



27th – 30th October 2026
IIT Kharagpur Research Park, Kolkata, India



IASTA 2026

National Conference on Aerosol Science & Technology

**Aerosols for a Sustainable Future:
Bridging Climate, Air Quality, and Health**

ORGANIZED BY

Indian Institute of Technology Kharagpur (Platinum Jubilee Conference)
& Indian Aerosol Science and Technology Association

MESSAGE FROM THE CONVENER



IASTA-2026 will showcase significant contributions to aerosol science and technology in India, informing science-based policy decisions. Because aerosols are short-lived pollutants, their mitigation can deliver rapid and visible climate-health co-benefits. Realizing these outcomes, however, demands the systematic application of scientific approaches to design and implement effective mitigation strategies.

Prof. Shubha Verma

Convener, IASTA-2026 · IIT Kharagpur

It gives me immense pleasure to welcome you to IASTA-2026, the National Conference on Aerosol Science and Technology, at the IIT Kharagpur Research Park, Kolkata. It is a distinct honour to host this event under the auspices of IIT Kharagpur's Platinum Jubilee celebrations, jointly with the Indian Aerosol Science and Technology Association (IASTA). We are grateful for your presence in these historic celebrations, marking a milestone for IIT Kharagpur and the advancement of aerosol science.

Aerosols are solid or liquid particles suspended in the atmosphere, spanning scales from nanometre clusters to coarse dust and sea spray. Originating from both natural and anthropogenic sources, they differ from greenhouse gases by exerting strong regional impacts due to their short lifetimes and diverse origins. Elevated concentrations of airborne particles, driven by unsustainable human activities, are now recognized as critical hazards, altering climate, degrading air quality, reducing visibility, and posing serious risks to human health.

There is now clear evidence of the impacts of anthropogenic aerosol particles on altering the Indian monsoon rainfall, accelerating glaciers snow-melt runoff, and adding to rising health burdens, both outdoors and indoors. Air quality frequently exceeds unhealthy thresholds, dominated by particulate matter (PM₁₀, PM_{2.5}) from combustion sources and dust transport.

Toxic combustion-derived black carbon particles pose heightened health risks. Effective mitigation must prioritize these emissions, leveraging aerosols' short atmospheric lifetimes for rapid climate and health co-benefits. Indoor air quality adds another dimension, with pollutant levels indoors often surpassing outdoor concentrations, contributing to respiratory illness, allergies, reduced productivity, and long-term health risks.

Advancing aerosol science and designing mitigation strategies requires robust measurements, technological innovation, advanced modelling, and strong computing infrastructure. Remote sensing through ground-based and satellite observations, combined with comprehensive modelling, is essential to address region-specific challenges and ensure self-reliance in tackling atmospheric pollution, air quality and climate issues.

IASTA-2026 brings together researchers, technologists, policymakers, industry professionals and students to address these challenges.

I am especially keen that our research scholars and early-career scientists make the most of these four days, learning from domain experts, identifying high-impact research directions and building lasting collaborations.

I thank our patrons, committees, sponsors and supporters, and every delegate for being part of IASTA-2026, and wish you a stimulating and memorable conference in the City of Joy.

★ ABOUT IASTA-2026

📅 27th to 30th October 2026

📍 IIT Kharagpur Research Park, Kolkata

IASTA 2026, the premier national conference on aerosol science and technology, will bring together leading scientists, researchers, academicians, industry professionals, policymakers, and young researchers from across India to deliberate on the latest advances, emerging challenges, and future directions in aerosol science and technology. The conference will provide a national platform for showcasing cutting-edge research, indigenous capabilities, innovative technologies, and their applications across diverse sectors including air quality, climate, health, energy, environment, and nuclear science. The scientific programme features plenary and invited lectures, technical sessions, contributed oral and poster presentations, and focused workshop covering the breadth of contemporary aerosol research. Special sessions will facilitate interaction among academic institutions, national laboratories, government agencies, industry, pollution control boards, and other stakeholders, with emphasis on translating scientific knowledge into technological solutions and informed policy. IASTA 2026 will also provide a vibrant forum for networking, knowledge exchange, capacity building, and fostering collaborations among the Indian aerosol research community. Particular emphasis will be placed on encouraging young scientists and researchers, promoting interdisciplinary research, and identifying emerging research priorities. The conference will serve as a platform to strengthen the national aerosol science ecosystem and chart future directions for aerosol research, technology development, and applications in India.

Special sessions on Energy & Climate, Aerosols & Health, and the Science–Policy Interface will provide focused platforms for interdisciplinary dialogue and discussion of emerging national priorities. The programme will culminate in the IASTA Award Ceremony, celebrating outstanding contributions to aerosol science, along with opportunities for interaction and collaboration across the four-day conference.



👤 IASTA-2026 CORE ORGANIZING COMMITTEE



Shubha Verma

Convener

Professor, IIT Kharagpur



Sachin S. Gunthe

Co-Convener

Professor, IIT Madras



Manish Joshi

Organizing Secretary

Scientist, BARC Mumbai



Abhijit Chatterjee

Chair, Local
Organizing
Committee

Professor, Bose
Institute Kolkata



Neeraj Rastogi

Chair, Technical
Program Committee

Professor, PRL
Ahmedabad

MESSAGE FROM THE PRESIDENT



*Despite this diversity of interests, we are all connected by one common term — AEROSOLS
... It is this shared foundation that allows us to proudly identify ourselves as
“AEROSOLOGISTS”.*

Prof. Neeraj Rastogi

President, Indian Aerosol Science and Technology Association (IASTA)

The Indian Aerosol Science and Technology Association (IASTA) is a professional organisation dedicated to advancing aerosol research and technology in the Indian context. Established in 1988, IASTA has been actively promoting aerosol science and technology through conferences, workshops, schools, lectures, and other scientific activities. As a member of the International Aerosol Research Assembly (IARA) and the Asian Aerosol Research Assembly (AARA), IASTA also plays an important role in fostering scientific exchange and collaboration between institutions in India and abroad.

Aerosol research encompasses a remarkably diverse range of disciplines. Some of us investigate the chemical properties of aerosols, others focus on their physical or optical properties, while many explore the fundamental processes governing their generation, transformation, transport, and removal. Our collective efforts seek to understand the multifaceted impacts of aerosols on human health, climate, air quality, the environment, and surface ocean biogeochemistry. At the same time, aerosol science has important commercial and practical applications, including in medicine and drug delivery.

Despite this diversity of interests, we are all connected by one common term – AEROSOLS. Whether our work focuses on fundamental science, environmental impacts, technological innovations, or commercial applications, we are all part of the same scientific community. It is this shared foundation that allows us to proudly identify ourselves as “AEROSOLOGISTS”. The multidisciplinary nature of aerosol science offers tremendous opportunities for cross-disciplinary learning, innovation, and collaboration.

The IASTA-2026 conference provides an excellent platform to present new research findings, exchange ideas, share knowledge, and establish collaborations that can lead to meaningful scientific advances and societal benefits. Its broad and engaging scientific programme offers exciting opportunities for researchers across disciplines to interact, learn from one another, and explore new directions in aerosol science and technology. I am particularly hopeful that young researchers will benefit from these interactions, gain fresh perspectives, and build lasting professional relationships. I sincerely hope that your participation in IASTA-2026 in Kolkata, the City of Joy, will be intellectually stimulating, scientifically rewarding, and personally memorable.

On behalf of IASTA, and on my own behalf, I extend a very warm welcome to all the delegates and participants. I wish you a highly productive, engaging, and memorable conference.



