

Admission to Ph.D. Program Monsoon 2025 Chemical Engineering



About the University & Department

Shiv Nadar Institute of Eminence (SNIOE) is a comprehensive, multidisciplinary, research-focused and student-centric university. We are one of the four private institutes in India to have received the IoE status. The department has state-of-the-art facilities, with ongoing projects funded from BPCL, DST, SERB, UPCST, La Foundation Dassault Systèmes and SNIOE.



Ph.D. Benefits

STIPEND

INR 45,000/month (Y1 & Y2)

INR 50,000/month (Y3 - Y5)

RESEARCH GRANT

INR 1,50,000 for Scopus-indexed conference travel over 5 years

Application fee of Rs. 1,200 is waived off.

Eligibility

M.Tech/M.E./M.Sc degree in Chemical Engineering or in any related Engineering/Science field. Interested candidates with B.Tech/B.Sc (4 year) degree in relevant fields will also be considered. Non-GATE qualified students are also encouraged to apply.

Areas of Research

- Biomass Conversion
- Microfluidics
- Microparticle Self Assembly
- Computational Modelling of Responsive Materials
- Bio-based Coatings and Packaging-Films
- High Entropy Materials
- Process intensification
- Nanomaterials Synthesis and Catalysis
- Nanomaterials for Sensors
- Supercritical Fluid Extraction
- Membrane Separation

**REGISTRATIONS
ARE OPEN**
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know more



Biomass Conversion

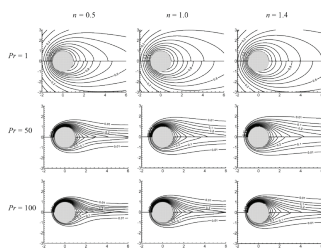


Dr. Sanjeev Yadav (Ph.D. IIT Delhi)
Professor

Projects:

- Thermochemical conversion of biomass and waste into bioenergy/biofuels.
- Wastewater treatment using the bio-adsorbents developed from wastes.

Fluid Mechanics



Prof. Rajendra Prasad Chhabra
(Ph.D. Monash University)
Distinguished Professor

Projects:

- Research Interests: Rheology of complex fluids, Non-Newtonian fluid mechanics, Multiphase flows

Sustainability & Polymer



Dr. Yamini Sudha Sistla (Ph.D. IIT Kanpur)
Associate Professor

Projects:

- Developing high entropy alloys and high entropy ceramics for applications such as Thermal Barrier Coatings and Energy Storage
- Developing novel solvents and adsorbents for CO₂ capture
- Biopolymers modification for packaging applications

Microfluidics



Dr. V.M. Rajesh (Ph.D. IIT Delhi)
Associate Professor

Projects:

- Development of single and multiphase distributors in parallel micro and milli channels.
- Sustainable maleic anhydride production from n-butane oxidation.

Process Intensification and Safety

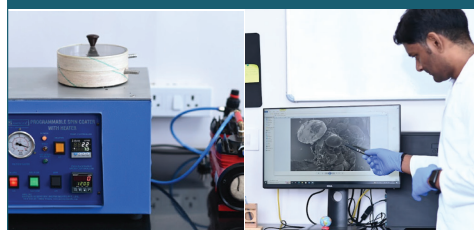


Dr. Dhiraj Garg (Ph.D. University of Strasbourg)
Assistant Professor

Projects:

- Modelling of free radical polymerization in microreactors and study of flow chemistry of emulsion polymerization
- Development and optimization of compact pulsating heat pipe
- Study of micromixing and its application on very fast industrial reactions.

Complex Fluids



Dr. Karan Gupta (Ph.D. IIT Delhi)
Assistant Professor

Projects:

- Hydrodynamic instabilities in complex fluid processing
- Hydrogen enrichment in syngas by polymer composite membranes

Energy and Environmental Sustainability

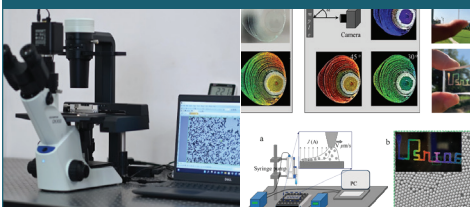


Dr. Priyanka Katiyar (Ph.D. IIT Roorkee)
Assistant Professor

Projects:

- Supercritical fluid extraction/drying
- Conversion of industrial waste to bio-fuel
- Oxidation of industrial effluent using catalytic membrane

Soft Matter



Dr. Ashish Kumar Thokchom
(Ph.D. IIT Guwahati)
Assistant Professor

Projects:

- High suspension flows through the microchannel.
- Fluid flow and particle transport inside the microdroplet
- Development of tunable photonic crystals

Polymer Materials Research



Dr. Sanjay Krishna (Ph.D. NIT Surat)
Assistant Professor

Projects:

- Membrane desalination using bio-based materials.
- Development of polymer membranes for gas separation.
- Molecular simulations of hydrophobic and oleophobic coatings.

Computational and Theoretical Soft Matter

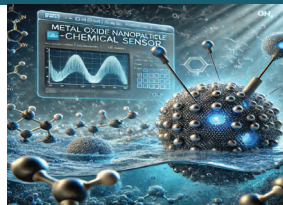


Dr. Swaminath Bharadwaj
(Ph.D. IIT Madras), Assistant Professor

Projects:

- Conformational and aggregation behavior of responsive (bio)polymers
- Effect of solvent density fluctuations on the conformational behavior of flexible polymers
- Aggregation and assembly of solvent mixtures on soft and rigid interfaces

Catalysis & Sensors



Dr. Ranjit Kumar (Ph.D. University of Connecticut), Senior Scientist

Projects:

- Fabrication of superhydrophobic surfaces
- Catalytic degradation of water pollutants,
- Functionalization of metal oxides

Departmental Facilities

FTIR, TGA, UV-Vis spectrometry, GCMS, Optical Microscope, Spin Coater, Rotary evaporator, Supercritical Fluid extractor, Multiphotometer, Casting Machine, Membrane Separation Unit, Comsol, Aspen, Matlab, Materials Studio (Dassault Systemes)

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