



ICREST-2024

**International Conference
on
Renewable Energy and Sustainable Technologies
(July 04-06, 2024)**

Organized by

**Department of Applied Sciences and Humanities,
Faculty of Engineering and Technology,
Jamia Millia Islamia, (A Central University)
New Delhi - 110025, India**

DETAILED PROGRAM



ICREST-2024



DETAILED PROGRAM

4th July 2024, Day One

Time (IST) From	Time (IST) To	PROGRAM	
10:00	11:45	INAUGURAL FUNCTION (Click Here for Joining)	
10:00	10:05	Recitation of the Holy Qur'an	
10:05	10:10	Welcome Address	Dr. S. Kazim Naqvi Organizing Secretary, ICREST - 2024
10:10	10:20	About Department and ICREST-2024	Prof. Zishan Husain Khan Organizing Chair, ICREST - 2024
10:20	10:35	Address of the Co-Patron	Prof. Mini Shaji Thomas Dean, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India
10:35	10:50	Address of the Guest of Honour	Prof. Mohammad Rihan Director General, National Institute of Solar Energy, Gurugram, India
10:50	11:05	Address of the Guest of Honour	Dr. Anita Gupta Head, Climate, Energy and Sustainable Technology (CEST) Division, Department of Science and Technology, Govt. of India
11:05	11:25	Address of the Chief Guest	Dr. Abhay Jere Vice Chairman, All India Council for Technical Education (AICTE), MHRD, Govt. of India
11:25	11:40	Presidential Address	Prof. Mohammad Shakeel Patron, ICREST- 2024, Officiating Vice-Chancellor, Jamia Millia Islamia, New Delhi, India
11:40	11:45	Vote of thanks	Dr. Faheem Ahmed Organizing Secretary, ICREST - 2024
National Anthem			
11:45	12:00	BREAK	
12:00	13:00	KEYNOTE ADDRESS – I (Click Here for Joining)	
Session Chairman		Prof. P.K. Bhatnagar Professor Emeritus, Department of Electronic Science, University of Delhi, New Delhi, India	
12:00	13:00	Prof. Mohammad Khaja Nazeeruddin EPFL (École Polytechnique Fédérale de Lausanne), Lausanne, Switzerland <i>Title of The Talk: Stable and Efficient Perovskite Solar Cells and Modules by Interface and Compositional Engineering</i>	
13:00	13:30	BREAK	
13:30	14:30	INDUSTRY SESSION-I (Click Here for Joining)	
Session Chairman		Dr. M.P. Singh Department of Applied Sciences & Humanities, Jamia Millia Islamia, New Delhi, India	
13:30	13:50	Dr. Anil Kumar Director, Ministry of New and Renewable Energy (MNRE), Govt. of India	
13:50	14:10	Dr. Prabir Kant Basu Sr. Vice President, Reliance New Solar Energy Ltd (RNSEL), India	





14:10	14:30	Dr. Rajendra Kumar Yadav Additional General Manager, Pragati Power Corporation Limited, New Delhi, India
14:30	15:30	INDUSTRY SESSION-II (Click Here for Joining)
Session Chairman		Dr. Faheem Ahmed Department of Applied Sciences & Humanities, Jamia Millia Islamia, New Delhi, India
14:30	14:50	Dr. Jami Hossain Hony. Vice President and Technical Chair, World Wind Energy Association, New Delhi, India
14:50	15:10	Dr. Sanjay Vashishtha Founder and CEO, Firstgreen Consulting Pvt. Ltd., India
15:10	15:30	Dr. Zoheb Karim Head of Research and Development, Alfa Laval, Denmark
15:30	16:30	INDUSTRY SESSION-III (Click Here for Joining)
Session Chairman		Dr. Navaid Zafar Rizvi Department of Applied Sciences & Humanities, Jamia Millia Islamia, New Delhi, India
15:30	15:50	Dr. RPV Parsad Managing Director - India Region, Envision Energy, India
15:50	16:10	Mr. Alok Verma Sr. Vice President, Enfinity Global, Gurgaon, Haryana, India
16:10	16:30	Mr. Anupam Verma Avaada Group, Noida, India
16:30	17:50	INDUSTRY SESSION-IV (Click Here for Joining)
Session Chairman		Dr. Prabhash Mishra Department of Applied Sciences & Humanities, Jamia Millia Islamia, New Delhi, India
16:30	16:50	Dr Akanksha Tyagi Programme Lead, Council on Energy, Environment and Water (CEEW), New Delhi, India
16:50	17:10	Mr. SMH Adil Director, Geed Simulation, New Delhi, India
17:10	17:30	Mr. Riyaz Kamal Manager, Tata Power Delhi Distribution Limited, New Delhi, India
17:30	17:50	Mr. Dishant Mishra Project Head, Baud Resources PVT. LTD. Kanpur, India
17:50	18:35	KEYNOTE ADDRESS –II (Click Here for Joining)
Session Chairman		Prof. Ameer Azam Department of Applied Physics, Aligarh Muslim University, Aligarh, India
17:50	18:35	Prof. Shailendra Singh Director, Division of Environmental Health and Safety, University of Florida, USA <i>Title of The Talk: Green Sustainability through Innovation: A New Approach in Academic Institutions</i>





DETAILED PROGRAM

5th July 2024, Day Two

Time (IST) From	Time (IST) To	Track – A Online	Track – B Online	Track – C Online	Track – D Online
Session Links->		Join Link for Track-A	Join Link for Track-B	Join Link for Track-C	Join Link for Track-D
09:00	10:00	Session –1A <i>Plenary Talks</i>	Session –1B <i>Invited Talks</i>	Session –1C <i>Invited Talks</i>	Session –1D <i>Oral Presentations</i>
Session Chairman		Prof. Mohammad Zulfequar	Prof. Naqui Anwer	Prof. Majid Jameel	Dr. Javid Ali
09:00	09:20	PTA-01: Prof. Mark Jackson	ITB-01: Dr. Tirath Raj	ITC-01: Prof. Lokendra Kumar	A-7, A-20
09:20	09:40	PTA-02: Prof. Jatin K. Rath	ITB-02: Dr. Darshit S. Upadhyay	ITC-02: Prof. Santanu Ghosh	A-21, A-22
09:40	10:00	PTA-03: Prof. Tsong-Pyng Perng	ITB-03: Prof. Sangeeta Tiwari	ITC-03: Dr. Sunita Mahavar	A-24, A-47
10:00	11:00	Session –2A <i>Invited Talks</i>	Session –2B <i>Invited Talks</i>	Session –2C <i>Invited Talks</i>	Session –2D <i>Oral Presentations</i>
Session Chairman		Prof. Khurram Hafiz	Prof. Tarikul Islam	Prof. Anwar Shahzad Siddiqui	Dr. Islamuddin
10:00	10:20	ITA-01: Prof. Suresh C. Sharma	ITB-04: Prof. Sushil Kumar	ITC-04: Prof. Pramod K. Singh	A-51, A-52
10:20	10:40	ITA-02: Dr. Farman Ali	ITB-05: Dr. Anupam Agarwal	ITC-05: Dr. Trilok Singh	A-60, A-61
10:40	11:00	ITA-03: Dr. Kaushik Pal	ITB-06: Prof. Sandip S. Deshmukh	ITC-06: Dr. Ritu Srivastava	A-63, A-75
11:00	12:00	Session –3A <i>Invited Talks</i>	Session –3B <i>Invited Talks</i>	Session –3C <i>Invited Talks</i>	Session –3D <i>Poster Presentations</i>
Session Chairman		Prof. Tokeer Ahmad	Prof. S. M. Muzakkir	Prof. Shakeeb Ahmad Khan	Dr. Sana Zafar
11:00	11:20	ITA-04: Dr. Priyanka Sahu	ITB-07: Dr. Manika Khanuja	ITC-07: Prof. Pratima Agarwal	A-1 – A-4
11:20	11:40	ITA-05: Prof. Fahad Al-Ajmi	ITB-08: Dr. Sunil Singh Kushvaha	ITC-08: Dr. Vineet V. Tyagi	A-5, A-6, A-8, A-9
11:40	12:00	ITA-06: Prof. Shamshad Ahmad	ITB-09: Dr. Rajni Gautam	ITC-09: Dr. Ahteshamul Haque	A-10 – A-13
12:00	13:00	Session –4A <i>Invited Talks</i>	Session –4B <i>Invited Talks</i>	Session –4C <i>Invited Talks</i>	Session –4D <i>Poster Presentations</i>
Session Chairman		Dr. Manika Khanuja	Prof. Mohd. Suhaib	Dr. Ahteshamul Haque	Dr. Raza Shahid
12:00	12:20	ITA-07: Dr. S. Fatima	ITB-10: Prof. Beer Pal Singh	ITC-10: Prof. Kaushik Ghosh	A-14 – A-17
12:20	12:40	ITA-08: Prof. Ameer Azam	ITB-11: Prof. Shahid Husain	ITC-11: Prof. Rachit Khare	A-18 – A-19
12:40	13:00	ITA-09: Dr. Dibyanjan Rout	ITB-12: Dr. Shahab Ahmad	ITC-12: Dr. K. Ramya	A-23, A-25 – A-27
13:00	13:30	BREAK			
13:30	14:30	Session –5A <i>Invited Talks</i>	Session –5B <i>Invited Talk</i>	Session –5C <i>Oral Presentations</i>	Session –5D <i>Poster Presentations</i>
Session Chairman		Dr. Mohd. Ajmal	Dr. Faheem Ahmed	Dr. M.P. Singh	Dr. Mohd Bilal Khan
13:30	13:50	ITA-10: Dr. S. Neeleshwar	ITB-13: Dr. Samina Husain	ITC-13: Dr. V. Ganapathi	A-28 – A-31
13:50	14:10	ITA-11: Prof. Numan Salah	ITB-14: Dr. Swetapadma Praharaj	ITC-14: Prof. D.K. Dwivedi	A-32 – A-35
14:10	14:30	ITA-12: Dr. Ritika Khatri	ITB-15: Dr. Shalendra Kumar	ITC-15: Dr. Tom Macdonald	A-36 – A-39
14:30	15:30	Session –6A <i>Invited Talks</i>	Session –6B <i>Invited Talk & Oral Presentations</i>	Session –6C <i>Oral Presentations</i>	Session –6D <i>Poster Presentations</i>
Session Chairman		Prof. Zubaida Ansari	Prof. Zeba Jafri	Prof. Rana Noor	Dr. Shahid Ul Islam
14:30	14:50	ITA-13: Dr. Koteswara Rao Peta	ITB-16: Prof. Pau Loke Show	C-8, C-11	A-40 – A-43
14:50	15:10	ITA-14: Dr. Manjot Kaur	ITB-17: Dr. Amrit B. Sahu	C-14, C-16	A-44 – A-46, A-48
15:10	15:30	ITA-15: Dr. Ravi Kumar Pujala	Oral: B-9, B-11	C-23, C-28	A-49, A-50, A-53
15:30	16:30	Session –7A <i>Invited Talks</i>	Session –7B <i>Oral Presentations</i>	Session –7C <i>Oral Presentations</i>	Session –7D <i>Poster Presentations</i>
Session Chairman		Prof. Rajan Patel	Dr. Mohd. Shoeb Khan	Dr. Navaid Zafar Rizvi	Dr. Osama Khan
15:30	15:50	ITA-16: Dr. Venkatesh Yepuri	B-14, B-16	C-29, C-36	A-54 – A-57
15:50	16:10	ITA-17: Prof. Mohammad Sharif	B-21, B-23	C-42, C-48	A-58, A-59, A-62
16:10	16:30	ITA-18: Dr. B S Negi	B-29, B-32	C-49, C-50	A-64 – A-67
16:30	17:30	Session –8A <i>Invited Talks</i>	Session –8B <i>Oral and Poster Presentations</i>	Session –8C <i>Oral and Poster Presentations</i>	Session –8D <i>Poster Presentations</i>
Session Chairman		Prof. Shamshad Ahmad	Dr. Prabhask Mishra	Dr. M. P. Singh	Dr. Avshish Kumar
16:30	16:50	PTA-04: Prof. V. K. Jain	Oral: B-39, B-40,	Oral: C-51, C-56	A-68 – A-71
16:50	17:10	PTA-05: Prof. Ali Haider	Oral: B-46, B-60	Oral: C-58, C-65	A-72 – A-74, A-76
17:10	17:30	PTA-06: Prof. Ahmad Umar	Poster: B-1 – B-4	Poster: C-1 – C-4	A-77 – A-80





