International Conference on

ROLE OF SCIENCE AND TECHNOLOGY IN SUSTAINABLE DEVELOPMENT

October 13-14, 2023

Him Science Congress Association

Promoting Excellence in Sciences

Organized by

HIM SCIENCE CONGRESS ASSOCIATION

at

HOTEL MOONGLADE, BANIKHET

DALHOUSIE, HIMACHAL PRADESH

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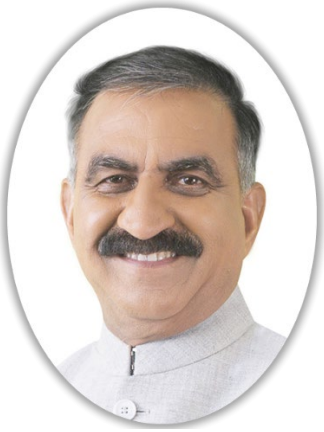
PROCEEDING

THE 10th HSCA
INTERNATIONAL CONFERENCE
on
ROLE OF SCIENCE AND TECHNOLOGY IN SUSTAINABLE DEVELOPMENT

AT HOTEL MOONGLADE, BANIKHET DALHOUSIE

HIMACHAL PRADESH

ON OCTOBER 13-14, 2023



सुखविंदर सिंह सुक्खू
SUKHVINDER SINGH SUKHU

हिमाचल प्रदेश सरकार

मुख्य मन्त्री
हिमाचल प्रदेश
CHIEF MINISTER
HIMACHAL PRADESH

Message

I am delighted to know that Him Science Congress Association, Sardar Patel University Mandi, Himachal Pradersh is hosting its 10th International Conference on 'Role of Science and Technology in Sustainable Development' on 13th and 14 October, 2023 at Banikhet, district Chamba .

Over the past decade, the Him Science Congress Association has made significant contributions to promote excellence in science. The Association has gathered pioneers of various scientific fields to enlighten and motivate the young scholars of the region.

I am confident that the Conference will provide an excellent platform for the delegates to exchange new research ideas, applications, share research experiences and establish global partnerships for future collaborations.

I wish the conference a grand success.

(Sukhvinder Singh Sukhu)

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ASIAN POLYMER ASSOCIATION

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Dated: 02.10.2023

Bhuvanesh Gupta
President (APA)

Message from the President, Asian Polymer Association

Scientific conferences are very dynamic platforms to spread knowledge to the world by encouraging intense discussion among the scientific fraternity and I am highly enthused to see that HSCA is organizing an International Conference on the "ROLE OF SCIENCE AND TECHNOLOGY IN SUSTAINABLE DEVELOPMENT " in Dalhousie on October 13-14, 2023. The importance of this event is reflected in terms of the discussion that will be held as the agglomeration of scientists from different domains of science and engineering subjects. I am sure that this conference would provide a well-knitted structure for the collaborations among the scientists from different domains. I wish this conference a grand success and visualize a knowledgeable outcome of the two-day event.

Bhuvanesh Gupta
Chief Patron

HIM SCIENCE CONGRESS ASSOCIATION

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CENTRAL UNIVERSITY FO JAMMU
Ph: +91-9805440648 ; Email: dpathania74@gmail.com
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Prof. (Dr.) Deepak Pathania
President, HSCA

Message from the President, Asian Polymer Association

On behalf of the Him Science Congress Association, I am truly honored and delighted to take this opportunity to welcome you all to this International Conference on the "**Role of Science and Technology in Sustainable Development"** in Banikhet, Dalhousie, Chamba, on October 13-14, 2023. The conference is committed to make legitimate and reliable contributions to the scientific community in sustainable way. The Conference will be the perfect platform for global networking as it brings together renowned speakers and scientists across the globe.

The two-day conference focuses on a broad range of issues and challenges in the field of sciences which will be weaved through the Keynotes Speakers, Plenary Speakers, Oral and Poster presentations and discussions. This conference will surely create a vibrant platform for idea exchange, networking, and potential collaborations in future research. I believe that the success of the conference depends heavily on the people who have worked hard in planning and organizing the conference. I want to congratulate them for their hard work and meticulous arrangements.

Looking forward to your enthusiastic participation.

