

WELCOME TO ENVIRONMENTAL ENGINEERING (EE)



Dr. Chandan Sarangi



Dr. Indumathi M Nambi



Dr. Ligy Philip



Dr. Mathava Kumar S



Dr. Mohan S



Dr. Sachin S. Gunthe



Dr. Shiva Nagendra S. M



Environmental Engineering



INDIAN INSTITUTE OF TECHNOLOGY MADRAS



Dr. Chandan Sarangi

PhD (Indian Institute of Technology, Kanpur, India)

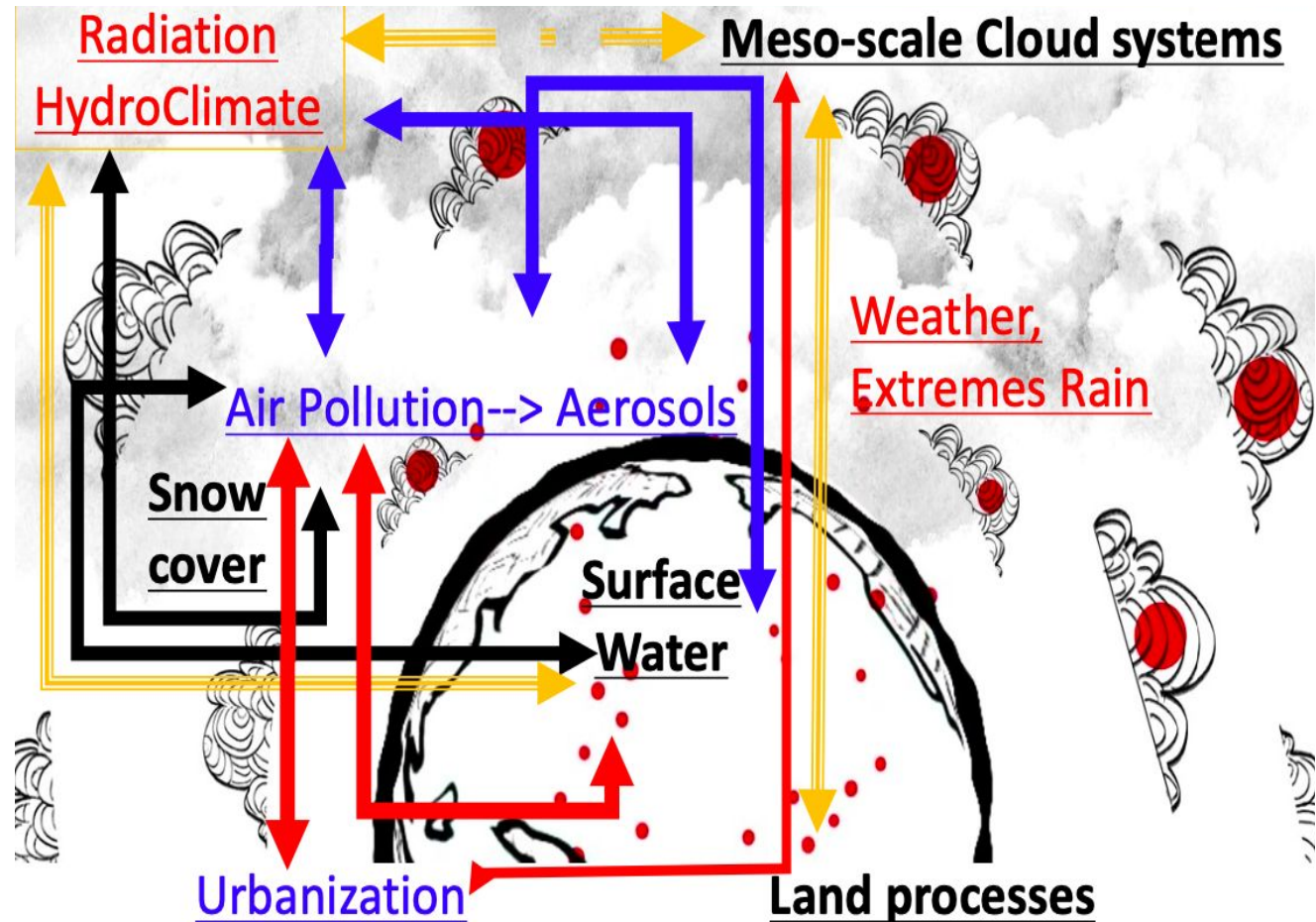
Assistant Professor, Civil Engineering

chandansarangi@iitm.ac.in



Major Areas of Research

- Impact of aerosols (particulate air pollution) on hydrometeorological processes (clouds, rainfall, fog, transpiration)
- Impact of dust deposition on Himalayan hydrology
- Modelling fate and transport of aerosols at regional and global scale
- Relative role of aerosols on temperature and extreme rainfall over Megacities