DETAILED PROGRAM

6th July 2024, Day Three

Time (IST) From	Time (IST) To	Track – A Offline + Online	Track – B Online	Track – C Online
Session Links->		Join Link for Track-A	Join Link for Track-B	Join Link for Track-C
09:00	11:00	Session –9A <i>Invited Talks</i>	Session –9B <i>Poster Presentations</i>	Session –9C <i>Poster Presentations</i>
Session Chairman		Prof. Mohd. Shahid Khan	Prof. Nafis Ahmed	Dr. Samina Husain
09:00	09:20	ITA–19: Prof. Naqui Anwer	B-5 – B-8	C-5 – C-7, C-9
09:20	09:40	ITA–20: Dr. Avshish Kumar	B-10, B-12, B-13, B-15	C-10, C-12, C-13, C-15
09:40	10:00	ITA–21: Prof. Kedar Singh	B-16 – B-19	C-17 – B-20
10:00	10:20	ITA–22: Prof. Alope Kanjilal	B-20, B-22, B-24, B-25	C-21, C-22, C-24, C-25
10:20	10:40	ITA–23: Dr. Abhishek Verma	B-26 – B-28, B-30	C-26, C-27, C-30, C-31
10:40	11:00	ITA–24: Prof. Seema Garg	B-31, B-33 – B-35	C-32 – C-35
11:00	11:15	BREAK		
11:15	13:15	Session –10A <i>Plenary Talks</i>	Session –10B <i>Poster Presentations</i>	Session –10C <i>Poster Presentations</i>
Session Chairman		Prof. Seema Garg	Dr. Mohd. Bilal Khan	Dr. Faheem Ahmed
11:15	11:45	PTA–07: Prof. D.K. Sharma	B-36 – B-38, B-41	C-37 – C-40
11:45	12:15	PTA–10: Prof. P.K. Bhatnagar	B-42 – B-45	C-41 – C-44
12:15	12:45	PTA–11: Prof. Mohammad Rihan	B-47 – B-49	C-45 – C-47, C-50
12:45	13:15	PTA–12: Prof. S. Wazed Ali	B-50 – B-53	C-52 – C-55
13:15	14:00	BREAK		
14:00	15:00	Session –11A <i>Invited Talks</i>	Session –11B <i>Poster Presentations</i>	Session –11C <i>Poster Presentations</i>
Session Chairman		Prof. P.K. Bhatnagar	Dr. Navaid Zafar Rizvi	Dr. Islamuddin
14:00	14:20	ITA–25: Dr. Vineet Saini (To be Confirmed)	B-54 – B-57	C-57, C-59 – C-61
14:20	14:40	ITA–26: Dr. Raj Kumar Joshi (To be Confirmed)	B-58, B-59	C-62, C-63
14:40	15:00	ITA–27: Dr. Sanjay K. Srivastava	B-61, B-62	A-81 – A-90
15:00	16:00	Session –12A <i>Invited Talks</i>	Session –12B <i>Poster Presentations</i>	Session –12C <i>Poster Presentations</i>
Session Chairman		Dr. Sanjay K. Srivastava		
15:00	15:20	ITA–28: Dr. Puspendra Kumar	-----	Poster:
15:20	15:40	ITA–29: Dr. Ajoy Kapat	-----	-----
15:40	16:00	ITA–30: Dr. Ankur Goswami	-----	-----
16:00	17:00	Session –13A <i>Invited Talks</i>	Session –13B <i>Poster Presentations</i>	Session –13C <i>Poster Presentations</i>
Session Chairman		Dr. Ajoy Kapat		
16:00	16:20	ITA–31: Dr. Sushil Kumar	-----	-----
16:20	16:40	ITA–32: Dr. Anurag Parkash Sunda	-----	-----
16:40	17:00	ITA–33: Dr. Seema Gautam	-----	-----
17:00	18:00	VALEDICTORY SESSION		





Speakers

Code	Track	Day	Speaker Name	Affiliation	Title of the Talk
PTA-01	Track-A	Day-02	Prof. Mark Jackson	Kansas State Polytechnic, Kansas, USA	Advanced Manufacturing in Orbiting Space Environments
PTA-02	Track-A	Day-02	Prof. Jatin Kumar Rath	Department of physics, Indian Institute of Technology Madras, Chennai, India	Role of Atomic Layer Deposition Technique in the Fabrication of High Efficiency Solar Cells
PTA-03	Track-A	Day-02	Prof. Tsong-Pyng Perng	Chair Professor, Materials Science & Technology, National Tsing Hua University (NTHU), Hsinchu, Taiwan	Fabrication of Homogeneous Oxide Solid Solutions by Nanolamination of Atomic Layer Deposition and Their Photocatalytic Performances
PTA-04	Track-A	Day-02	Prof. V. K. Jain	Amity Institute for Advanced Research and Studies (Materials & Devices), Amity University, Noida, India	Fabrication of Heterojunctions on Silicon Nanowires on Si Chip, For Electricity Generation from Moisture and Optical Detection
PTA-05	Track-A	Day-02	Prof. Ali Haider	Associate Dean Research and External Engagement Indian, IIT Delhi, Abu Dhabi Campus, Abu Dhabi, UAE	Nanoscale Design of Catalyst Materials for Sustainable Development Goals
PTA-06	Track-A	Day-02	Prof. Ahmad Umar	Ohio State University, Columbus, Ohio USA	Designing Functional Nanomaterials for Effective Environmental and Energy Applications
PTA-07	Track-A	Day-03	Prof. D. K. Sharma	Department of Sustainable Engineering, TERI School of Advanced Studies, New Delhi, India	Emerging concepts of setting up biorefineries for establishing circular bioeconomy
PTA-08	Track-A	Day-03	Prof. P.K. Bhatnagar	Professor Emeritus, Department of Electronic Science, University of Delhi, New Delhi, India	Applications of A Few Organic Semiconductors and Nanomaterials in Energy Production/Saving And Storage (TES) - Recent Trends
PTA-09	Track-A	Day-03	Prof. Mohammad Rihan	Director General, National Institute of Solar Energy, Gurugram, India	Decarbonizing the Indian Power Grid: Requirement, Opportunities and Challenges
PTA-10	Track-A	Day-03	Prof. S. Wazed Ali	Department of Textile and Fibre Engineering, Indian Institute of Technology Delhi, New Delhi	Nanocomposite-based Electrospun Fibrous Structure: An Efficient Source of Mechanical Energy Harvesting
ITA-01	Track-A	Day-02	Prof. Suresh C. Sharma	Department of Applied Physics, Delhi Technological University, Delhi, India	Modelling and Simulation of Cylindrical Double Gate Junctionless Plasma Assisted Carbon Nanotube Field Effect Transistor for Sensing Applications
ITA-02	Track-A	Day-02	Dr. Farman Ali	Department of Applied Chemistry, Aligarh Muslim University, Aligarh, India	Dual Function Device using 3,6-dipyrenyl-N-hexyl carbazole
ITA-03	Track-A	Day-02	Dr. Kaushik Pal	Department of Physics, University Centre for Research and Development, Chandigarh University, Mohali, Punjab, India	Novel nanostructures enabled graphene-assembly liquid crystalline Hybrid composites for switchable device applications
ITA-04	Track-A	Day-02	Dr. Priyanka Sahu	Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology Indore, India	Investigation of the Structural, Electrical, and Magnetic behavior of Co ³⁺ -Ti ⁴⁺ doped Strontium Hexaferrite for Microwave and Low-density recording media applications
ITA-05	Track-A	Day-02	Prof. Fahad Al-Ajmi	King Saud University, Riyadh, Saudi Arabia	AD digestate utilization; opportunities and challenges
ITA-06	Track-A	Day-02	Prof. Shamshad Ahmad	Department of Physics, St. Andrews P.G. College, Gorakhpur, India	Recent Advancements in Semiconductor Quantum Dots for Sensing and Optoelectronics Applications
ITA-07	Track-A	Day-02	Dr. S. Fatima	Centre for Automotive Research and Tribology, IIT Delhi	Sustainable Noise Control Materials
ITA-08	Track-A	Day-02	Prof. Ameer Azam	Department of Applied Physics, Aligarh Muslim University, Aligarh, India	Biogenic Synthesis of Nanoparticles: Prospects and Challenges
ITA-09	Track-A	Day-02	Dr. Dibyanjan Rout	Functional Materials Lab, School of Applied Sciences (Physics), KIIT Deemed to be University, Bhubaneswar, India	Future Perspectives of Bismuth Ferrite Nanostructures