CONFERENCE PATRONS



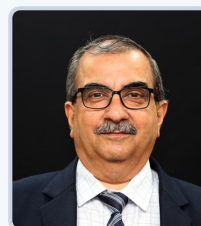
Prof. Suman Chakraborty
Director, IIT Kharagpur



Prof. V. Kamakoti
Director, IIT Madras



Prof. Pratim Biswas
Professor, University of Miami, United States



Dr. Vivek Bhasin
Director, BARC



CONFERENCE GUESTS OF HONOUR



Dr. Srinivasa Kumar Tummala
Secretary, Ministry of Earth Sciences



Dr. Dinesh Kumar Aswal
Member, NDMA



Prof. Anil Bhardwaj
Director, PRL Ahmedabad



Dr. B. Chandrasekar
Executive Director, Ministry of Education



Prof. Kaustuv Sanyal
Director, Bose Institute Kolkata



Prof. Damodar Maity
Head, Civil Engg. Dept., IIT Kharagpur



CONFERENCE PLENARY SPEAKERS



Prof. M. Sharma
IIT Kanpur
Challenges and Strategy for Abating PM_{2.5} Pollution



Prof. C. Venkataraman
IIT Bombay
Cleaning India's Air: A Roadmap from Science to Solutions



Prof. Y.S. Mayya
IIT Bombay
Modelling the Propagation of Respiratory Diseases in Indoor Spaces via Aerosol Route



Prof. S. Ramachandran
PRL Ahmedabad
Aerosol Characterization and Composition: Key Issues and Challenges

COMPLETE CONFERENCE SCHEDULE

4 DAYS • TUESDAY, OCT 27 – FRIDAY, OCT 30, 2026 • IIT KHARAGPUR RESEARCH PARK, KOLKATA

DAY 1
TUE, OCT 27

08:00 AM – 10:00 PM

08:00–09:00 AM: Arrival & Registration of Delegates

Main Foyer

09:00–11:30 AM: INAUGURAL SESSION

Chief Guest & Guests of Honour

11:30 AM–12:30 PM: Plenary Address 1

Prof. M. Sharma

12:30–01:30 PM: Invited Session (I1, I2)

Dr. Tarun Gupta • Dr. Harshal Salve

01:30–02:30 PM: Lunch Break

(Dining Arena)

02:30–03:25 PM: Panel Session 1

Approaches on Climate–Health Co–Benefits for India: Strategies and Challenges • Coord. Prof. Shubha Verma

Auditorium

03:30–04:30 PM: Sub–Panel & Orals (O2–O4)

Sub–panel: Dr. Dipanjali Mazumdar (Auditorium) • R2–R4

11 Papers

04:30–04:50 PM: Tea Break

04:50–05:10 PM: Poster Lightning (PL1–PL4)

Rooms R1–R4 • 35 talks

05:15–06:30 PM: Poster Session 1 (P1–P4)

35 Posters

06:30–07:00 PM: IASTA General Body Meeting (GBM)

Auditorium

07:00–10:00 PM: Popular Talk & Director's Dinner

19:00 Popular Science Talk • 20:00 Musical Session & Director's Dinner

DAY 2
WED, OCT 28

09:00 AM – 10:00 PM

09:00–10:00 AM: Plenary Address 2

Prof. C. Venkataraman

10:00–11:00 AM: Invited Session (I3, I4)

Dr. Sarath Guttikunda • Dr. Sachin Gunthe

11:00–11:30 AM: Tea Break

11:30 AM–12:25 PM: Panel Session 2

From Evidence to Impact: Research and Policy in Energy and Climate • Coord. Dr. Manish Joshi

Auditorium

12:30–01:30 PM: Oral Sessions (O5–O8)

Rooms R1–R4 • Leads OL5–OL8

16 Papers

01:30–02:30 PM: Networking Lunch

(Dining Arena)

02:30–03:25 PM: Panel Session 3

From Aerosol Science to Action: Aerosol Processes, Emerging Evidence, and Decision–Ready Data • Coord. Dr. Ashish Tiwari

Auditorium

03:30–04:40 PM: Oral Sessions (O9–O12)

Rooms R1–R4 • Leads OL9–OL12

17 Papers

04:40–05:00 PM: Tea Break

05:00–05:20 PM: Poster Lightning (PL5–PL8)

Rooms R1–R4 • 36 talks

05:25–06:40 PM: Poster Session 2 (P5–P8)

36 Posters

08:00–10:00 PM: Musical Session & Conference Dinner

20:00 Musical Session & Grand Conference Dinner

DAY 3
THU, OCT 29

09:00 AM – 06:40 PM

09:00–10:00 AM: Plenary Address 3

Prof. Y.S. Mayya

10:00–11:00 AM: Invited Session (I5, I6)

Dr. V. Vinoj • Dr. Abhijit Chatterjee

11:00–11:30 AM: Tea Break

11:30 AM–12:25 PM: Special Invited Corporate Session

Platinum, Gold & Silver Corporate Partners

12:30–01:30 PM: Oral Sessions (O13–O16)

Rooms R1–R4 • Leads OL13–OL16

16 Papers

01:30–02:30 PM: Networking Lunch

(Dining Arena)

02:30–03:25 PM: Visit to Corporate Booths

Exhibition

03:30–04:40 PM: Oral Sessions (O17–O20)

Rooms R1–R4 • Leads OL17–OL20

20 Papers

04:40–05:00 PM: Tea Break

05:00–05:20 PM: Poster Lightning (PL9–PL12)

Rooms R1–R4 • 34 talks

05:25–06:40 PM: Poster Session 3 (P9–P12)

34 Posters

DAY 4
FRI, OCT 30

09:00 AM – 08:00 PM

09:00–10:00 AM: Plenary Address 4

Prof. S. Ramachandran

10:00–10:30 AM: Invited Session (I7)

Dr. Ralf Zimmermann

10:30–11:30 AM: Students' Panel Session & High Tea

Career Goals in Aerosol Science and Engineering: Research, Academia, and Industry? • Coord. Dr. Reshma Mohan

11:30 AM–12:30 PM: Award Session Presentations

12:30–01:30 PM: Awards & Valedictory Ceremony

Best Oral, Poster & Lightning Awards

01:30–02:30 PM: Lunch

03:00–08:00 PM: Tour / Excursion

Guided Tour for Delegates

5 Hours

195
TOTAL abstracts

105
POSTERS

90
ORAL

4 Plenary

19 Leads

7 Invited

20 Tracks

12 Lightning

IASTA 2026

DETAILED SCHEDULE

DAY 1: INAUGURAL SESSION SCHEDULE

TUESDAY, OCTOBER 27, 2026 • CEREMONIAL INAUGURATION & DIGNITARY PROTOCOL

TIME	ACTIVITY & CEREMONIAL PROTOCOL
08:00 – 09:00 AM	 Arrival of delegates, registration, and seating of participants
09:00 – 09:05 AM	 ARRIVAL OF CHIEF GUEST & DIGNITARIES Dr. Dinesh Kumar Aswal, Member, NDMA & Dignitaries
09:05 – 09:10 AM	 Lighting of ceremonial lamp & invocation
09:10 – 09:20 AM	 WELCOME ADDRESS Prof. Shubha Verma, Conference Convener
09:20 – 09:30 AM	 ADDRESS BY PRESIDENT Prof. Neeraj Rastogi, President, Indian Aerosol Science and Technology Association (IASTA)
09:30 – 09:45 AM	 ADDRESS BY PATRON Prof. Suman Chakraborty, Director, IIT Kharagpur
09:45 – 09:55 AM	 ADDRESS BY GUEST OF HONOUR Prof. Anil Bhardwaj, Director, PRL Ahmedabad
09:55 – 10:05 AM	 ADDRESS BY GUEST OF HONOUR Dr. B. Chandrasekar, Executive Director, Ministry of Education
10:05 – 10:15 AM	 ADDRESS BY GUEST OF HONOUR Prof. Kaustuv Sanyal, Director, Bose Institute Kolkata
10:15 – 10:25 AM	 ADDRESS BY GUEST OF HONOUR Prof. Damodar Maity, Head, Civil Engg. Dept., IIT Kharagpur
10:25 – 10:40 AM	 INAUGURAL ADDRESS BY CHIEF GUEST Dr. Dinesh Kumar Aswal, Member, NDMA
10:40 – 10:45 AM	 RELEASE OF PROCEEDINGS IASTA-2026 Souvenir & Extended Abstract Volume
10:45 – 10:55 AM	 VOTE OF THANKS Dr. Manish Joshi, Organizing Secretary
10:55 – 11:30 AM	 PHOTOGRAPHY AND TEA Group photograph with dignitaries and participants followed by Tea

