

International Conference on  
**Recent Trends in Materials Science & Devices 2025**  
**(ICRTMD-2025)**  
24-26 March, 2025

Jointly Organized by

**Department of Physics of JVMGRR College,**  
**Charkhi Dadri, Haryana, India**  
**&**  
**Research Plateau Publishers**  
(An Academic Publisher of Scientific & Technical Journals, Jhajjar, Haryana, India)

**Program Schedule**

**Day: 1**  
**Date 24/03/2025**

<b>Date</b>	<b>Time</b>	<b>Event</b>
24.03.2025	08:00 AM to 09:30 AM	Registration
24.03.2025	09:30 AM to 10:30 AM	Inaugural Function
24.03.2025	10:30 AM	Keynote Address – I
24.03.2025	11:00 AM	Keynote Address – II
24.03.2025	11:30 AM	High Tea Break for 30 minutes
24.03.2025	12:00 PM	Keynote Address – III
24.03.2025	12:30 PM	Keynote Address – IV
24.03.2025	01:00 PM to 02:00 PM	Lunch Break for 90 minutes
24.03.2025	2:00 PM to 06:30 PM	Technical Session: 01 [Faculty/ Scientist Speakers]
		Technical Session: 02 [Students]
		Poster Display [Faculty / Students] From 2 PM to 4:00 PM
24.03.2025	3:00 PM to 3:30 PM	High Tea Break for 30 minutes

**Day: 2**  
**Date 25/03/2025**

<b>Date</b>	<b>Time</b>	<b>Event</b>
25.03.2025	9:00 AM to 11:00 AM	Technical Session: 3 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 4 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 5 [Faculty/ Scientist (Invited) Speakers / Speakers]

		Technical Session: 6 [Students: Oral Presentation]
		Technical Session: 7 [Students: Oral Presentation]
<b>25.03.2025</b>	<b>11:00 AM to 11:30 AM</b>	<b>Tea Break for 30 minutes</b>
25.03.2025	11:30 AM to 12:00 PM	Keynote Address – V
25.03.2025	12:00 PM to 12:30 PM	Keynote Address – VI
25.03.2025	12:30 PM to 01:00 PM	Keynote Address – VII
<b>25.03.2025</b>	<b>01:00 PM to 02:00 PM</b>	<b>Lunch Break for 60 minutes</b>
25.03.2025	02:00 PM to 03:30 PM	Technical Session: 8 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 9 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 10 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 11 [Students: Oral Presentation]
		Technical Session: 12 [Students: Oral Presentation]
<b>25.03.2025</b>	<b>03:30 PM to 04:00 PM</b>	<b>Tea Break for 30 minutes</b>
25.03.2025	04:00 PM to 06:00 PM	Technical Session: 13 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 14 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 15 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 16 [Students: Oral Presentation]
		Technical Session: 17 [Students: Oral Presentation]

**Day: 3**  
**Date 26/03/2025**

<b>Date</b>	<b>Time</b>	<b>Event</b>
26.03.2025	9:00 AM to 11:00 AM	Technical Session: 18 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 19 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 20 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 21 [Students: Oral Presentation]
		Technical Session: 22 [Students: Oral Presentation]
<b>26.03.2025</b>	<b>11:00 AM to 11:30 AM</b>	<b>Tea Break for 30 minutes</b>
26.03.2025	11:30 AM to 01:00 PM	Technical Session: 23 [Faculty/ Scientist (Invited) Speakers / Speakers]

		Technical Session: 24 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 25 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 26 [Students: Oral Presentation]
		Technical Session: 27 [Students: Oral Presentation]
<b>26.03.2025</b>	<b>01:00 PM to 02:00 PM</b>	<b>Lunch Break for 60 minutes</b>
26.03.2025	02:00 PM to 03:30 PM	Technical Session: 28 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 29 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 30 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 31 [Students: Oral Presentation]
		Technical Session: 32 [Students: Oral Presentation]
<b>26.03.2025</b>	<b>03:30 PM to 04:00 PM</b>	<b>Tea Break for 30 minutes</b>
26.03.2025	04:00 PM to 06:00 PM	Technical Session: 33 [Faculty/ Scientist (Invited) Speakers / Speakers]
		Technical Session: 34 [Faculty/ Scientist / Students Poster Presentation]
		Technical Session: 35 [Students: Oral Presentation]
		Technical Session: 36 [Students: Oral Presentation]
<b>26.03.2025</b>	<b>06:00 PM</b>	<b>Valedictory Function</b>

#### Important Information:

1. Start time given above indicates Indian Standard Time (IST).
2. Online Presentation will be conducted using Google Meet. Links will be shared on the email and WhatsApp Group on or before 23 March 2025.
3. Participants can join their respective sessions by clicking the meet link.
4. Participants are requested to join Conference WhatsApp Group via link shared on their email. If not received, check spam mail.
5. The mode of presentation should be power point presentation (ppt or pptx).
6. Duration of presentation: For Faculties/Scientists invited Speakers or Speakers: 1 minute introduction by Session Chair, 12 minutes (presentation) + 2 minutes (Queries). **(Total number of Slides in PPT must not be more than 15 including first and last slide).**
7. Duration of presentation: For Students: 8 minutes (presentation) + 2 minutes (Queries). **(Total number of Slides in PPT must not be more than 10 including first and last slide).**
8. Participants are requested to follow the scheduled time, especially regarding the time for your talk.
9. If there is any problem connecting to the session, please text on Conference WhatsApp Group.
10. Participants and Attendees can join any session as per their interest. But their talk will happen as per the scheduled session only.
11. All online posters will be displayed on the website during the Conference. The online Poster presentation time is 5 minutes. The poster presenters must summarize their idea and key results in 5 minutes.
12. The online Poster presenters must submit their Poster as pdf file at [icrtmd2025@gmail.com](mailto:icrtmd2025@gmail.com) by 23/03/2025.
13. **Three Cash awards** will be declared after the Conference (Best Paper Award in Faculty and Student Categories and Best Poster Award in Student Category).

**14. Eligibility Conditions for Best Paper Award in Faculty and Student Categories and Best Poster Award in Student Category:**

- Attendance is mandatory in all keynotes talks and in their scheduled session (where Faculty/Student will present their paper).
- The maximum number of Slides for Faculties is not more than 15.
- The maximum number of Slides for Students is not more than 10.

**Guidelines**

As the conference will happen through **Google Meet** therefore you are requested to make yourself trained on how to present your work or attend the conference through Google Meet by watching videos on youtube.

**The meeting links will be shared soon**

**You are requested to follow Virtual meeting etiquettes:**

**The most important: Respect the time slot. Please don't stretch your talk beyond the time limit.**

**Before the meeting:**

- Wear professional attire.
- Log in 5-10 minutes before the meeting to identify any technical problems.
- Have you checked your background?
- Do you have your PPT ready?
- Are all phones on mute/silent?

**During the meeting:**

- Follow the time slots strictly.
- The presenter camera must be on during the talk.
- Mute your mic once you enter the meeting. You can unmute yourself when asked to do so.
- Speak directly into the camera, not at your screen during the presentation.
- Use a clear voice, keep your volume consistent, and speak slowly but firmly.
- Don't talk over people.
- The chat should be available to everyone. Quick, private side conversations are bad online meeting etiquette.
- Don't make a comment that degrades someone.
- Be respectful to the meeting host and other participants, speakers, session chairs, etc.  
If you face any issue during your technical session then there is no need to panic. You should drop a message on our **ICRTMD WhatsApp Group**.

***Guidelines for Presentation***

- The mode of presentation should be powerpoint presentation (ppt or pptx).
- Duration of presentation for keynote speakers is 25 minutes (presentation) + 5 minutes (Queries). Maximum number of slides 30 only.
- Duration of presentation for invited faculties/faculties is 12 minutes (presentation) + 3 minutes (Queries). Maximum number of slides 15 only.
- Duration of presentation for students is 8 minutes (presentation) + 2 minutes (Queries). Maximum number of slides 10 only.

**ICRTMD-2025**

**DAY 1**

**24/03/2025**

**Technical Session: 1 [Faculty/ Scientist Speakers]**

Date: 24.03.2025

Time: 02:00 PM to 06:30 PM

Time	Authors	Paper ID	Paper Title
02:00 pm	Abhijit Mukhopadhyay, Logothetis Nikolaos	31	Statistical Analysis of Tribological and Surface Roughness Data of 3D Printed ASA Polymer
02:15 pm	Dr Umesh Kumar	68	Engineering inexpensive electrocatalysts using earth-abundant metal precursors for sustainable environment
02:30 pm	Dr. Yashu Swami	178	Nanophotonic Chips
02:45 pm	Dr. Yashu Swami	180	Upcoming Era of Integrated Circuit Designing through CNT-FET
03:00 pm	Manoj Tripathi, Akanksha Verma	98	Biomass-derived supercapacitor electrodes: Advancing sustainable energy storage solutions
03:15 pm	Pinku Nath, Yuki Ide, Jose. J. Plata, Yasuhide Inokuma, Masaharu Yoshioka	71	A new computational approach to compute finite temperature properties of solid materials
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		
04:00 pm	Surekha Y.P., Radhakrishnan V.V., Mohanan K.V.	294	Ratoon cropping in some native rice cultivars of Wayanad region of Kerala State, India
04:15 pm	V.P. Anju, C.S. Aiswarya	303	Chitosan polyaniline hydrogel: A promising bio composite with diverse applications
04:30 pm	Babankumar S. Bansod	193	Jal Jeevan Mission: CSIR Innovations in sensors and IoT based Water Resource Management
04:45 pm	Dr. Sujata	232	Generative AI in Material Science and Device Innovation: Accelerating Discovery and Design
05:00 pm	Sonia Grover, Pooja Kadyan, Kirti Sharma, Raj Kishore Sharma	335	Engineering of Waste Flaxseed Oil and Wood Apple Shell into Activated Carbon Materials for Electrodes of Supercapacitor Device
05:15 pm	Heena Sharma, Sangeeta Kumari	348	Wave Propagation on Non-local Micropolar thermoelasticity using Rotation & Two-Temperature with IBC
05:30 pm	Gurpreet Kaur, Monika, Kailash C Jena, Narinder Singh	380	Terbium-Modified Carbon Quantum Dots: A New Approach for Clomipramine Sensing
05:45 pm	Dr. Ajay Bapusaheb Sonawane	411	Elemental and Isotopic evaluation of Raw Cinnabar, Purified Cinnabar, Hinguleshwar Rasa and Mercury by using advanced analytical techniques
06:00 pm	Dr. Manjeet Singh Goyat	356	From Concept to Reality: The Future of Superhydrophobic Coatings
06:15 pm	Rahul Chamola, Subhankar Das, M.S. Goyat	491	Hydrogen Bonding Networks and Their Role in Enhancing the Rheology of Cornstarch Suspensions.