Speakers

Code	Track	Day	Speaker Name	Affiliation	Title of the Talk
ITA-10	Track-A	Day-02	Dr. S. Neeleshwar	University School of Basic & Applied Science, Guru Gobind Singh Indraprastha University (GGSIPU), Delhi, India	Enhanced Room Temperature Ferromagnetism in Mn ₄ Si ₇ and Mg _x Sn _{1-x} Se Nanoparticles Synthesized by Optimized High-Energy Ball Milling
ITA-11	Track-A	Day-02	Prof. Numan Salah	Professor & Group Leader Center of Nanotechnology, King Abdulaziz University, Jeddah 21589, Saudi Arabia	Thermoelectric Power Generation Below Room Temperature by 2D Layered Chalcogenide Crystals
ITA-12	Track-A	Day-02	Dr. Ritika Khatri	Department of Physics, School of Basic & Applied Sciences, K. R. Mangalam University, Gurugram-122103, Haryana, India	Biosensors Based on Sustainable Technologies for Biomarker Based Detection of Various Diseases
ITA-13	Track-A	Day-02	Dr. Koteswara Rao Peta	Department of Electronic Science, University of Delhi South Campus, New Delhi, India	III-Nitride semiconductors: Opportunities and challenges
ITA-14	Track-A	Day-02	Dr. Manjot Kaur	Department of Applied Science, Guru Gobind Singh Indraprastha University, Delhi, India	Policy Priorities for enabling the circular economy in the solar industry Active packaging- a solution to single use unit packaging
ITA-15	Track-A	Day-02	Dr. Ravi Kumar Pujala	Department of Physics, Indian Institute of Science Education and Research (IISER), Tirupati, India	Novel composite hydrogels with enhanced thermal stability and injectability
ITA-16	Track-A	Day-02	Dr. Venkatesh Yepuri	Department of Electrical and Electronics Engineering, Swarnandhra College of Engineering and Technology, Andhra Pradesh, India	Inexpensive Fabrication of Radiation Shielding and Hydrophobic Hafnium dioxide thin films for Electronic, Photonic and Optoelectronic Applications
ITA-17	Track-A	Day-02	Prof. Mohammad Sharif	Department of Civil Engineering, Jamia Millia Islamia, New Delhi, India	Role of Sustainable Development Goals in Climate Change Mitigation in India
ITA-18	Track-A	Day-02	Dr. B S Negi	Former Adviser, Ministry of New and Renewable Energy Government of India, New Delhi, India	Policy Perspective for Research for Technology Development Needs for Sustained Growth of Renewable Energy for Sustainable Development in India
ITA-19	Track-A	Day-03	Prof. Naqui Anwer	Head, Department of Sustainable Engineering, TERI, India	Energy Security and the Role of Green Energy Sources
ITA-20	Track-A	Day-03	Dr. Avshish Kumar	Amity Institute for Advanced Research and Studies (Materials & Devices), Amity University Uttar Pradesh, Noida, India	Generating electricity using heterojunctions on SiNWs on Si chip and their applications as self-biased high efficiency optical sensors
ITA-21	Track-A	Day-03	Prof. Kedar Singh	School of Physical Sciences, Jawaharlal Nehru University, New Delhi, India	Quantum Dots: Synthesis for Renewable Energy and Sustainable Technologies
ITA-22	Track-A	Day-03	Dr. Alope Kanjilal	Department of Physics, School of Natural Sciences, Shiv Nadar Institution of Eminence, Greater Noida, India	Sustainable Development of ZnO@SiC Composites: Advantages & Challenges
ITA-23	Track-A	Day-03	Dr. Abhishek Verma	Amity Institute for Renewable and Alternate Energy, Amity University, Noida, India	Nanostructured Enhanced Phase Change Materials for Advanced Solar Thermal Energy Storage Applications
ITA-24	Track-A	Day-03	Prof. Seema Garg	Amity Institute of Applied Sciences, Amity University, Noida, India	Bismuth based Photocatalyst for Efficient Photodegradation and CO ₂ Reduction
ITA-25	Track-A	Day-03	Dr. Vineet Saini	Scientist F, Climate, Energy and Sustainable Technology (CEST) Division, Department of Science and Technology, Govt. of India	About Department of Science and Technology
ITA-26	Track-A	Day-03	Dr Rajkumar Joshi	Scientist F, R&D Infrastructure, Department of Science and Technology, Govt. of India.	About Department of Science and Technology Schemes
ITA-27	Track-A	Day-03	Dr. Sanjay K. Srivastava	Advanced Material and Devices Metrology Division, CSIR-National Physical Laboratory, New Delhi, India	Efficient and Flexible Silicon/PEDOT: PSS Hybrid Heterojunction Solar Cells via Effective Surface and Interface Engineering
ITA-28	Track-A	Day-03	Dr. Pushpendra Kumar	School of Physical Sciences, Jawaharlal Nehru University, New Delhi, India	Lithium-Sulfur Batteries: Challenges, Development and Prospect



Speakers

Code	Track	Day	Speaker Name	Affiliation	Title of the Talk
ITA-29	Track-A	Day-03	Dr. Ajoy Kapat	Department of Chemistry, Shiv Nadar University, Greater Noida, India	Design of Co-initiator/Initiator Utilizing the Anomeric Effect in Five-Membered Ring Molecules: Application in Photoinduced Radical Polymerisation
ITA-30	Track-A	Day-03	Dr. Ankur Goswami	Department of Materials Science and Engineering, Indian Institute of Technology Delhi, New Delhi, India	Energy Harvesting through Triboelectric Effect using Conventional and Nonconventional Materials
ITA-31	Track-A	Day-03	Dr. Sushil Kumar	Advanced Materials & Device Metrology, CSIR-National Physical Laboratory, New Delhi, India	Research & strategy for sustainable photovoltaic module recycling to support circular economy
ITA-32	Track-A	Day-03	Dr. Anurag Prakash Sunda	Department of Chemistry, J. C. Bose University of Science & Technology, YMCA, Faridabad, India	Molecular Insights of Polymer Electrolyte Membranes and Ionic Liquid Plastic Crystals for Fuel Cell Applications
ITA-33	Track-A	Day-03	Dr. Seema Gautam	Scientist, Solid State Physics Laboratory, DRDO, Delhi, India	Carbon nanotubes for microwave and sensing applications
ITB-01	Track-B	Day-02	Dr. Tirath Raj	Center for Advanced Bioenergy and Bioproducts Innovation (CABBI), University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA	Green deconstruction approaches for processing transgenic bioenergy crops for enhanced recovery of lipids and fermentable sugars
ITB-02	Track-B	Day-02	Dr. Darshit S. Upadhyay	Mechanical Engineering Department, Nirma University, Ahmedabad, Gujarat, India	Catalytic Effect of Alkaline Earth Metal Oxides on Thermochemical Conversion of Paddy Straw
ITB-03	Track-B	Day-02	Prof. Sangeeta Tiwari	Amity Institute of Applied Sciences (AIAS), Amity University Noida, Noida, India	Nanofibrous Composites for Photocatalytic Conversion of Carbon Dioxide to Solar Fuels
ITB-04	Track-B	Day-02	Prof. Sushil Kumar	Department of Physics, Chaudhary Devi Lal University, Sirsa, Haryana, India	Reduced graphene oxide supported Ag-loaded Brookite TiO ₂ nanowires: Enhanced photocatalytic electrochemical performance and applications
ITB-05	Track-B	Day-02	Dr. Anupam Agarwal	Department of Chemistry & Biochemistry, Sharda School of Basic Sciences & Research, Sharda University, Greater Noida, India	Green Synthesized Polymeric Nanocomposite for Water Decontamination
ITB-06	Track-B	Day-02	Prof. Sandip S. Deshmukh	Mechanical Engineering, BITS Pilani - Hyderabad Campus, Hyderabad, India	Solar Distillation Systems: A Renewable Breakthrough to the Society
ITB-07	Track-B	Day-02	Dr. Manika Khannuja	Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, India	Pathway for Circular Economy: Transforming Wastewater into Sustainable Solutions
ITB-08	Track-B	Day-02	Dr. Sunil Singh Kushvaha	Principal Scientist, Electrical and Electronics Metrology, CSIR-National Physical Laboratory, New Delhi, INDIA	Selenides-based heterojunctions for PEC water-splitting applications
ITB-09	Track-B	Day-02	Dr. Rajni Gautam	School of Basic and Applied Sciences, K.R. Mangalam University, Gurugram, India	Wastewater Treatment using Bimetal Doped CuO Nanoparticles
ITB-10	Track-B	Day-02	Prof. Beer Pal Singh	Department of Physics, Chaudhary Charan Singh University, Meerut, India	Studies on Co and Fe-Doped CuO Nanostructured Electrode Material for Remarkable Supercapacitive Performance
ITB-11	Track-B	Day-02	Prof. Shahid Husain	Department of Physics, Aligarh Muslim University, Aligarh, India	Novel Lead Free BaTiO ₃ , BiFeO ₃ , And GdFeO ₃ Based Nanocomposites for Energy Storage Applications
ITB-12	Track-B	Day-02	Dr. Shahab Ahmad	Advanced Energy Material Lab, Department of Physics, IIT Jodhpur, Rajasthan, India	Efficient and Scalable Metal Halide Perovskite Photo-Rechargeable Batteries
ITB-13	Track-B	Day-02	Dr. Samina Husain	Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, India	Unlocking superior electrochemical capacitance: PANI/f-MWCNTs decorated Tellurium composites for advanced supercapacitors





