9TH INDIAN INTERNATIONAL CONFERENCE ON AIR QUALITY MANAGEMENT
IICAQM 2024
MEASUREMENT, MODELLING, HEALTH RISK AND PUBLIC POLICY
18TH - 20TH DECEMBER 2024

Wednesday, 18th December 2024	
Venue T.T.J Auditorium, IC&SR, Indian Institute of Technology Madras	
08:30 - 9:30	Registration & Orientation
09:30-10:00	**Inaugural address** **Welcome address:** Prof. Shiva Nagendra S M, IIT Madras **About conference:** Prof. Uwe Schlink, Helmholtz Centre for Environmental Research - UFZ, Germany **Inaugural address:** Dr. Jayanthi M I.F.S., Chairperson, TNPCB **Address by Guest of Honour:** Dr. E Theranirajan, Dean, Madras Medical College **Presidential address:** Prof. V Kamakoti, Director, IIT Madras **Closing remarks:** Prof. Sotiris Vardoulakis, University of Canberra, Australia
10:00-10:30	**Felicitation "Air Quality Management Lifetime Achievement Award"** **About the award:** Prof. Gufran Beig, NIAS, Bengaluru **Introduction of awardee:** Prof. Prashant Kumar, University of Surrey, UK **Awardee acceptance speech:** AQMLTA awardee 2023 - Shri. S K Gupta, Envirotech Instruments Pvt. Ltd. AQMLTA awardee 2024 - Prof. Virendra Sethi, IIT Bombay **Moderator:** Prof. Shiva Nagendra, IIT Madras

Time	Session	Speaker
10:30-11:00	**Keynote Address 1:** Challenges in protection and improvement of air quality management in India	Shri. S K Gupta, Envirotech Instruments Pvt. Ltd.
11:00-11:30	**Keynote Address 2:** Role of academia and research in Environmental Protection – Some thoughts	Prof. Virendra Sethi, IIT Bombay
11:30-11:45	Break	
	INVITED TALKS Chair: Prof. Sotiris Vardoulakis (University of Canberra, Australia) Rapporteur: Dr. Aswin Giri (IIT Madras)	
11:45-12:05	**Invited Talk 1:** Health effects of air pollution: Going beyond particle mass concentrations	Prof. Harish Phuleria, IIT Bombay
12:05-12:25	**Invited Talk 2:** Monitoring temperature and humidity in UK theatres (Online)	Dr. Richard J Ball, University of Bath, UK
	TECHNICAL SESSION I: Air quality measurement and monitoring Chair: Prof. Uwe Schlink (Helmholtz Centre for Environmental Research - UFZ, Germany) Rapporteur: Ms. Lakshmi Pradeep (IIT Madras)	
12:25-12:40	**Paper 1:** Development of air quality monitoring web application using Google Earth engine	Abhimanyu Kumar Gond, IIT (BHU) Varanasi
12:40-12:55	**Paper 2:** Mitigating humidity interference in PM2.5 measurement using heated inlet with laser scattering technology	Kruti Davda, Oizom Instruments Pvt. Ltd.
12:55-13:10	**Paper 3:** A remote sensing approach to analyze impact of crop residue burning on urban air quality using fire characteristics and PM2.5 to CO ratio	Sayeed Anwar, IIT Roorkee
13:10-13:25	**Paper 4:** Bench-scale study for control of dust resuspension from playgrounds and material stockpiles using dust suppressants	Umangi Mehta, IIT Bombay
13:25-14:30	Lunch Break	

	INVITED TALKS Chair: Prof. Virendra Sethi (IIT Bombay) Rapporteur: Dr. M R EzhilKumar (IIT Madras)	
14:30-15:00	**Keynote Address 3:** We All Breathe the Same Air	Prof. Prashant Kumar, University of Surrey, UK
15:00-15:30	**Keynote Address 4:** Recognizing environmental stressors with the help of wearables	Prof. Uwe Schlink, Helmholtz Centre for Environmental Research - UFZ, Germany
15:30-15:50	**Invited Talk 3:** Dispersion Modeling Analyses of Air Emissions from Accidental Release of Hazardous Chemicals in Southern Louisiana	Prof. Kuruvilla John, University of North Texas, USA
15:50-16:10	**Invited Talk 4:** Urban air pollution monitoring using drone mounted low-cost particulate matter sensor	Dr. Ajit Ahlawat, Delft University of Technology, Netherlands
16:10-16:30	Break	
	TECHNICAL SESSION I conti.: Air quality measurement and monitoring Chair: Prof. Gufran Beig (National Institute of Advanced Studies, Bengaluru) Rapporteur: Mr. Shoumick Mitra (IIT Madras)	
16:30-16:45	**Paper 5:** Temperature and relative humidity driving ozone levels at Kharagpur, India	Samrat Santra, IIT Roorkee
16:45-17:00	**Paper 6:** Annual variations in Air Quality parameters at Kalpakkam Site (East Coast of India)	M. Sowmya, Indira Gandhi Centre for Atomic Research
17:00-17:15	**Paper 7:** Seasonal and diurnal variations of PM2.5 and ozone in Bangalore: Impact of meteorological factors on air quality	H N Sowmya, Dayananda Sagar College of Engineering
17:15-17:30	**Paper 8:** Real-Time Dust Monitoring for Metro Construction with Low-Cost Sensors	Sailee Redekar, Sinhgad College of Engineering
17:30-19:00	**Poster Presentation Session: Elevator Pitch** Exhibition Hall, ICSR **Chairs:** Dr. Kraichat Tantrakarnapa (Mahidol University, Thailand), Prof. Sotiris Vardoulakis (University of Canberra, Australia), Prof. Uwe Schlink (Helmholtz Centre for Environmental Research - UFZ, Germany), Prof. Prashant Kumar (University of Surrey, UK) & Prof. Harish Phuleria (IIT Bombay)	
19:30-21:00	Conference Dinner Venue: AC Dining Hall, ICSR	