**Technical Session: 2 [Students]**

Date: 24.03.2025

Time: 02:00 PM to 04:40 PM

Time	Authors	Paper ID	Paper Title
02:00 pm	Pramod Kumar, Rajeev Dhar Divedi, Milan Sasmal	23	Fabrication of 3-D Printed Hollow Microneedle for Effective Delivery of Therapeutic Agents
02:10 pm	K. Kingshuk, R. Ramani, O.M. Pillai, S. Jayendran, R. Indu Shekar, T.M. Kotresh	37	Thermomechanical Properties of Torlon/Cu-BTC Mixed Matrix Membrane for Effective Gas Separation
02:20 pm	Monika Antil, Babankumar S. Bansod	102	Development of a Sensitive Electrochemical Sensor for Arsenic Detection in Water: Advancing Environmental Sustainability and Public Health
02:30 pm	Jyoti Duhan, Sangeeta Obrai	110	Samarium, Nitrogen co-Doped Carbon Dots for Detection of Epinephrine: Theoretical and Experimental
02:40 pm	Abhinash Maharana, Hrudananda Jena	119	Negative thermal expansion (NTE) behaviour of Re-loaded zeolite Na-A: An in-situ high temperature X-ray diffraction study
02:50 pm	Rosemary Thomas	155	High Temperature oil spill: Electrospun Polyetherimide membranes to the rescue
03:00 pm	Kushagra Yadav, S.R. Dhakate	243	Metal-free Covalent Organic Framework as a Semiconductor: Experimental and Theoretical Validation
03:10 pm	Suyash Pandey, Poorn Prakash Pande, Arbind Chaurasiya, Kopal Kashaudhan, Aradhana Chaudhary	250	Assessment of Sodium Alginate based Hydrogel and its Application for the Removal of Heavy Metal Ions from Aqueous Solutions
03:20 pm	Mansi Yadav, Sudhir Kumar Kataria	280	Green reducing agent-based simplified synthesis of reduced graphene oxide using extract from Costus igneus leaf and its structural characterization
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		
04:00 pm	Ritik Kumar, Reetesh Kumar, Rohit Sankhla, Ajay Solanki	308	Efficient Hydrogen Transportation via Liquid Organic Hydrogen Carriers: Optimizing Hydrogenation and Dehydrogenation Processes
04:10 pm	Ravina Rathore, Dr. Priyanka Singh	329	Development of fermented beverage with citrus fruit extract using probiotics
04:20 pm	Akash, O. P. Thakur	483	Lime Juice-Assisted Synthesis of Nickel Ferrite Nanoparticles and Their Structural, Optical and Magnetic studies
04:30 pm	Sarthak Sachdev, Satyam Saurabh, Himanshu Singh, Dr. Naushad Ahmad Ansari	486	Impact of TBHQ Antioxidant on Engine Emission, Performance and Efficiency Using High-Blend Waste Plastic Oil Biodiesel

**Poster Display Session: [Faculty/Students]**

Date: 24.03.2025

Time: 02:00 PM to 04:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm to 04:00 pm	Dr. Manisha Kumari	55	Synthesis and Characterization of CoFe <sub>2</sub> O <sub>4</sub> nanoparticles
	T. Thanga Bharathia, K. Jeganathana	30	Investigation on the Nitride Perovskite nanostructures
	Praveen Kumar Yadav, Rishi Pal and Amanpal Singh	52	Design of a SiO <sub>2</sub> -air-SiO <sub>2</sub> One - Dimensional Ternary Photonic Crystal to be Used as a Temperature and Pressure – Based Tunable Filter
	Wasiuzzama, Agya Mishra	75	Advantages of TMAH in the Development of MEMS-Based Sensors
	Preeti, Shobha Kulshrestha	198	Explore the Single Crystal Growth and Non Linear Optical Properties of (C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> ZnCl <sub>4</sub> Hybrid Material
	Dharmveer Bhedi, Aarti Saini, Thirumoorthi Ramalingam	299	Photoisomerization Study for Multi-azobenzene Moieties Assembled on Rigid Cyclotriphosphazene Core
	Anjana Raj, Sonalika Singh	321	Comparative study of thyroid hormone level in fertile and infertile women
	Amit Pokhariyal, Anoop Kumar Yadava, Kapil Kumar Joshi	325	Investigating knowledge, attitudes, and practices in solid waste management in capital city of Uttarakhand state
	Aseem Grover, Anirban Das	499	SiO <sub>2</sub> /CuO Nanocomposite in Detection of Latent Fingermarks on surfacetreathed with acid and base
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**ICRTMD-2025**