DAY 1: TECHNICAL SCHEDULE

TUESDAY, OCTOBER 27, 2026 • PARALLEL TRACKS & POSTER SESSIONS

08:00 – 11:30 AM	Registration & Inaugural Session		
11:30 AM – 12:30 PM	PLENARY ADDRESS 1 Prof. M. Sharma (IIT Kanpur) Challenges and Strategy for Abating PM _{2.5} Pollution		
12:30 – 01:30 PM	INVITED SESSION 11, 12 Dr. Tarun Gupta (IIT Kanpur) — Development of Devices to Control Air Pollutants within Indoor and Occupational Settings Dr. Harshal Salve (AIIMS Delhi)		
01:30 – 02:30 PM	Lunch Break (Dining Arena)		
02:30 – 03:25 PM	PANEL SESSION 1 Auditorium Approaches on Climate–Health Co–Benefits for India: Strategies and Challenges COORDINATOR: Prof. Shubha Verma (IIT Kharagpur) · MODERATOR: Kanishtha Dubey		Followed by Special Sub–Panel Session
03:30 – 04:30 PM SPECIAL SUB-PANEL & PARALLEL ORAL SESSIONS: O2 – O4			
SPECIAL PANEL Auditorium Special Sub–Panel Session Dr. Dipanjali Mazumdar Towards Cleaner Air: Lessons from NCAP Cities O2 Aerosol Characterization and Climate Impacts R2 LEAD TALK · OL2 Dr. Richard Kleidman CONTRIBUTED PAPERS (4) • ABS-0163 • ABS-0056 • ABS-0050 • ABS-0195 O3 Aerosol Exposure, Ambient Air Quality and Health Effects R3 LEAD TALK · OL3 Dr. Monalisha Sahu CONTRIBUTED PAPERS (3) • ABS-0144-2 • ABS-0173 • ABS-0135 O4 Aerosol Characterization and Composition R4 LEAD TALK · OL4 Dr. UC Dumka CONTRIBUTED PAPERS (4) • ABS-0006 • ABS-0005 • ABS-0140 • ABS-0070			
04:30 – 04:50 PM Tea Break			
04:50 – 05:10 PM Poster Lightning (PL1–PL4) Rooms R1–R4			
05:15 – 06:30 PM POSTER SESSION 1: P1 – P4			
P1 REVIEWER 1 To be announced REVIEWER 2 To be announced POSTERS (9) • ABS-0004 • ABS-0034 • ABS-0035 • ABS-0067-1 • ABS-0049 • ABS-0022 • ABS-0017-1 • ABS-0028 • ABS-0196-2 P2 REVIEWER 1 Dr. Richard Kleidman REVIEWER 2 To be announced POSTERS (9) • ABS-0077-2 • ABS-0166 • ABS-0061 • ABS-0116 • ABS-0139 • ABS-0172 • ABS-0007 • ABS-0088 • ABS-0058 P3 REVIEWER 1 Dr. Monalisha Sahu REVIEWER 2 To be announced POSTERS (9) • ABS-0125 • ABS-0031-1 • ABS-0144-1 • ABS-0176 • ABS-0109 • ABS-0078 • ABS-0009 • ABS-0117 • ABS-0104 P4 REVIEWER 1 Dr. UC Dumka REVIEWER 2 To be announced POSTERS (8) • ABS-0138 • ABS-0037 • ABS-0124 • ABS-0183 • ABS-0174 • ABS-0085 • ABS-0014 • ABS-0082			
06:30 – 07:00 PM IASTA General Body Meeting (GBM) Auditorium			
07:00 – 07:30 PM Popular Science Talk			
08:00 PM onwards Musical Session & Director's Dinner			

DAY 1: ABSTRACTS

TUESDAY, OCTOBER 27, 2026 • ORAL & POSTER PRESENTATIONS

Special Panel 03:30 – 04:30 PM

Special Sub-Panel Session (Auditorium) · Dr. Dipanjali Mazumdar — Towards Cleaner Air: Lessons from NCAP Cities

O2 03:30 – 04:30 PM Aerosol Characterization and Climate Impacts

Lead Talk OL2 (ABS-0044): Dr. Richard Kleidman — Microphysical Retrievals of Wildfire Aerosols from Polar Imaging Nephelometry using GRASP: Insights from Chemical and Microscopy Analyses

- ABS-0163 Vaishnav Bartaria · Atmospheric Black Carbon: Sources, Spatial Dynamics, Deposition and Implications for Climate and Air Quality
- ABS-0056 Tanmay Kishor Joshi · Distinct Physicochemical Trajectories of Secondary Organic Aerosol during Atmospheric Ageing
- ABS-0050 Sayantan Sarkar · Differential Roles of HULIS and Nitroaromatic Compounds in Driving Brown Carbon Climate Forcing in the Northwestern Himalayas
- ABS-0195 Alexander Joy Panjikaran · Size and Time-Resolved Elemental Characterisation of Traffic Site Aerosols by TXRF

O3 03:30 – 04:30 PM Aerosol Exposure, Ambient Air Quality and Health Effects

Lead Talk OL3: Dr. Monalisha Sahu — Household and Indoor Air Pollution in India: Size-Segregated Aerosol Dynamics, Airway Deposition Profiles, Health Multi-Morbidity, and Strategic Assessment Frameworks

- ABS-0144-2 Nawale Prashant Rohidas · Computational Fluid Dynamics Assessment of the Cleaning Zone of a Hybrid Ambient Air Purification Device in Urban Microenvironments
- ABS-0173 Akshay Kumar · Spatial Assessment of Urban Air Pollution Vulnerability using Integrated GIS-Based Multi-Criteria Decision Modelling across Four Indian Cities
- ABS-0135 Aditya Prakash · From PM2.5 Composition to Health Burden: Seasonal Source Contributions and Disease-Specific Mortality across Sector-Resolved Urban Centers of Gaya

O4 03:30 – 04:30 PM Aerosol Characterization and Composition

Lead Talk OL4: Dr. UC Dumka

- ABS-0006 Subrata Mukherjee · Characterizing the Volatility of Submicron Aerosols over the Western Ghats, India, during the Summer Season
- ABS-0005 Riya Soin · Chemical Characterization and Source Apportionment of PM_{2.5} Aerosols during the Indian Monsoon over Delhi using HR-ToF-AMS
- ABS-0140 Chandrima Shaw · Factors Affecting Aerosol pH, Sensitivity Regimes, and Reactive Nitrogen Deposition across Different Environments over India
- ABS-0070 Dr. SHRITAMA MUKHOPADHYAY · Temporal Variations in Ambient PM2.5 Chemical Composition and Associated Oxidative Potential

P1 05:15 – 06:30 PM Poster Session

Reviewer 1: To be announced · Reviewer 2: To be announced

- ABS-0004 Sreeja Sarkar · Greenbelt Suitability of Roadside Tree Species against Traffic-Derived Particulate Matter Pollution: A Combined Assessment of Plant Physiological and Leaf-Surface Traits
- ABS-0034 Rashmi Debnath · Understanding Agricultural Emissions: A Comprehensive Evaluation and Future Outlook of Greenhouse Gases from Indian Croplands
- ABS-0035 Prabhpreet Singh Saini · Emerging Trends in Ammonia Emissions from Indian Croplands: Future Projections and Implications
- ABS-0067-1 Gopal Ashok Gupta · Occupational Exposure to Hazardous Emissions in Indian Manufacturing: Source Analysis, Control Measures, and Safety Strategies
- ABS-0049 Vishal Kumar · Microplastic Contamination in Urban Road Dust: Evidence from Begusarai, Bihar
- ABS-0022 Basudeb Chattopadhyay · Spatial and Seasonal Variability of Particulate Matter across Different Microenvironments of IIT Kharagpur and their Relationship with Meteorological Parameters
- ABS-0017-1 Subhomoy Srimani · Black Carbon Aerosol-Driven Excess Runoff Estimation using a Hybrid Ensemble Glacier Energy-Mass Balance Framework
- ABS-0028 Richa Bhardwaj · Spatio-Temporal Characteristics of O3 Precursors and Ozone-Formation Regimes over Indo-Gangetic Plain during 2021–2025
- ABS-0196-2 Maximilian Uebach · First Results of In-Situ Measurement Campaign for Cloud Studies at the Milešovka Observatory, Czechia

P2 05:15 – 06:30 PM Poster Session

Reviewer 1: Dr. Richard Kleidman · Reviewer 2: To be announced

- ABS-0077-2 Kanishtha Dubey · Source Apportionment of Fine Aerosol Particles of Water-Soluble and Carbonaceous Species Measured in Semi-Urban and Megacity Atmospheres over the Eastern Indo-Gangetic Plain
- ABS-0166 Dr. Rathod Tejas · Organic Coating-Induced Changes in the Radiative Forcing Efficiency of Black Carbon Aerosols
- ABS-0061 Anushri Pal · Assessment of Dust and Non-Dust Aerosols over South Asia in CMIP6 Models: Implications for Surface Temperature and Radiative Flux Changes
- ABS-0116 AAKASH KUMAR · Stability-Aerosol Hygroscopic Growth Feedback Weakens the Twomey Effect over Indo-Gangetic Plain
- ABS-0139 Dr. Nishi Srivastava · Role of Black Carbon Aerosols in Modulating Excess Rainfall over the Eastern India Region
- ABS-0172 Rachna Bairwa · Assessing the Performance of MERRA-2 for Surface Black Carbon over Delhi using Ground-Based Observations
- ABS-0007 Parminder Kaur · Seasonal Variability in Absorption Ångström Exponent-Based Source Apportionment of Black and Brown Carbon over Delhi: Role of Boundary-Layer Meteorology
- ABS-0088 Geetanjali Pathak · Influence of Aerosols on Cloud to Ground Lightning Activity in Complex Terrain Region
- ABS-0058 DHARINI SAHU · Novel Functional Materials for Efficient Removal of Gaseous Pollutants from Real-World Combustion Emissions

