Indoor air webinar Chapter 1

Emerging Trends & New Technologies on Indoor Air Purification (IAP)

WEDNESDAY APRIL 7, 2021

India 6:30pm IST

1:30pm GMT 9:00am EST 6:00am PST We always associate air pollution as an outdoor phenomenon, but conveniently forget that the same polluted outdoor air fills our houses, hospitals, and office-buildings. The daily use of modern products adds harmful VOCs to the indoor air. Allergens (pet dander, mold, dust, and cockroach allergen proteins) and infectious microbes (bacteria, fungi, and viruses) are found at higher levels indoors than outdoors.

These pollutants can potentially lead to serious infections, chronic respiratory, pulmonary diseases, and cancers. The IAP webinar series is aimed at bringing indoor air quality to the forefront of the scientific community and the general public.

This platform will discuss and disseminate emerging trends in air purification systems, technologies, and testing methodologies.

JOIN ZOOM

Speakers



Chris Hogan

Professor of Mechanical Engineering at the University of Minnesota.

He received his Ph.D. from Washington University in Saint Louis in 2008 and was a Postdoctoral Associate at Yale University before joining the University of Minnesota in 2009. His research work focuses on gas-phase chemical physics, aerosol science, and particle technology. One of his focus areas of research has been airborne virus transport He has published more than 115 papers and is the Editor-in-Chief of the Journal of Aerosol Science.



Randy Cooper

Vice President of Technical Operations and Standards at AHAM.

Joined AHAM in July 2016 as AHAM's Vice President of Technical Operations & Standards. Randy is a veteran appliance industry leader with 27 years of experience with Whirlpool and Maytag prior to coming to AHAM. He has held leadership positions in product design, research and development, global product approval, design for product safety, and standards.



Phil Myers

Senior Principal Research Engineer at Molekule.

He received a Ph.D. in Chemical Engineering from the University of South Florida in 2015. As a researcher at Molekule, he has assisted in the development of novel air cleaning systems, designed and implemented testing methods for air cleaners, and supervised field investigations of air cleaner performance. Dr. Myers has over 10 years of experience in research and engineering analysis in the areas of indoor air and environmental quality.

Program

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5 mins 10 mins 5 mins 10 mins

2 mins

Welcome Address About the Event & ASIRE Inaugural Address Moderator

Dr. Ganga Ram Chaudhary Dr. Jaspreet Dhau

Dr. Raj Kumar, Vice-Chancellor (President), Panjab University Chandigarh Dr. Ajeet Kaushik

40 mins Prof. Chris Hogan

Mid-scale Wind Tunnel Testing of Residential Control Technology for Coronavirus Aerosol Collection and Inactivation

The presentation will describe a medium-scale tunnel design, performance, the design of coronavirus test experiments, and selected results of testing with filtration, catalytic, and UVGI systems in coronaviruses aerosol collection and inactivation

Break inactivation.

30 mins Randy Cooper COVID-19 and portable air cleaners

A summary of the papers written on air cleaners in the COVID-19 environment. A discussion on future test methods for viruses and portable air cleaners.

10 mins Introduction CI-BioD Dr. Varinder Garg

20 mins Dr. Phil Myers Is solar air cleaning feasible? An analysis of the Xi'an air cleaning tower
Climate change presents numerous challenges to air quality in indoor and outdoor

spaces.

At the same time, conventional air cleaning strategies can require significant costs in energy and/or carbon. Here we present a brief feasibility study of the central air cleaning tower, which was implemented in the Chinese city of Xi'an.

5 mins Vote of thanks Jaya Rao, CEO Molekule

Organizers & institutions

Dr. Jaspreet DhauPresident ASIRE & Sr.
Director, Molekule

Prof. Ganga Ram Chaudhary Director SAIF/CIL PU Chandigarh

Dr. Ajeet Kaushik Secretary, ASIRE & FPU lakeland

Dr. Rajeev Kumar PU Chandigarh

Prof. Prashant Gautam PU Chandigarh

Prof. Surinder Rana Professor, CIBOID

Prof. Harish Kumar PU Chandigarh

J.P. Stallard Dave Sanabria VP, Molekule

Stephanie Borman
Senior Director, Molekule

Academy of Scientists for Industrial Research and Education (ASIRE)

The ASIRE is an innovative and unique global platform established for scientists and educators to explore innovations and novel education approaches for supporting revenue-oriented translational research. The ASIRE is determined to foster coordination among technologists, academicians, and investors through communication and networking. ASIRE aims to support research inter-connectivity through the following three ways

1—Recognizing pioneers in industrial research and education by conferring excellence award

2—Bringing scientists, educators, and investors on a common platform

3—Connecting academia and industries to explore future prospects

Panjab University

4th Oldest University in Modern India (ESTD, 1882) and ranks 2nd on the Atal Ranking of Institutions on Innovation Achievements (ARIIA). The Times Higher Education World Ranking has placed PU in the 4th Rank Bracket in 2021. The University offers 50 UG, 125 PG, 10 PG-Integrated, 20 M.Phil, 62 Ph.D. programs. The University has 78 Teaching & Research Departments and 15 Centres/ Chairs. There are 188 affiliated colleges, 4 Regional Centres & 6 Constituent Colleges associated with the University.

Indian Council of Medical Research (ICMR)-Centre of Innovation in Bio-Design, Chandigarh (India)

Center for Innovation and Bio-Design (CIBioD) is an initiative of the Indian Council of Medical Research aimed at promoting research, innovation, and entrepreneurship in the Healthcare System.

CIBioD is headquartered at Asia's premier medical research institute, PGIMER, Chandigarh (UT). India.

ICMR-CIBioD aims to promote innovation in medical devices, instruments, life-sciences, healthcare technology, education, clinical research, and healthcare delivery.

Molekule Event sponsor

Molekule is on a mission to provide clean indoor air to everyone, everywhere.

Molekule's range of air purification solutions have been reviewed and validated by third-party laboratories, as well as continual internal testing, and its medical-grade products have been granted medical device clearance by the FDA.

Based on 25 years of research and development, the company's patented photoelectrochemical oxidation (PECO) technology destroys pollutants, including VOCs, mold, bacteria, viruses, and allergens.

For more information, visit our India <u>Molekule</u> site.

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