



International Workshop on Greener Pesticide Spray Management Towards a Sustainable Future

About the Workshop

This two-day international workshop is a part of the joint SPARC program involving Jadavpur University, IIT Madras, and IIT Gandhinagar from India, and the University of Illinois at Chicago, Cornell University, Virginia Tech, and MIT from the United States. The workshop focuses on pesticide spray management systems aimed at promoting a sustainable agricultural industry, addressing a wide range of applications within the sector. Our goal is to engage a ~~academic~~ academic community and leading international experts who are at the forefront of wettability engineering, droplet-surface interactions, spray systems, pesticide management, and biosensors. These areas have direct relevance to scientific challenges in agriculture and the potential to foster the next generation of devices and systems in the industry. Additionally, by involving early-career researchers in this workshop, we aim to inspire and energize the next generation of interdisciplinary experts in these critical fields.

Themes

1. Interfacial Phenomena and Wettability Engineering
2. Droplet-surface Interactions
3. Droplet Evaporation
4. Spray Systems
5. Pesticide Management
6. Biosensors
7. Diagnostics and Simulations

Venue

Jadavpur University Salt Lake Campus

Workshop Dates

24-25 February 2025

Organizers



Ranjan Ganguly
Jadavpur University



Constantine M Megaridis
University of Illinois Chicago



Sunghwan (Sunny) Jung
Cornell University



Pallab Sinha Mahapatra
IIT Madras



Soumyadip Sett
IIT Gandhinagar



24-25 February 2025

Jadavpur University
Salt Lake Campus



Scheme for Promotion of Academic and Research Collaboration

International Workshop on Greener Pesticide Spray Management Towards a Sustainable Future

Keynote Speakers



Prof. Kripa K Varanasi
MIT, USA

Smart pesticide management systems, droplet impact dynamics, spray systems



Prof. Suman Chakraborty
IT Kharagpur

Surface engineering for microfluidic biosensors



Prof. Saptarsi Basu
IISc Bangalore

Advanced diagnostics on droplets



Prof. Gautam Biswas
IIT Kanpur

Fluid Mechanics, drops, bubbles, diagnostics and simulation



Prof. Mahesh V Panchagnula
IIT Madras

Spray nozzle design, drying, atomization



Prof. Constantine M. Megaridis
University of Illinois Chicago

Wettability engineering, droplet surface interaction, green formulation



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Prof. Sungwang (Sunny) Jung
Cornell University

Droplet-leaf interaction,
fluid dynamics pertaining
to plants and animals



Dr. Jonathan Boreyko
Virginia Tech

Droplet dynamics, synthetic trees,
Interfacial fluid mechanics,
wettability of micro/nano
structured materials



Prof. Sajan Daniel George
MAHE

Wettability, Surface Engineering,
Optical Tweezers, Nanofluids



Prof. Manish K. Tiwari
University College London

Droplets, wettability engineering,
waste-water treatment



Prof. Ashoke De
IIT Kanpur

Droplet spray and modeling,
multiphase flows



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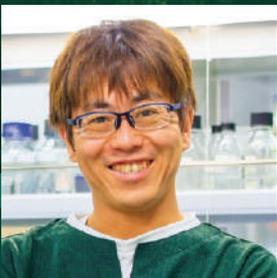
Prof. K. N. Agrawal
ICAR-ICAE Bhopal

Agricultural engineering,
ergonomics, precision farming



Dr. Souvick Chatterjee
MathWorks

AI and IoT for smart agriculture



Prof. Yutaka Sumino
Tokyo University of Science

Droplets, biological physics,
soft matter physics

Contact Details

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