Aerosols and Hydro-Meteorology (ahm) Lab

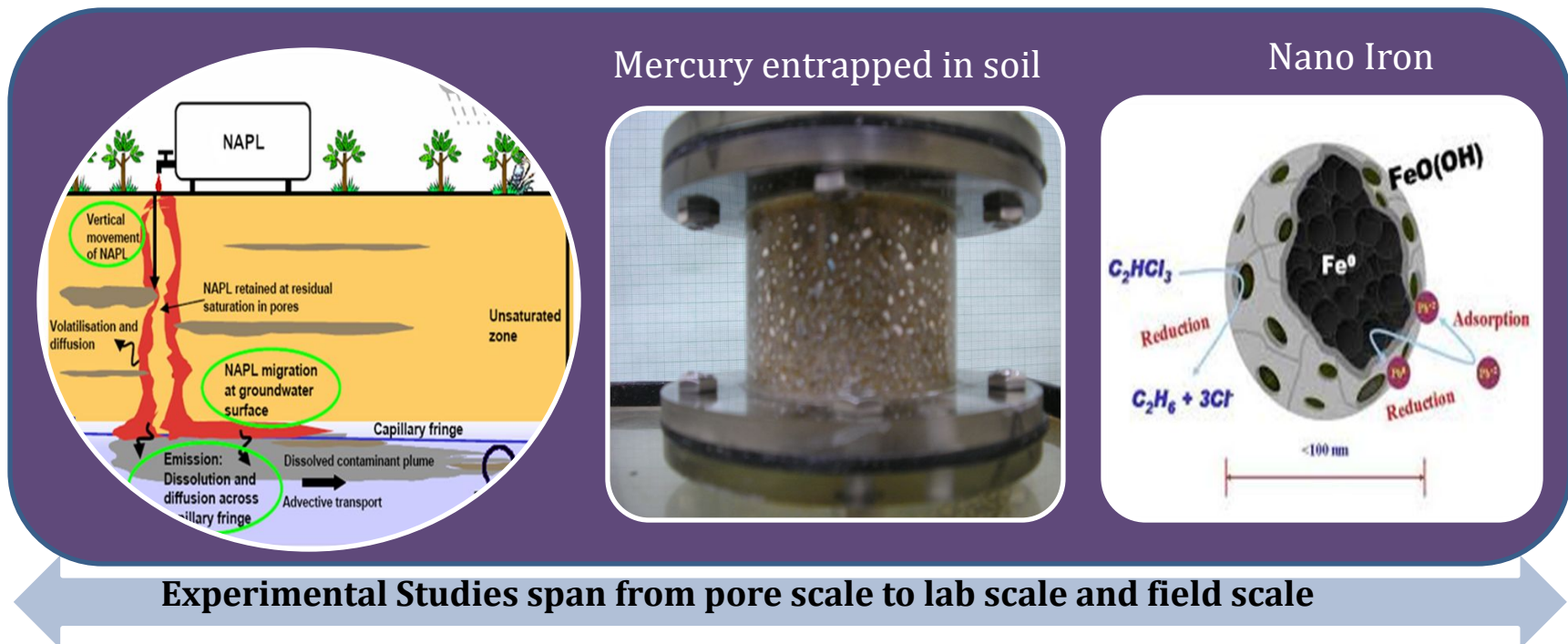
Dr. Indumathi M Nambi
Ph.D, Clarkson University, U.S.A
Professor, Dept. of Civil Engineering

044-2257-4289; indunambi@iitm.ac.in

http://www.iitm.ac.in/indu_edu



- ❖ Ground Water Contamination including NAPL /Transport and Remediation
- ❖ Industrial Wastewater Treatment/Physical and Chemical Processes
- ❖ Water and Waste Water /Tertiary treatment for reuse