**DAY 2**

**25/03/2025**

**Technical Session: 3 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Murali Mohan Cheepu	424	Wire Arc Additive Manufacturing of High-Temperature Materials for Large-Scale Component Fabrication
09:15 am	Hari Shankar Biswas, Amit Kumar Kundu, Prasenjit Mandal	12	Comprehensive Review of Cutting-Edge Characterization Techniques in Nanocarbon Materials
09:30 am	Dr Pratibha Kumari	15	Development of porous coordination polymer for heavy metal removal
09:45 am	Zeenat Arif	18	Biomass derived modified A-WML/TiO <sub>2</sub> nano-adsorbent for elimination of Cr(VI) wastewater
10:00 am	Lipsa Nanda	24	Photonic Pulse Propagation in Nonlinear Meta-materials
10:15 am	Amol C. Badgajar	25	Design and Numerical Simulation of CuO Thin Film Solar Cells with CdS, ZnO, and TiO <sub>2</sub> Heterojunction Layers
10:30 am	Prasun Mukherjee	27	Surface Capping Ligand Mediated Dopant Emission Tuning in Inorganic Nanoparticles
10:45 am	Sreekala, Minitha	29	Eco-friendly Synthesis of Manganese Dioxide Nanoparticles for Degradation of Methyl Orange Dye
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 4 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	M. Razia	33	Biosynthesis and Characterization of Iron oxide Nanoparticles using Punica granatum extract and its anticandidal activity
09:15 am	Gandhi Kallarasan Periyannayagam, Junyu Zhang, Kazuhiko Shimomura	49	Strain dependence on the threshold current between InP substrate and InP/Si substrate LDs
09:30 am	Dr.T. Usharani, P.P. Selvi, Dr. B. Palanisamy, S. Gokila, Dr. P. Akilamudhan	50	Extraction of caffeine from waste source
09:45 am	Indranil Maity, Snehadri Bhaumik, Suvojit Maity, Indrajit Maity	51	Performance Analysis of Bare and Co-Doped Graphene Nanosheets towards Detection of Trimethylamine
10:00 am	Meena S	57	Synthesis of highly sensitive glucose sensor based on MnFe <sub>2</sub> O <sub>4</sub> @SiO <sub>2</sub> modified carbon electrode
10:15 am	Indu Gupta, Shivani Singla, Rahul Jain	58	Dynamic Scaling Theory in Semiconductor Thin Films: Insights and Advances
10:30 am	Shailja Tiwari	62	Pulsed laser deposition of Fe <sub>3</sub> O <sub>4</sub> thin film
10:45 am	Meera R Gumaste	63	Influence of Synthesis Techniques on Morphology and Electrical Parameters of Cadmium Telluride Nanoparticles
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 5 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Kriti Tyagi, Rohit Yadav, Harsh Yadav, S.R. Dhakate	327	Effect of Carbon Fiber Incorporation on Thermoelectric Performance of SnSe: An Environment Friendly Material for Waste Energy Harvesting
09:15 am	Ajitha J.K., Ginju V. George, Vishnu S. Krishna Kumar T.K.	35	Quality issues in Hybrid Micro circuits – a case study
09:30 am	Ruchi Bharti	350	Sustainable Synthesis and Versatile Bioactivities of Pyrimidopyrimidine Derivatives
09:45 am	Dr Sruthy Prathap	373	Synthesis and Characterisation of Composite Graft from Natural Sources
10:00 am	Dr. Rekha Yadav, Prof. M. Aslam	378	Improved Stability of Phase-Engineered Hybrid Lead Halide Perovskite Films through Thermal Evaporation
10:15 am	Shamayita Patra, Vijayant Panday, Sajal Barman, Akshita carpenter, Vishakha Dharme, Anushree Kushwaha, Meghna Bhagawat, Priyanshu Chaudhary	379	Sustainable production of Absorbent layer of Sanitary Napkins by Aaritha (Sapindus mukorossi)
10:30 am	Shalin Kumar, Mandhir Verma, Jyoti Rai	389	Destiny of India in Green Growth and Environmental Sustainability (A Review)
10:45 am	Dr Rajni Seth	393	Synthesis of Zinc Oxide-Silica nano-composite thin film for application as a window layer in thin-film solar cells
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 6 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Soumyasri Nikhilesh Mahapatra, Saad Zafar, Bimlesh Lochab	14	Three-Dimensional Porous MXene/Chitosan Aerogel for Efficient Wastewater Treatment
09:10 am	Rajhans Kumar, Rajesh Kumar Singh, Santosh Kumar, Y.P. Singh	17	Dosimetric Comparison of Coplanar and Non-Coplanar VMAT Techniques in Hippocampal-Avoidance Whole-Brain Radiotherapy
09:20 am	Shruti Sangwan, Battini Swapna, Ashwini K. Nangia	21	Enhanced Dissolution and Diffusion of Ribociclib by Salt Formation with Fluorobenzoic Acid Coformers
09:30 am	Priya Mary, A Mujeeb	28	Preliminary analysis of machine learning models for the antibacterial prediction of silver nanoparticles
09:40 am	S. Sai Krupa, V. Rajagopal Reddy	43	Electrical and current transport properties of Ti/MoO <sub>3</sub> /p-InP heterojunction (HJ) with a high-k molybdenum trioxide interfacial layer
09:50 am	D. Surya Reddy, V. Rajagopal Reddy	44	Influence of high-k holmium oxide (Ho <sub>2</sub> O <sub>3</sub> ) insulating layer on the electrical characteristics of the Au/n-GaN Schottky contact (SC)
10:00 am	Falguni Adhikary, Swarup Sarkar, Himanshu Pal	46	An approach of Drug Resistance Prediction with a Hybrid Transformer-RNN Model for DNA Sequence Analysis
10:10 am	Swarup Kumar Paul, Himanshu Pal, Swarup Sarkar	47	Predicting End-of-Life Symptoms and Drug Resistance in Brain Tumor Patients Using Deep Q-Learning and Hybrid Transformer Models
10:20 am	A. Usha Rani, V. Rajagopal Reddy	48	Optical and electrical properties of Au/ZnPc/undoped-InP MPS type diode using a zinc phthalocyanine interlayer
10:30 am	Priti Kolhe, Neeta Ukirade, Chandrashekhar Pawar	54	Nanomaterial as a nano-biopesticides: An emerging trend in agriculture
10:40 am	Naveen Kumar, Nitish Yadav, Arvind Kumar, Rashmi Singh	65	Optimization of Electrical Properties of ZnO/Si Heterojunction Solar Cell Using Simulation Method
10:50 am	Anoy Ghosh, Nidal Saha, Arindam Sarkar, Soumyajit Seth	72	Performance Analysis of Hybrid Machine Learning Classifier over Traditional Classifier for College Admission
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 7 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Pervinder Kaur, Suresh Kumar	73	Review on the Green Sustainable Production of CeO <sub>2</sub> Nanoparticles via Plant-Based Extracts and Potential Applications
09:10 am	Prerana Karmakar	78	Brain Tumor Detection Using Hybrid Machine Learning Model
09:20 am	Roma Kumari, R.P. Chaudhary, M.M. Hussain, A.P. Singh, J. Mandal, I.S. Jha	79	Theoretical Approach for the Mixing Properties of BiZn at 873 K
09:30 am	N.K. Roy, R.P. Chaudhary, N. Vrind, R.K. Sahu, J. Mandal, I.S. Jha	80	Molecular Interaction Volume Model for Thermodynamic and Microscopic Properties of Cd-Tl Melts at 750 K
09:40 am	S.K. Bhagat, R.P. Chaudhary, Roma Kumari, J. Mandal, I.S. Jha	81	Theoretical Exploration of the Thermodynamics of BiHg Melts at 594 K
09:50 am	R.P. Chaudhary, N.K. Roy, S.K. Bhagat, Nitu Kumari, J. Mandal, I.S. Jha	82	Complex Formation Model for AgSn melts at 1250 K
10:00 am	Krishna Kumar, Mrityunjay Kumar, Anil Kumar, Nitu Kumari, Jagdhar Mandal	85	Shape and size dependent Debye Temperature of mixed nano-materials
10:10 am	Rupam Kumari, R.P. Chaudhary, Nitu Kumari, N. Vrind, J. Mandal, I.S. Jha	86	Bulk and Surface Properties for AlGa Liquid Alloys at Different Temperatures
10:20 am	Mritunjay Kumar, Krishna Kumar, Golak Kumar Mandal, Nitu Kumari, Jagdhar Mandal	88	Study of size effect on the band gap energy of mixed semiconductor nanomaterials
10:30 am	Braham Prakash, Amit Saxena, Yogesh Kumar Tyagi, Meenakshi Rohilla	94	Green pyrotechnic aerosol forming composite for fire extinguishing applications
10:40 am	Sahil Kainth, Raj Kumar Pathak, Tanvir Singh	109	Transforming Material Joining with Friction Stir Welding: A Pathway to Sustainability
10:50 am	Aswathi Shyam, Smitha Chandran S, Bini George	113	Synthesis and Evaluation of Physicochemical Properties of Ch-Ag Bio Nanocomposite Films and its Application in Invitro Wound Healing
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 8 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Nabamita Goswami, Ashish Kumar Jha, Ardhendu Saha	64	Surface Plasmon Based Multilayered Bimetal Double Tapered Fiber Structure: An Approach Towards Gas-sensing Applications Using Nano Layers
02:15 pm	Pankaj Arora	70	Investigation of emerging 2D nanomaterials on plasmonic devices for sensing applications
02:30 pm	Balwinder Kaur	77	Effect of Different Fluences of 50 MeV Li <sup>3+</sup> ion Beam on Magnetic and Spin Characteristics of Ga-In substituted Strontium Hexaferrites crystals
02:45 pm	Palvinder Kaur	95	Semiconductor Nanomaterials: Synthesis, Characterization and Applications
03:00 pm	Soumya Saswati Sarangi	96	Effect of strain rate, temperature and diameter on mechanical properties of Zr-Ag nanowire: MD simulation Studies
03:15 pm	Parimaladevi R	97	Bismuth Ferrite Oxide decorated Titanium Dioxide and Silver Sulfide nanocomposites as a Turn-Off Fluorescent Sensing Probe to Organochlorine Pesticides
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 9 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Md. Abdus Salam Shaik, Prof. Amita Pathak	105	White Light Emission from Heteroatom Free Carbon Dots
02:15 pm	Bandhan Sharma, Anshu Sawhney, Mona Sethi, Preeti Verma, Sahil Bangotra	108	Analysis of secondary interactions and structure activity relationship of 1h-benzimidazole-2-thione
02:30 pm	Rashmi Singh	122	Optimization of electrical conductivity and energy band gap of green synthesized metal nanoparticle
02:45 pm	Poonam Kumari Gautam	123	Influence of rotation under natural convection of Jeffrey nanofluid layer in porosity
03:00 pm	Jyoti Sharma	134	Local thermal non-equilibrium effects on thermal convection in hybrid nanofluids under horizontal pressure gradient
03:15 pm	Sibasish Dutta	137	A study on characteristic resonance wavelength shift with size of noble metal nanoparticles through smartphone
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 10 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	D. Jeyasimman, H.Hajamoideen, B.Harris Raghavan, M. Aswin	398	Fabrication and Characterization Study of Al <sub>25</sub> Ni <sub>25</sub> W <sub>25</sub> Cr <sub>20</sub> V <sub>5</sub> Refractory High Entropy Alloy Through Mechanical Alloying
02:15 pm	R. Suresh, D. Jeyasimman	399	Review on High-Entropy Alloys for Aerospace Applications
02:30 pm	Pushpaaletha P, Sruthi M S	400	Studies on the catalytic activity of bentonite-carbon nano dot composite
02:45 pm	Dr. Soma Dalbehera	405	Effect of cenosphere on three-body abrasive wear performance of woven hybrid jute-glass epoxy composites
03:00 pm	Lava Kumar Vandrangi	406	A Strategic Framework for Risk Assessment and Reliability Optimization to Enhance Energy Resilience in Transmission and Distribution Engineering
03:15 pm	Sriharsha Chollangi	426	Advanced Quantum Materials for Secure Quantum Computing and Cybersecurity
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 11 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Rajesh Kumar Raj, Mahesh Kumar, Kumkum Raj	114	Circular Polarized High Gain Antenna by Coaxial Feed for 5G Applications
02:10 pm	Arpita Dwivedi, S.K. Srivatava, Chandan Upadhyay	117	Fluorescent Europium Metal-Organic Frameworks: A Dual Function Platform for Optical and Biomedical Uses
02:20 pm	Aswathi KB, Dr. Sreekala CO, Dhanya Rajeeva	126	Catalytic Performance of Biomass Derived Activated Carbon in Hydrogen Evolution Reaction
02:30 pm	Anand RJ, MS Gayathri, CO Sreekala	127	Enhancing the Mechanical Driven Voltage by Incorporating Activated Carbon in PVA - ZnO Composites
02:40 pm	Manoj A. More, Swapnil A. More, Ganesh E. Patil, Gotan H. Jain	128	Investigation of the structural, optical, electrical and gas sensing properties of hydrothermally synthesized NiO/TiO <sub>2</sub> nanocomposite
02:50 pm	Smita Samanta, M.C. Adhikary, R. Biswal	129	Tailoring the Structural, Electrical and Optical Properties of NdCrO <sub>3</sub> through Chemical Synthesis
03:00 pm	Vipin Yadav, Seema Thakran, Hukum Singh	132	Secure cryptographic Scheme based on Dual of Generalized Reed-Muller (GRM) codes for image encryption
03:10 pm	Harji Ram Choudhary, Atul Chaudhary, VK Sharma	135	Human Activity Detection in IoT-Enabled Smart Homes: A Systematic Review of Sensor-Driven Algorithms, Categorization Frameworks, and Deep Learning Innovations
03:20 pm	Amrik Bhattacharya, Priyadarshini Ghosh, Soumen Chatterjee, Rina Bhattacharya, Amitlal Bhattacharya	144	The Digital Dump: E-Waste disaster and its possible managements
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 12 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Jidnyasa Raut, Dr. Harish Chandra Arora	157	Enhancing Durability and Sustainability of Marine Structures Using FRP-Reinforced Seawater Sea-Sand Concrete: A Review
02:10 pm	Arvind Kumar Prajapati, Harikrishna Varma Parimanathukovilakom Ramavarma, Gurunathan Saravana Kumar, Chirathody Vayalappil Muraleedharan	162	Impact of Design Optimization on Cyclic Loading Performance of Novel Pedicle Screw and Comparison with Control Device
02:20 pm	Ms. Manju Rani, Dr. Puja Acharya, Dr. Bhavesh Vyas, Dr. Vineet Dahiya	165	Towards Net Zero: A Technological Framework for Emission Baseline Mapping in University Campus
02:30 pm	Meera Varghese, Manoj Balachandran	169	Synthesis of Fluorescent Carbon Dots from Simarouba glauca for Detection of Metanil Yellow in Food Products
02:40 pm	Arvind Kumar, Ramesh Babu C	175	Smart Interventions, Demographic Trends, and Solid Waste Management in the YEIDA Region
02:50 pm	Gurmeet Kaur, Srishti Agarwal, Bhaskar Kaviraj	183	Exploring the role of heterojunction of MoSe <sub>2</sub> /SWCNT in enhancing the supercapacitor performance
03:00 pm	KV Srinivasan, Abirami S	187	Computational Analysis of a Porous Structured Cryo-Regenerator with Baffles for Additive Manufacturing
03:10 pm	Deepa Rosh Tom, Ajay Majethiya	188	Green route harvesting of hydrogen energy using B-PbBr <sub>2</sub> and S-PbBr <sub>2</sub> under electrochemical water splitting
03:20 pm	S. Mishra, K. Das, S.K. Ghosh	189	Characterising Elastoplastic Behaviour of Quenched and Partitioned (Q&P) Steels using Experimental and Microstructure based Finite Element Approaches
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 13 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Dr. Pedro Fonte		
04:15 pm	Maria Evstafieva, Eugene B. Yakimov, Eugene E. Yakimov, Vitaly I. Korepanov, Artem Irzhak, Victor Koledov, Andrey Orlov, Aleksei Prokunin, Svetlana von Gratowski, Peter Lega, Irek Musabirov, Thi Hong Le Ngo	141	Study of individual ZnO nanocrystals for new nanoelectronic and bionanoelectronic devices
04:30 pm	T. Mahalakshmi, Vinoth Seralan	142	MHD Mixed Convective heat transfer inside double wall driven enclosure filled with Ag-Al <sub>2</sub> O <sub>3</sub> /Water hybridized nanofluid and different heat sources
04:45 pm	Reenu, Ashok Kumar	145	Tuning structural, magnetic and electrochemical properties of manganese-doped zinc ferrite
05:00 pm	Divya Ahluwalia, Shahroz Anjum	148	Robust design for the photovoltaic system to achieve enhanced energy under hampered irradiance
05:15 pm	Jyothilekshmi I., Kishore K. R. Tetala, Jayaprakash N.S.	149	Improved production of monoclonal antibodies using polyhydroxyethylmethacrylate cryogel based bioreactor system
05:30 pm	Dr. Devi Maheswaran V	150	Machine Learning-Driven Welding Technology: Electrodes Choice, Safety Aspects and Welder's Chat Bot
05:45 pm	Abha Sharma	151	Carbon quantum dots, preparation, photophysical properties and application thereof