Thursday, 19th December 2024		
Venue T.T.J Auditorium, IC&SR, Indian Institute of Technology Madras		
INVITED TALKS Chair: Prof. Prashant Kumar (University of Surrey, UK) Rapporteur: Mr. Saket Ranjan (IIT Madras)		
09:00-09:30	**Keynote Address 5:** Quantitative assessment of emission source contributions to ambient air pollution (Online)	Prof. Nguyen Thi Kim Oanh, Asian Institute of Technology, Thailand
09:30-10:00	**Keynote Address 6:** Estimating particulate emissions from roads (Online)	Prof. Akula Venkatram, University of California, Riverside, USA
10:00-10:20	**Invited Talk 5:** Micro(nano)plastics particles in the air and its implications to human health	Prof. Thava Palanisami, The University of Newcastle, Australia
10:20-10:40	**Invited Talk 6:** Air pollution and trace elements	Dr. Arul Veerappan, NYU Langone Health, New York
10:40-11:00	**Invited Talk 7:** Sensor network optimization, source mapping with inverse modelling and real-time air quality forecasting using advanced CFD based tools	Mr. Sreejith K V, Fluidyn Consultancy Pvt. Ltd.
11:00-11:15	Break	
TECHNICAL SESSION II: Air quality modelling and machine learning approaches Chair: Dr. Kraichat Tantrakarnapa (Mahidol University) Rapporteur: Mr. Sarup Das (IIT Madras)		
11:15-11:30	**Paper 9:** Chemical characterization and source apportionment of PM10: A case study of Silchar, Assam	Himanshu Gupta , IIT Guwahati
11:30-11:45	**Paper 10:** Forecasting PM2.5 levels using ARIMA: Insights from temporal data analysis	Aishi Nath, NIT Meghalaya
11:45-12:00	**Paper 11:** Influence of building configurations on airflow, dispersion and ventilation of traffic emissions in urban street canyons-A CFD approach	Namrata Mishra, IIT Kharagpur
12:00-12:15	**Paper 12:** Deep learning based brick kiln detection using SENTINEL-2 imagery.	Avinash Mehta, IIT Roorkee
12:15-12:30	**Paper 13:** Particulate Matter (PM2.5), Temperature, and Humidity Interactions: Comparing Multiple Linear Regression and Machine Learning Models in Urban Areas	Rochitra Keisham, Manipur University
12:30-12:45	**Paper 14:** Machine learning imputation techniques for optimum air quality index predictions	Salvator Lawrence, VIT
12:45-13:00	**Paper 15:** A comparative source apportionment studies at five cities of India and air pollution control technologies	Nidhi Verma, IIT Madras
13:00-14:00	Lunch Break	
INVITED TALKS Chair: Prof. Priya Rajagopalan (RMIT University, Australia) Rapporteur: Mr. Manjunath S P (IIT Madras)		
14:00-14:30	**Keynote Address 7:** Gaps and limitation in air quality management in India - Suggestive steps to be taken to improve air quality	Dr. B Sengupta, Ex-Member Secretary, CPCB
14:30-15:00	**Keynote Address 8:** Air quality resource framework of India	Prof. Gufran Beig, NIAS, Bengaluru
15:00-15:20	**Invited Talk 8:** International environmental governance and its influence on Air Quality Management in India	Dr. Ajay Deshpande, IIT Bombay
15:20-15:40	**Invited Talk 9:** Aerosol bioparticles exposure and health risk assessment at landfill site in Nagpur	Dr. Krishnamurthi Kannan, CSIR-NEERI
15:40-16:00	Break	
Stakeholder Engagement Workshop Chairs: Dr. B. Sengupta (CPCB), Prof. Sotiris Vardoulakis (University of Canberra, Australia), Prof. Prashant Kumar (University of Surrey, UK), & Prof. Uwe Schlink (Helmholtz Centre for Environmental Research - UFZ, Germany) Moderators: Prof. Shiva Nagendra (IIT Madras) & Sree Kumar Kumaraswamy (WRI)		
16:00-16:20	**Invited Talk 10:** Air quality management perspectives from ACAAS program: Context setting presentation	Dr. Prakash Doraiswamy, World Resources Institute (WRI), India
16:20-16:40	**Invited Talk 11:** Role of IIT Madras as Institute of Repute in National Clean Air Programme	Prof. Shiva Nagendra, IIT Madras
16:40-17:00	**Invited Talk 12:** Experience and challenges in managing air quality in selected million plus cities	City representatives
17:00-18:00	**Panel discussion** on 'Informing Policies with Science: How can Cities Prepare for NCAP 2.0?'	