Dr. Ligy PhilIP
Ph.D, IIT Kanpur, India
Professor, Dept. of Civil Engineering

044-2257-4274; ligy@iitm.ac.in
http://www.civil.iitm.ac.in/ligy_edu



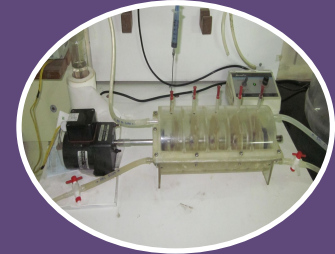
- ❖ Bioremediation of Contaminated Water, Soils, Air and Aquifers
- ❖ Water Treatment and Rural Water Supply
- ❖ Domestic and Industrial Wastewater Treatment, Recycle and Reuse



To cleanup soils , aquifers and air contaminated with organic and inorganic toxic pollutants



Water quality assessment and providing tailor made centralized and point of use water treatment technologies



Sustainable Wastewater management using centralized/decentralized and onsite systems

Pollution Abatement, Drinking water quality assessment and treatment



Dr. S. Mathava Kumar

Associate Professor, Civil Engineering

044-2257-4267; mathav@iitm.ac.in

http://www.civil.iitm.ac.in/mathav_edu



Major Areas of Research

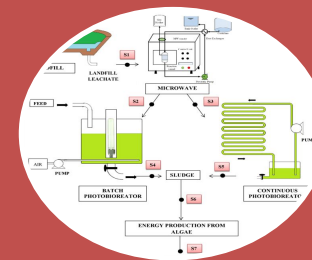
- Membrane Technology for Water and Wastewater Treatment
- Emerging Contaminants/Micro-Pollutants Removal
- Development of Low-cost adsorbents & Remediation of Contaminated Systems



Technology for Emerging Contaminants/Micro-Pollutants Removal



Membrane (Bio)reactor for wastewater treatment



Solid Waste Management and Leachate Treatment

← Application of technologies for water, wastewater and solid waste management →

Dr. S. Mohan

Ph.D, Indian Institute of Science, Bangalore

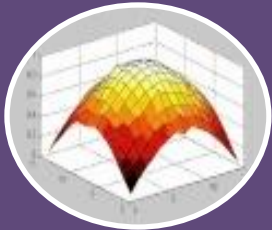
Professor, Dept. of Civil Engineering

044-2257-4261; smohan@iitm.ac.in

http://www.civil.iitm.ac.in/mohan_edu



- ❖ Environmental systems analysis & modeling,
- ❖ Environmental impact analysis,
- ❖ Reservoir operation,
- ❖ Contaminant transport modeling,
- ❖ Sustainable development, GIS & applications,
- ❖ Evolutionary algorithms & their applications



Evolutionary Algorithms



Sustainable Development



Water, Air, and Land
Pollution Abatement

EARTH ALLOWS YOU TO STAND; LET IT STAND THE WAY IT IS

Dr. Sachin S. Gunthe

Ph.D, Indian Institute of Tropical Meteorology, India

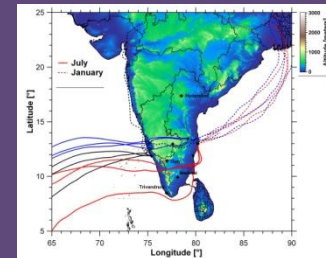
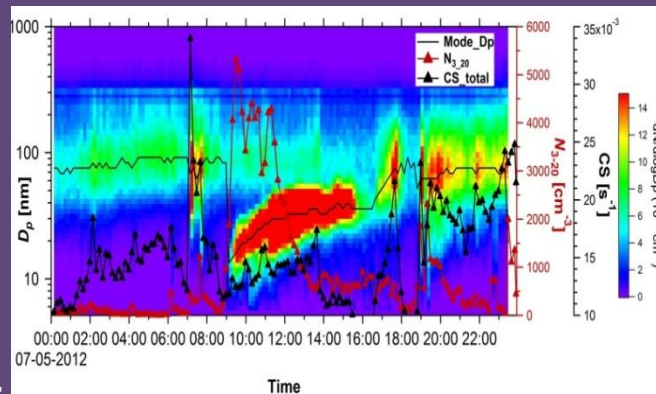
Associate Professor, Dept. of Civil Engineering