With best wishes

Deepak Pathania

PLANARY SESSIONS

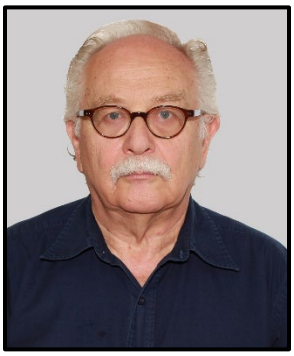
THE 10th HSCA
INTERNATIONAL CONFERENCE
on
ROLE OF SCIENCE AND TECHNOLOGY IN SUSTAINABLE DEVELOPMENT

AT HOTEL MOONGLADE, BANIKHET DALHOUSIE

HIMACHAL PRADESH

ON OCTOBER 13-14, 2023

KEYNOTES SPEAKERS
ABSTRACT NO - IT -01



Ion-conducting Polymer Membranes for Electrochemical Energy Conversion Technologies prepared by Radiation Grafting

Günther G. Scherer[1,2]

[1]Former Head Electrochemistry Laboratory, Paul Scherrer Institut, 5232 Villigen, Switzerland

[2]Former Head Electrochemistry Laboratory, TUM CREATE, Singapore 138602, gga1@gmx.net

Abstract

Electrochemical energy conversion technologies show advantages compared to thermal conversion technologies, because they are not Carnot-limited. Electrochemical cells, which are based on the *solid polymer electrolyte* concept, utilize ion-conducting polymer membranes in the *plate and frame* configuration as electrolyte, separator, and gasket. Dense commodity fluoropolymer films can be modified in different ways to become ion–conducting polymer membranes. The essential idea behind this modification is that outstanding properties of fluoropolymer films, e.g., thermal, mechanical, and chemical stability, are retained and additional functionalities are introduced after modification. Modification by radiation-grafting a desired copolymer component onto the base polymer film and its subsequent sulfonation, phosphonation, etc. to introduce acid groups is one efficient way to introduce these groups chemically bound to the polymer network, otherwise not or difficult to be accessible by chemical means. On overview of the principle of radiation grafting and its various practical implications will be discussed and results of the development of proton-conducting membranes for H_2/O_2 fuel cell applications will be presented.

INVITED TALK

ABSTRACT NO - IT -02

Natural Backbone Based Ecofriendly Materials– Prospective Applications

Balbir Singh Kaith

Department of Chemistry, Dr B R Ambedkar National Institute of Technology (NIT), Jalandhar (Punjab), India, Mobile No. +91 9780684883

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Abstract

Population explosion all over the world has become a big threat. India possesses only 2.4% of the total geographical area of the world. Whereas, it hosts about 18% of the total population of the world. This has limited the per capita available resources for the use of mankind. Moreover, there are uncertainties in rain pattern which has resulted in soil desertification and decrease of food grain production. Under such circumstances polymer materials play very important in bringing the Second Green Revolution i.e. Evergreen Revolution, without any adverse impact on the eco-system. Polymeric materials have generated a lot of interest among the agriculture Scientists all over the world because of their biodegradability and environment friendliness.

Researchers over the globe are working on such materials taking into consideration their innovative features. This has created enormous interest among the scientific community and new generation materials in biomedicals, pharmaceuticcals and other industrially important products have come up in the market. But the specific application oriented materials need to be designed and developed. In the present paper, designing of multifunctional polymeric materials of natural origin and their applications in agriculture sectors and other fields have been highlighted.

INVITED TALK

ABSTRACT NO - IT -03

Nano-additives with Phase change materials for energy storage applications: Challenges and Progressive Trends

V.V. Tyagi

School of Energy Management, Shri Mata Vaishno Devi University, Katra, 182320, (J&K), India Email: vtyagi16@gmail.com

Abstract

Role of sustainable technologies for development in energy storage is a step towards clean environment. Phase change materials (PCMs) are the potential candidates for energy storage due to their high latent heat values. The thermal energy storage (TES) potential of PCMs has been deeply explored for a wide range of applications, but not limited to solar/electrothermal energy storage, waste heat recovery, energy savings in building, and thermal regulations. Furthermore, use of nano-additives to distress in PCMs providing a new insight in energy storage applications. Applications of nano-additives for novel-composite PCMs provides a plateform for improvement in thermo-physical properties and eco-friendly human comfort appliances are the upcoming research sector. In this present study, applications of nano-material in coupling with PCMs for energy storage sector is discussed with challenges and progressive trends.

INVITED TALK

ABSTRACT NO - IT -04

Genetically Modified Crops: Their Development, Potential Uses and Associated Risks

Raju Shankarayan

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raju.shankarayan@smvdu.ac.in

Abstract

Genetically modified crops, often referred to as GMOs (genetically modified organisms), are plants whose genetic material has been altered in a way that does not occur naturally through mating or natural recombination. This modification is typically done to impart specific desirable traits or characteristics to the crops. We have different reasons for doing genetic modifications in plants which are increased crop yield, pest resistance, herbicide tolerance, disease resistance and improved Nutritional Content. In terms of increased crop yield Genetically modified crops can often yield more produce per acre, potentially helping to address food security and reduce pressure on natural ecosystems. Genetic modification of crops involves the insertion or modification of specific genes to achieve desired traits. This can be done through various techniques, such as gene splicing and recombinant DNA Technology, genetic engineering etc.