**Technical Session: 14 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Miroslav Almáši	207	Metal-Organic Frameworks@Hierarchically Porous Carbon Monoliths: Preparation, Characterization and Surface Properties
04:15 pm	Suresh Kumar	228	Study of Novel hydrazine derivative as corrosion inhibitors for the corrosion of M-steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> solution
04:30 pm	D.P. Singh, Milan Singh, Varun Vijay, Kailash Pandey	238	Advancements in Tantalum, Terbium, and Thullium for Nuclear Applications: Surface degradation studies
04:45 pm	Dr. Barnali Barman	242	Dielectric and Electro-Optic properties of some Non-Ferroelectric and Ferroelectric liquid crystalline Materials
05:00 pm	Minakshi Sharma, Shikha Sharma, Rohit Sain, Sarita Yadav	247	Fabrication of a Nanoengineered Amperometric Urea Biosensor using Chitosan-GO-AuNPs Modified Pencil graphite electrode
05:15 pm	Hanna Budasheva, Arne Bratkič, Dorota Korte	249	Application of Chelex-100 and SPR-IDA resin in combination with the optimized beam deflection spectrometry for high sensitivity determination of iron species in sediment pore water
05:30 pm	Priti Ghutepatil	253	Biocompatibility of Nanomaterials: A Review for Biomedical Advancements
05:45 pm	Nikolas Király	254	Azo-MOFs for catalytic and energy applications

**Technical Session: 15 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 25.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Ujval Mutyala	427	Quantum Computing Materials for Quantum and Cybersecurity Engineering
04:15 pm	Dr. Chalana S.R.	439	ZnS hierarchical structures for potential applications
04:30 pm	Kirandish Kaur, Suresh Sharma	442	DFT Study of Electronic and Optical Properties of Ga <sub>0.75</sub> Cr <sub>0.25</sub> P using SIESTA software
04:45 pm	Mrinal Jyoti Sarma, Pankaj Kumar Das	445	Effect of boron on microstructure and mechanical properties of high-carbon high-chromium die steel
05:00 pm	Dr. Morris Marieli Antoinette	453	Investigating the Photoluminescent Properties of Rare Earth Oxides for Emerging Applications
05:15 pm	Sarpreet Kaur	454	FEM to Analyze Core Material Influence on Single-Phase Transformer Performance
05:30 pm	Lakshmi R, Akshit J, Bharanitharan C M, Karthikeyan N, Selvarasu S	458	Investigation on Strength Characteristics of Ternary Blended Concrete prepared with FlyAsh, Metalaolin and Lime Powder as cementitious substitute
05:45 pm	Dr. Sukanya Ramaraj	464	2D Materials and Heterostructures: A New Frontier in Electrochemical Energy Storage Technologies

**Technical Session: 16 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Shivani Rauthan, Ajay Singh, Ritu Painuli	192	Green Synthesis of Zirconium-Doped Zinc Oxide Nanoparticles Using aqueous leaf extract of <i>Grewia optiva</i>
04:10 pm	Supriti Pramanik, Swarup Kumar Ghosh	200	Microstructure Analysis and Hardness Evaluation of High Strength Medium Manganese Steel
04:20 pm	Sneha Roy, Swarup Kumar Ghosh	201	Microstructure-Hardness Correlation in Rail Steel: Comparative Analysis of Unused, Used, and Heat-Treated Conditions
04:30 pm	Shipra Tripathi, Anjani K. Pandey, S. Gaurav, C.K. Dixit, S. Shankar	205	Thermoelastic Analysis of Nanomaterials Using Different Equations of State
04:40 pm	Abhi Sarika Bharti, K.N. Uttam	206	Detection of the spectroscopic biomarkers of the copperoxide nanoparticles treated Allium sativum plant by confocal Raman microspectroscopic technique
04:50 pm	Pawan Kumar, Naresh Kumar	208	Green Synthesis and Characterization of Co(II) Complex of Mixed Schiff bases of Metformin and Benzothiazole derivatives
05:00 pm	Rohit Kumar, Sahil Kumar, Samriti Mehta, Rajni Thakur, Shwetharani, Itika Kainthla	209	Enhanced Oxygen Evolution Reaction Performance of SrCoO <sub>3</sub> - Based Perovskite Oxides: Structural, Morphological, and Electrochemical Insights
05:10 pm	Rajni Thakur, Rohit Kumar, Samriti Mehta, Shwetha Rani, Itika Kainthla	210	Quaternary W-doped NiSSe as an Electrocatalyst for Hydrogen Evolution Reaction
05:20 pm	Samriti Mehta, Rohit Kumar, Rajni Thakur, Shwetha Rani, Itika Kainthla	211	Incorporation of CNTs into Sn-doped NiFe LDHs as an Electrocatalyst for Water Electrolysis
05:30 pm	Pooja Dalal, Anita Singh, Brijnandan S. Dehiya	212	Efficient Zeolite Synthesis via Hydrothermal Method: A Pathway to Advanced Material Development
05:40 pm	Ekta Antil, Anita Singh	213	Qualitative and quantitative assessment of phytoplankton and physiochemical parameters of Karna lake (Haryana) and Khajjjar lake (Himachal Pradesh) of India
05:50 pm	J. Joshua Isaac Peter, R. Sasikumar	214	Growth of Nickel Cobalt Metal Organic Framework (NiCoMOF) on Nickel Vanadium Layered Hydroxide (NiV-LDH) for High Performance Supercapacitors