044-2257-4308; s.gunthe@iitm.ac.in

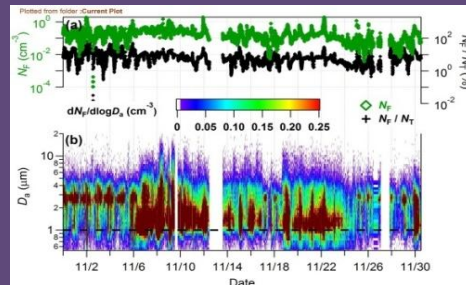
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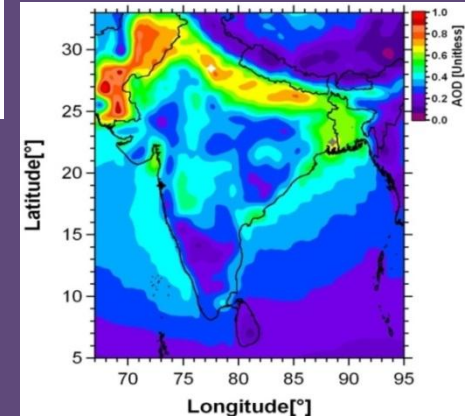
- ❖ Properties and interaction of atmospheric aerosols including bioaerosols
- ❖ Role of atmospheric aerosols in Earth system science
- ❖ Aerosol cloud precipitation interaction – Indian monsoon



Field campaigns



Laboratory studies



Numerical simulations

Dr. S.M. Shiva Nagendra

Ph.D., IIT Delhi, India

Professor, Department of Civil Engineering

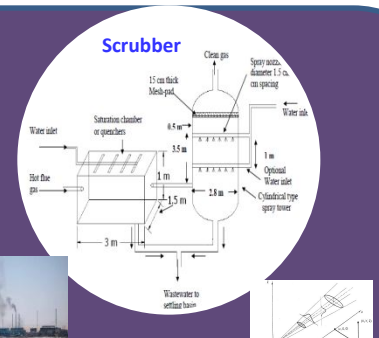
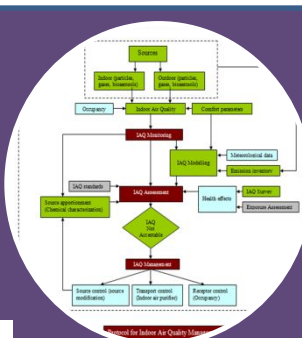
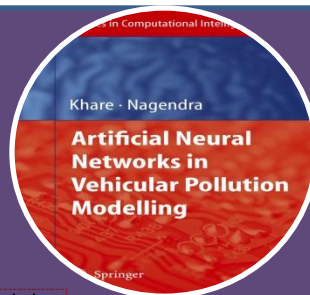
044-2257-4290; snagendra@iitm.ac.in

http://www.civil.iitm.ac.in/shiva_edu/



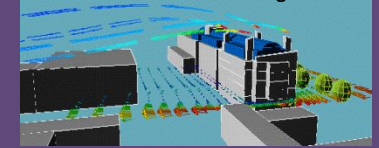
RESEARCH INTERESTS

Urban Air Quality Management	Emission inventory, air quality monitoring, modelling, source-receptor modelling and control strategies
Vehicular Pollution Modelling	Deterministic, statistical and artificial neural network approaches
Indoor Air Quality	Monitoring, modelling and control strategies
Industrial Air Pollution Control	Design of air pollution equipments and environmental impact assessment
Environmental data analysis	Multivariate data analysis and environmental auditing

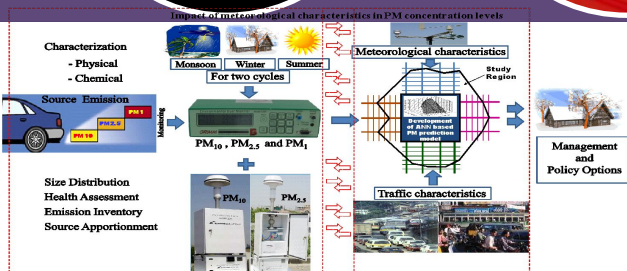


Environmental Pollution Index

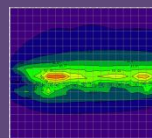
Stack Emissions Modelling



Industrial Pollution Control



Urban Air Quality Management



Indoor Air Quality Management