Speakers

Code	Track	Day	Speaker Name	Affiliation	Title of the Talk
ITB-14	Track-B	Day-02	Dr. Swetapadma Praharaj	Functional Materials Lab, School of Applied Sciences (Physics), KIIT Deemed to be University, Bhubaneswar, India	Co3O4 Based Nanocomposites for Electrochemical Charge Storage
ITB-15	Track-B	Day-02	Dr. Shalendra Kumar	Department of Physics, Applied Science Cluster, UPES, Dehradun, 248007, India	Fabrication of supercapacitor device based on the 2D carbon materials/metal oxide nanocomposites for energy storage applications
ITB-16	Track-B	Day-02	Prof. Pau Loke Show	Khalifa University, Abu Dhabi, UAE	Recent Progress in Microalgae Biorefinery
ITB-17	Track-B	Day-02	Dr. Amrit B. Sahu	School of Mechanical Sciences, Indian Institute of Technology Bhubaneswar, Odisha, India	Impact Of Hydrogen Blending On Future Fuels: Auto-Ignition And Emissions
ITC-01	Track-C	Day-02	Prof. Lokendra Kumar	Department of Physics, University of Allahabad, Prayagraj, India	Photo-physical Investigations on Cesium based Metal Halide Perovskite Quantum Dots for Photovoltaics
ITC-02	Track-C	Day-02	Prof. Santanu Ghosh	Department of Physics, Indian Institute of Technology Delhi, New Delhi, India	Combinative Study: LSPR Tuning of Embedded Gold Nanoparticles and Optical Properties of Single/Double-Layered Amorphous Silicon Nitride Films for Photovoltaic Applications
ITC-03	Track-C	Day-02	Dr. Sunita Mahavar	Solar Energy Research Laboratory, University of Rajasthan, Jaipur, India	Solar Thermal Collectors and their Applications
ITC-04	Track-C	Day-02	Prof. Pramod K. Singh	Center for Solar Cells & Renewable Energy, Department of Physics, Sharda University, Greater Noida, India	New Stable Electrodes and Electrolyte in Dye sensitized solar Cells
ITC-05	Track-C	Day-02	Dr. Trilok Singh	Department of Energy Science and Engineering, Indian Institute of Technology, Delhi, India	Paradigm shift in the thin film solar cells: Efficiency and Stability
ITC-06	Track-C	Day-02	Dr. Ritu Srivastava	Advanced Materials and Devices Metrology Division, CSIR-National Physical Laboratory, New Delhi, India	Perovskite Nanomaterials for Energy Harvesting
ITC-07	Track-C	Day-02	Prof. Pratima Agarwal	School of Energy science and Engineering, IIT Guwahati, Assam, India	Carrier Selective Layers in c-Si Based Heterojunction Solar Cells
ITC-08	Track-C	Day-02	Dr. Vineet V. Tyagi	School of Energy Management, Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir 182320, India	Solar Thermal Energy Storage with Phase Change Materials for Water/Air Heating Application
ITC-09	Track-C	Day-02	Dr. Ahteshamul Haq	Department of Electrical Engineering, Jamia Millia Islamia, New Delhi, India	AI for Grid Connected PV System
ITC-10	Track-C	Day-02	Prof. Kaushik Ghosh	Institute of Nano Science & Technology, Mohali, India	Porous Carbon Template Decorated with MOF-Driven Bimetallic Phosphide: A suitable Heterostructure for the Production of uninterrupted Green Hydrogen via Renewable Energy Storage Device
ITC-11	Track-C	Day-02	Prof. Rachit Khare	Dept of Chemistry and Catalysis Research Centre, Univesrity of Munich, Germany	Electrochemical Hydrogenation and Electroeluted Carbon-Carbon Coupling in Aldehydes on Cu
ITC-12	Track-C	Day-02	Dr. K. Ramya	Centre for Fuel Cell Technology (CFCT), International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, India	An overview of Polymer electrolyte membrane fuel cell technology
ITC-13	Track-C	Day-02	Dr. V. Ganapathi	Centre for Solar Energy Materials, International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur, Hyderabad, India	Interface engineering for highly efficient and stable hole-conductor and metal cathode free perovskite solar cells
ITC-14	Track-C	Day-02	Prof. D. K. Dwivedi	Department of Physics and Material Science, Madan Mohan Malviya University of Technology, Gorakhpur, India	Tandem Solar Cells Combining Wide-Bandgap and Narrow-Bandgap Perovskite with CIGS: A Promising Technology
ITC-15	Track-C	Day-02	Dr. Tom Macdonald	Electronic & Electrical Engineering University College London, London	Guanidinium Cations in Lead and Lead-Tin Perovskite Solar Cells

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A-7	<i>Surbhi Yadav, Priyanka Singh, Bipul Chandra, Parul Verma, Balaji Birajdar</i>	Growth and Crystallization in Ag-Si Composite Films
A-20	<i>Md. Imran Alam, Munawar Nawab Karimi</i>	A Numerical Study of The Passive Cooling of Electronic Devices Using Perforation and PCM-Embedded Heat Sink
A-21	<i>Deepa Rani S, Sajan P. Shamsudeen, Abhilash Kumar R G</i>	Sol-gel Synthesis and Photoluminescence Characterization of PVP Capped MgAl ₂ O ₄ :Tb ³⁺ Nanophosphors
A-22	<i>Dr. Ratnesh Mishra, Praveena Shandilya, Dr. K.P. Tiwari</i>	Power of Encryption Algorithms on Power Consumption in Energy Produce Systems
A-24	<i>Samia Parvez, Syed Shakil Afsar, Ibadur Rahman</i>	Utilizing Waste Materials in Concrete Production: A Sustainable Approach
A-47	<i>Nancy, Ritesh Verma, Preeti Thakur, Atul Thakur</i>	Investigation of Structural and Optical Properties of ZnFe ₂ O ₄ , CoFe ₂ O ₄ and Their Nanocomposite
A-51	<i>Sravanth Chandaka, Neethusri Velangi, Jayaprasad, Shanti C, Satyamoorthy, Ganesan S</i>	Performance Analysis of Fluidized Bed Gasifier Using Computational Fluid Dynamics
A-52	<i>Anisha Ahuja, Mousami Prasad</i>	Role of Green Energy in Driving Low-Emission Growth in Iron and Steel Industry
A-60	<i>Mohammad Zakariya Farooqi, Fatima Jalid</i>	Microkinetic Modelling of Water Gas Shift Reaction: Towards Unravelling the Activity and Selectivity Trends of Transition Metal Catalysts and Bimetallic Alloys
A-61	<i>Abdul Halim Babbu</i>	Green Concepts in Healthcare Facilities: A Sustainable Approach for Enhancing Patient Health and Wellbeing
A-63	<i>Dushyanth Kumar Reddy</i>	The Ethanol Blended Petrol (EBP) Program in India: Its Impact on The Stakeholders
A-75	<i>Matali Mahajan, Dr. Ash Narayan Sah</i>	CO ₂ Emissions Response to GDP And Crude Oil Price Shocks: Evidence from Top Asian Emitters Using SVAR Framework
B-9	<i>Ganesh S G, Anu M A, Merin Tomy, Xavier T S</i>	Enhancing The Supercapacitor Applications of Ti ₃ AlC ₂ Based MXene By Regulating the Etching Time
B-11	<i>A. Sahu, P. Kumari, Manoja Das</i>	Carbon Dots from Ginger Peel Waste as an Optical Nano Switch for Heavy Metal-ions Detection
B-14	<i>Meraj Alam, Ishita Sarkar, Chanchal Loha</i>	Experimental Study on Hydrogen-Rich Syngas Production via Catalytic Pyrolysis of Rice Husk in a Pilot-Scale Fixed Bed Reactor
B-16	<i>Mriduta Sharma, V. V. Tyagi</i>	Sustainable Treatment of Industrial Wastewater through Solar Still Coupled with Solar Collector
B-21	<i>Himanshi, Rohit Jasrotial</i>	Photocatalytic Degradation of Congo Red Via Magnetic Ba _{1-x} Co _x DyFe _{12-y} O ₁₉ /g-C ₃ N ₄ Composites
B-23	<i>Dr Madhuri Gupta, Dr Vinay Tyagi, Dr Neelam Singal</i>	Development Of Ecofriendly, Biodegradable Sanitary Napkins with Bamboo and Banana Fibres
B-29	<i>Shama Parveen</i>	Influential SERS Substrate for Detection of Lead (Pb) Ions in Water for Green Environment Using Functionalized Carbon Nanotubes
B-32	<i>Aditya Srivastava, Zubair M.S.H. Khan, Shamshad A. Khan</i>	Synthesis and Characterization of Luminescent Carbon Quantum Dots for Photocatalytic Degradation of Organic Pollutants
B-39	<i>Farooq Ahmad Wani, Aaqib Ashraf Sheikh, Mohammad Isheteaque Ahmad, Mahmood Ahmad, Beni Lew, Abid Ali Khan</i>	Efficacy of Micro-Aerobic Up-flow Sludge Blanket (MAUSB) Reactor for the C, N and P Removal
B-40	<i>Shubhangini Kumari, Dr. Deepali Singh, Dr. Vandna Singh</i>	Eco-Friendly Synthesis of Copper Nanoparticles from Kahwa Tea Leaves for Efficient Dye Removal
B-46	<i>Abhay Sahil Paul, Saima Habib Khan, Shaziya Siddiqui</i>	Enhanced Congo Red Dye Adsorption Using Functionalized Biochar from Neolamarchia cadamba Leaf Extract
B-60	<i>Mohd Muddassir</i>	Electric Vehicle Battery Recycling in India: Opportunities and Challenges
C-8	<i>Sumaiya Parveen, Ajeet Kumar Singh, Madan Singh Chauhan, Vineet Kumar Singh</i>	Unveiling the potential of Selenium-Based Tandem Cell using SCAPS-1D
C-11	<i>Maharshi Vyasa, Sumit Chowdhury, Dr. Abhishek Verma, Dr. V. K. Jaina</i>	Feasibility Study of Land-Less Alternative For Solar PV Repowering In India
C-14	<i>Anjali Devi Vasarla, Anik Sen</i>	Effect of Donors on The Organic Dye Sensitized Solar Cell with Elongated Spacers: A Theoretical Approach
C-16	<i>Pooja Rohilla, Sheetal Kumari, Ravita, Samarthy Diwakar, Rupesh Talewar, Ankur Shandilya, Kartika Maheshwari, M. Venkateswarlu Aman Prasad, A.S. Rao</i>	Colour Tuning in Sm ³⁺ Activated and Sm ³⁺ /Eu ³⁺ Co-Activated SrBi ₄ Ti ₄ O ₁₅ Phosphors For W-LED Applications
C-23	<i>Mohammad Asif Parray, Md Sarwar</i>	A Comprehensive Review on DC Microgrid Operation with Renewable Energy Sources and Energy Storage for Enhanced Reliability and Network Resilience
C-28	<i>Mohammad Adil Faizi, Abhishek Verma, V. K. Jain</i>	Study of shadow and its distribution on crop by using Solar Photovoltaic (SPV) Tree model in Agrivoltaics



