

Office of the Dean (Research and Consultancy)
S V National Institute of Technology, Surat

Database of SVNIT Faculty Members: Research Specializations and Expertise

Department of Chemistry			
Sr no	Name of the faculty member	Research Specialization to be displayed on the R&C website.	Any specific interesting research problems that the faculty member is working or intends to work upon
1.	Dr. Smita Jauhari	Corrosion Polymers and Wastewater treatment	- Synthesis of Heterocyclic scaffolds and their biological evaluation. - Synthesis of Heterocyclic compounds and their evaluation as a corrosion inhibitors
2.	Dr. Kalpana Maheria	Synthesis of materials Ion-exchange Waste water treatment and Catalysis	Design, preparation, characterization and applications of inorganic and hybrid materials (zeolite / meso-zeolites based catalysts and ion exchangers and TMA salts based catalysts and ion exchangers) for organic synthesis (via MCRs), synthetic fuels, biomass valorization and waste water treatment (for heavy, toxic and precious metals' removal, color removal and pharmaceutical waste removal)
3.	Dr. Premalata Kumari	Carbohydrate Chemistry Synthetic chemistry Wastewater treatment and Drug delivery system	- Organic synthesis of reaction intermediates and bioactive compounds. - Against various diseases like tuberculosis, malaria, cancer, etc. - Extraction of natural products from various medicinally important plants. - Development of HPLC methods for chemical markers of medicinal plants. - Nanoparticles embedded thin-film nanocomposite Nano filtration membrane for water treatment.
4.	Dr. Naved Malek I.	Synthesis and Physical Properties of Polymers	Development of stimuli-responsive Ionogel (ionic Liquid-based hydrogel) for smart drug delivery
5.	Dr. Bharatkumar Dholakiya	Polyester resin for specialty applications Biofuels-Ultra efficient biodiesel manufacturing	Development of polymeric cement from PET waste for construction application.
6.	Dr. Suban K. Sahoo	Inorganic Supramolecular Chemistry and Molecular Modeling	Exploring new chemistry (mainly recognition, sensing and biosensing applications) with vitamin B6 cofactors by adopting nano and supramolecular concepts.
7.	Dr. Suresh Kumar	Miniaturized Extraction Techniques and Capillary Electrophoresis, Functional Nanomaterials, MALDI- and ESI- Mass Spectrometry, Plasmonic and Fluorescent Nanosensors, Biosensing, Bioimaging and Drug Delivery, Green and Environmental Chemistry,	- Synthesis of functional nanomaterials for analytical method development: Miniaturization and visual readouts. - Biocompatible materials for drug delivery and biomedical applications.
8.	Dr. Ketan C. Kuperkar	Surfactant Science, Polymer Chemistry, Metal Corrosion, Waste water treatment, Materials Science, Soft Condensed Matter Computational Chemistry	Exploring the solution behavior and micellization phenomenon using Surfactants and Polymers for evaluating their biological applications.
9.	Dr. Ritambhara Jangir	Materials Synthesis and Applications Catalysis	Fabrication of COF-membranes for various purposes.

10.	Dr. Togati Naveen	Metal Catalyzed C-H Functionalization Using Transient Directing Groups Heterocycles Synthesis via C-H Functionalization Metal Catalyzed Functionalization of Unactivated sp³ C-H Bonds Photoredox Catalysis Hypervalent Iodine Chemistry Metal free C-H Functionalization	Late stage functionalization of drug molecules via visible-light photo redox catalysis.
11.	Dr. Arup Kumar Ghosh	Environmental Chemistry Computational Chemistry Instrumentation Spectroscopic Analysis Atmospheric Chemistry	- Photodissociation and photofragmentation studies of atmospheric pollutants. - Design and development of gas/vapour sensitive materials (with varied morphological shapes for effective degradation and sensing of atmospheric pollutants. - Investigation of reaction kinetics of volatile organic compounds with catalysts/sensors. - Instrument Development for chemical analysis using spectroscopic and mass spectrometric methods. - Electronic structure and energy calculations of molecules, clusters, and ions.