P3 05:15 – 06:30 PM Poster Session

Reviewer 1: Dr. Monalisha Sahu · Reviewer 2: To be announced

- ABS-0125 Tanu Chaudhary · Spatial Distribution and Assessment of Wintertime Organic Carbon Aerosols over the Indo-Gangetic Plain using WRF-CHIMERE Chemistry Transport Model
- ABS-0031-1 Seema Prajapati · A Composition-Based Framework for Estimating the Hygroscopic Properties of Ambient PM2.5
- ABS-0144-1 Nawale Prashant Rohidas · Field Evaluation of a Hybrid Ambient Air Purification Device in Open and Semi-Enclosed Urban Microenvironments
- ABS-0176 Debayan Mandal · Oxidative Potential of PM2.5 during Firecracker Bursting in an Indoor-Outdoor Setting at a Residential Academic Campus in Western India
- ABS-0109 JANSI JAHNVI · Transition Metals Variability in Fine Aerosol and Associated Health Risk over Four Urban Sites in Gaya Bihar
- ABS-0078 Yougal Sapkota · Characterisation of Oxidative Potential and Free Radical Burden of PM2.5 during the Bhogi Festival in Tropical Coastal Megacity in India
- ABS-0009 Richa Singh · Occurrence, Source Apportionment and Size-Dependent Health Risk of PAHs in Urban Road Dust from Varanasi, India
- ABS-0117 Neelam Chaudhary · Spatiotemporal Analysis of PM 2.5 Pollution in the Non-Attainment Cities of the Indo-Gangetic Plain
- ABS-0104 Sarath K Guttikunda · AQ-NEST: Air Quality Network Evaluation & Siting Tool

P4 05:15 – 06:30 PM Poster Session

Reviewer 1: Dr. UC Dumka · Reviewer 2: To be announced

- ABS-0138 Praveen Kumar · Long-Term Variability of Particulate Matter and Gaseous Pollution and Impact on Air Quality in Uttar Pradesh during 2013–2023
- ABS-0037 Subhadeep Ghosh · Simulation of PM2.5 over India using the GEOS-Chem Model
- ABS-0124 ANKIT KATIYAR · Particulate Matter Variability across India's Climatic Zones: A Five-Year Assessment of PM2.5 and PM10
- ABS-0183 Kalpna Dixit · Age-Dependent Deposition of Size-Segregated Particulate Matter in the Human Respiratory Tract
- ABS-0174 BIDYUT MAHATO · Long-Term Ambient PM_{2.5} Exposure and the Burden of Childhood Anaemia and Acute Respiratory Infection in India
- ABS-0085 SWARAJ BANERJEE · Day-of-Week Effect on Ambient PM2.5 in Indian Cities: Implications for Exposure Reduction
- ABS-0014 ADWITIYA YADAV · Assessing the Impact of Dust Storms on the Himalayan Range and Indo-Gangetic Basin: A Case Study Northern India
- ABS-0082 Ms. Bhawna · Variation in Particulate Matter Concentration in the Roadside Aerosols

DAY 2: TECHNICAL SCHEDULE

WEDNESDAY, OCTOBER 28, 2026 • PARALLEL TRACKS, PANELS & POSTERS

09:00 – 10:00 AM	 PLENARY ADDRESS 2 Prof. C. Venkataraman (IIT Bombay) <i>Cleaning India's Air: A Roadmap from Science to Solutions</i>		
10:00 – 11:00 AM	 INVITED SESSION I3, I4 Dr. Sarath Guttikunda (Urban Emissions) — <i>New Ways to Bridge Air Quality and Health Sciences</i> Dr. Sachin Gunthe (IIT Madras)		
11:00 – 11:30 AM	 Tea Break		
11:30 AM – 12:25 PM	 PANEL SESSION 2  Auditorium <i>From Evidence to Impact: Research and Policy in Energy and Climate</i> COORDINATOR: Dr. Manish Joshi (BARC Mumbai)		
12:30 – 01:30 PM  PARALLEL ORAL SESSIONS: O5 – O8			
O5 Aerosol Exposure, Ambient Air Quality and Health Effects  R1 LEAD TALK · OL5 Dr. Ravindra Khaiwal CONTRIBUTED PAPERS (4) - ABS-0084-1 - ABS-0071 - ABS-0013-2 - ABS-0134	O6 Aerosol Transport and Climate Interactions  R2 LEAD TALK · OL6 Dr. Rohit Srivastava CONTRIBUTED PAPERS (4) - ABS-0077-1 - ABS-0130 - ABS-0127 - ABS-0073	O7 Aerosol–Climate Interactions and Meteorology  R3 LEAD TALK · OL7 Dr. Sumit Mishra CONTRIBUTED PAPERS (4) - ABS-0020 - ABS-0119 - ABS-0145 - ABS-0059	O8 Aerosol Exposure, Ambient Air Quality and Health Effects  R4 LEAD TALK · OL8 Dr. Sameer Patel CONTRIBUTED PAPERS (4) - ABS-0041 - ABS-0133 - ABS-0010 - ABS-0043
01:30 – 02:30 PM	 Networking Lunch (Dining Arena)		
02:30 – 03:25 PM	 PANEL SESSION 3  Auditorium <i>From Aerosol Science to Action: Aerosol Processes, Emerging Evidence, and Decision-Ready Data</i> COORDINATOR: Dr. Ashish Tiwari (ICIMOD, Kathmandu, Nepal)		
03:30 – 04:40 PM  PARALLEL ORAL SESSIONS: O9 – O12			
O9 Emission Inventories and Mitigation Strategies  R1 LEAD TALK · OL9 Dr. Padmakumari B CONTRIBUTED PAPERS (4) - ABS-0129 - ABS-0150 - ABS-0067-2 - ABS-0126	O10 Aerosol Climate Interaction & Meteorology  R2 LEAD TALK · OL10 Dr. Vijayakumar Nair CONTRIBUTED PAPERS (4) - ABS-0046 - ABS-0048 - ABS-0121 - ABS-0052	O11 Aerosol Characterization and Exposure Analysis  R3 LEAD TALK · OL11 Dr. Ashwini Kumar CONTRIBUTED PAPERS (5) - ABS-0098 - ABS-0170 - ABS-0128 - ABS-0108 - ABS-0180	O12 Aerosol Instrumentation, Measurement and Characterization  R4 LEAD TALK · OL12 Dr. Manoranjan Sahu CONTRIBUTED PAPERS (4) - ABS-0081 - ABS-0033 - ABS-0182 - ABS-0136
04:40 – 05:00 PM	 Tea Break		
05:00 – 05:20 PM	 Poster Lightning (PL5–PL8)  Rooms R1–R4		
05:25 – 06:40 PM  POSTER SESSION 2: P5 – P8			
P5 REVIEWER 1 Dr. Padmakumari B REVIEWER 2 Dr. Ravindra Khaiwal POSTERS (9) - ABS-0112 - ABS-0101 - ABS-0114 - ABS-0152 - ABS-0110 - ABS-0123 - ABS-0075 - ABS-0137 - ABS-0074	P6 REVIEWER 1 Dr. Vijayakumar Nair REVIEWER 2 Dr. Rohit Srivastava POSTERS (9) - ABS-0011 - ABS-0178 - ABS-0076 - ABS-0149 - ABS-0068 - ABS-0162 - ABS-0062 - ABS-0069 - ABS-0029	P7 REVIEWER 1 Dr. Sumit Mishra REVIEWER 2 Dr. Ashwini Kumar POSTERS (9) - ABS-0157 - ABS-0161 - ABS-0160 - ABS-0103 - ABS-0192 - ABS-0177 - ABS-0060 - ABS-0023 - ABS-0115	P8 REVIEWER 1 Dr. Sameer Patel REVIEWER 2 Dr. Manoranjan Sahu POSTERS (9) - ABS-0143 - ABS-0156-2 - ABS-0096 - ABS-0039 - ABS-0025 - ABS-0084-2 - ABS-0055 - ABS-0016 - ABS-0107
08:00 PM onwards	 Musical Session & Grand Conference Dinner		