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C-29	Prateek, Pranzal Kumar Sinha, SK Choubey, KP Tiwary	A Study of the effect on performance of CdS/CdTe based heterojunction photovoltaic cell with Mn ²⁺ doping in the window layer
C-36	Arya Mohan, Deepa K G	Effect of Heat Treatment in the Structural Properties of CuInSe ₂ Thin Films
C-42	Heera S, Deepa K G	Studying the Surface Wettable Nature of DC Sputtered TiO ₂ Thin Films
C-48	Owais Fayaz, Prof. Zishan Husain, Dr. Navaid Z. Rizvi	Emerging Energy Systems Integrating Solar-Wind Power with Wireless AC/DC Conversion Technology
C-49	Mohammad Aatif Usmani, Md. Shahbaz Alam, Faizullah Khan Ajmeri, Prof. Zishan H. Khan, Dr. Faheem Ahmed	Life Cycle Assessment of Solar PV Technologies
C-50	Mariam Ahmad	Thin film Photovoltaic Building Façade: An Efficient and Smart Building Material
C-51	Kumar Lakhan, Mahe-Noor Fatima	Fabrication And Characterization of Flexible Piezoelectric Composite Film KNN-Li/ZnO/PVDF For Energy Harvesting Application
C-56	Avijit Paul, Indranil Dutta, Ratan Mandal	Analytical Study of the Efficiency of CdS/CuxS Based Thin Film Solar Cells Using MATLAB Platform
C-58	Sayak Halder, Ratan Mandal	Comparison of Structural and Optical Properties of CuO as Electron Transport Material of a Perovskite Solar Cell Using Chemical Bath Deposition and SILAR Method
C-65	Nikki Bharadwaj, Ishita Kapil, Pinky Yadav, Ayana Bhaduri	An insight into SnO ₂ nanoparticles: Synthesis and Applications

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A-2	Soni Gangwar, Sundar Singh, Vinod K. Gangwar	Investigation on the thermoelectric and magnetotransport characteristics of BiSbTe ₃ Topological Insulator
A-3	Ali Saleh Hussein Alqushaibi, Md Sharique Azmi, Ali Saleh Hussein Alqushaibi	Critically Analysing Excavator Bucket In Three Different Static, Dynamic Pressuring Condition Through Finite Element Method
A-4	Rohit Duglet, Mahavir Singh	Detailed Analysis of Structural, Optical, Electrochemical, Magnetic and Electromagnetic Properties of Bismuth and Zinc doped Magnesium Nano-Spinel Ferrites
A-5	Saurav Kumar Maitya, Upladhi Tyagi, Gulshan Kumara	Unveiling Nature's Potential: Exploring Biodegradable Polymer Substrates for Flexible Electronics
A-6	Nand Kishor, Amar Kumar	Study the pressure dependence melting temperature for some metals using Lindemann's Melting Law.
A-8	Anchal Rana, Ayush Aggarwal, Swati Varshney	A Roadmap of Sustainable Technologies to save environment
A-9	Tausif Kamal, Balaji Birajdar	Non-aqueous Auto-combustion Synthesis and Characterization of (Fe, Ag) Codoped ZnO Nanoparticles
A-10	Ritika Bhatia, Rahma Saroor, Zarka Malik, Antara Chakraborty, Mani Singh	Evaluating Indoor Air Quality: Green vs. Conventional Buildings
A-11	Amad Ashraf Ansaria, Mansour A.S. Salema, Aadil Shafi Bhata, Amjad Mumtaz Tahir Khana	Synthesis And Characterization of Ni@Uio-66 Metal-Organic Framework for Fluorescence Detection of Heavy Metal Ions in The Aqueous Phase
A-12	Md Sharique Azmi, Ali Saleh Hussein Alqushaibi, Md Sharique Azmi	Performance Analysis of Nano Additive Reinforced Lubricants For Journal Bearings
A-13	Nishant Poras, Dr.Navaid Zafar Rizvi, Dr.Pradeep Tomar, Dr.Mange Ram Nagar	Design And Implementation Of Solar-Powered MEMS Capacitor-Based CMOS Low Noise Amplifier For IoT Applications
A-14	Nishant Poras, Dr.Navaid Zafar Rizvi, Dr.Pradeep Tomar, Dr.Mange Ram Nagar	Design And Performance Analysis Of Solar-Powered Inductor-Less CMOS Low Noise Amplifier
A-15	Deepak Asthana	Triplet-Triplet Annihilation-based Photochemical Photon Upconversion of Low Intensity Light
A-16	Kanika Mahajan, Dr. Ishan Choudhary	Preparation and UV Study of Green Synthesized ZnO Nanoparticles from Vitis Vinifera
A-17	Neha Lalotra, Kimi Sharma, Vishiv Kirti, Kamni	Impact of Dy ³⁺ Doping on Structural and Optical Investigations of Li ₂ NaPO ₄ phosphor
A-18	Prakash Khatri, N. P. Adhikari	Theoretical Insights on Mechanical and Thermoelectric Response of 18-Valence Electron Half-Heusler Tellurides XFeTe (X=Ti, Hf)
A-19	Bitupon Borah	Deep Ecology—A Deep Green Energy Transition for Sustainable Development
A-23	Priyanka Yadav, S. K. Sharma, Shipra Mital Gupta	Impact of Preparation Procedure on Thermo-Physical Properties of Eg/Water (50:50) Based CNT Nanofluid
A-25	Kanika Raj, Rohit Jasrotia	Influence of Cobalt Doping on The Properties of Magnesium Ferrite for Potential Environmental Applications
A-26	Nikhil Jaswal, Rohit Jasrotia	Analysing The Effect of Samarium Dopant on The Properties of Magnesium Ferrite for Potential Environmental Applications
A-27	Garima Narwal, Dr. Neha Verma, Dr. Gulab Singh	Green Synthesis of Copper Nanoparticles using Callistemon leaf extract, its Characterisation and antibacterial activity





