

## Research Details:



**Dr. Arvind K Sharma**

**Associate Professor**

PhD: IIT Madras

### Research area:

Water and Wastewater Treatment, Fluidization, Bioreactor Analysis & Design and Modeling & Simulation

- ❑ My **research interests** lie at the seamless interface: appreciating and understanding the beauty of *Transport, Reactions & Thermodynamics* in various Environmental and Bioprocess systems for the design of (their) sustainable applications.
- ❑ 2/3 (multi) phase systems are commonly used for *physical, chemical & biological* processes. Understanding their (underlying) *hydrodynamic* and *mass transfer (separation)* characteristics, helps one to explore their potential in (many) diverse fields of applications.
- ❑ Driven by these and similar ideas, our focus is on developing an insight into such aspects of **selected systems**. Some of them are as follows:
  - ❑ *Hydrodynamic and Mass Transfer Aspects of Fluidized Beds*
  - ❑ *Flow Pattern and Transport of Mass in Loop Reactors*
  - ❑ *Hydrodynamic and Mass Transfer Characteristics of Bioreactors*
  - ❑ *Behavior of Non-ideal Vapour (Gas) and Liquid Mixtures*
  - ❑ *Thermodynamic Analysis of Bioprocesses*