**Technical Session: 17 [Students: Oral Presentation]**

Date: 25.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Chhavi Baran, KN Uttam	215	Spectroscopic Analysis of Biochemical Responses in Pea Seedlings Exposed to Silicon Dioxide Nanoparticles
04:10 pm	Rutuja Biradar, Roopa Narayanan, RV Vaishnave, Ashmitha Kishan Shetty	224	Assessment of Physical Characterization and Cytotoxic Effect of Gold Nanoparticles added to Acidulated Phosphate Fluoride Gel on Mesenchymal Stem Cells
04:20 pm	Saidaiah Kalakonda, P. Sudhakar Rao, Ravi Kant	227	A Review on Ultrasonic Assisted Electric Discharge Machining
04:30 pm	Deekshitha J, H C Chittappa, Mujeeb Pasha, Lokesha G	231	Assessing the impact velocity on impact energy absorption of Kevlar –GFRP composites using drop weight machine
04:40 pm	Roopa Narayanan, Dhananjaya Gaviappa	233	Enamel Remineralization Efficacy of Osteopontin-Incorporated Probiotic Paste: An Invitro Study
04:50 pm	Hariome Sharan Gupta, Sanjay Palsule	234	Thermal Stability of Oil Palm and Nettle Fibers Reinforced Functionalized Polyethylene Hybrid Composites
05:00 pm	Ashish Deep Chettri, Reddi Jagadeesh, A.Sunil	237	Green synthesis of reduced graphene oxide and its nano composites for degradation of methylene blue
05:10 pm	Prashu Jain, Gaurav L. Deollikar, Ramani V. Motghare	240	Silver Nanoparticles Embedded in Fe-BDC MOF: A High Performance Material for Supercapacitors
05:20 pm	Sanjeev Kumar, Naresh Kumar	245	Synthesis and Characterization of Trinuclear Complexes of Se(II) and its role in human health
05:30 pm	Shatrughan Yadav, Minakshi Sharma	246	Next-Generation Electrochemical Biosensing of Acrylamide: Innovation for Food Safety
05:40 pm	Kavitha Bharathi K, Azha Periasamy, Paramaguru PV	251	Study on Hydrothermal synthesis of Ag doped CeO <sub>2</sub> nanoparticles and its application in ethanol sensing
05:50 pm	Sudesh Sharma, Pradeep Bhatia	252	Enhancement of Thermoplasmonic Characteristics in Hg-Au/Ag core shell Nanoparticles

**ICRTMD-2025**

**DAY 3**

**26/03/2025**

**Technical Session: 18 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Abanti Nag	172	Oxide thermoelectric materials and module – challenges and opportunities
09:15 am	Sarat K. Rout, Swadesh K. Pratihar	174	Role of ferrite based nano perovskite materials as the cathode of IT-SOFC
09:30 am	Shweta Kulshreshtha	184	Harnessing Fungi for Waste Reduction and Food Security
09:45 am	Bhagaban Kisan, Sasmita Otta, Binod Kumar Roul	185	Phase Dominance Influence on the structural, ferroelectric and Magnetic Properties of Lead-Free CFO doped BCZT Multiferroic Composites
10:00 am	Gishamol Mathew, Louie Frobel P.G.	186	Realization of Surface Plasmon Polaritons in Graphene coated Plasmonic Waveguides
10:15 am	Ravi Shankar Rai	196	Microwave-Assisted ZnO Nanostructure Deposition on Carbon Fiber Fabric: A One-Step Approach of Surface Functionalization
10:30 am	Neema Kumari, Subha Narayan Rath	199	Advancements in the Development and Characterisation of 3D Cancer Spheroids for Drug Screening
10:45 am	Dr. K. Kamala Bharathi	203	Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> Solid Electrolyte based All-Solid-State Li-ion Batteries for Real Time Applications
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 19 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Caje Pinto, Jivan Parab	152	Development of Soft-Core Processor for Hemoglobin Estimation using Multivariate System
09:15 am	Smrutisikha Bal	153	Advanced Characterisation Techniques of Carbon nanotube Polymer Composites for Recent Applications
09:30 am	Priyanka Sahu	161	Impact of Mn and Si on the structural, thermal, and magnetic behavior of mechanically alloyed FeCoNi(MnSi) <sub>x</sub> high entropy amorphous alloys
09:45 am	Rakesh M. Patel, Prin. Dr. Ms. Pragna A. Vadher, Dr. Gunamani B. Deheri	163	Influence of magnetic fluids, incorporating couple stresses, variable viscosity and velocity slip on the lubrication performance of deformable rough finite journal bearings
10:00 am	Rakesh M. Patel, Prin. Dr. Ms. Pragna A. Vadher, Dr. Gunamani B. Deheri	164	Recital Investigation of a Conical Hydrodynamic Deformable Rough Journal Bearing
10:15 am	Poushpi Dwivedi, Ambar Ghosh, Salini Das, Akkshita Dwivedi	166	Efficient Energy Recovery System from Value Added Conversion of Disposed Super Absorbent Materials
10:30 am	Gollapudi Pavan, Kalagotla Chenchireddy	167	A Review on Optimization of Load Frequency Control in Advancement for Multi-Islanded Microgrid System with Tie-Line Loading by Using PSO-CSA
10:45 am	Dr. S. Tharani	181	A Novel Approach on Zero Waste Sustainable Production Inventory Model with Waste Generation Cost and Production Efficiency Cost
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 20 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	G.D. Jadav, P.V. Kanjariya, J.A. Bhaloadia	469	Study of Gadolinium doped BiFeO <sub>3</sub> Multiferroic Material
09:15 am	R. Tintu	472	Mixed dimensional stacked semiconductor polymernanocomposite structures for photonic applications
09:30 am	K. Panthala Selvan, T. Kanchana, S. Anitha Raj, Dr. J.P. Nirmala	480	Preparation and Characterization of Biodegradable Polymer Coatings for Paper Using ι-Carrageenan, Agar, and Gelatin
09:45 am	Sarvani Jowhar Khanam, Salman Abdul Moiz	482	Selection of Hole Transporting Molecules Towards Enhancing Perovskite Solar Cell Stability Using AI
10:00 am	Bhuvnesh Yadav	494	Material Science for Forensic Investigations
10:15 am	Maiada M. Eldawayati, Zeinab E. Zayed, Walid B. Abdelaala, Eman M. Zayed	501	AgNPs: A Superior Alternative to AgNO <sub>3</sub> for the Optimal Plantlets Production by the Indirect Somatic embryogenesis Protocol for Date Palm Barhi cultivar
10:30 am	Rishibrind Kumar Upadhyay	502	BiFeO <sub>3</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Heterojunction Based Near Infrared Photodetector
10:45 am	Shashikala Anantharam, Muniraju Muniyellappa, Pakkirappa Hucharayappa, PrakashSrinivasacharya Dabeer, Shadakshari Ramappa	503	An Analysis of the Corrosion Behavior on NiTiInol Alloy Subjected to Heat Treatment through Rotary Friction Welding
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 21 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 09:00 AM to 11:00 AM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
09:00 am	Sanigdha, Dr. Sunita Dahiya	255	Health Consequences due to Perturbation of Radiation in Air Nearby Monuments of Narnaul
09:10 am	Payel Mukherjee Ganguly, Arkaneell Roy, Mala Mitra, Arpita Chattopadhyay	256	Innovative Fluoride Remediation with SiO <sub>2</sub> and DFT Insights
09:20 am	Dibyendu Mukhopadhyay, Dr. Gaurav Gupta	260	Adoption of Cadmium Telluride Solar Cell in Delhi-NCT, A Conceptual Approach
09:30 am	Md Afzal Mansoori, Dr. B.K Mishra	261	Nanotechnology's Dual Edge: Evaluating Health and Environmental Consequences of Engineered Nanomaterials
09:40 am	Samrin A. Mulla, Asma B.U. Rahman, Pooja M. Khanzode, Sohel J. Shaikh, Manoj S. Khandekar, Kashinath A. Bogle	262	Comprehensively Improved Performance of ZnO Nano-material based Solar-Blind UV Photodetector Embedded in PVA Matrix
09:50 am	Shubham Sharma, R.P. Sharma	265	Development of Sintered copper-iron based hybrid brake pad composites
10:00 am	Nima A.M., Subodh Ganesanpotti	267	Insight into the Crystal Structure and Optical Response of Cs <sub>2</sub> TeCl <sub>6</sub> : A Vacancy Ordered Halide Double Perovskite
10:10 am	Nidhi Yadav, Navneet Kumar, Mrinmoy Kumar Chini	270	Analyzing the performance of Two-Dimensional Halide Perovskites and Supercapacitive Behavior for the Energy Storage
10:20 am	Pooja Saini, Pradeep Bhatia	274	Comparative Study of Thermoplasmonic response in Fe-ZnO Core-shell Nanostructure
10:30 am	Amrutha Rao, Tanya Singh, Bhavya Shetty, Rohit Prasad	275	Evaluating Role of A Novel Homeodomain Protein In Periodontal Regenerative Therapy: In-Vitro Study
10:40 am	Deepthi S Nair, Ananda Kumar V.M	286	Hydrothermally Synthesized CuS Nanosheets for Chemocatalytic Organic Dye Degradation
10:50 am	Arjun G, Bhuvaneshwaran S, Dharaneesh V, Mohan Kumar A	287	Analysis of Pineapple Leaf Fiber Reinforced Epoxy Resin Composites
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 22 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 09:00 AM to 11:00 AM

