

National Carbonaceous Aerosols Programme

Understanding scientific complexities related to carbonaceous aerosols, focussing on issues underlying their origin and fate, and their role as drivers of regional climate change over India

CarbOnaceous AerosoL Emissions, Source apportionment & ClimatE impacts

Workshop on Positive Matrix Factorization (PMF)

August 22 - 24, 2019

at Lecture Hall Complex, Indian Institute of Technology Bombay

Contact

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How to reach IIT-Bombay

- 1. By Air: Mumbai airport has 2 Terminals.
 - Terminal 2 (Chatrapati Shivaji International Airport / Sahar Airport): located 9kms from IIT Bombay. Ola and Uber services can be hired from P7 East and West respectively outside the arrival hall. Auto rickshaws, black & yellow taxi and buses are available from Level 0.
 - Terminal 1 (Domestic Airport, Santa Cruz): located 14kms away. Ola, Uber, black & yellow taxi and auto rickshaws are available outside the arrival hall.
- By Rail: While arriving by train one can elite in any of these railway stations. Suburban trains, auto rickshaws, app based taxis (Ola & Uber), black & yellow taxis and buses are available from all these railway stations.
 - Central railway: CSTM, Dadar, LTT Kurla, Thane
 - Western railway: Mumbai central, Dadar, Bandra Terminus, Andheri, Borivali
- 3. Suburban Railway Transport:
 - By Central Railway Suburban train can elite at Kanjur Marg, Vikhroli or Ghatkopar which are the nearest stations from IITB.
 - By Western Railway Suburban train will have to elite at Andheri. Auto rickshaws and buses are available from all these railway stations.

Accommodation

1. P.I./co.I.: Individual rooms are arranged in Padma Vihar guest house inside IIT-Bombay. *Charges*

Single occupancy: Rs. 2400/-

 Double occupancy: Rs. 4000/ Room charges include bed tea and buffet breakfast at the guest house.

Room charges against valid receipt to be paid directly at the guest house during check-out.

2. Students and technical staff: Rooms on twinsharing basis are arranged for both boys and girls separately in IIT-Bombay Student's Hostel. *Charges*

- Room: Rs.150/person/24hrs.
- Bed roll: Rs.50/24hrs

Room and bed roll charges against valid receipt to be paid directly to concerned Hostel Manager during check-in.

Details on hostel number, location and dining charges will be communicated 2 weeks prior to the workshop.

Training Outline:

- 1. Natural association of species in different sources with overview of why to perform source apportionment.
- 2. Basis of receptor model and source apportionment models.
- 3. Generation of concentration data from the SASS sampling, chemical analysis and uncertainty determination for PMF input.
- 4. Hands-on workshop on EPA-PMF v5.0 for a set of data and uncertainty.
- 5. Base-run result interpretation and checking g-space to understand rotational freedom for different factors.
- BS, DISP and BS-DISP methods for error estimation in species.
 Informative session on programming language R and library open air for plotting and analysis.