



MANIPAL UNIVERSITY
JAIPUR

CHEMISTRY CHRONICLES



**DEPARTMENT OF CHEMISTRY
APRIL-JUNE 2026
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Team: Department of Chemistry

Faculty Editor

Dr. Jayasmita Jana

Faculty Co-editor

Dr. Mainak Ganguly

Chemistry is the bridge between the mysteries of the universe and the marvels of modern technology, transforming the ordinary into the extraordinary.

VISION

Promote academic excellence and research proficiency to foster leadership and global competence.

MISSION

To cultivate practical, technology-driven expertise through application, research, and innovation.

To educate students on optimal practices within the field of chemistry and integrate them with current industry requirements.

To empower students to cultivate essential skills for professional performance and ethical engagement with a global perspective



At the Department of Chemistry, we explore and try to understand various aspect of atoms, molecules, and materials, working side by side with graduate and undergraduate students through an active research program along with quality education. The faculty members in the department work to develop novel nanomaterials, catalysts, drugs, solar sensitize dyes, and organic synthesis through advance experiments and computational molecular modelling with an aim to train exceptionally good chemists and material scientist and to work for the betterment of the society.

The internal machinery of life, the chemistry of the parts, is something beautiful. And it turns out that all life is interconnected with all other life.

Dean- Research, International Affairs and Academic Administration (RIAAA)

RIAAA's Message

Welcome to the School of Biological and Physical sciences, Manipal University Jaipur (MUJ).

All measures of success are increasing enrollment and accomplishments at the undergraduate level, research and graduate studies, faculty success in obtaining sponsored research, and national recognition through awards given to our faculty and students. The training our students require to compete and succeed in the workforce is our top priority, as is preparing the next generation of scientists to solve global challenges.

In my capacity as MUJ Dean, RIAAA (FOS), I actively help students develop into the greatest scholars, researchers, and policymakers. I give my coworkers a diversified and welcoming work atmosphere and, when needed, I assist them to help the school obtain the best possible funding from national and international organizations. There will be a focus on a cooperative and integrated approach to research, learning, and teaching. I have a great belief that the MUJ faculty will overcome the obstacles in their way to accomplish their aims and provide society with the



HoD's Message

Welcome to the Department of Chemistry at Manipal University Jaipur. The chemistry department provides a vibrant research and teaching environment, state-of-the-art laboratories, and excellent career development guidance. For both our undergraduate and graduate programs, our department seeks to entice the best academics from India. Our department presents itself as the ideal location for bright young minds pursuing further study in Chemistry. We prioritize curiosity-driven research and have multiple research clusters devoted to solving burning issues facing both industry and society. Students who have graduated from this institution have gone on to hold prominent positions in both academia and industry, thanks to the dedicated teaching and research efforts of our distinguished faculty members. With state-of-the-art research facilities and effective administration, our faculty members collaborate successfully on an international level with top experts in their fields. Numerous organizations, including DST, CSIR, SERB, to mention a few, have acknowledged the commitment of our department and its faculty members to research and teaching. In addition, our academic staff participates in outreach programs that assist young people with a strong interest in science. Our supportive technical and administrative staff members contribute significantly to our endeavors.

~

Dr. Praveen Kumar Surolia



Department of Chemistry and Biosciences are organizing Industrial talk for faculty and students session entitled “Enhanced Activity and Durability of Single Atom Catalyst for Overall Water-Splitting Through Synergistic Electronic Coupling with the Matrix”.

The details of the session are:

Title: Enhanced Activity and Durability of Single Atom Catalyst for Overall Water-Splitting Through Synergistic Electronic Coupling with the Matrix

Eminent Speaker: Dr. Surojit Pande

Date: June 03, 2026

Time: 2:30 PM – 3:30 PM

Venue: FB 6, Board Room, AB2

Speaker: Dr. Dr Surojit Pande, Professor, Department of Chemistry, Birla Institute of Technology – Pilani. Dr. Pande is a Professor of Chemistry at BITS Pilani. He earned his Ph.D. from IIT Kharagpur and completed postdoctoral research at The University of Texas at Austin. His research focuses on nanomaterials and single-atom electrocatalysts for water splitting, green hydrogen production, and solar-driven PV–EC systems, emphasizing advanced Ni-based catalysts with enhanced activity and long-term durability.



1. Introduction of the Event

The farewell evening, held on **13th April 2026**, coordinated by Dr. Komal Arora, began with a warm welcome by student representatives, followed by a graceful Saraswati Vandana. Dr. Ashima Bagaria, Associate Dean, School of Physical and Biological Sciences, addressed the students, appreciating their journey and motivating them to aim high in their future endeavours. Dr. Praveen Kumar Surolia, Head of the Department of Chemistry, delivered an inspiring address that highlighted the achievements of the graduating class and offered words of encouragement. Dr. Sushil Kumar Jain, Director, emphasized alumni relations, the importance of alumni relations at the university by highlighting how strong connections between the institution and its former students create long-term value for both parties. Cultural performances, including music, dance, and jamming sessions, showcased the vibrant talents of the students. A major attraction was the “Ramp Walk Competition,” where Mr. and Ms. Farewell were crowned for their outstanding presence. Juniors presented farewell goodies as tokens of love, and the event concluded with a heartfelt vote of thanks from the graduating class representative, marking a memorable send-off.