Time	Authors	Paper ID	Paper Title
09:00 am	Dr. Shiv Kumar Choubey, Dr. K.P. Tiwary, Tushan Jyoti, Shayan Ahmad Khan	290	Photodegradation of MO(methyl orange) dye using Mg modified ZnS in presence of visible light
09:10 am	Satyam Kumar, Ajay Solanki	291	I-Beam Weight Optimization by Iterative Algorithm
09:20 am	Prisha	293	Chitosan in Science and Industry: A Versatile Biopolymer
09:30 am	Manisha Priyadarshini Tripathy, Jitendra Pratap Singh, Madhushree Kundu	297	Enhanced Removal of Carbendazim Fungicide Using Reduced Graphene Oxide
09:40 am	Devender Jalandhara, Satya Vir Sharma, Sandeep Kaushal, Dr. Sandeep Kaushal	304	BiFeO <sub>3</sub> as a next-generation photocatalyst: bridging material design with environmental remediation
09:50 am	Km. Dhooma, T.C Upadhyay	306	Temperature dependence of Permittivity and tangent loss in Potassium Dihydrogen Arsenate like ferroelectrics
10:00 am	Sania, Dr P. Gangwani, Dr Ravneet Kaur, Dr Meenu Mohil	310	Advancements in MOSFET Channel Materials: A Comparative Review
10:10 am	Mahak, Ashok Kumar	311	Efficient UV-Driven Catalytic Degradation of Organic Dyes Using MoS <sub>2</sub> /CeO <sub>2</sub> Nanocomposites for Advanced Wastewater Treatment
10:20 am	Soumya, Dr. Parvesh Gangwani	313	FINFET vs Planar MOSFET: A Performance Based Comparative Study
10:30 am	Renu, Dr. Sunita Dahiya	316	Nuclear Radiation determined from the medieval period building present near human habitat and analyzing the risk of human exposure
10:40 am	Pooja Rawat, Sonia, Sourabh Sharma, Ashok Kumar, Rajesh Parmar	318	Structural, Magnetic, and Optical Properties of CoFe <sub>2</sub> O <sub>4</sub> /SnO <sub>2</sub> Heterojunction Nanocomposites for Efficient Photocatalytic Dye Degradation in Water Treatment
10:50 am	Prashant Pandey, Chinenye Adaobi Igwegbe, Andrzej Białowiec, Amit Pokhriyal, Manisha Dhiman	320	Improvised bentonite clay structure using dodecylamine for effective removal of amoxicillin from waste water
<b>11:00 am to 11:30 am</b>	<b>Tea Break for 30 minutes</b>		

**Technical Session: 23 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 11:30 AM to 01:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
11:30 pm	Dr. Malay K Das	258	Nanoscale monotherapy vs. combination therapy to offset plaque Psoriasis
11:45 pm	L. Thansanga, Alok Shukla, Nitin Kumar, R.N.P. Choudhary	264	Structural, Electrical, and Magnetic Characteristics of Lead-free Bi(Fe <sub>1-x</sub> Dy <sub>x</sub> )O <sub>3</sub> [x=0.05, 0.10, 0.15] Electroceramics for Device Application
12:00 pm	Aarti Tewari	268	Plasma-Aided N-Doping of CNTFET Device
12:15 pm	Soumendu Sinha	271	Development of Sensing Film Materials for FET-based pH Sensors
12:30 pm	Dr. Kamini Mishra	272	Probing the Role of Amino Acids in Protein Adsorption: a Thermodynamic study
12:45 pm	Dimple Chothani, Nileema S. Gore	276	Microbe-Assisted Gold Nanoparticle Synthesis for Sustainable Agriculture
<b>01:00 pm</b>	<b>Lunch Break for 60 minutes</b>		

**Technical Session: 24 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 11:30 AM to 01:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
11:30 pm	Kailash Pandey, Milan Singh, D.P. Singh	288	Optimized global alpha optical potential model for alpha and neutron particles
11:45 pm	Gaurav Singh, Abhishek Verma, Dalia Dasgupta Mandal	292	Biomaterials from Bacterial Treated Agrowaste: A Biorefinery approach for Valuable CELLULOSE and LIGNIN
12:00 pm	R. Umamaheswara Singh, K. Chandrashekar, MD Shareefuddin, Y. Purusthatham	319	Electron Paramagnetic Resonance (EPR) and Optical Properties of MoO <sub>3</sub> -Na <sub>2</sub> O-CdO-ZnO-B <sub>2</sub> O <sub>3</sub> Glasses
12:15 pm	Neena. P	323	Mechanical and thermal properties of sustainable food packaging from gelatine based composite
12:30 pm	Sayantana Guha	324	Thermoelastic damping in micro-scale piezothermoelastic fiber reinforced composite clamped beam
12:45 pm	Sanatan Kr. Nath	326	Morphological, Compositional and Optoelectronic Ionic Conductivity Studies of Copper Sulphide Quantum Dot in Glucose Matrix
<b>01:00 pm</b>	<b>Lunch Break for 60 minutes</b>		

**Technical Session: 25 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 11:30 AM to 01:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
11:30 pm	Sreenesh Valiyandi, Gireeshkumaran Thamby	506	Enhancement of Diffusion Absorption Refrigeration System Performance using Isobutane-Based Blend with Nano-Particle Additives
11:45 pm	Harsh Desai, Anvita Sharma	333	Synthesis of Polylactic acid (PLA) by unconventional method
12:00 pm	Pratibha Sharma, Sujata Kumari, Sudip Majumder	340	Impact of n- and p-Type Doping on the Structural and Photocatalytic Characteristics of Nickel Ferrite Nanoparticles Prepared by Co-Precipitation
12:15 pm	Biju P.V, V.R Rajeev, Manesh K.K	392	A study on the abrasive wear behaviour of of A356 / (0&5) wt. % Si Cp composite in unidirectional and reciprocating contacts
12:30 pm	Zamora Chinchipe	408	Application of the concentration method by flotation at the laboratory level for the recovery of gold from mine material from the Chinapintza Mining Zone
12:45 pm	Erika Lizbeth Calderón Maza	409	Recovery of precious metals from Waste Electrical and Electronic Equipment (WEEE) using acid leaching
<b>01:00 pm</b>	<b>Lunch Break for 60 minutes</b>		

**Technical Session: 26 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 11:30 AM to 01:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
11:30 pm	Shraddha Mishra, Neeraj Khare	322	Augmentation of Reserpine Content in Rauwolfia serpentina Cell Cultures Induced by Phytosynthesized Silver Nanoparticles
11:40 pm	B. Gyani Priyanka Patnaik, J. Anuradha, R. Sanjeevi	328	Toxicological Impacts of Micro and Nano plastics on Environment: Emerging Concerns and Remediation Strategies
11:50 pm	Kumari Kriti, J Anuradha, Jharana Rani Bhitiria, R.Sanjeevi	330	Eco-Friendly Nano-Bioremediation: A Sustainable Future Forward Approach for Heavy Metal Detoxification in Soil and Water
12:00 pm	Himanshu Prasad Mamgain, Jitendra Kumar Pandey	334	Ni-Based Novel Smart Nanocomposite Coatings with Enhanced Electrochemical Properties via RF/DC Magnetron Sputtering and Electro-Assisted Deposition
12:10 pm	Priya Jose, Nagmani Prabu, Yogapriya L	365	Thermal and Electrical Performance of TEG Modules: A Comprehensive Study
12:20 pm	K.B. Jamalova, T.A. Hagverdiyeva, R.A. Gurbanova	366	Processing of Modified Fiber Concrete Composition
12:30 pm	Dilip Sisodia, Virendra Kumar Sharma, Rohit Joshi, Hemant Arya, Tarun Kumar Bhatt	370	Developing an Automated Computational Genomics Pipeline for Breast Cancer Detection Using NGS
12:40 pm	Prachi Priyamvada, Anjali, Prakriti Deuri, Unnati, Shipra Aggarwal	376	Material Optimization of Soft Gripper using FEA
12:50 pm	Shalini Pandey, Kushal Qanungo	384	A Comparative Fugacity-based Multimedia Chemical Fate Evaluation for of Iaconazole and Flusilazole Fungicides
<b>01:00 pm</b>	<b>Lunch Break for 60 minutes</b>		

**Technical Session: 27 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 11:30 AM to 01:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
11:30 pm	Durgamba P.B, Sunitha V.R, Radhakrishnan S	087	Blending effects on conductivity and dielectric properties of sodium ion conducting solid polymer electrolyte systems
11:40 pm	Visnu Kumar Tiwari, Zahid A Khan, Arshad Noor Siddiquee	289	Characteristics and Machining Challenges of Advanced ceramic Materials: A Review
11:50 pm	Guja. J.B, Isac Sobana Raj. C	296	Biological Efficiency of Green Amalgamated Gold Nanoparticles Synthesized Using Saraca Indica Bark Extract
12:00 pm	Shivani Saxena, Lajwanti Singh	349	Impact of Doping Concentration on SOI structure to obtain High output current Swing
12:10 pm	Haidy Ignasius, Najidha S, Sankar S	388	Optical and FTIR Investigations on the Effect of Doping with Carbon Black on Insitu Polymerized Pyrrole with 1,2 Dichlorobenzene as Solvent
12:20 pm	K. Nandhini, M. Umadevi, L. Arun Jose	390	Inspection of Structural and Optical Properties of Ethylene Glycol Mediated Indium Oxide @ Cerium Tungstate Nanocomposites
12:30 pm	Vijayabaskar S, Neelu Kumari K S, Yogapriya L, Nagamani Prabu A	391	Optimized Digital Circuit Design Using Gate Diffusion Input (GDI) Technique for Efficient Gray to Excess-3 Code Conversion
12:40 pm	Soumyadeb Chakraborty, Dr. Bhaskar Kaviraj	394	Impact of Precursor Flux Regulation in Engineering Atomically Thin MoS <sub>2</sub> via CVD
12:50 pm	Santosh Kumar Sah, Dasarathy A.K, M. Tamilselvi, Ranjith Kumar R, S. Kavitha	396	Sea Shell Powder - A Seashore Waste Material Used in Concrete as Partial Replacement for Cement
<b>01:00 pm</b>	<b>Lunch Break for 60 minutes</b>		