Among the various GMP crops developed the most well-known genetically modified crops include Roundup Ready Soybeans, Bt Cotton and Bt Corn, Golden Rice, Papaya, Canola etc.

Genetically modified crops (GMOs) have been a topic of debate and concern for several reasons. While they have the potential to offer benefits such as increased crop yields, resistance to pests, and improved nutritional content, there are also concerns about their potential harmful effects. Genetically modified crops have been the subject of considerable debate and controversy. Critics

raise concerns about potential risks to human health, environmental impacts, and the concentration of seed ownership in the hands of a few large corporations. Supporters argue that GMOs can contribute to increased agricultural productivity, reduced pesticide use, and improved food security. The safety of GMOs is a key consideration. Before GMO crops are approved for cultivation and consumption, they typically undergo extensive testing and evaluation to assess their safety for both human consumption and the environment. However, concerns remain about long-term effects and the potential for unintended consequences.

INVITED TALK

ABSTRACT NO - IT -05

Understanding adaptation of *Artemisia brevifolia* at high altitudes

Bilal Ahmad Mir

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Email: bilal.mir@uok.edu.in

Abstract

With increase in altitude lots of environmental features changes making the conditions harsh for the survival of organism at extremely high altitudes. The plants adapted to such extremely high altitudes might be due to its ability to tolerate the harsh climatic conditions. *Artemisia brevifolia* is an important high altitude medicinal and aromatic plant belonging to the family Asteraceae. It is native to Western Himalayan region especially Ladakh and grows wildly and widely in various parts of Ladakh region between the altitude range of 2800-4500masl. Given its medicinal importance and range of distribution, *A. brevifolia* can act as a good model system to understand the impact of altitude on the adaptation. The plant produces large quantity of volatile compounds which might be one of the adaptive strategies towards the herbivores and surrounding competitive plants. VOCs play crucial role in interacting with the surrounding environment of the plant. Phenolic compounds such as phenols and flavonoids are synthesized as the defense compounds against biotic and abiotic stresses under harsh environmental conditions. In this study we investigated the impact of altitude on the VOCs and phenolic compounds of *A. brevifolia* across altitudinal gradient of Ladakh. VOCs were collected using solid phase extraction (SPE) method. A total of 23 volatile organic compounds were present in the plants. Camphor, eucalyptol and thujones were the major compounds present in most of the samples from different altitude. α & β thujones were present in as major VOC in high altitude Khardungla samples only, whereas the

concentration of eucalyptol and camphor are high in samples from low altitude indicating the presence of thujone chemotype at high altitude and eucalyptol-camphor chemotype from low altitude. It was interesting to observe that the number of phenolics remains unaffected with altitude however, the concentration of most of phenolics present decreases with altitude, which might an adaptive strategy of *A. brevifolia* at high altitude to conserve nutrients and resource available in limited amount.

INVITED TALK

ABSTRACT NO - IT -06

Green approach using natural materials for biological synthesis of reduced-graphene oxide (brGO) and potential applications.

Tariq Maqbool

Laboratory of Nanotherapeutics and Regenerative Medicine, Department of Nanotechnology, University of Kashmir, Srinagar - India

Abstract

Graphene oxide (GO) and its reduced form (rGO) possess good electrical conductivity, mechanical stability and intrinsic biocompatibility and are, therefore, useful in biomedicine and other applications. However, the conventional method of rGO synthesis usually involves the use of toxic reducing agents which are harmful to human health and to the environment. Thus, there is a need for greener approaches for the effective reduction of GO suitable for its various biocompatible applications. Natural materials can act as reducing agents in the synthesis of biologically reduced Graphene Oxide (brGO) in order to replace the toxic chemicals otherwise used. Out preliminary results indicate that the greener approach and protocols developed are quite effective for obtaining biologically reduced graphene oxide (brGO). As-prepared brGO samples exhibit superior biocompatibility with HEK-293T cells even at a relatively high concentration of 100 µg/ml, when compared to GO. This observation suggests that properly fabricated biologically reduced Graphene Oxide holds promise as a potential scaffold material in the field of tissue engineering.

The 10th HSCA-International conference on Role of Science and Technology in Sustainable Development [RSTSD-2023]" on 13 -14 October, 2023

