

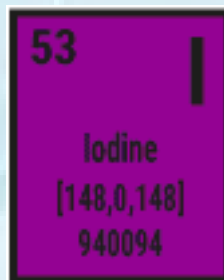
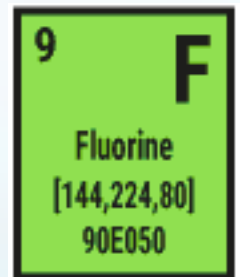
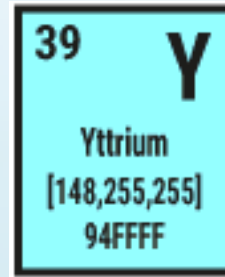
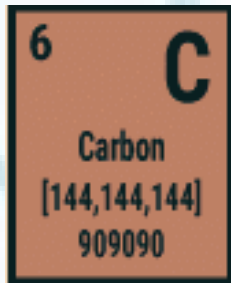
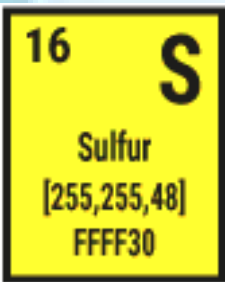


UPL UNIVERSITY  
OF  
SUSTAINABLE TECHNOLOGY



# SCI-F.Y.I

## NEWSLETTER



## SRICT - INSTITUTE OF SCIENCE AND RESEARCH (SRICT-ISR)

ISSUE

1

***"HOPE IS A WAKING DREAM"***

**-ARISTOTLE**

**JANUARY-JUNE 2023**

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## VISION

- Inspiring young minds to learn, adapt and promote the philosophy of science education and cutting-edge research towards sustainability.

## MISSION



- To establish a dynamic learning environment that supports fundamental science education based on future demands to resolve practical problems .
- To provide theoretical and practical education to troubleshoot environmental problems and provide sustainable solutions.
- To inculcate analytical expertise, ethical values and soft skills in students to make them ready for corporate world .
- To promote strong, effective and mutually beneficial Industry-University collaboration.
- To facilitate and encourage research through temper of science leading to resolving practical problems and futuristic research.
- To serve society through innovation and excellence in science.



**Prof. Dr. Snehal Lokhandwala**  
**I/C Dean , Science and Sustainability**  
**UPL University of Sustainable Technology**

## **MESSAGE FROM DEAN**

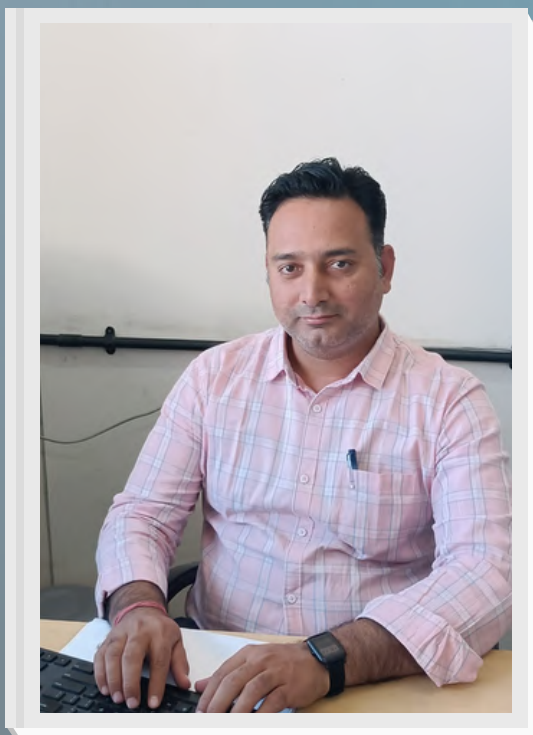
It is not always relevant that science shapes our daily lives but the fact is that science impacts countless decision we make each day . From managing our health and well-being , choosing paper over plastic at the grocery store or answering a child who asks why the sky is blue science plays an important role in our lives .



**SRICT institute of science and research strives towards the systematic study of the structure and behavior of the physical, chemical, biological and natural worlds through observation and experimentation. It's a key to innovation, global competitiveness, and human advancement. It's important that the world continues to advance in the field of science, whether it's finding new cures for diseases or identifying and exploring sustainable chemistry or biological breakthrough.**

**At the outset, I would like to congratulate the team of 'SCI-F.Y.I' for initiating the knowledgeable, interesting, motivating and informative package of institute newsletter, the reflection of SRICT- ISR. Believing is doing and thus we all should believe in:**

Life's battles don't always go ;  
To the stronger or to the faster man ,  
But sooner or later the one who win ,  
Is the one who **THINKS HE CAN.**



I am very much delighted to share that SRICT-ISR is publishing the Second e-newsletter "SCI-F.Y.I" of the year 2023. Our SRICT-ISR is doing extremely well with regards to the infrastructure and teaching methods. The teaching staff of my SRICT-ISR comprises a group of successful people with Ph.D. degrees as well as accomplishments in Research and Teaching. The SRICT-ISR encourages the faculty to attend seminars, workshops & conferences. The SRICT-ISR motivates the faculty to publish papers in reputed journals, submit project proposals to funding agencies & to enrol for Ph.D. program. The department has well qualified, experienced and dedicated faculty, who is blend of knowledge and experience.