**Technical Session: 28 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	S.K. Srivastava	336	Magnetic Anisotropy of Fe-Pt-Co Ternary Alloys Thin Films
02:15 pm	Nitin Kishore Rawat, Abhishek Kumar Mishra, Akarsh Verma, Kriti	345	Understanding the Compressive Deformation Behavior of Cu-Ni Alloy with Faceted Grain Boundaries: A Molecular Dynamics Approach
02:30 pm	Ruchi Bharti	350	Sustainable Synthesis and Versatile Bioactivities of Pyrimidopyrimidine Derivatives
02:45 pm	Manila Mallik, Subhadra Sahoo	361	Synthesis of Hydroxyapatite Reinforced with BaTiO <sub>3</sub> Nanocomposite Coating and its Electrochemical Behaviour in Simulated Body Fluid Solution
03:00 pm	D. Jeyasimman, R. Suresh	367	Heat treatment effect on mechanical properties of Si <sub>3</sub> N <sub>4</sub> reinforced Al7075-T6 composite
03:15 pm	Reena. S. Rajan, Dr. H. Vennila	13	Visualizing the future: Deep learning empowered robotic investigations in retinal surgery
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 29 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Dipak Mazumdar, Indranil Das	337	Underlying magnetism in the ordered and disordered double perovskite compounds: $\text{Ho}_2\text{CoMnO}_6$ and $\text{Pr}_2\text{FeCrO}_6$ as examples
02:15 pm	Shyamsundar Ghosh	45	Morphology-dependent magnetism and Raman modes induced by surface disorder and cation-site defects in In-substituted $\text{SnO}_2$ thin-films
02:30 pm	Sunil Kumar, Sudesh Kumari	131	Green Materials: A Sustainable Solution for a Green Future
02:45 pm	Vinod Panchal, Pablo Botella, Neha Bura, Frederico G. Alabarse, Enrico Bandiello, Marco Betinelli, Daniel Errandonea	170	Pressure induced phase transition in Al-doped $\text{FeVO}_4$ ( $\text{Fe}_{0.9}\text{Al}_{0.1}\text{VO}_4$ )
03:00 pm	Gisa Grace Ninan, Meera Varghese, Manoj B	171	Enhanced Light Harvesting in DSSCs Using Carbon Dots Derived from <i>Alstonia venenata</i>
03:15 pm	Payel Das	216	A comprehensive study of bulk $\text{Nd}_{1-x}\text{Sr}_x\text{NiO}_2$ : Understanding the absence of superconductivity
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 30 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	T.N. Chhowala	414	Nano Magnetic Double Edged Sword like Copper Complexes against MCF-7 Breast Cancer cells
02:15 pm	Santosh Rajwar, Santosh Kumar Singh, Sumit K. Roy	466	Thermal and Conductivity Properties of BNBT-Doped PVDF Composites: Enhanced Crystallization and Charge Transport Dynamics
02:30 pm	Swapna Sannapureddy	479	Evaluation of fluoride ion release in silver doped hydroxyapatite modified glass ionomer cement- An invitro study
02:45 pm	A.N. Tarale, S.R. Jigajeni, S.G. Chavan	487	Effect of Magnetic Field On Dielectric Properties, AC Conductivity and Impedance Spectra of PZT-LSMO Thin Film Heterostructures
03:00 pm	Mamta Raj	492	A biosensor based on silver nanoparticles and electrochemically reduced graphene oxide nanocomposite to determine the impact of caffeine on estradiol secretion in women
03:15 pm	Reenu Gill	496	Study of variation of nonlinear Current in plasma for Terahertz Radiation Generation
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 31 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Siddharth Jain, Krish Desai, Pankaj Arora	397	Nanoparticles-integrated carbon nanotubes with Enhanced Absorption Spectra for Energy Harvesting Applications: A numerical Approach
02:10 pm	Devika Vinod, Sandhya Sadanandan, Rejithamol Rajamani	410	Tryptophan Electropolymer Based Electrochemical Sensing Platform for Salicylaldehyde
02:20 pm	Binay Kumar Panda, Birajendu Prasad Samal, Rajesh Kumar Behera, Rashmi Ranjan Ota, Ullash Kumar Rout, Debendra Kumar Sahoo	418	Implementation of Mathematical Fuzzy Control for Evaluating the Electrical Conductivity of Matrix Composites Manufactured By Powder Metallurgy (PM) Method
02:30 pm	C.R Eldin Jeeva, A. Selvaraj	419	Hydromagnetic Boundary Layer Flow and Heat Transfer Over a Stretching Porous Wall Embedded in a Porous Medium
02:40 pm	Pratibha Sharma, K. Monika, B. Rajesh Kumar	420	Effect of film thickness on structural, optical and thermoelectric properties of reactive RF magnetron sputtered SnO <sub>2</sub> thin films
02:50 pm	K. Monika, Pratibha Sharma, B. Rajesh Kumar	421	Microstructural and spectroscopic ellipsometry investigations on optical properties of nanostructured SnO <sub>2</sub> thin films
03:00 pm	Poonam Kumari Gautam, Mohit	422	Impact of Casson Nanofluids in Porosity
03:10 pm	Poonam Kumari Gautam, Rahul	423	Effect of Walters' Nanofluids in Porousness
03:20 pm	Rajesh Kumar, Naresh Kumar Sharma	428	Thermodynamic Behavior of Procion M Dyes under Hydrolysis and Alcoholysis Conditions
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 32 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 02:00 PM to 03:30 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
02:00 pm	Shantanu Krishna, Ganesh S. Ingle, Sandeep Potnis	431	Importance of Geophysical Investigations in Underground Urban Metro Tunnel Projects
02:10 pm	Nagasathya Ramachandran, Amutha Malaichamy	432	Simulation Potential of Metal mediated Quercetin loaded Graphene oxide: New Insights and Perspectives for Human
02:20 pm	Sandip Ghosh, Anwar Hussain	438	Multiphase flow characteristic through narrow leakages in high pressure high temperature pipeline materials
02:30 pm	Nayana Madhu, Deepthi. N. Rajendran, Jijimon. K. Thomas	440	A Comparative Study on the Dielectric Properties of AMoO <sub>4</sub> Nanoceramics (A=Zn, Mg or Mn)
02:40 pm	Swati Pagare, Mohankumar Bajad	441	Strengthening of castellated steel beam with different types of tools: Review
02:50 pm	Sangram Khilari, Prof. Sanket Tirpude	447	Comprehensive Review of Fire Safety Strategies in Tunnel Infrastructure: Global Trends and Indian Context
03:00 pm	Aayush Ajay Bhadane, Dr. Sandeep Potnis	450	Enhancing Railway Tunnel Health Monitoring System in India: A Comparative Study and Integration of Emerging Technologies
03:10 pm	Anjineya K, Vincent Mathew	451	One-Dimensional Optical Sensor Using Topological Photonic Protected Edge State
03:20 pm	Sanju Kumawat, Seema Agarwal, Shiv Lal	456	Sustainable Integrated approach of Solar and Fuel Cell for Generation of Hydrogen used as the Fuel of Automobiles IC engine for Jaipur, India
<b>03:30 pm</b>	<b>High Tea Break for 30 minutes</b>		

**Technical Session: 33 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Riya Upadhyay, SC Bhatt	219	Thermal variations of capacitivity and dissipation factor of potassium dihydrogen type crystals
04:15 pm	Swapan Bhunia, Pallab Kumar Das, N.B. Manik	248	Comparative Study of Zinc Oxide and Titanium dioxide Nanoparticles on Turmeric Dye Based Solid State Thin Film
04:30 pm	Dr. Babashankara Alva M, Dr. Misty Shaw, Dr. Gayathridevi S K, Dr Suma, Dr Vaishali	278	Effect of Occlusal Load on Crestal and Apical Region of Alveolar Bone With Micro-Threaded and Non-Micro-Threaded Implant Design - A 3-Dimensional Finite Element Analysis
04:45 pm	Rohit Singh, Neeta Bidhoodi, Aanchal Tyagi	332	Critical exponents for Mn-site doped perovskite manganites
05:00 pm	Vinodha Ganesan	138	Multifunctional magnetic nanocomposite for environmental remediation and electrochemical sensor applications
05:15 pm	Ravi Shankar Rai	196	Microwave-Assisted ZnO Nanostructure Deposition on Carbon Fiber Fabric: A One-Step Approach of Surface Functionalization
05:30 pm	D.Saritha	512	Metal Oxide Nanoparticles as Efficient Adsorbents for Wastewater Treatment: A Review
05:45 pm	T Sowmyya	517	Nanomaterials in Fingerprint Forensics