DAY 2: ABSTRACTS

WEDNESDAY, OCTOBER 28, 2026 • ORAL & POSTER PRESENTATIONS

O5 12:30 – 01:30 PM Aerosol Exposure, Ambient Air Quality and Health Effects	
Lead Talk OL5: Dr. Ravindra Khaiwal – Air Pollution–Climate–Health Nexus: Using AI to Translate Emerging Evidence into Public Health Action	
ABS-0084-1	RITIK JAIN Intra-Urban Variability in Size-Segregated Particulate Matter and Black Carbon: Contrasting Pollution Characteristics and Respiratory Deposition across Urban Microenvironments
ABS-0013-2	Dr. Nazrul Islam Nanoscale Characterization and Toxicological Assessment of Carbonaceous Nanoparticles in Ambient PM10 and PM2.5
ABS-0071	Akanksha Lakra Seasonal and Site-Specific Variability in Source-Resolved Health Risks of PM2.5–Bound Trace Elements across Lucknow, India
ABS-0134	Dr. Swapnali Sudhakar Patil Estimated PM2.5 Exposure and Lung Function Phenotypes among Urban Indian Adolescents: APEAL Study – A Multi-City Cohort
O6 12:30 – 01:30 PM Aerosol Transport and Climate Interactions	
Lead Talk OL6: Dr. Rohit Srivastava – Arctic Black Carbon: Contribution of Forest Fires	
ABS-0077-1	Kanishtha Dubey Pre-Monsoon Aerosol Loading over India: Quantifying Dust and Anthropogenic Contributions using Integrated Modelling Framework
ABS-0127	Soumen Raul Long-Term Study on Local Emissions and the Role of IGP in the Regional Transport of Black Carbon and Dust over the Himalayas
ABS-0130	Vaibhav Chand Assessment of Heatwave-Induced Ozone and Multi-Pollutant Dynamics across India
ABS-0073	Kamran Ansari Influence of Aerosol Radiative Effects on Meteorological Variability over South Asia
O7 12:30 – 01:30 PM Aerosol–Climate Interactions and Meteorology	
Lead Talk OL7: Dr. Sumit Mishra	
ABS-0020	K. N. Arya Role of Turbulence and Aerosols on Cloud Droplet Growth in the Droplet Growth Bottleneck Regime
ABS-0145	Aasif Ahmad Wagay Impacts of Urbanisation on Meteorological Parameters and their Effects on Air Quality in Megacities
ABS-0119	Abhijeet Gangane Extreme Middle Eastern Dust Event over Metropolitan Mumbai, India, Associated with Enhanced Lightning Activity
ABS-0059	RENJIMA N Stratospheric Aerosol Intervention and its Impacts on the Indian Summer Monsoon
O8 12:30 – 01:30 PM Aerosol Exposure, Ambient Air Quality and Health Effects	
Lead Talk OL8: Dr. Sameer Patel – The Lure of ‘Healthier Smoke’: Comparative Physical, Chemical, and Oxidative Potential Characterization of Emissions from Herbal and Tobacco Cigarettes	
ABS-0041	Alonika Choppi Biological Effects of Herbal and Conventional Cigarette Smoke on Human Bronchial Epithelial Cells (BEAS-2B) using an In Vitro Cell Exposure System
ABS-0010	Shubham sharma Integrated Exposure, Respiratory Health, and Probabilistic Silicosis Risk Assessment among Sandstone-Carving Workers in Rajasthan, India
ABS-0133	Sawan Kumar Sahoo Seasonal Variation of Polycyclic Aromatic Hydrocarbons (PAHs) in Ambient Air and Associated Carcinogenic Risk in Agricultural Intensive Zones of Western Odisha
ABS-0043	APURBA DEBNATH Black Carbon Induced Inter-Seasonal Changes in Population Exposure and Attributable Health Burden over Indian Subcontinent
O9 03:30 – 04:40 PM Emission Inventories and Mitigation Strategies	
Lead Talk OL9: Dr. Padmakumari B	
ABS-0129	Rajesh Sahu Transport-Related Black Carbon Emissions and Mitigation Pathways in the Indo-Gangetic Plain
ABS-0067-2	Gopal Ashok Gupta Auxiliary Source-Level Emission Control Assembly for Heavy-Metal Aerosols from Electrical Discharge Machining
ABS-0150	ANJANA GOURI AP Beyond the Emissions: Meteorological Grip on India’s Air Quality (2003–2023)
ABS-0126	VALASANI SRILEKHA Post-Monsoon Haze Pollution Mitigation over the Indo-Gangetic Plain using an Anthropogenic Emission Control Approach
O10 03:30 – 04:40 PM Aerosol Climate Interaction & Meteorology	
Lead Talk OL10: Dr. Vijayakumar Nair – Aerosol Effects on the Surface Warming Trend over India	
ABS-0046	Ankita Mishra Impact of Black Carbon Aerosol on Indian Summer Monsoon Precipitation over the Indian Subcontinent
ABS-0121	Amit Tripathi Spatial and Seasonal Variability of PM2.5 across India through Integrated Earth Observations
ABS-0048	Nithin Babu How Does the Black Carbon Mixing State Influence its Light-Absorption and Cloud Condensation Nuclei Activity over the Indo-Gangetic Plain?
ABS-0052	G. SONAM Columnar Aerosol Optical Observations from the NASA-AERONET Facility at Amity University Chhattisgarh, Raipur, India
O11 03:30 – 04:40 PM Aerosol Characterization and Exposure Analysis	
Lead Talk OL11: Dr. Ashwini Kumar – Quantification of Geogenic Pollutants and their Sources in the Indo-Gangetic Plains using Geochemical Proxies	
ABS-0098	Sunita Verma WRF–Chem Based Assessment of Dust-Driven Particulate Matter Pollution over India
ABS-0108	Sai Krishnaveni A A Novel Feature-Optimized Fuzzy Clustering Framework for Source- and Composition-Based Global Aerosol Classification using 30 Years of AERONET Observations
ABS-0170	Dr. Atul Kumar Srivastava Evaluation of India’s National Clean Air Program Effectiveness: Spatiotemporal Trends of Criteria Pollutants and Potential Emission Sources
ABS-0180	Shazia Shifa Polycyclic Aromatic Hydrocarbons in Ambient PM2.5 at a Heavily Industrialized City in the Indian National Capital Region
ABS-0128	Rajesh Bag Black Carbon Aerosol Exposure as a Risk Factor for Prenatal and Postnatal Outcomes in India
O12 03:30 – 04:40 PM Aerosol Instrumentation, Measurement and Characterization	
Lead Talk OL12: Dr. Manoranjan Sahu	
ABS-0081	MALAIDEVAN P Atmospheric Visibility Estimation from Ground-Based Imagery using Pretrained Visual Features and Support Vector Regression

ABS-0182	Rubiya Banoo Seasonal Meteorology–Chemical Interaction in Prediction of PM2.5 Concentrations over Delhi
ABS-0033	Prince Vats A Multi-Wavelength, Multi-Angle Optical Scattering Based Aerosol Size-Distribution Retrieval Framework using a Physics-Informed Neural Network
ABS-0136	ANOOP PAKKATTIL Oceansat-3 Resolves Aerosol Heterogeneity across Delhi NCR and Supports Ward-Scale PM _{2.5} Estimation
P5 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Padmakumari B Reviewer 2: Dr. Ravindra Khaiwal	
ABS-0112	Prince Sant Where Should Cities Put their AQ Monitors: Strengthening and Optimising AQ Monitoring Regime
ABS-0123	Nirmi Turakhia Satellite-Based Climatological Analysis of Tropospheric NO2 over Bhavnagar District: Trends, Seasonality and Industrial Influence (2018–2026)
ABS-0101	Monika Kumari Decadal Changes in the Chemical Composition of Total Water-Soluble Inorganic Ions over Kharagpur in 2015 and 2025
ABS-0075	RACHNA DEVI Quantifying the Firework Signature in Ambient PM2.5: A Mobile Laboratory Study in Kanpur, India
ABS-0114	SWATI RAY Seasonal Contrast in Carbonaceous Aerosol Absorption Efficiency at an Urban Site: Insights from CASS Measurements
ABS-0137	MOIRANGTHEM DIYALAKSHMI DEVI Urban Aerosol Characterisation in Bhilai and Mumbai: Seasonal and Intra-Urban Contrasts in PM2.5 along Commuter Corridors
ABS-0152	Yasarapu Sathish Insights into the Winter Haze Formation Mechanism, Source, and Chemical Composition of Urban Aerosol
ABS-0074	SONALI RANJAN Comprehensive Characterisation of PM2.5 from a Waste-Processing Facility (Karsara) in Varanasi
ABS-0110	ABHINAV PRATAP Spatial Variability in Carbonaceous Aerosols and Brown Carbon Light Absorption over the Eastern Indo-Gangetic Plain
P6 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Vijayakumar Nair Reviewer 2: Dr. Rohit Srivastava	
ABS-0011	Sanny Rathore Understanding the Chemical Characteristics of Urban Rainwater and PM _{2.5} over Varanasi in the Middle Indo-Gangetic Plain
ABS-0162	Ashish Soni Light Absorption Characteristics of Brown Carbon over the Bay of Bengal: Impact of Indo-Pacific Trade Route
ABS-0178	D S BISHT Characterization and Sources of Ultrafine Particulates Matter during Winter over Hisar, India
ABS-0062	Parvathy Anand Molecular Fingerprints of Organic Aerosols across IGP
ABS-0076	Ramya Cheramangalath Balan Impact of Anthropogenic Precursors on SOA Formation in Pristine Environments
ABS-0069	Bhavesht Kuli Tracing Carbonaceous Emission Sources and Combustion Efficiency
ABS-0149	Garima Verma Chemical and Optical Properties of Size-Resolved Organic Aerosol over Delhi during Summer
ABS-0029	PRIYANKA PRIYADARSHINI NAG Source Apportionment of Ambient PM10 and Identification of Dominant Emission Sources in Sambalpur City, Odisha, India
ABS-0068	Neha Indoor Particulate Emissions from Commercial Mosquito Coils: A Comparative Study of Particle Size Distribution and Elemental Composition
P7 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Sumit Mishra Reviewer 2: Dr. Ashwini Kumar	
ABS-0157	Shubhi Sharma Interannual Variability of Ambient PM ₁₀ and PM _{2.5} Mass Concentrations: A Four-Year (2012–2015) Assessment
ABS-0177	Vivek Saraswat Airborne Endotoxins in Particulate Matter (PM ₁₀): Seasonal Variation, Chemical Profiling, and Health Implications
ABS-0161	Anjali Gulaniya Light Absorption Characteristics of Carbonaceous Aerosols: A Multi-Year Study (2022–2025) over Delhi
ABS-0060	Aishwaryashri Tamrakar Ambient VOCs over Himalayan Glaciers: Speciation, Sources and Comparison with Other Glaciers
ABS-0160	Suryakant Manikpuri Spatial Variation of PM1–Bound Metals in an Urban–Industrial Environment of Central India
ABS-0023	Sarvan Kumar Seasonal Variation, Aerosol Classification and Source Characterization over Kargil, India
ABS-0103	Vidit Singh Identification of Functional Groups in Fine Aerosol at Semi-Arid Site, Rajasthan
ABS-0115	Ayush Singh Seasonal and Diurnal Influence of Meteorological Parameters on Black Carbon Dynamics over the Central Indo-Gangetic Plain
ABS-0192	Sangeeta Tripathi Analysis of Supramicron Concentration in Context of Ice Nucleating Aerosols
P8 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Sameer Patel Reviewer 2: Dr. Manoranjan Sahu	
ABS-0143	Raja Singh Decadal-Scale Variability of Ambient Black Carbon over Kharagpur Region
ABS-0084-2	RITIK JAIN Field Evaluation of High-Pressure Water-Misting System in Suppressing Ambient Particulate Matter (PM10, PM2.5, PM1) near a Cement Industry in Meghalaya, India
ABS-0156-2	Gaurav Kumar Srivastav An Open-Source Python Toolkit for Particle Number Size Distribution and New Particle Formation Analysis
ABS-0055	Suhaan Sabhlok CFD-Based Assessment of Air-Sampling Inlet Placement on PRL’s Hexacopter Drone
ABS-0096	Vasundhara Sharma Impact of Diwali Firecracker Emissions on Vertical Profiles of Aerosol Optical and Physical Properties over Delhi using LiDAR
ABS-0016	Pooja Chaudhary From Lab Calibration to Field Verification of UFP Instrumentation
ABS-0039	DEBASHISH SENGUPTA Role of Aerosols: Climate Change and Environmental Radioactivity
ABS-0107	B Senthil selvi Long Term Monitoring of Airborne Radioactivity around Kudankulam Nuclear Power Project, Tamilnadu, South India
ABS-0025	Shikha Sivakumar Development and Validation of a Multi-Component Aerosol Dynamics Model for Sodium-Cooled Fast Reactor Containment