Friday, 20th December 2024	
Venue T.T.J Auditorium, IC&SR, Indian Institute of Technology Madras	
Workshop on 'Indoor Air Quality' Chair: Prof. Prakash M Maiya (IIT Madras) Rapporteur: Ms. Chaithra S (IIT Madras)	
09:00-09:30	**Keynote Address 9:** Clean Energy for Healthy Environments and Lives: Climate, air quality and health co-benefits	Prof. Sotiris Vardoulakis, University of Canberra, Australia
09:30-10:00	**Keynote Address 10:** Integrative approaches to combat air pollution and health impacts through One Health	Dr. Kraichat Tantrakarnapa, Mahidol University, Thailand
10:00-10:20	**Invited Talk 13:** Ventilation retrofitting for improving indoor air quality	Prof. Priya Rajagopalan, RMIT University, Australia
10:20-10:40	**Invited Talk 14:** Adverse health effects of air pollution	Dr. Anant Mohan, AIIMS
10:40-11:00	**Invited Talk 15:** Impact of daily Air Quality Index information and monitoring on air pollution awareness and respiratory health: A randomized pilot study	Dr. A Chitra, Madras Medical College
11:00-11:15	**Invited Talk 16:** Characteristics of particulate matter resuspension due to human activities in indoor environments	Dr. Chithra V S, Centre for Water Resources Development and Management
11:15-11:30	**Invited Talk 17:** Particulate Matter (PM10) bound Microplastics in urban area and its associated health risks	Dr. Lekshmi V Mohan, NIT Trichy
11:30-11:45	Break	
TECHNICAL SESSION III: Air quality health impacts and policy interventions Chair: Dr. Anant Mohan (AIIMS) Rapporteur: Debabrat Biswal (IIT Madras)	
11:45-12:00	**Paper 16:** Association of urinary metabolites of carcinogenic pollutants with cognitive function among adult population of West Bengal, India: A cross-sectional study	Anupa Yadav , ICMR - Centre for Ageing and Mental Health
12:00-12:15	**Paper 17:** Solar Microgrids to Combat Household Air Pollution in Rural India: A Case Study	Gopika Indu, University of Canberra
12:15-12:30	**Paper 18:** Health impact assessment of road traffic noise in two Indian cities	Lakshmi Pradeep, IIT Madras
12:30-12:45	**Paper 19:** Factors affecting road dust and control measures: A review	Sourav Mishra, IIT (Indian School of Mines), Dhanbad
12:45-13:00	**Paper 20:** Indoor air quality assesment and monitoring of newly constructed classrooms in VVCE campus using IoT	Shilpa B S, Vidyavardhaka College of Engineering
13:00-14:00	Lunch Break	
14:00-15:00	**Air Quality Management Lecture # 51:** An overview of Air Quality Monitoring system and data analysis	Dr. K V George, NEERI
15:00-16:00	**Panel Discussion** on **'Urban air quality management: Can artificial intelligence replace human intelligence? '** Prof. Sotiris Vardoulakis (University of Canberra, Australia), Prof. Prashant Kumar (University of Surrey, UK), Dr. Kraichat Tantrakarnapa (Mahidol University, Thailand), Prof. Uwe Schlink (Helmholtz Centre for Environmental Research - UFZ, Germany), Dr. B. Sengupta (CPCB), Dr. Arul Veerappan (NYU Langone Health, New York), Prof. Priya Rajagopalan (RMIT University, Australia) & Dr. Anant Mohan, AIIMS Moderator: Prof. Shiva Nagendra	
Closing ceremony	
16:00-17:00	Valedictory function & Prize distribution	
17:00-18:00	High Tea	