2. Objective of the Event

- Celebrate the key achievements and valuable contributions of students throughout their time in the department.
- Foster stronger connections among students, faculty, and staff, enhancing the sense of community.
- Offer a platform for students to showcase their varied talents through engaging cultural performances, including music, dance, and ramp walks.
- Include interactive segments and activities that encourage students to reflect on and cherish their departmental journey.
- Share uplifting messages and motivational speeches from faculty members to guide and inspire students as they step into a new chapter of life.



Brief Description of the event

Department of Chemistry at School of Physical and Biological Science in collaboration of MUJ-TEC organized a **One-Week ICT-based STC/FDP on “Role of Indian knowledge system and skill development in Technical education” from 11/05/2026 to 15/06/2026**. This event was conducted by NITTTR Chandigarh in association with Manipal University Jaipur as a Remote Centre. The STC come under the following sustainable development goals: a. Quality Education b. Industry, Innovation and Infrastructure c. Decent work and economic growth.

1. The Faculty Development Program focused on the role of the Indian Knowledge System (IKS) and skill development in technical education. It provided a platform for teachers, researchers, and academic leaders to explore ways of integrating India's traditional knowledge with modern teaching practices. Through expert lectures, interactive sessions, and group discussions, participants learned practical approaches to incorporating IKS into technical education while promoting skill-based learning, in line with the objectives of NEP 2020.
2. The FDP proved beneficial for faculty members by enhancing their understanding of how Indian Knowledge Systems could be integrated into contemporary technical education. It also offered valuable insights for researchers, academic administrators, and policymakers in designing more inclusive and culturally rooted curricula. Overall, the program contributed to strengthening teaching practices and supported the development of students who were more confident, creative, and better prepared to meet the demands of the modern workforce while appreciating India's rich knowledge heritage.

Objectives of Course:

The primary objective of this programme is to familiarize participants with the significance of the **Indian Knowledge System (IKS)** in enriching technical education by integrating traditional wisdom with contemporary teaching methodologies. Rooted in ancient Indian traditions, IKS promotes holistic development, critical thinking, creativity, innovation, and practical application of knowledge—all of which are essential for technological advancement. In addition, the programme emphasizes the importance of **skill development**, which bridges the gap between theoretical learning and industry requirements. This combined approach is expected to significantly enhance the quality of technical education and prepare students to succeed in an increasingly global and technology-driven environment.



MANIPAL UNIVERSITY
JAIPUR



A Five-Day
Faculty Development Program
on

Role of Indian Knowledge System and Skill Development in Technical Education



May 11-15, 2026



ICT Mode

Scan or Click for Registration



<https://fdp.nitttrchd.ac.in/index>

Conveners

Dr. Sushil Kumar
9068839404

Dr. Aman Kumar
9728405400

Organized by

Department of Chemistry
School of Physical and Biological Sciences
and MUJ TEC
Manipal University Jaipur
along with NITTTR, Chandigarh





Ongoing projects

S. No.	Name of the Investigator	Project No.	Funding Agency	Title of the project and duration (Start and end date)	Amount sanctioned (INR, Lakh)
1	Dr Praveen Kumar Surolia	CRD/2024/000885	ANRF	Design and development of ordered mesoporous materials-based heterojunctions for wastewater treatment (Two Years; Selected for Funding)	35.0
4.	Dr. Lalita Ledwani (Coordinator & PI)	SR/PURSE/2022/142	DST PURSE	Development and Utilization of high value products from waste resources: Circular solution for agricultural and non-agricultural applications (2022 -2026)	1000
5.	Dr. Lalita Ledwani (Coordinator & PI)	WOG Greencoal Pvt Limited, New Delhi	WOG Greencoal Pvt Limited, New Delhi	Industry consultancy project titled Operation Trials & RM/Product Analysis of Biomass Feedstock Pyrolysis 2026	7.0