Paper ID	Authors	Institute	Title	Oral/Poster	Subject
1	Anuja Banshtu and Sapna Katna		Evaluation of Novel Insecticide Molecules Against Greenhouse Whitefly in Cucumber Under Field Conditions	Poster	BS
2	Vinod Kumar Mauriya		Sustainability with energy efficient HCSD system of Ash Disposal in thermal power plants	Poster	BS
3	Dr Ravi Datt, Dr Mangal Singh Bisht and Dr Sita Ram		Utilization of Taguchi method for optimization of geometric and flow parameters of circular heat exchanger tube with combined solid ring and square wing twisted tape inserts.	Oral	Math
4	Chetna Verma	IIT Delhi	Functional Designing of Polypropylene by Plasma Processing For Biomedical Applications	Oral	CH
5	Sunjay Sunjay		Spectral Decomposition Multicomponent Seismic Data	Poster	PH
6	Narinder Singh, Rajesh Kumar and Ashish Kumar		Charge Transport Study of PPy/CuS Hybrid Nanocomposites at Low Temperature varying from 15-300K	ORAL	PH
7	Dr Geetanjli Sahni		Karyotypic studies of mitotic and meiotic chromosomes of an arctiid moth Amsacta lactinea Cram. (Lepidoptera, Arctiidae) revealing female heterogamety	Oral	BS
8	Keshu Keshu		Uma Shanker, Manviri Rani and Green fabrication of iron oxide-biochar nanocomposites for efficient photocatalytic degradation of endosulfan	Oral	CH
9	Vipula Sethi, Chetna Verma, Bhuvanesh Gupta, Samrat Mukhopadhyay and Amlan Gupta	Indian Institute of Technology, Delhi	Plasma Induced graft polymerization of Itaconic acid onto PP mesh	Poster	CH
10	Dharani Elangovan, Sandeep Sharma, Neha Anand, Tarun Kumar, Adhip Das, Ranjith Kumar Ellur, Sanjay Kalia and Renu Pandey	ICAR-Indian Agricultural Research Institute, New Delhi	Identification of haplotypes in rice accessions for NRT1.1 regulating nitrate uptake under low nitrogen stress	Oral	AS

11	Shilpa Kumari, Asha Kumari and Rahul Sharma	Carrier Point University, Hamirpur	A way to healthy future: Green synthesized silver-Carrageenan film for food packaging applications	Poster	CH
12	Rashmi Dhawan	S.A.Jain College, Ambala City	Kinetics and thermodynamics of adsorption of Isopropylacetate vapors by modified activated carbons	Oral	CH
13	Mahika Gulati, Chetna Verma, B.S. Kaith and Bhuvanesh Gupta	Dr B R Ambedkar National Institute of Technology, Jalandhar	Surface Modification of Polypropylene by Carbon Dioxide (CO2) Plasma	poster	CH
14	Nishika, Chetna Verma, B.S. Kaith and Bhuvanesh Gupta	Dr B R Ambedkar National Institute Of Technology, Jalandhar	κ-Carrageenan-Polyethylene Glycol based Hydrogel for Antimicrobial Applications	poster	CH
15	Lavanya Singh Malik, Chetna Verma, B.S. Kaith and Bhuvanesh Gupta	Dr B R Ambedkar National Institute of Technology, Jalandhar	Development of CG-PEG/ Vitamin E based Hydrogels for Scar Prevention	poster	CH
16	Kalpana Singh and Vandana Garg		Accumulation of Different Pesticides in Tissues of Channa Punctatus: A Sensitive HPLC Analysis	Poster	BS
17	Urvashi Verma and Vikas Thakur		Synthesis and Characterization of Nanocrystalline CdZnS Thin Films	oral	PH
18	Pradip Kumar Ghosh and Aloke Kumar Sarkar	Jadavpur University	Concept of Dark Matter from Casimir Effect and Cosmological Constant Following Standard Model of Cosmology	Poster	PH
19	Anil Kumar and Suman Lal		Information Theoretic Concepts of PT-Symmetric Potential	Poster	BS
20	Sandeep Sharma, Raviteja Dh, Tarun Kumar and Renu Pandey	Indian Agriculture Research Institute New Delhi	Pup1 QTL-introgressed rice lines mitigate the effects of elevated CO2 and low P stress on yield, biomass accumulation, and C:N:P stoichiometry	Oral	BS
21	Sarvjeet Kaur and Ashutosh S. Singh	MMDU Mollana	Mutual induced-fit controlled effective confinement in hydrogen bonded capsule	Oral	CH
22	Harpreet Kaur and Arush Sharma	**B**addi university of emerging sciences and technology	Adsorption mechanism of metformine from water system using Vachellianilotica plant	oral	CH
23	L. N. Aggarwal	Geological Survey of India	Geodiversity: New Avenues in Tourism	Oral	EVS