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A-28	<i>Amresh Kumar Ray, Choudhury Arjya Kumar Mishra, Prem P Bharti</i>	Sustainable Energy Policies in India: A Comprehensive Overview
A-29	<i>Asrar Ahmad, Ajay B. Shelke, Ajoy Kapat</i>	Synthesis of Efficient Initiator via Base Catalysed Sequential Conjugate Addition Reaction: Application in Photoinduced Radical Polymerisation
A-30	<i>Kirti, Anshu Gaur, Preeti, Md. Ahamad Mohiddon</i>	Structural and Dielectric Properties of Lanthanum and Gadolinium Commodified PZT Ferroelectric Ceramics
A-31	<i>Shailja Pandey, Surender Kumar Sharma, Shipra Mital Gupta</i>	Colorimetric Sensor of Mercury (II) Ions in Aqueous Samples Based on Polyvinyl Pyrrolidone Capped Silver Nanoparticles
A-32	<i>Neethu Joseph, Aleena Ann Mathew, Manoj Balachandran</i>	Bandgap Tailoring in N-Doped Polymer Nanomaterials and its Non-Biocidal Strategies
A-33	<i>Preeti, Anshu Gaur, Shivam, Md Ahamad Mohiddon</i>	An Investigation of Structural, Morphological and Dielectric Characterization in Bismuth Sodium Titanate Composite with Co-Modified Nickel and Strontium
A-34	<i>Mohammad Imran Aziz, Quddus Khan</i>	Machine Learning of Localized Vibrations in The Perturbed Lattice of Square Tellurene and Selenene
A-35	<i>Monika Tiwari, Akhileendra Pratap Singh</i>	Design of Wide Band Innovative Amplifier for Broadband Communication System
A-36	<i>Mohammad Asif Adeeb, Azam Raza, Swaleha Naseem</i>	Enhanced structural, thermal, and dielectric properties of GO/Cu@Fe ₂ O ₃ nanocomposite using egg albumin and its applications
A-37	<i>Md. Imran Alam, Munawar Nawab Karimi</i>	A Numerical Study of The Impact of Boundary Conditions on PCM-Embedded and Perforated Heat Sink
A-38	<i>Md. Imran Alam, Munawar Nawab Karimi</i>	A Numerical Study of The Impact of Different Circular Hole Sizes On PCM-Embedded and Perforated Heat Sink
A-39	<i>Anwar Ahmad, Vikash Singh, Syed Aqeel Ahmad</i>	Utilizing Rock Dust Powder for Subgrade Soil Stabilization: A Sustainable and Cost-Effective Approach
A-40	<i>Purnima Justa, Nancy Jaswal, Sundar Singh, Vijay Bahadur, Ambika Kumar, Pramod Kumar</i>	Drug-encapsulated optically and magnetically active amine-functionalized silica shell and magnetite (Fe ₃ O ₄) nanocomposite and its application in magnetically targeted drug delivery
A-41	<i>Aleena Ann Mathew, Neethu Joseph, Manoj Balachandran</i>	Facile synthesis of Nitrogen-doped Polymer Nanomaterials and investigation of their Optical properties
A-42	<i>Faizul Qamar, Surbhi Sharma and Shakeel Khan</i>	Influence of Cu doping on Structural, Optical and Dielectric Properties of NdFeO ₃
A-43	<i>Mehamalani V, Divya Kaushik, Ritu Srivastava</i>	Synthesis Of Metal Organic Framework (ZIF-8) For Optoelectronic Applications
A-44	<i>Jitesh Sachdeva, Ankush Dewan, Yogita Kalra</i>	Tunable Graphene Metamaterial Absorbers: Tailoring Absorption with Fermi Energy
A-45	<i>Wasia Khanam, Nidhi C. Dubey</i>	A Greener Approach for Laccase Immobilization on Cost Effective Diatomaceous Earth
A-46	<i>Ishita Kapil, Pinky Yadav, Sachin Vats, Ritik Kumar, Gaurav Sharma, Chinmay Kumar Mohanty, Sambhu Nath Bera, Ayana Bhaduri</i>	Green Synthesis of Nickel Oxide Nanoparticles Using extract of Azadirachta indica Leaves, Psidium guajava leaves and Allium cepa Peels: A Comparative Study
A-48	<i>Kalpana Sharma, Vineet Sharma</i>	Enhanced Thermal Stability in Sb-Se-Bi Alloys
A-49	<i>Rosy, Md. Ahamad Mohiddon</i>	Structural and Di-Electric Properties of Gadolinium & Potassium Co-modified BNST Ferroelectric Ceramics
A-50	<i>Aniruddh Pratap Singh, Jeetendra Kumar Gupta, Yati Sharma</i>	The influence of microplastics and nanoplastics on inflammatory bowel disease: A growing health issue
A-53	<i>Md Rizwan, Asfar Ali Khan, Suhaib Ahmad Khan</i>	Enhancement of AC Breakdown Voltage of Magneto Nanofluids Incorporating CO ₂ O ₄ Nanoparticles
A-54	<i>Tusar Kanti Tripathy, Sashi Bhusan Raut</i>	Making outdoor spaces biophilic: A climatic control mechanism to enhance well-being of IT office employees
A-55	<i>Himani Sanjay R. Dhakate, Kiran M. Subhedar</i>	Detection of Pesticide Thiram: Shape and Size Dependent Raman Enhancement
A-56	<i>Nilofar Naaz, Sruthi Sudhakaran, Sanket Goel, Kannan Ramaswamy</i>	Effect Of Mn Doping On The Electrical Conduction Properties Of BiFeO ₃ ThinFilms
A-57	<i>Gourab Kumar Das, Nilofar Naaz, Kannan Ramaswamy, Parikshit Sahatiya</i>	Effect Of Erbium Substitution On The Structural, Morphological, And Optical Properties Of Bismuth Ferrite Thin Films
A-58	<i>Sukhanidhan Singh, Sujeet Kumar, P. M. Sarun</i>	Scaling Behaviour, Impedance And Modulus Study Of CaCu ₃ Ti ₄ O ₁₂ Electroceramic At A Moderate Temperature Range
A-59	<i>Sanju Meena, Jyotika Jogi</i>	Electronic Structure of Monolayer MoSi ₂ N ₄ : A First -Principles Calculations Using DFT+ Hubbard U Approximations
A-62	<i>A.V. Sudhamshu, Sooraj Anto Dennis, Aleena Ann Mathew, Joselyn Elizabeth Abraham, Manoj Balachandran</i>	Efficacy of Polyaniline-Based Antibacterial Agent against Gram-Positive and Gram-Negative Bacteria
A-64	<i>S. R. Bhandari, M. Zeeshan, V. Gusain, K. Shrestha, D. P. Rai</i>	Electronic Structure, Z ₂ Invariant and Fermi Surface of CsV ₃ Sb ₅ using Density Functional Theory (DFT)





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A-66	<i>Harshiitha. D, Renuka C G</i>	Anthocyanins of Floral Petals: A Novel Approach on Fluorescence Enhancement, Forster Resonance Energy Transfer Studies for Optoelectronic Applications
A-67	<i>Mriganki Singh, Rugma T P, Shiny Golda A, Bernaurdshaw Neppolian, Mu. Naushad, Sandeep Kumar Lakherea</i>	Selective Vanadium Etching and In-Situ Formation of δ -Bi ₂ O ₃ on m-BiVO ₄ with g-C ₃ N ₄ Nanosheets for Photocatalytic Degradation of Antibiotic Tetracycline
A-68	<i>Mahmood Ahmad, Mohammad Ishteyaque Ahmad, Aaqib Ashraf Sheikh, S. Shakil Afsar, Abid Ali Khan</i>	Response of Media/inocula to Anaerobic Ammonium Oxidizing Bacteria and Phosphate Accumulating Organisms Growth
A-69	<i>Rajendra Puni Macharia, Dr. Navaid Zafar Rizvi</i>	Innovative Approaches and Strategies for Realizing a 100% Renewable Energy Grid
A-70	<i>Nahid Akhtar</i>	Rural Health and Economy Analysis in medical 4.0 Environment: A Design Criteria
A-71	<i>Sushmita, Deepa Prabhu</i>	A Review of Advanced Coating Materials for Sustainable Corrosion Inhibition in Marine Environment
A-72	<i>Mohd Waseem, Dr. Akil Ahmed, Dr. Mohd Shariq, Dr. Mohammad Saleem</i>	Durability Performance of Geopolymer Concrete in Different Conditions
A-73	<i>Sandra Winnie Angelo, Tabish Rasheed</i>	Designing And Investigations Of Oligomeric Organic Semiconducting Molecular Systems For Efficient Organic Field Effect Transistor
A-74	<i>Neelam Minhas, Gh Mustafaa, Harjot Singha, Kanwalpreet Kaur, Navjot Kaur, Gurinder Singh, Aman Kaur, J K Goswamy</i>	Investigating The Impact of Li/Na-B Co-doping and Nitrogen Vacancy on Optoelectronic Properties of g-C ₃ N ₄ : DFT and NAMD Study
A-76	<i>Zeeshan Saifi</i>	Feature Extraction of Electric Double Layer in Colloidal Particles of Fruit Juice Suspensions through Dynamic Light Scattering and its Application in Performing Instant Quality Checks
A-77	<i>Firdaus Ali, Kamala Pati Tiwary</i>	X-Ray Diffraction Analysis of using Williamson-Hall Method and Optical Analysis of Zn _{1-x} Cu _x S Nanoparticles
A-78	<i>Amit Sahu, Mohammad Zunaid, Rajesh Kumar</i>	Flow of Colloidal Nanoparticles in Convergent-Divergent (C-D) Microchannels
A-79	<i>Sharika Afreen, Daud Ahmad Ansari, Shahid Husain</i>	A Study of the Structural, Morphological, and Magnetic Properties of the Gd-Cu Co-Doped Cobalt Oxide
A-80	<i>Riyaz, Wasi Khan</i>	A Study of Structural and Microwave Absorption Properties of Ba _{1-x} NdxFe ₁₂ O ₁₉ (x = 0, 0.10, 0.20)
A-81	<i>Sumit Kumar, Amit Kumar Singh Chauhan, Govind Gupta</i>	Substrate Temperature Influence on Structural and Optical Properties of MoO ₃ Deposited by CVD Method
A-82	<i>Vijay S. Sharma, Rajesh Kumar, R S Mishra</i>	Advancing Green Building Design: Comparative Thermal Analysis Of Cellulose Fiber And Polyurethane Foam Thermal Insulation Through Simulation Model
A-83	<i>Mohd Muzzammil</i>	Green Buildings
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A-85	<i>Abhiram Shukla</i>	From Standards to Sustainability: A Framework for Evaluating Green Buildings
A-86	<i>Mohd Sarvar, Shah Masheer ul Aalam, Islam Uddin, Javid Ali</i>	Dynamic Performance of ZnO Gated CNTFET
A-87	<i>Mohd Zeeshan, B. K. Mani</i>	Low Lattice Thermal Conductivity Driven Promising Thermoelectric Figure of Merit In NaSrSb And NaBaSb Zintl Phases
A-88	<i>Anjali Panwar, Yogita Yadav, Vikas Malik, Subhendra D. Mahanti, Neeleshwar Sonnathi and Anjana Bagga,</i>	Oscillatory behavior of electrical conductivity in disordered array of quantum dots
A-89	<i>Anjali Saini, Mohindar S. Seehra, Mukesh K. Bairwa, Gowrishankar Ramadurai, Subhash Thota, Arun Kumar, Sachin Dev, Harshita Singh, Arpita D. Singha, Chandra S. Gantepogu, Neeleshwar Sonnathi</i>	Enhanced Room Temperature Ferromagnetism in Mn ₄ Si ₇ and Mg _x Sn _{1-x} Se Nanoparticles Synthesized by Optimized High-Energy Ball Milling
A-90	<i>Ankur Mishra, Mohammad Salman Khan, Reeba Mary Thomas, Gautam Porwal, Sultan Ahmad, Zishan Husain Khan</i>	Stability Studies on As-Synthesised Cs-Based Halide Perovskite
B-1	<i>Mohit Kumar, Raju Kumar, Rohit Arora, Pratibha Chanana, Azad Singh, Shweta Gupta</i>	<i>Biosorption of Heavy Metals From E-Waste Using B.Subtilis</i>
B-2	<i>Poonam, Krishna Kanta Haldart, Sourabh Barua</i>	Excellent OER Electrocatalyst, SrCoO ₃ Prepared by Sol-Gel Method
B-3	<i>Xavier T S, Merin Tomy</i>	Enhanced adsorption performance by mesoporous activated carbon: A dye removal approach
B-4	<i>Ankita Manchanda, Tabrez Alam Khan, Saif Ali Chaudhry</i>	Multifunctional Magnetic ZnCl ₂ Activated Glycyrrhiza glabra Biochar Nanocomposite for Wastewater Remediation: Equilibrium Isotherm, Kinetics, and Thermodynamics Investigation