DAY 3: TECHNICAL SCHEDULE

THURSDAY, OCTOBER 29, 2026 • PARALLEL TRACKS, CORPORATE SESSION & POSTERS

09:00 – 10:00 AM		 PLENARY ADDRESS 3 Prof. Y.S. Mayya (IIT Bombay) <i>Modelling the Propagation of Respiratory Diseases in Indoor Spaces via Aerosol Route</i>	
10:00 – 11:00 AM		 INVITED SESSION I5, I6 Dr. V. Vinoj (IIT Bhubaneswar) Dr. Abhijit Chatterjee (Bose Institute, Kolkata)	
11:00 – 11:30 AM		 Tea Break	
11:30 AM – 12:25 PM		 Special Invited Corporate Session	

12:30 – 01:30 PM

 **PARALLEL ORAL SESSIONS: O13 – O16**

O13 Aerosol Instrumentation and Measurement Techniques  R1 LEAD TALK · OL13 Dr. Harish Phuleria CONTRIBUTED PAPERS (4) - ABS-0045 - ABS-0024 - ABS-0026 - ABS-0142	O14 Aerosol Instrumentation, Chemistry and Physics  R2 LEAD TALK · OL14 Dr. H.J. Jost CONTRIBUTED PAPERS (4) - ABS-0122 - ABS-0184 - ABS-0164 - ABS-0036-2	O15 Nuclear and Radioactive Aerosols  R3 LEAD TALK · OL15 Dr. Debashish Sengupta CONTRIBUTED PAPERS (4) - ABS-0047 - ABS-0179 - ABS-0189 - ABS-0190	O16 Indoor Air Quality and Urban Aerosol Studies  R4 LEAD TALK · OL16 Dr. Shamsh Parvez CONTRIBUTED PAPERS (4) - ABS-0030 - ABS-0086 - ABS-0105 - ABS-0106
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01:30 – 02:30 PM

 Networking Lunch (Dining Arena)

02:30 – 03:25 PM

 Visit to Corporate Booths

03:30 – 04:40 PM

 **PARALLEL ORAL SESSIONS: O17 – O20**

O17 Aerosol Technology, Chemistry and Physics  R1 LEAD TALK · OL17 Dr. Ralf Zimmermann CONTRIBUTED PAPERS (5) - ABS-0013-1 - ABS-0053 - ABS-0080 - ABS-0132 - ABS-0017-2	O18 Aerosol Chemistry and Physics  R2 LEAD TALK · OL18 Dr. Avinash Kumar CONTRIBUTED PAPERS (5) - ABS-0146 - ABS-0027 - ABS-0038 - ABS-0094 - ABS-0155	O19 Bioaerosol, Chemistry and Physics  R3 LEAD TALK · OL19 Dr. Shweta Yadav CONTRIBUTED PAPERS (5) - ABS-0156-1 - ABS-0194 - ABS-0019 - ABS-0171 - ABS-0066	O20 Advances in Aerosol Data Analytics  R4 LEAD TALK · OL20 Dr. P.R. Sinha CONTRIBUTED PAPERS (5) - ABS-0083-1 - ABS-0015 - ABS-0091 - ABS-0054 - ABS-0042
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04:40 – 05:00 PM

 Tea Break

05:00 – 05:20 PM

 Poster Lightning (PL9–PL12)  Rooms R1–R4

05:25 – 06:40 PM

 **POSTER SESSION 3: P9 – P12**

P9 REVIEWER 1 Dr. Harish Phuleria REVIEWER 2 Dr. Ralf Zimmermann POSTERS (8) - ABS-0092 - ABS-0191 - ABS-0083-2 - ABS-0051 - ABS-0148 - ABS-0167 - ABS-0031-2 - ABS-0008	P10 REVIEWER 1 Dr. Avinash Kumar REVIEWER 2 Dr. H.J. Jost POSTERS (9) - ABS-0012 - ABS-0087 - ABS-0131 - ABS-0090 - ABS-0100 - ABS-0169 - ABS-0147 - ABS-0079 - ABS-0196-1	P11 REVIEWER 1 Dr. Debashish Sengupta REVIEWER 2 Dr. Shweta Yadav POSTERS (8) - ABS-0153 - ABS-0188 - ABS-0072 - ABS-0141 - ABS-0018 - ABS-0154 - ABS-0158 - ABS-0064	P12 REVIEWER 1 Dr. P.R. Sinha REVIEWER 2 Dr. Shamsh Parvez POSTERS (9) - ABS-0089 - ABS-0021 - ABS-0151 - ABS-0036-1 - ABS-0040 - ABS-0159 - ABS-0032 - ABS-0168 - ABS-0063
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DAY 3: ABSTRACTS