24	Vijay Kumar Garg, Ajay Sharma and Arun Lal Srivastav	Chitkara University Himachal Pradesh	Health Risk Assessment of Agricultural Soil Near BBN Industrial Area of Himachal Pradesh India	oral	PH
25	Akshay Thakur and Ashish Kumar	Sardar Patel University, Mandi	Photocatalytic Water Splitting vs Hydrogen Evolution: Key Differences and Scalability Aspects	poster	CH
26	Chetan Chauhan	Sardar Patel University, Mandi	"Breathing Trouble in Paradise: A Review of Surface Ozone Trends, Causes, and Environmental Impacts in Kullu Valley, Himachal Pradesh	Oral	CH
27	Priya Mehra, Simran Arora and Bhag Chand Chauhan	Central University of Himachal Pradesh	Active-Sterile Neutrino Schemes and Neutrinoless Double Beta Decay	oral	PH
28	Prof. Bhag Chand Chauhan and Nalin Dhiman	Central University of Himachal Pradesh	Future Course of Science and Role of Consciousness	Oral	PH
29	Kiran Devi and Amit Kumar		A Review on Sustainable Cement Concrete Pervious Paver Blocks	Poster	EVS
30	Amit Kumar and Kiran Devi		Influence of fiber and additive contents on freeze-thaw resistance of stabilized fine silt	Poster	EVS
31	Rishu Verma, Prof. Bhag Chand Chauhan and Nalin Dhiman	Dr Y S Parmar, UHF, Nauni, Solan, HP	A Fluidic Nature of Unseen Matter in Galaxies	Poster	PH
32	Tikkam Singh and Veena Agrawal	Department of Botany, University of Delhi, Delhi-07	Bioassay guided isolation, characterization, and elicitation of potent cancer inhibitors in the callus culture of Cullen corylifolium (L.) Medik.	Oral	BS
33	Rajnish Kumar, Dharmesh Gupta and Anupam Barh	Dr Y S Parmar, UHF, Nauni, Solan, HP	Evaluation of various substrates for cultivation and spawn preparation of Flammulina velutipes strains	Oral	AS
34	Kushal Thakur, Hishani Kumari, Bhavna Brar and Rakesh Kumar	Department of Animal Sciences, Central University of Himachal Pradesh	Length Weight relationships of some Freshwater fish species from Beas River	Poster	BS

35	Danish Mahajan, Hishani Kumari, Bhavna Brar and Rakesh Kumar		Environmental Impact Assessment: Fish Diversity and Habitat Ecology in the Mining-impacted Upper Ravi River Basin, Himachal	Poster	BS
36	Simran Arora and Bhag Chand Chauhan	Central University of Himachal Pradesh	Neutrino Mass and Muon ($g-2$) from a Z_4 Scotogenic Model	ORAL	PH
37	Rahul Verma and Chetan Chauhan	Sardar Patel University, Mandi, Himachal pradesh	Extraction and Characterization of Essential Oils from Leaves and Rhizomes: A Comprehensive Study on Zingiber officinale the Aromatic Plant Resource.	Poster	CH
38	Nisha Singh, Sandeep Sharma, Monu Kumar, Rajesh Kumar Sharma, Vandana Rai, Rashmi Yadav and Renu Pandey	Institute of Science, Banaras Hindu University (BHU)	Exploring Physiological Mechanism for Drought Tolerance in Sesame: A Trait-Based Selection Approach for Elite Accessions	Oral	BS
39	Parveen Chander Gupta, Arun Lal Srivastav, Ajay Sharma and Abhishek Kanoungo		Role of biochar adsorbents in heavy metal removal from wastewater: Recent state of art	ORAL	CH
40	Shareshtha Devi and Mahesh Kulharia	Central University of Himachal Pradesh	Curing the Ageing Process :Targeting Klotho and FGF23 complex by Phytochemicals	Poster	BS
41	Zaheer Ud Din Sheikh, Anita Singh and Deepak Pathania	Central University of Jammu	Adaptive Evolution of Candida shehatae with Inhibitor Tolerance for Production of Lignocellulosic Ethanol	Oral	BS
42	Priya Mehra, Simran Arora and Bhag Chand Chauhan	Central University of Himachal Pradesh	Neutrino-less Double Beta Decay in Different Active-Sterile Neutrino schemes	ORAL	PH
43	Ashita Sood and Mahesh Kulharia	Central University of Himachal Pradesh	Uncovering Traditional Wisdom : Delving into the Immunomodulatory Potential of Natural Herbal Blends Targeting the STING-TBK1 Pathway	Oral	BS
44	Shivani Attri and Saroj Arora		Apoptotic inducing and anti-inflammatory potential of Bakuchiol isolated from Psoralea corylifolia against epidermoid (A431) cell line for the treatment of psoriasis		