PhD Awarded

Student: Mamta Sahu
Guide: Dr. Mainak Ganguly

SELECTIVE COINAGE METAL
NANOPARTICLES FOR
ENVIRONMENTAL REMEDIATION

June 3, 2026

Publications

S. No.	Name of the faculty	Title of the paper/book/book chapter	Journal Name	Month Year
1.	Dr. Sushil Kumar	Fluorescent Gd ₂ O ₃ /Yb ₂ O ₃ Nanomaterials: From Synthesis to Sensing Potential	<i>Materials Research Bulletin</i>	April 2026
2.	Dr Sriparna Ray	Synthesis and multipurpose assessment of Cu (II) and Pd (II) Schiff base complexes as catalysts and antimicrobial agents	<i>Scientific Reports</i>	April 2026
3.	Dr. Mainak Ganguly	Solid phase extraction of Fe ³⁺ from the aqueous system via eggshell with sensing applications	<i>Scientific Reports</i>	April 2026
4.	Dr. Mainak Ganguly	Na ⁺ induced improved fluorescence of carbon nanoparticles from human hair: an exclusive sensing platform for Ag ⁺	<i>Scientific Reports</i>	April 2026
5.	Dr. Mainak Ganguly	Copper-based nanoparticles-impregnated betel leaves for dye degradation and aluminum sensing: A circular economic approach	<i>Journal of Molecular Liquids</i>	April 2026
6.	Dr. Mainak Ganguly	Dye facilitated the sensing of Cr ³⁺ by tuning the metal-enhanced fluorescence involving gold-copper bimetallic particles	<i>Microchemical Journal</i>	April 2026
7.	Dr. Suranjan De	Effect of HMPA on the Ground and Excited State Reactivity of Sml ₂	<i>European Journal of Organic Chemistry</i>	May 2026
8.	Dr. Renuka Suravajhala	Breast cancer and carotenoid-A comprehensive review of relationship insights, evidence, mechanisms, and future perspective	<i>Biomedicine & Pharmacotherapy</i>	c
	Prof. Babita Malik			
9.	Dr Komal Arora	Bilayer PAM–PVA cartilage-inspired hydrogels with layer-selective CNT and nanodiamond interfacial reinforcement for structure–property control	<i>Nanoscale</i>	June 2026

10.	Dr. Renuka Suravajhala	In silico approaches to improved understanding of herbicides targeting photosystem II (PSII)	<i>Computational Biology and Chemistry</i>	June 2026
11.	Dr. Sushil Kumar	Groundnut shell - derived carbon dots for sensing of metal ion and enhanced degradation of methylene blue	<i>Materials Chemistry and Physics</i>	June 2026
12.	Dr. Mainak Ganguly	Tuning of the selectivity of silver-enhanced fluorescence from 2-[(Hydroxyimino)methyl]phenol with the modification of the iminic bond	<i>Journal of Molecular Liquids</i>	June 2026
13.	Dr. Mainak Ganguly	Recent advances in the recognition of the explosive Mother of Satan: a review	<i>Analytical Methods</i>	June 2026
14.	Dr. Suranjan De	Contrasting Effect of Metal Ions on Thermal and Photo-Isomerization of Spiropyran	<i>Journal of Photochemistry and Photobiology A: Chemistry</i>	June 2026

Meet Our Faculty Member



ASSISTANT PROFESSOR
DR. MEENAKSHI PILANIA



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Assistant Professor (Selection Grade)



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Manipal University Jaipur,
School of Physical and Biological
Sciences
Faculty Block 1,
Academic Block 2

ABOUT

Dr. Meenakshi Pilonia is **Assistant Professor (Selection Grade)** in the **Department of Chemistry** at **Manipal University Jaipur**. She teaches Engineering Chemistry and Organic Chemistry at undergraduate and postgraduate levels. Her research focuses on synthetic organic chemistry, organoiodine chemistry, heterocyclic synthesis, chemistry of N-tosylhydrazones and green synthesis. She has published research papers in reputed international journals and actively supervises research scholars.

DEGREES

- Ph.D. (Organic Chemistry), BITS Pilani, Pilani Campus, Rajasthan
- M.Sc., Department of Chemistry, University of Rajasthan, Jaipur
- B.Sc., Maharani College, University of Rajasthan, Jaipur

AWARD, PRIZE, HONOUR

- CSIR-JRF (AIR-106)

PROFESSIONAL ASSOCIATION

- American Chemical Society (ACS) – Annual Member

RESEARCH AREAS

- Synthetic Organic Chemistry
- Organoiodine Chemistry
- Heterocyclic Synthesis; Green Chemistry
- Chemistry of N-Tosylhydrazones

Synthesis of C-C and C-X bonds



Diaryliodonium salts



N-Tosylhydrazone



Synthesis of Tetrazines



Team: Department of Chemistry

Provost



Dr. Mani Bhattacharya

RIAAA



Dr. Jyoti Lakshmi

HOD



Dr. Praveen K. Sarolia



Dr. Anand Kumar



Dr. Ananta Bhargava



Dr. Anand K. Pandey



Dr. Babia Malik



Dr. Deepak Kumar



Dr. Jagadeesh K. Sagarani



Dr. Jayashree Jena



Dr. Koushik Anand



Dr. Manish Ganguly



Dr. Meenakshi Pillai



Dr. Manish P. Sengupta



Dr. Rishi Shrivastava



Dr. Samanta Yadav



Dr. Soumitra Srinivasan



Dr. Soumitra Ray



Dr. Suranjan Das



Dr. Suranjan Das



Dr. Sushil Kumar



Dr. Suman Sengupta



Dr. Veena Chakraborty