THURSDAY, OCTOBER 29, 2026 • ORAL & POSTER PRESENTATIONS

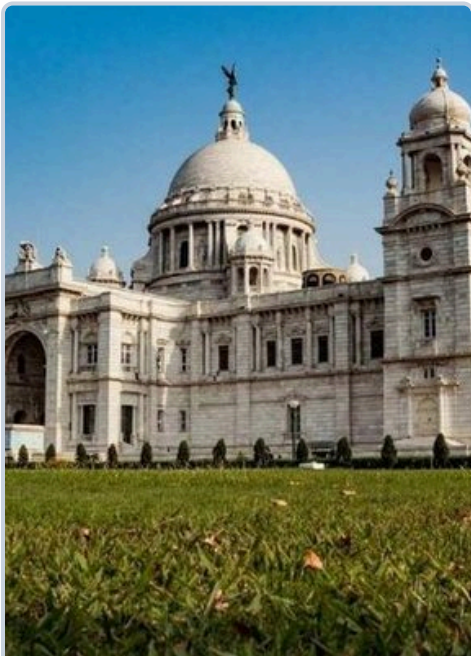
O13 12:30 – 01:30 PM Aerosol Instrumentation and Measurement Techniques	
Lead Talk OL13: Dr. Harish Phuleria	
ABS-0045	Puneet Kumar Shukla A Decadal Study of Black Carbon in Megacity Delhi: Temporal Variability and Modelling using SARIMAX
ABS-0024	A. Gregorić From OC/EC Equivalence to Real-Time Carbonaceous Aerosol Speciation: Performance of the New TCA09 Total Carbon Analyzer during a One-Year Ascent Field Campaign in Atlanta, Georgia
ABS-0026	Gasper Lavric From Sucrose Calibration to Automated Zero Checks: Performance Characterization of the TCA09 Total Carbon Analyzer
ABS-0142	Maitri Maheshwari Wet Deposition of Atmospheric Microplastics over Western India
O14 12:30 – 01:30 PM Aerosol Instrumentation, Chemistry and Physics	
Lead Talk OL14 (ABS-0186): Dr. H.J. Jost — High-Resolution Multi-Pressure Chemical Ionization Mass Spectrometry for Operational Monitoring of VOC, OVOC and HOM	
ABS-0122	Dr. Ramakrishna Ramisetty Next Generation Time-of-Flight Mass Spectrometry for Real-Time Detection of Toxic Gases and Metal-Containing Species
ABS-0184	Dr. Harsha Reddy M Regulatory Measurements of Ultrafine Particles: From Tailpipe Emissions to Indoor Air Quality – An Indian Perspective
ABS-0164	Anil Patel Beyond Particle Removal: Fog-Driven Changes in the Oxidative Potential of Atmospheric Aerosol
ABS-0036-2	Shivam Singh Monopolar Electrostatic Enhancement of Submicron Aerosol Filtration without an Opposing Electrode
O15 12:30 – 01:30 PM Nuclear and Radioactive Aerosols	
Lead Talk OL15: Dr. Debashish Sengupta	
ABS-0047	Hasan Reza Experimental Investigation of Cyclone Separator for Sodium Fire Aerosol Removal
ABS-0179	Amit Kumar Comparative Study on Gas Flow Rates in Microcapillaries with and without Aerosol Loading
ABS-0189	ABDUL SALAM Characterisation of Zinc Oxide Aerosols Generated using Plasma Torch Aerosol Generator
ABS-0190	Manish Joshi Behaviour of Graphite at Different Oxidation Conditions: Aerosol Signatures and Controlling Parameters
O16 12:30 – 01:30 PM Indoor Air Quality and Urban Aerosol Studies	
Lead Talk OL16: Dr. Shamsh Parvez	
ABS-0030	Indra Mohan Nigam BTEx Adsorption-Regeneration Study of Lab Synthesized Biochar Adsorbents and Commercial Activated Carbon
ABS-0086	AYSHA NOURIN Assessment of Indoor Air Quality across Air-Conditioned Microenvironments in a Residential Campus
ABS-0105	Khushi Wankhede Rising Carcinogenic Risk from Polycyclic Aromatic Hydrocarbon Exposure through Indoor Settled Dust: First Comprehensive Residential Dust Assessment from India
ABS-0106	SUBRAMANI S Are Unreported Technical Polychlorinated Biphenyl Formulations Used in Legacy Building Materials Threatening Indoor Environemtns of a Central Indian City despite a Ban?
O17 03:30 – 04:40 PM Aerosol Technology, Chemistry and Physics	
Lead Talk OL17: Dr. Ralf Zimmermann — Analysis of the Mixing State of Marine Aerosol Particles in the Remote Southern Indian Ocean by Resonance-Enhanced Single Particle Mass Spectrometry: Long-Range Transport of Iron Containing Dust Particles and Cloud Processing	
ABS-0013-1	Dr. Nazrul Islam Sustainable Conversion of Ambient PM2.5 into Fluorescent Carbon Nanoparticles for Multifarious Applications
ABS-0053	CHAKRADHAR RAO TANDULE Application of Multi-Layer Perceptron Model to Derive Air Quality Index from INSAT-3DR Observations
ABS-0080	MD. ZIYAU RAHMAN Intercomparison of Black Carbon (BC) and Brown Carbon (BrC) Separation Approaches and their Implications for Aerosol Optical Properties in a Coal-Dominated Region
ABS-0132	Amrutha M S What Drives the New Particle Formation in a Biodiversity-Rich, High Altitude Western Ghats in India?
ABS-0017-2	Dr. Shubha Verma Light-Absorbing Aerosols in Himalayan Snow: Glacier Hotspots, Runoff Risks, and Mitigation
O18 03:30 – 04:40 PM Aerosol Chemistry and Physics	
Lead Talk OL18: Dr. Avinash Kumar — Rapid Formation of Aerosol Precursors during Ozone-Assisted Oxidation of Polycyclic Aromatic Hydrocarbons	
ABS-0146	Priyanka Srivastava From Precursor Chemistry to Cloud Response: Unravelling Aerosol Evolution over the Central Himalayas
ABS-0027	Griša Močnik Black Carbon Mass Absorption Cross-Section Dependence on the Mixing State – Winter Measurements in IGP
ABS-0038	Saraswati Physicochemical Characterisation of Airborne Particulate Matter: Insights from FTIR and SEM-EDX Analysis
ABS-0094	Riya Dey Influence of Phase Change and Particle Morphology on Aerosol Deposition in the Human Respiratory Tract
ABS-0155	Krishnakant Budhavant Dual-Carbon Isotopes Reveal Monsoon-Driven Shifts in Rainfall Carbonaceous Aerosol Sources across South Asia
O19 03:30 – 04:40 PM Bioaerosol, Chemistry and Physics	
Lead Talk OL19: Dr. Shweta Yadav	
ABS-0156-1	Gaurav Kumar Srivastav Frequent New Particle Formation Events in the Indo-Gangetic Plain Occur under Reduced Condensation Sink but Are Obscured by Air-Mass Heterogeneity
ABS-0194	Devikasree M J CFD Based Parametric Investigation of Aerosol Deposition Fraction in Different Pipe Geometries
ABS-0019	S Katina Chachei Greenhouse Gas Emissions from Active Landfills and their Relationship with Waste Characteristics using the Closed Flux Chamber Method
ABS-0171	Chinmoy Mandal Antibiotic-Resistant Bioaerosol Inactivation by Cu-Doped TiO ₂ : Photocatalysis: Role of Reactor Hydrodynamics and Operating Parameters
ABS-0066	ARUINMA SINGH Occurrence, Characterization, and Health Risk Assessment of Bacterial and Fungal Bioaerosols in Public Toilets
O20 03:30 – 04:40 PM Advances in Aerosol Data Analytics	
Lead Talk OL20: Dr. P. R. Sinha — Detection and Validation of Persistent Multilayer Aerosol Structures and Planetary Boundary Layer Height using CL61 Ceilometer Observations over a Coastal Remote Site in India	
ABS-0083-1	VYSHNAVI K K Machine Learning Based Simultaneous Multi-Pollutant Prediction across Diverse Indo-Gangetic Plain Cities