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B-6	Kuldip M. Kukadiya and Tejas P. Joshi	The significant role of AZMNDBs-PCE as a current collector in rechargeable batteries for improving energy and power density
B-7	Sachin Sharma, Sanjeev Kumar, N. S. Negi	Enhanced Efficient Energy Storage and Electrocaloric Effect Achieved Through Morphotropic Phase Boundary Evolution in Lead-Free (Ba0.95Ca0.05) (Ti0.91Sn0.09)O3 Ferroelectric Ceramic
B-8	Swati Varshney	An overview of Techniques to Convert Plastic Waste to Energy
B-10	Pardeep Malhotra, Sanjeev Kumar, N. S. Negi	Structural, Electrical and Energy Storage Properties of K0.5 Na0.5 NbO3 Synthesized by Sol- Gel Combustion Method
B-12	Shubham	Sweet Sorghum [Sorghum Bicolor (L). Moanch]: A Potential Crop in Arid And Semi-Arid Region For Ethanol Production In A Sustainable Manner
B-13	Dr. Vandana Agrawal	Urban Water Management Through Green Infrastructure
B-15	Ujjwal Kumar, Sanjeet Kumar Paswan, Pawan Kumar, Lawrence Kumar	Rietveld Refinement and Electrochemical Properties of Nanocrystalline LaMnO3 for Supercapacitor Application
B-17	Vinay Kumar Dhiman, Bheem Singh, Govinda Chandra Behera, M. Senthil Kumar, Somnath C. Roy, Vivek Kumar Shukla, S. S. Kushvaha	Growth of ZnSe thin film on Mo Metal Foil for Solar Water Splitting Application
B-18	Dr. Jaiby Joseph, Dr. Mercy Mathews	Functionalization of Graphene Oxide Through Direct and Post Synthesis Methods for Energy Storage Applications
B-19	Dr. Jaiby Joseph, Dr. Mercy Mathews	Post-Synthesis Functionalization of Graphene Oxide and Production of Cobalt Nanocomposite for Energy Storage Applications
B-20	Jyoti Prakash, Rohit Jasrotia	High Performance Green Hydrogen Generation Promoted by Nickel Substituted Cobalt Ferrite Nano catalysts
B-22	Sunita Maurya, Yogesh Chandra Sharm	Green & Facile Synthesis of Solketal as An Oxygenated Fuel Additive Using Acid Catalyst from Bio-Waste Glycerol
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B-25	Mansi Rana, Shivani Dangwal, Charu Dwivedi, Himani Sharma	Innovations In Photocatalysis: Exploring the Bivo4 Wo3 Hybrid System for Efficient Degradation And Electrocatalytic Activity
B-26	Kaustav Jit Bora, Aloka Sinha	Liquid Crystal-Polymer Composites: A Novel Approach for Enhanced Piezoelectric Energy Harvesting
B-27	Shubhangini Kumari, Dr. Deepali Singh, Dr. Vandna Singh	Eco-Friendly Synthesis of Copper Nanoparticles from Kahwa Tea Leaves for Efficient Dye Removal
B-28	Sakshi Choudhary, Gita Rani	Green Synthesis of Silica Nanoparticles from Biomass for Dye Degradation
B-30	Ravi Kumar Chopdar, Namrata Sengar	Innovative Agrivoltaics Solutions for Climate-Resilient Farming in The Indian Subcontinent
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B-33	Vishnu Sankar Sivasankarapillai, Ragupathy Dhanusuraman	Multifunctional Biomass Derived Activated Carbon with Hierarchical Porosity: Investigation of Energy Storage & Dye Removal Applications
B-34	Abhishek Kumar, Rajesh Kumar	Enhancing Water Sustainability Through Conical Solar Still Technology: A Comprehensive Review
B-35	Samroot Samreen Wani, Malik Parveez	Quality and Potential Assessment of Sewage Sludge for Clean Energy Utilization: A Study From Srinagar City
B-36	Afsar H. Rizvi, Mohd. Azhar Aziz, Absar Ahmad	Maximizing energy storage with CoWO4@MWCNTs nanocomposite electrodes: Enhanced wide potential window for supercapacitor
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B-41	Azra Parveen, Mohammad Zaid	Study of Electrical Conductivity and Photocatalytic Activity of Iron Doped CuAlO2 Nanoparticles for Energy Harvesting and Storage
B-42	Amir Usmani	CBG Production Have the Potential for the Emergence in a Localized Industry
B-43	Sultan Ahmed, M. A. Gondal, Javed Alam Khan, Ahsan Ahmed, Shahir Hussain, Islamuddin	Albizia leaves derived activated carbon for high-performance supercapacitor
B-44	Amrath KA, Musavvir M.P, Dr Navaid Zafar Rizvi, Dr Faheem Ahmed	Design and Implementation of Cylindrical Lithium-Ion Batteries for Enhanced Durability and Efficiency





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B-48	<i>Dharmendra Kumar, Shweta Mukherjee, Avirup Das</i>	Polymer Blend-Based Solid Polymer Electrolyte, a Unique Approach to Achieving High Ionic Conductivity and Voltage Stability
B-49	<i>Taskeen Fatma, Zubair M.S.H. Khan, Shabeena Saifi, Mohd. Zulfeguar</i>	Synthesis of ZnO Nanoparticles from Greener Route for its Application in Photocatalytic Degradation of Methylene Blue
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B-51	<i>Md Shaquib Equal, Irfan Habib, Abdullah,</i>	The potential of hybrid energy storage system for decarbonization of electricity grid and mitigating peak power demand
B-52	<i>Md Shaquib Eqbal, Irfan Habib, Md Afgha Anwar, Nikita Kumari</i>	The potential of hybrid energy storage system for decarbonization of electricity grid and mitigating peak power demand: A Techno-economic comparative analysis
B-53	<i>Sonia Yadav, Dr. Anurag Prakash Sunda</i>	Investigating The Effect of Scaled Charges and Full Charges on Betaine-Based Ionic Liquids Behaviour: Atomistic Simulation-Based Approach
B-54	<i>Parul, Anurag Prakash Sunda</i>	Hydration Effects on Structural and Dynamical Properties of Nafion-Based Anion Exchange Membrane: A Molecular Dynamics Study
B-55	<i>Mahmood Ahmad, Farooq Ahmad Wani, Aaqib Ashraf Sheikh, Mohammad Ishteyaque Ahmad, S. S. Afsar, Beni Lew, Vasileios Diamantis, Abid Ali Khan</i>	Effect of Micro-Aeration on Removal of Organics and Nutrients Using Bio-carriers in Micro-Aerobic UASB (MUASB) Reactor Treating Sewage
B-56	<i>Rajesh Kumar</i>	Adsorptive Removal of Organic Dye (Methylene Blue) Pollutant from Water by Novel WO ₃ /MoO ₃ Nanocomposites
B-57	<i>Huma Khan, Dr. Navaid Zafar Rizvi, Prof. Gauhar Mahmood</i>	Feasibility and Design of Sustainable Water Body in Non-Sustainable Areas of the Himalayan Foothills
B-58	<i>Manas Kohli, Anshika Singh, Manika Khanuja</i>	Synthesis and Characterization of Fe-Cu/g-C ₃ N ₄ Nanocomposites for Enhanced Photocatalytic Degradation of Organic Dyes and Antibiotics
B-59	<i>Anshika Singh, Manas Kohli, Manika Khanuja</i>	Enhancing Environmental Sustainability: Photocatalytic Degradation of Pollutants Using Novel G-C ₃ N ₄ /V ₂ O ₅ Nanocomposite
B-61	<i>Reeba Mary Thomas, Asim Khan, Mohammad Salman Khan, Ankur Mishra, Sultan Ahmad, Mohammad Bilal Khan, Faheem Ahmed, Zishan Husain Khan</i>	Facile synthesis of Perovskite-like Magnesium Zirconate (MgZrO ₃) nanostructures for Photocatalytic Degradation of Organic Dyes
B-62	<i>Mohammad Salman Khan, Asim Khan, Ankur Mishra, Reeba Mary Thomas, Sultan Ahmad, Mohammad Bilal Khan, Faheem Ahmed, Zishan Husain Khan</i>	Visible Light Photocatalytic Performance of lead-free mixed halide Double Perovskite Nanocrystals
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C-2	<i>Swati Singh, Shivank, Karan Surana, B. Bhattacharya</i>	Low-cost natural dye extracted from Marigold flower as sensitizer in DSSC
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C-5	<i>Shweta Yadav, R. K. Chauhan, Rajan Mishra</i>	Investigating Earth-Abundant Kesterite Solar Cells: A Comparative Assessment of CZTS/CZTSe/CZTSSe Absorber Layers Using SCAPS-1D
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C-10	<i>Bidisha Das, Partha Pratim Dutta.</i>	A Review on Current Status and Challenges of Phase Change Materials and Its Low Temperature Solar Thermal Applications
C-12	<i>Anamika Kem, Koteswara Rao Peta</i>	Rare Earth Ions (Sm ³⁺) doped ZnO Nanoparticles for reduction of charge recombination in Electron Transport Layers for Organic Solar cells applications
C-13	<i>Sumit Chowdhury, Maharishi Vyas, Abhishek Verma, VK Jain</i>	Portable Solar Tree For The Street Vendor in India
C-15	<i>Devdutt Singh, Vinayan Bhardwaj, Dr B.K. Pant, Sujit Pillai</i>	Optimization Of Texturization Parameters For Enhanced Efficiency Of PERC Type Solar Cell Produced Using Diamond Wire Saw Wafers
C-17	<i>Ishika Gupta, Archana Chaurasiya, Arham Sharjeel, Alok Vishwakarma, Shweta Yadav, R. K. Chauhan</i>	Study of Non-Toxic, Highly Efficient Photovoltaic Cell CsSnCl ₃ Perovskite Structured Using Device Simulation