45	Varuni Bhardwaj and Mahesh Kulharia	Central University of Himachal Pradesh	Tracing the Evolutionary Path of SARS-CoV-2: Mutational Patterns and Functional Perspectives	ORAL	BS
46	Pooja Sharma and Dr.Sushil Chaudhary		REFLECTION AND TRANSMISSION OF PLANE SH-WAVE AT AN INTERFACE BETWEEN SELF REINFORCEMENT ELASTIC SOLID HALF SPACE AND MONOCLINIC ELASTIC SOLID HALF SPACE	Poster	PH
47	Palak Ahir and Sunil Kumar		Green Synthesis, Characterization and Photocatalytic activity of R. Arboreum petal mediated ZnO Nanoparticles	Oral	CH
48	Sanya Chauhan and Sushila Devi	Himachal Pradesh University	Seabuckthorn associated Plant Growth-Promoting Rhizobacteria (PGPR): A Symbiotic Relationship for Sustainable Agriculture.	ORAL	BS
49	Taslima Sheikh and Prakash Chand Pathania	Sunrise University Alwar, Rajasthan	Rhopalocera of the Pir Panjal Range in the Kashmir Himalaya: Diversity, Distribution, and Conservation	POSTER	BS
50	Swaran Lata and Rishabh Sharma	ICFRE-Himalayan Forest Research Institute, Shimla, H.P.	Population Assessment of Pinus gerardiana Wall. ex. D. Don in North Western Himalaya, India	POSTER	BS
51	Pranav Gupta, Punal Punal and Himanshi Babbar		Impact of Metaverse in Healthcare based on Architecture, Challenges and Opportunities	POSTER	EVS
52	Amisha Soni		Exploring the synergistically enhanced Activity of novel a-MnSe/ppy Composite for superior OER catalyst in alkaline medium	POSTER	CH
53	Sarvatej Kumar Maurya and Amisha Soni		The cooperative enhancement of a novel NiCo2O4/ppy composite OER catalyst in alkaline media	POSTER	CH
54	Anita Kumari and Swadeep Sood	IEC University Baddi Solan	Congo red dye removal by adsorption using biochar-based lanthanum ferrite nanocomposite	Oral	CH
55	Sunaina Sharma and Sunil Kumar		Photocatalytic Degradation of Amoxicillin using ZnO nanoparticles via Solution Combustion Method	POSTER	CH
56	Parveen Kumar and Sunil Kumar	Himachal Pradesh University	Investigation of molecular interactions of the drug Aspirin in water by volumetric and UV-vis spectroscopic methods	POSTER	CH

57	Vishal Thakur and Sunil Kumar		Graphene as a Catalyst for Hydrogen Evolution Reaction: A Comprehensive Research Review	POSTER	CH
58	Bikesh Kumar Singh and Narendra Kuber Bodhey		Breast cancer risk assessment system in women using machine learning techniques for accessible and sustainable healthcare	Oral	BS
59	Manish Sharma and Rajesh Manhas	Chandigarh University	Therapeutic application of Salvianolic acid B generated by Streptomyces sp. M4 to combat microorganisms with medication resistance	Oral	CH
60	Deepak Pathania	Central University of Jammu	Algal mediated synthesized Ag-ZnO Nanomaterials for Photocatalytic degradation of Monocrotophos and Antimicrobial activity	oral	EVS
61	Shubhanjali Choudhary	Dr B R Ambedkar National Institute of Technology, Jalandhar	Transition metal-free approaches for arylation of heteroarenes	Poster	CH
62	Shilpa Chauhan, Mahesh Kulharia and Shailender Kumar Verma	Central University of Himachal Pradesh	The study of role of ATOX1 and MEMO1 copper-binding proteins in Cancer Biology	Poster	BS
63	Keshav Jain and Dr. Geetanjli Sahni	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Enhancing milky mushroom (Calocybe indica) yield through precision substrate formulation in controlled environment cultivation: data- driven insights for optimal growth	Oral	BS
64	Tishali Mehta	Punjab Agricultural University	Avian Species in Relation to Apiaries: A Perspective	Oral	BS
66	Neha Bhandari and Negi DS	Himachal Pradesh University	Study on herbal formulations for the treatment of “leishmaniasis	Poster	BS
67	Mohit Pun and Nisha Vashishat	Punjab Agricultural University, Ludhiana, Punjab	Impact of Quinestrol on Body, Reproductive Organs Weight and Sperm Parameters in Male Albino Rats	Oral	BS
68	Manjinder Kaur and Nisha Vashishat	Punjab Agricultural University Ludhiana Punjab	Prevalence of Wild boar (Sus scrofa L.) in agricultural crop fields adjacent to Sutlej canal, Ludhiana, Punjab	Poster	BS
69	Payal Arora, Neena Singla, Ruchika Thukral and Diptiman Choudhury	Punjab Agricultural University	Evaluation of papaya seed chloroform extract-based nanoparticles for toxic effects against lesser bandicoot rat, Bandicota bengalensis	Oral	BS

