as possible alternatives to synthetic chemical insecticides (Davidson G. 1972). Phytochemicals of plant origin having repellency activities against the malaria causing vectors and other diseases like Malaria and caused by *Anopheles* vectors such as *Anopheles stephensi*, *Anopheles gambiae* and *Anopheles arabiensi*.

**Efficiency of herbal pesticides on *Anopheles* mosquitoes:**

There are some review of literature mentioned that work about herbal plant activity against *Anopheles* mosquito species. Citronella is herbal-pesticide that is useful for human purpose and it has been permitted by the United States Environmental Protection Agency in the year 1948

(Environmental Protection Agency, 1972). Comparison of mosquito repellent effectiveness of essential oils and alcoholic extracts of some plants on malaria mosquito *Anopheles stephensi* (Shooshtaari *et al.*, (2012). Larval potencial of leaf extract of weeds against the malaria vector *Anopheles stephensi* (Tyagi *et al.*, 2013). Screening of phytochemical composition, Ovicidal and repellent activity of leaf extracts of *Sphaeranthus indicus* and *Caesalpinia pulcherrima* against the mosquito *Culex quinquefasciatus* (Dr. Dhivya R, 2022).

### **Importance of herbal pesticides**

- 1-Herbal pesticides are cheap (economical).
- 2-They are less harmful to the humans and more effective against insects.
- 3-Herbal pesticides are stable in effect could be kept for long time period due to their smooth degradation pathways in nature after application.
- 4-Pesticides can be used to control carriers of vectors borne diseases like dengue, malaria and chikunguniya and some other diseases also.

**Keywords:** Anopheles, herbal Pesticides, mosquito, management

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**OP 169****Management of Dengue****Shilpa Nandan and Dr. Kalpana Singh\*****Laboratory of Applied Entomology, Department of Zoology,****University of Lucknow, Lucknow-226007(UP) India****\*E-mail: drkalpanasingh@gmail.com**

**Abstract:** Dengue is most rapidly spreading vector born viral disease. In all over World problem of Dengue had spread extremely that many different types of control and prevention has been used to decrease problem of dengue, which is safe for environment as well as it is cost effective too. For management and control of Dengue various immunotherapies & vaccines has been developed, which are much effective too. In this study, it has been discussed about Dengue management and control strategies, like paratransgenesis use of larvivorous fish, species genetic modification, chemical control by using of insecticides, use of insect growth regulator (IGRS), use of plant derivatives. Use of tetravalent vaccine (CYD-TDV) is also much effective in controlling infection of Dengue.

**Keywords:** Dengue, Management, Environment, control strategies.

## OP 170

**Identification and Isolation of Terpenes from Aromatic Plants****Manish Arya<sup>ab</sup>, Santosh Kumar Singh<sup>b</sup>, Sudeep Tandon<sup>a</sup>, Anirban Pal<sup>a</sup>****<sup>a</sup>CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP),  
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Natural products are small molecules produced naturally by any organism including primary and secondary metabolites. The nature products may have isolated from the plant source and in these plants some are aromatic plants which have a very rich source of essential oils and the essential oils has aroma, essence, fragrance, flavour and odour or smell. Essential oils are aromatic substances present in the specialized cells or glands of certain plants used by them to protect themselves from predators and pests, but also to attract pollinators. These volatile liquids are very complex molecular substances, extremely potent and precise as action. Essential oil is not actually an oil because it contains no fatty substance. It is obtained from the essence rich in natural flavours and active ingredients that it secretes the cells of certain parts of the plant. Precious liquids are obtained by distilling or pressing the secretory organs.

The secondary metabolites are terpenes biomolecules isolated from essential oils of aromatic plants which have biological activities such as antioxidant, anticancer, antiprotozoal, antifungal, antibacterial and anti-inflammatory. The natural products from Some aromatic plants have bioactive terpenes biomolecules and it may have specific important properties and enormous application potential research study in term of bioactivity,

**Keywords:** antioxidant, anticancer, antiprotozoal, antifungal, antibacterial and anti-inflammatory.

# Online International Conference on Research Methodology (ICRM-2022) (OCT 28-30, 2022)

Dr Shakuntala Misra National Rehabilitation University, Lucknow, , UP & Science-Tech Institute run by Manraj Kuwar Singh Educational Society, Lucknow, UP are going to organize **Online International Conference on Research Methodology (ICRM-2022)**. This Conference will provide a platform to the researchers and academicians to enrich their methodological and analytical skills. Currently, the research fraternity is missing their lively and interactive conference due to COVID-19 Pandemic. To address the present situation we are conducting this organize **Online International Conference on Research Methodology (ICRM-2022)** for faculty members, research scholars and students of all the disciplines in the country and abroad from **OCT 28-30, 2022**.

## Dr Shakuntala Misra National Rehabilitation University

(D.S.M.N.R.U, Established by Government of Uttar Pradesh)

Dr. Shakuntala Misra National Rehabilitation University, established by Government of Uttar Pradesh in the year 2008, is a highly innovative that proactively brings together under one umbrella-the academia and social responsibility. The potent synergies of this blending open up huge possibilities for translating ideas into action, taking science to soil, and lab to land. First of its kind in India, the University not only offers accessible and world class higher education to all but also addresses the educational needs of the physically challenged in a seamless and sensitive academic environment. The impressive and modern University campus is spread over 131 acres of land in Lucknow-the state capital of Uttar Pradesh. Wi-Fi equipped campus with barrier-free infrastructural and educational environment; technology-friendly smart classrooms with modern audio-visual education aids like Computers, CCTV, Projectors etc.; Multimedia educational approach; well equipped computer lab with JAWS (Job Access with Speech); and green eco-friendly campus-all combine to offer the student a world-class educational experience for all-round development. The Library in the University caters to the students with a rich collection of international and national books, journals, reports and reading material on a wide range of The allied facilities of the University include Post-Office, Bank, Electricity Sub-Station, Students Hostel (Boys' & Girls'), Guest House, Staff Quarters, Computer Center, Placement Cell, RTI Cell, Disability Cell and Bus Shuttle Services to name a few. The state-of-the-art infrastructure of the University makes it a self-sufficient academic microcosm.

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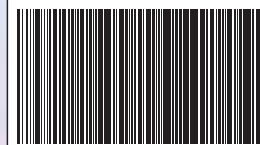
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E-mail: [mkespublication@gmail.com](mailto:mkespublication@gmail.com)  
Website : [mkespublications.com](http://mkespublications.com)

ISBN : 978-93-91248-31-4



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