ABS-0015	ABHISHEK SINGH An Integrated Machine Learning and Multi-Objective Optimization Framework for Retrieving 3D Aerosol Particle Structures from 2D Microscopic Images
ABS-0091	Ritesh Kumar Evaluating the Predictive Performance of PSO-Optimized Feedforward Backpropagation Neural Network for Aerosol Single-Scattering Albedo over the Arctic
ABS-0054	Apurba Tewari Machine Learning Insights into Aerosol-Cloud Coupling under Contrasting Fire and Meteorological Regimes over India
ABS-0042	GAURAV SINGH Machine Learning-Based Prediction of PM2.5 Trends across Five Major Indian Cities using ERA-5 Reanalysis Data
P9 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Harish Phuleria Reviewer 2: Dr. Ralf Zimmermann	
ABS-0092	Ajay Rawat A Monte Carlo Model for Multi-Component Coagulating and Depositing Aerosols
ABS-0191	HB Birje Number-Size Evolution of Iodine Oxide Aerosols Generated by Iodine-Ozone Interaction Relevant to Nuclear Accident Scenarios
ABS-0083-2	VYSHNAVI K K Integrating WRF-CHIMERE Simulations with Machine Learning for PM _{2.5} Chemical Composition Prediction over India
ABS-0051	Prabhudutta Hota Multi-Source Data Fusion and Application of Machine Learning for High-Resolution PM _{2.5} Mapping in Mumbai
ABS-0148	Mohd Zaid Machine Learning Framework for High-Resolution PM2.5 Estimation and Hotspot Identification over IGP & Arid Region
ABS-0167	Sneha Dey Crop Residue Burning, Regional Air-Mass Transport, and PM 2.5 in Delhi: An Association Rule Mining Approach
ABS-0031-2	Seema Prajapati Toxic VOC Exposure in Petrol and Paint Workplaces: Field-Based Assessment, Worker Perspectives, Health Risks and Mitigation
ABS-0008	Suzal Long-Term Trends of Secondary Organic Aerosol over India (2000–2024)
P10 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Avinash Kumar Reviewer 2: Dr. H.J. Jost	
ABS-0012	Jayaraju Pakki Molecular Insights into the Sources and Atmospheric Processing of Fine Particulate Matter (PM _{2.5}) Organic Aerosols over a Non-Urban Tropical Environment
ABS-0087	KUMAR GAURAV MISHRA Non-Volatile Cation Control of Aerosol pH and Liquid Water Content at a Coal-Industrial Site in the Eastern Indo-Gangetic Plain
ABS-0131	Anjali Maddheshiya Source Variability and Meteorological Influences on Secondary Organic Aerosol Formation over Four Sectoral Urban Sites in Gaya
ABS-0090	Dr Tanmay Sarkar Modeling the Evolution of Aerosol Size Distribution in a Diffusing-Coagulating Plume and its Implications for Optical Properties
ABS-0100	Dr. Sudarsan Bera Seasonal Variation of Aerosol Hygroscopicity and CCN Activity over Rain Shadow Region of Western Ghats
ABS-0169	Avishay Ray Unravelling Aerosol-Cloud Activation Processes via an Integrated Observational -Modelling Framework
ABS-0147	U C DUMKA Assessment of Vegetation Cover over the Uttarakhand Region
ABS-0079	VARUN Morphology-Informed Modelling of Aerosol Resuspension
ABS-0196-1	Maximilian Uebach From Fine to Giant: Multi-Instrument Assessment of the Dust Particle Size Distribution at an Emission Source during the J-WADI Campaign, Jordan
P11 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. Debashish Sengupta Reviewer 2: Dr. Shweta Yadav	
ABS-0153	Tanisha Gupta A Study on the Interaction of Light-Absorbing Particles with Water Vapour using a Computational Method
ABS-0188	Taveen Singh Kapoor Global Variation of Black Carbon Mass Absorption Cross-Section: A Model-Observation Intercomparison
ABS-0072	SUMAN KUMAR SUMAN Near-Real-Time Elemental PM2.5 Composition and Emission Sources at a Traffic Hotspot in Delhi
ABS-0141	Madhumita Mahant Advancing Understanding of PM2.5 Response to Agricultural Ammonia Reduction in India
ABS-0018	N K Sethy Permeability of Radon in Selected Membrane Material: An Experimental Study
ABS-0154	Dr Swagata Payra Optical and Radiative Properties of Aerosols over Four Continental Semi-Arid Sites
ABS-0158	Aveek Roy Integrated Framework for Monitoring Carbonyl-VOCs as Secondary Organic Aerosol (SOA) Precursors in a Complex Urban Airshed
ABS-0064	Dr Yogesh Kumar Vishwakarma From Waste to the Air We Breathe: Unravelling Bioaerosol-Mediated Antimicrobial Resistance Dissemination
P12 05:25 – 06:40 PM Poster Session	
Reviewer 1: Dr. P. R. Sinha Reviewer 2: Dr. Shamsh Parvez	
ABS-0089	Amrutha Prabhakar Characterisation of Viable Bacterial Aerosols in an Animal Production Facility
ABS-0021	A C Prakruti Size-Resolved Particulate Matter-Associated Airborne Culturable Bacteria in Residential Settings of Lucknow
ABS-0151	Mohammad Ikbal Agricultural-Waste-Derived Graphene Nanomaterials as Emerging Functional Materials for Bioaerosol Control
ABS-0036-1	Shivam Singh Source-Informed Machine Learning for Improved Prediction of PAHs-Related Cancer Risk
ABS-0040	MUDASSIR ALI Machine Learning-Based Indoor Evaluation of Low-Cost Sensors for Particle Mass and Number Concentration Measurements
ABS-0159	Chaithra S Characterization and Quantification of Airborne Microplastics in a Fibre-Reinforced Plastic Laboratory
ABS-0032	VAIBHAV GAJANAN LAWANGE Regional Aerosol Exposure and Filtration Burden in Green Buildings: A Multi-City Assessment of Cognitive Ventilation Targets in India
ABS-0168	Anjali Pathak Building Cooling and Ventilation Strategy for Better Indoor Environmental Quality
ABS-0063	AMAN DEEP VISHWKARMA Temporal Variation and Radiative Effects of Black Carbon during a Forest-Fire Episode over Srinagar Garhwal, Western Himalaya

DAY 4: CONCLUDING SCHEDULE

FRIDAY, OCTOBER 30, 2026 • AWARDS, VALEDICTORY & KOLKATA HERITAGE TOUR

TIME	ACTIVITY & EVENT DETAILS	09:00 AM – 08:00 PM
09:00 – 10:00 AM	Plenary Address 4 Prof. S. Ramachandran (PRL Ahmedabad) — <i>Aerosol Characterization and Composition: Key Issues and Challenges</i>	
10:00 – 10:30 AM	Invited Session I7 Dr. Ralf Zimmermann (University of Rostock) — <i>Chemical Transformation in Wildfire/Biomass Burning Aerosol Particles upon Photochemical Atmospheric Aging at Different Relative Humidity's: Studying the Impact of the Aging Condition on Climate and Health Effects</i>	
10:30 – 11:30 AM	Students' Panel Session & High Tea Career Goals in Aerosol Science and Engineering: Research, Academia, and Industry? Coordinator: Dr. Reshma Mohan (IIT Kharagpur)	
11:30 AM – 12:30 PM	Award Session Presentations	
12:30 – 01:30 PM	Awards & Valedictory Ceremony Best Oral, Poster & Lightning Awards Presentation	
01:30 – 02:30 PM	Lunch	
03:00 – 08:00 PM	Tour / Excursion Guided Tour for Delegates	



Victoria Memorial

Grand white marble monument standing as Kolkata's iconic landmark.



Howrah Bridge

Iconic cantilever steel bridge standing as Kolkata's timeless landmark.



Hooghly River Sunset

Serene boat cruises along the Ganges with sunset views of historic Kolkata.

DELEGATE INFORMATION

PRE-CONFERENCE WORKSHOP • CONFERENCE T-SHIRT • ACCOMMODATION

PRE-CONFERENCE WORKSHOP



ANNOUNCEMENT FOR

PRE-CONFERENCE WORKSHOP DURING IASTA 2026

ON

Carbonaceous Aerosol Measurements: Instrumentation and Data Processing

Accurate measurements of carbonaceous aerosols are essential for understanding air quality, human health impacts, source contributions, and climate forcing. Recent advances in instrumentation now enable comprehensive characterization of carbonaceous aerosol (CA) species, including absorbing CA: black carbon (BC) and brown carbon (BrC) and other primary and secondary organic carbon (OA) species, while providing improved source apportionment capabilities and near real-time data analysis.

26 October 2026
(Monday)

02:30 PM – 05:30 PM
(IST)

IIT Kharagpur Research Park Foundation
Kolkata, West Bengal

WORKSHOP DETAILS & REGISTRATION
Visit the workshop webpage for the latest information, agenda updates and registration:
aerosolmageesci.com/workshop-invitation-at-iasta-2026/
OR SCAN THE QR CODE TO REGISTER



Carbonaceous Aerosol Measurements: Instrumentation and Data Processing

 26 October 2026 (Monday)  02:30 PM – 05:30 PM (IST)
 IIT Kharagpur Research Park Foundation, Kolkata

ACCOMMODATION

CONFERENCE HOTEL

Holiday Inn Express New Town Kolkata

AN IHG HOTEL

 CF-15, Action Area 1C, New Town, Near Axis Mall
Kolkata, West Bengal – 700156

STUDENT SUPPORT SCHEME

50% of the per-day room charges subsidised by the IASTA-2026 Conference Fund
Last Date: 12 October 2026

7 PARTNER HOTELS IN NEW TOWN, NEAR THE VENUE

Amar Raj New Town Stay | Reliance Guest House | Eco View Inn
Himgiri Guest House | Eco Corporate Inn | Eden Rocks | Shiva Inn

- Booking period: 24 – 31 October 2026 (maximum stay 5 days)
- Documents: Abstract ID, Institute ID card scan, Payment slip

BOOK YOUR HOTEL iasta.org.in/book-hotel-ia26.html

CONFERENCE T-SHIRT



Jockey super combed cotton,
round neck
Collect at the registration desk



SCAN TO CONFIRM SIZE & COLOUR



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Supervised by Prof. Shubha Verma
shubha@iitkgp.ac.in • facweb.iitkgp.ac.in/~shubhaverma

Environmental Engineering and Management Section
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Aerosols for a Sustainable Future: Bridging Climate, Air Quality, and Health

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27th to 30th October 2026

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