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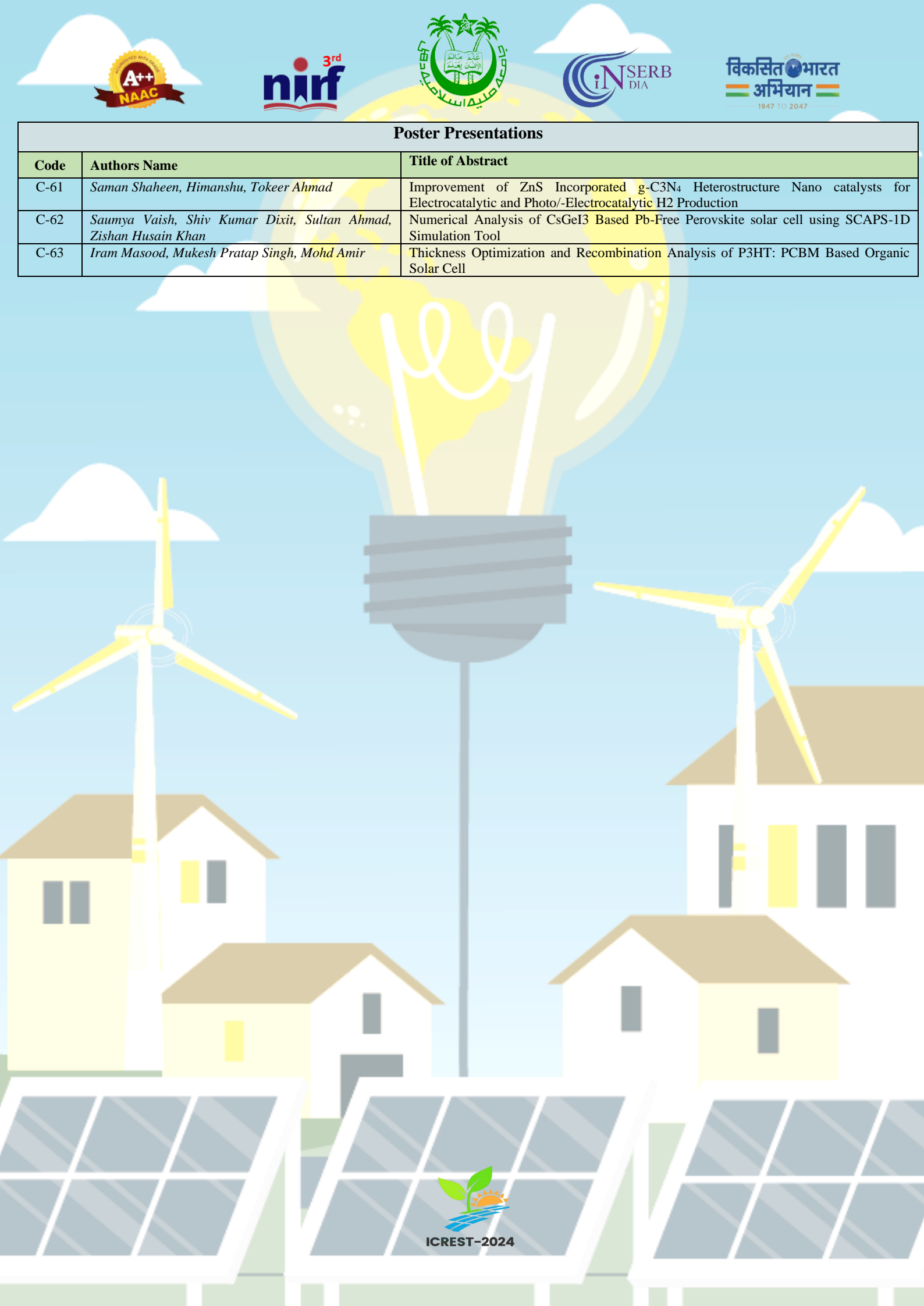
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C-20	Anju Rani, Mrinal Dutta, Chander Shekhar, Ayana Bhaduri	Effect of Highly Doped P+ CdTe Layer on The Performance of CdTe/CdS Solar Cells Modeled by SCAPS--1D
C-21	Harjot Singh, Neelam Minhas, GH Mustafa, Gurinder Singh, J K Goswamy	Theoretical Investigation of Electronic and Optical Properties of Lead-Based Perovskite Solar Cells
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C-26	Nidhi Singh, Anchal Srivastava, Navina Wadhvani, R. K. Shukla, K. C. Dubey	Enhanced Conversion Efficiency In FAMASnGeI3/MASnBr3 Based Perovskite Solar Cells Through Parameters Optimization Via SCAPS-1D Simulation
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C-32	Abhishek Kumar, Rajesh Kumar	The Effect of Nanofluids in Solar Distillation Systems: A Comprehensive Review
C-33	Rashmi Meena, Siddhartha Lahon, Rinku Sharma	Comparative Study of Tunneling Magnetoresistance in Spin FET based On InAs and GaAs
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C-37	Tabish Rasheed, Sandra Winnie Angelo, Anubhav Raghav, Yarramaneni Sridharbabu	Fabrication of Dye Sensitized Solar Cells Based on Jaipur Dyes
C-38	Keval Parmar	Design and Simulation of On-Grid & Off-Grid Solar PV System
C-39	Priyanka Meena, Namrata Sengar, Yogesh Kumar	Advancements and Integration Strategies: Supercapacitors in Tandem with Solar Panels for Enhanced Energy Harvesting and Storage
C-40	Sahid Ashraf	Non-Traditional Power Generator
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C-43	Md Afghan Anwar, Ahteshamul Haque, Suwaiba Mateen	Challenges for the Integration of Distributed Renewable Energy in Grid Connected Systems and its Reliability
C-44	K. Mohammed Salman, Mohamed Zikriya, C.G. Renuka	2D Multilayered ZnO/MgO Thin Film Heterostructures for Photovoltaic Applications
C-45	Nadeem Sarwar, MD Tanveer Alam, Afreen Khurshid, Mohammad Atif Usmani, Prof. Zeeshan Hussain, Dr. Faheem Ahmed	A case study on Green Hydrogen Production, Hydride based Hydrogen Storage and Transportation
C-46	Diksha, Shrestha Bhattacharya, Riya Bansal, Meenakshi, Ashutosh Pandey, Prathap Pathi, Vamsi K. Komarala, Sanjay k. Srivastava	Significant enhancement in surface passivation property of micro-textured Si surface with thin i-a-Si:H layer
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C-52	Mohammad Saleem, Mohd Waseem, Gauhar Mahmood, Shobha Ram	Aquifer Modeling for Rain Water Harvesting in Greater Noida Region (U.P.)
C-53	Noor Zaman Khan, Annayath Maqbool, Arshad Noor Siddique	Advancements in Magnesium-Based Alloys for Hydrogen Storage: A Comprehensive Review
C-54	Rajni Rohilla, Hukum Singh, Tabish Rasheed, Anubhav Raghav	An Investigation of a Dopant Free Hole Transport Layer for Perovskite Solar Cell Using DFT and SCAPS-1D
C-55	Gh Mustafaa, Neelam Minhas, Harjot Singha, Janpreet Singh, Gurinder Singh, Aman Kaur, J K Goswamy	Passivation Mechanism of Bromine Vacancies in CsPbI2Br Perovskites through Germanium Doping: First Principles DFT and NAMD Simulations
C-57	Aman Gupta, Sandeep Tiwari, Kaushal Rajput, Muhammad Ahmad Haque	Advanced Diagnostic Techniques for Evaluating Photovoltaic Module Performance and Integrity
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C-60	Mohd Muzzammil	Smart Power Grid





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C-62	<i>Saumya Vaish, Shiv Kumar Dixit, Sultan Ahmad, Zishan Husain Khan</i>	Numerical Analysis of CsGeI ₃ Based Pb-Free Perovskite solar cell using SCAPS-1D Simulation Tool
C-63	<i>Iram Masood, Mukesh Pratap Singh, Mohd Amir</i>	Thickness Optimization and Recombination Analysis of P3HT: PCBM Based Organic Solar Cell



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