71	Pratibha Sharma, Gurkirat Singh Sekhon and Tejdeep Kaur Kler	Punjab Agricultural University	Effects of anthropogenic noise on avian diversity and breeding biology in Punjab and Haryana	Oral	BS
72	Rishabh and Uma Shanker	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	Sunlight assisted highly efficient photocatalytic remediation of organic pollutants by green biosynthesized ZnO@WO3 nanocomposite	Oral	CH
73	Rajinder Kumar and Sushma Sharma	Himachal Pradesh University, Shimla	Assessment of toxicological effects of synthetic pyrethroid deltamethrin on intestine of Cyprinus carpio L. (Cypriniformes; Cyprinidae)	Poster	BS
74	Harmilan Kaur and Manpreet Kaur		Photocatalytic degradation of polyphenols using MgFe2O4@Mn3O4 nanocomposite	POSTER	CH
75	Vijayendra Gurjar	KLS Gogte Institute of Technology, Affiliated to VTU, Belagavi	Vanadium removal from industrial residue leachates using hybrid ion exchange resin	Oral	CH
76	Jagriti Thakur, Ranu Pathania, Yourmila Kumari, Garima and Mohit	CSK Himachal Pradesh Agriculture University	Mineral Nutrition for alleviating abiotic stresses in agricultural crops under Changing Climate Scenario	Oral	AS
77	Neha Pathania	Shoolini University	Eradicating antibiotics from industrial wastewater using Moringa oleifera seeds as a natural coagulant	Oral	BS
78	Heena Sharma and Sangeeta Kumari	Chandigarh University, Gharuan, Mohali	Propagation of Rayleigh Wave in Hygro-Thermoelastic Half-Space with Rotation, Magnetic Field, Two-Temperature and Initial	Oral	Math
79	Sunil Kumar and Dr Pankaj Thakur	Career Point University Hamirpur Himachal Pradesh	Comparative Elasto-Plastic Analysis in a Rotating Disk Made of Polymer Material with Variable Density Parameter	Oral	Maths
80	Manvi Sharma, Chandresh Kumari and Saurabh Kulshrestha		Exploring the biological properties of Jasminum mesnyi: A comprehensive investigation of different extracts for Bioprospecting Applications	Poster	BS
81	Sakshi Raturi and Swati Kumari		Phytochemical evaluation and antioxidant analysis of different extract of Rhododendron arboreum sm.	Poster	CH

82	Garima Sharma, Yourmila Kumari, Seema Sharma and Neena Kumari	Dr YS Parmar University of Horticulture and Forestry, College of Horticulture and Forestry Thunag Mandi HP	Prunus cerasoides: a Himalayan endemic winter blooming cherry tree for the upliftment of rural economy	Oral	AS
83	Yourmila Kumari, Garima Sharma, Seema Sharma and Neena Kumari	Dr YS parmar, University of horticulture and forestry, College of Horticulture and Forestry, Thunag Mandi, HP	Empowering livelihoods through Lingad (Diplazium esculentum (Rtez.) Sw.): an endemic & economically important fern of Himachal Pradesh, North Western Himalayas	Poster	AS
84	Neelam Kumari	Central University of Himachal Pradesh	Studying Heatwave events and Elevated Surface Ozone Levels over Urban Locations in North-Western Indo-Gangetic Plain: Implications on co-evolution and environmental health	Oral	BS
85	Aakash Rathour	Sardar Patel University,Mandi	Microplastic invasion and its effect on fish biology	Oral	BS
86	Indica Mohan, Deepak Pathania	Central University of Jammu	Assessment of groundwater quality of Chatha region of Jammu and Kashmir, India	Oral	EVS
87	Dr. Geetanjli Sahni	Arya PG College Panipat Haryana	Rural Ponds of Panipat Refinery showing Grave Peril of Migratory Avifauna	Poster	BS
88	Jyoti Prakash	Shoolini University	Mg1-xNixGayFe2-yO4 nano catalysts for green hydrogen generation	Poster	PH
89	Himanshi	Shoolini University	Photo/Electro catalytic green hydrogen production promoted by Co0.6Cu0.4GaxFe2-xO4 nano catalysts	ORAL	PH
90	Nikhil Jaswal and Kanika Raj	Shoolini University	Green Hydrogen Production Promoted by Cobalt-Nickel Magnetic Nanomaterials	ORAL	PH
91	Neha Kotwal , Deepak Pathania, Anita Singh	Central University of Jammu	Zero-valent iron nanomaterial-Immobilised Cellulase for Efficient Cellulose Hydrolysis	Oral	EVS
92	Dr. Vipasha Sharma	Chandigarh University, Mohali	Plant-Derived Antimicrobial Peptides and Itâ€™s Application	Oral	BS
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94	Rajni Bala	Department of Mathematics, Punjabi University, Patiala	A note on Hg-paracompactness in Hereditary Spaces	Oral	Math
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98	Mohit, RK Rana, Pankaj Chopra, Ashita Bisht, Shabnam Katoch and Radhika Negi	CSKHPKV	Bearing Fruit from Barren Lands: Significance of Seabuckthorn Cultivation in Lahaul - Spiti, Himachal Pradesh	Oral	AS
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106	Dr. Kranti Thakur and Dr. Jagdeep Verma		Distribution Pattern of Over-Storey Vegetation in Shilli Wildlife Sanctuary, Solan, Northwest Himalaya	Oral	BS
107	Parul Sharma, Medhavi Thakur, Parul Thakur, Amrit Kaur, Preeti Verma, Shilpa Kumari	Bahra University	Comparative study of magnetic susceptibility of different materials at room temperature	Oral	PH
108	Parul Sharma, Nikhil Sharma, Gaurav Kapoor, Surag Tangraik, Akshita Sharma, Rohit Kumar	Bahra University	A Graphical study of magnetic susceptibility of different magnetic materials as a function of temperature	Oral	PH
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111	Nivedita Raina	Central University of Jammu	Textural Analysis of Sediments of Devika River, District Udhampur, Jammu Province, J&K	oral	EVS
112	Aditi, Dr. Manjula Sharma	Department of Chemistry, SPU Mandi	Biosynthesis, Antimicrobial and photocatalytic activity of Ag-ZnO nanocomposite.	poster	CH
113	Dr. Anil Kumar	School of Biotechnology, SMVD University	Enatioselective synthesis utilizing Cobalt (III) chloride based octahedral chiral-at-metal catalysts	oral	CH
116	Navdeep and Dr. Geetanjli Sahni	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	An Ethical Dilemma of Three Parent Baby	Oral	BS
117	Varsha Sharma, Dr. Geetanjli Sahni, Shiwani Rani, Neha Dhiman, Neha, Sikha and Neha	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Avifaunal Biodiversity Status and Abundance around Panipat and Jind Districts of Haryana, India	Poster	BS
118	Dr. Geetanjli Sahni, Vanshika, Jyoti, Swati Pal, Monika, Akanksha, Shradha and Dipti	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Diversity of Some Insect Fauna in Industrial and Non-industrial Areas of Handloom City Panipat, Haryana, India	Poster	BS