**Technical Session: 34 [Faculty/ Scientist Invited Speakers / Speakers: Oral Presentation]**

Date: 26.03.2025

Time: 04:00 PM to 06:00 PM

Time	Authors	Paper ID	Paper Title
04:00 pm to 6 pm	Sumit Kumar, Surendra Kumar	41	The impact of gold and silver nanoparticles on blood flow behavior in constricted artery
	Dr. Sujata Kumari, Pooja Sharma, Dr. Pratibha Sharma	346	Investigating the synthesis, properties, and new uses of three component nanocomposites built with graphene oxide
	Dr. Mehak Ahuja	347	Organic Photovoltaics: A brief review
	Sudipta Dash, D Behera, Gopinath Palai	20	Structural, Electronic, Optical and Thermodynamic Properties of SrSiO <sub>3</sub> : A DFT study
	Monika Punia, Dr. Sheetal, Dr. Naveen Kumari	42	Rare Earth Doped Transition Metal Oxide Composite for Gas Sensing Application
	Neeta Ukirade, Upasana Choudhari, Shweta Jagtap, Sunit Rane	53	Electrochemical biosensor for glutathione detection in biological fluids using ZnO/reduced graphene Oxide nanocomposite
	Monika Malhotra, Dr. Pankaj Raizada	67	Fe-Based Metal Organic Frameworks for Environmental Remediation
	R Mahesh Reddy, P Bharath Kumar, S Abdul Zunahid, A Swetha Rani	116	Under Water Image Enhancement Using Variational Framework
	Sunita Behera, C. Giri, R. Biswal	125	Impedance spectroscopic analysis of green phase Y <sub>2</sub> BaCuO <sub>5</sub> ceramics
	Yashika Gupta, Shivam Tyagi, Bhaskar Kaviraj	182	A Comparative Evaluation of Hydrothermal & Liquid Phase Exfoliation Techniques for high quality MoSe <sub>2</sub> Production
	K.S. Ramya, U. Vanitha, B. Karthikeyan	194	Solar light photocatalytic activity of Zr-doped TiO <sub>2</sub> for degradation of common food colorant: Investigation through combined approach
	Gurcharn Kaur, Jatinder Singh Aulakh	244	Eclipta alba leaf extract mediated green synthesis of the CuO nanoparticles and their antimicrobial and catalytic activity toward organic dyes
	Syed Talha Andrabi, Sutapa Deb	360	Optimization of GGBS Content for Sustainable Concrete Application: Experimental Findings
	Preksha Gangneja, Sarita Khaturia, Narender Kumar, Shalendra Kumar, Kavita Kumari	362	Review on SmFeO <sub>3</sub> Prepared by Different Synthesis Techniques
	Rashmi Verma, Rabia Basri Aziz, Sudhanshu, Ambika, Richa Saxena	363	A Brief Review on Properties, Applications, Advances and Future Prospects of Polymer Nanocomposites
	Meghana Lalariyan, Sutapa Deb	382	Sustainable Development and Environmental Impact of Critical Infrastructure: Integrating Textile Waste into Concrete Materials
	Anzil Ahmed Mansoor, Mathew John	452	Impact Test on Kevlar-CNT Using Finite Element Analysis (FEA)
Megha Kandari, A.K. Shukla, Salma Shahni	498	Temperature dependent capacitance of a ferroelectric ceramic	
V. Sharma, Dr. S. Rajagopala Reddy	504	Electronic excited states of Trimethylenemethane and Bis-Verdazyl Dimer	

Shivakumar Siddanna, Devidas G.B., S.M. Hanagodimath	223	Electrical and Optical Properties Silver Oxide Thin Films by Using RF Sputtering Technique
Jyoti Sharma	239	Investigation of Structural and Magnetic Properties of Ba <sub>0.8</sub> Y <sub>0.2</sub> Fe <sub>10.3</sub> Co <sub>1.7</sub> O <sub>19</sub> nanoparticles
Vikas Rathi, Kailash Pandey, Sahin kmar Sharma, Manish Kumar	273	Sol-gel prepared Hf and In doped ZnO Thick films for improved optoelectronic and photocatalytic properties
Trilochan Swain	302	Synthesis and thermal analysis of phosphate mixture and its composites as thermal energy conserve material in household building
Rajni Gautam, Abhilasha, Neeraj Kumari	359	Investigation of Impact of Bimetallic doping on the Properties of NiO nanoparticles
Dr. Soma Banerjee	402	Synthesis of Activated Carbon from Biowaste by Hydrothermal Route and Effect of Processing Parameter on the Properties of the Porous Carbon
S.Sen, Mohana Chakraborty, D. Sarnakar, M. Chakraborty	403	Determination of qubit entanglement in a sequential two-photon double ionization process of Kr atom
Mamta Mishra, Manas Pandey, Shruti Singh, Sanjay Srivastava, Jitendra Kumar	434	Influence of various factors on the application of the technology of crushed stone ballast clearing for Railway Maintenance Operations
Santoshi Mohanta	449	Enhancement of Mechanical Properties of Virgin and Recycled High Density Polyethylene Composites using chemically treated natural fiber

**Technical Session: 35 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	S.H. Gediya, N.M. Gauswami, R.A. Vora, J.A. Bhaloadia, G.D. Jadav	460	BiFeO <sub>3</sub> : Tailoring Properties through Synthesis and Doping – A Review
04:10 pm	Abija James, Dinesh Kumar, Rupak Nagraik	461	Green synthesis of zinc oxide nanoparticles: a step toward eco friendly nanocomposite systems for overcoming drug resistance in lung cancer
04:20 pm	Sanjana Chatterjee, Soham Ghosh, Piyali Basak, Bhaskar Gupta	462	Novel Vitamin D3 Delivery Technique Loaded in Starch Nanoparticle using Implantable Antenna System
04:30 pm	Devanand Raj M, Teona Joby, Reghu V R, Benson K M, Sunitha V R	465	Antimony-Graphene based composite anode materials for Lithium-Ion battery applications
04:40 pm	Himanshi Dipak Sharma, Dr. Sandeep Potnis	467	AI and Smart Monitoring for Tunnel Resilience amidst Climate Change
04:50 pm	Biswajit Dutta, Dr.Shubhangi R. Shekoker, Pratap C. Dhang	468	A Case study on TSP (Tunnel Seismic prediction), a modern geophysical tool for prediction of geology in tunnel from Sivok Rangpo New BG Rail Link Project
05:00 pm	Ameey Sawant, Dr. Ganesh Ingale	470	Comparative Study of Factor of Safety of Tunnel Segment by Adding Macro-Synthetic Fiber Using Ansys
05:10 pm	Shakthi Balajee, Sivaprasath, Ms. Sowmiya	471	Intelligent Forest Protection System for Real-Time Threat Detection and Monitoring
05:20 pm	Wilma Fernandes, Umesh Gawas	473	Enhanced Photocatalytic Behaviour of Manganese-Doped Zinc Oxide Nanoparticles
05:30 pm	Dileep H, Sanjit Halder, John Prakash	474	Photochemical and Thermal Stability of Fish Oil: A Fluorescence Spectroscopic Investigation
05:40 pm	Sreelekha A Nair, John Prakash	475	Experimental analysis of protolytic forms of ESIPT- based molecules using Absorption-Emission Matrix Fluorescence (AEMF) and Chemometrics
05:50 pm	M. Priyadharshini, N. Ingarsal	478	Corrosion Inhibition Activity of Schiff base against Mild Steel in HCl Medium

**Technical Session: 36 [Students: Oral Presentation]**

Date: 26.03.2025

Time: 04:00 PM to 06:00 PM

<b>Time</b>	<b>Authors</b>	<b>Paper ID</b>	<b>Paper Title</b>
04:00 pm	Ambedkar K. Verma, Dev K. Mahato, Nishant Kumar, Rakesh Kr. Singh, Seema Sharma	484	Structural, optical, dielectric and electrical properties of hole doped $\text{La}_{0.2}\text{Sr}_{1.8}\text{CoMnO}_6$ double perovskite ceramics
04:10 pm	Uma Ramaswamy, Ramachandran RS, Manonmani S, Manoj Kumar	485	Ecofriendly Synthesis of Chitosan Silver Nanocomposites of Euphorbia hirta for its antioxidant, antibacterial and antiproliferative activity against Human Breast cancer (MCF 7 cell line)
04:20 pm	Rupesh Kumar, Raj Kumar Singh, Sushil Kumar Pandey	488	Electrical measurement of a newly synthesized high temperature high entropy ceramic: $\text{Ba}(\text{Ti}_{0.2}\text{Zr}_{0.2}\text{Hf}_{0.2}\text{Sn}_{0.2}\text{Ce}_{0.2})\text{O}_3$
04:30 pm	Diksha Bhadauria, Priyanka Singh	500	Extraction of Natural Dye from Flower Extract of Rosa Rubiginosa and Tagetes
04:40 pm	Mahananda Dutta, Sanket Tirpude, Sandeep Potnis	505	Regression Analysis of Q- Value Data for Shale Rock in Tunnels: Implications for Support System Design
04:50 pm	Gangavarap C Gangarao, Atul S M Tripathi	507	Solvent-assisted semiconducting polymer thin film microstructure prepared by Floating Film Transfer Method
05:00 pm	Manoj Kumar, Atul S M Tripathi	508	Optimization of polymer assisted conducting thin film fabricated by Floating Film Transfer Method
05:10 pm	Nirmala JP, Ragava Raja R, Kanchana M, Anitha Raj S	515	Antimicrobial and Biodegradable Packaging: RSM-Optimized CMC/ $\iota$ -Carrageenan Films for Shelf-Life Extension of Indian Cottage Cheese (Paneer)
05:20 pm			
05:30 pm			
05:40 pm			
05:50 pm			