119	Shruti Sharma, Sneha, Sweety, Preeti, Ritu, Himanshi, Teena, Dr. Geetanjli Sahni, Navdeep and Tannu	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Importance of Biotechnology in Human Life and Ethical Issues: Review	Poster	BS
120	Parmita Saini, Dr. Geetanjli Sahni, Sonam, Priyanka, Priya, Ritu, Ridhanye Dhawan, Upasana, Sheetal, Sunidhi and Priya	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	In-vitro Studies on the Protective Effects of Curcuma longa Extract against Organo-Phosphate Monocrotophos Insecticides Induced Toxicity in Goat (Capra Hircus) Testes	Poster	BS
122	Khushboo Aggarwal, Shiwani, Neetu, Sharly, Takshika, Arvind, Tamanna, Mansi and Dr. Geetanjli Sahni	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Physico-Chemical Parameters of Different Water Bodies and Soil Samples from Instrustrial Town of Panipat, Haryana	Poster	BS
123	Dr. Geetanjli Sahni, Divyansh, Keshav Jain, Kritika, Anjali, Ritika, Mahak, Aman and Anjali	Department of Zoology, Arya PG College, Panipat, 132103, Haryana, India	Rural Ponds of Panipat Refinery showing Grave Peril of Migratory Avifauna	Poster	BS
124	Neha Sharma and Pawan Kumar	Forest Protection Division Himalayan Forest Research Institute (ICFRE) Conifer Campus, Panthaghati, Shimla (H.P.) 171013 India	Emerging threats of insect pests to plant wealth of North Western Himalaya	Oral	BS
125	Neha Sharma and Pawan Kumar	Forest Protection Division Himalayan Forest Research Institute (ICFRE) Conifer Campus, Panthaghati, Shimla (H.P.) 171013 India	Current status of Moths diversity in Conifer forests of Himachal Pradesh	Poster	BS

126	Ajay Kumar	Department of Chemistry, Maharaja Agrasen University, Baddi, Himachal Pradesh 174103, India	Fabrication of CMC-PVP based RGO modified magnetic hydrogel for the adsorption and photo-reduction of hexavalent chromium from simulated waste water	ORAL	CH
127	Dr. Sahil Billawria, Dr. Shallu Sharma	University of Jammu	A Generalized Form of Topological Vector Spaces	ORAL	Math
128	Ms.Tsering Landol	School of Sciences, Cluster University of Jammu.	Irresolute Topological Rings with Inherent Properties (Oral Presentation)	ORAL	Math
129	Mudassir Ahmad Bhat	Central University of Jammu, Rahya Suchani (Bagla)	Morphological and anatomical study of grasses Triticum aestivum L. and Phalaris minor Retz. a quick tool for assessing the impact of road side pollution	ORAL	BS