The purpose of publishing this news-letter is to contribute the scientific and technical articles, various departmental activities like achievements, technical and non-technical events and many more.

Eventually, I am thankful to my colleagues and students for their constant support for the progress of department and university for sustainable development.

We have a very favourable faculty-to-student ratio, which encourages close contact between students and their faculty mentors. This allows the faculty to give personalised attention to the academic progress of students. Our courses are designed to provide students the knowledge of Industrial synthetic organic & Applied Chemistry, and also introduce them to various experimental skills. The subject has become an essential part of the curriculum for Organic Chemistry.

**Dr. Nikhil M. Parekh**

**I/C Head of Department of Chemistry (SRICT - ISR)**

**UPL University of Sustainable Technology**

# KNOW OUR DEPARTMENT !!!

## DEPARTMENT OF CHEMISTRY

### (SRICT- ISR)



# ABOUT US !!!



The Department of Chemistry was established in the year of 2018 under the SRICT Institute of Science and Research on the footsteps of reputed and quality education based institute SRICT. Department of Chemistry started with the post-graduation course in organic chemistry (M.Sc.). After the successful journey of decades now SRICT is a part of UPL University of Sustainable Technology. Now under the umbrella of UPL University of Sustainable Technology, SRICT and SRICT-ISR both are included.

The chemistry department serves the purpose of imparting knowledge in the core science subject, which is a foundational building block for most engineering disciplines.

As such, high tech labs with the latest technological gizmos greet any students and faculty members of the college looking to strengthen their base in this subject. A team of extremely capable teachers and staff members keep the department running in full throttle.

SRICT-ISR has started a new course in B.Sc. Chemistry and M.Sc. Organic Chemistry, Regular & Evening also. The curriculum allows a more in-depth understanding and comprehensive knowledge base in a specific subject. With an M.Sc. degree, students can pursue a Ph.D. degree or increase their chances of career development in the basic sciences.

SRICT - ISR has highly qualified faculties with good number of publications in reputed journals, good laboratory facilities, advanced classroom, canteen and transportation facilities. It provides wonderful placement opportunity to all eligible students.



***“THINKING IS THE CAPITAL, ENTERPRISE IS THE WAY, HARD WORK IS THE SOLUTION”  
A.P.J. ABDUL KALAM***



# SRICT-ISR

## FACULTY DETAILS

**DR. NIKHIL M.PAREKH(M.Sc. , Ph.D.)**  
**I/C HEAD OF THE DEPARTMENT ( SRICT-ISR).**



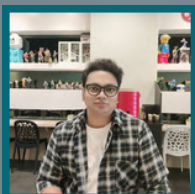
**DR. TRUPTI PATEL ( M.Sc. , M.Phil. , Ph.D.)**  
**ASSISTANT PROFESSOR**



**DR.R.MARIKUMAR(M.Sc. , M.Phil., Ph.D.)**  
**ASSISTANT PROFESSOR**



**DR. MANIK CHANDRA SIL (M.Sc., Ph.D., Post.DOC.)**  
**ASSISTANT PROFESSOR**



**DR.BHUWANESH KUMAR SHARMA(M.Sc., Ph.D.)**  
**ASSISTANT PROFESSOR**

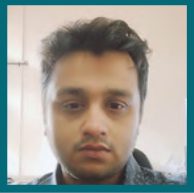


**DR. K NAGARAJ (M.Sc., M.Phil. , Ph.D.)**  
**ASSISTANT PROFESSOR**



**DR. REENA VARMA (M.Sc., Ph.D.)**  
**ASSISTANT PROFESSOR**





**DR. SANDIP KUMAR DE (M.Sc., Ph.D.)**  
**ASSISTANT PROFESSOR**



**MR. DIPESH PATEL (M.Sc.)**  
**ASSISTANT PROFESSOR**



**MS. JESHAL PUNAMIYA (M.Sc.)**  
**ASSISTANT PROFESSOR**



**MR. SHIVAM SINH KESROLA (M.Sc.)**  
**ASSISTANT PROFESSOR**



**MS. DIPIKA VASAVA (M.Sc.)**  
**LABORATORY ASSISTANT**



**MR. DINESH PARMAR (D.EE)**  
**LABORATORY ASSISTANT**



**MS. DIMPLE PARMAR (M.Sc.)**  
**LABORATORY ASSISTANT**

***"ARISE! AWAKE! AND STOP NOT UNTIL THE GOAL IS REACHED."***

***SWAMI VIVEKANANDA***



SRICT-ISR

# NEW LABORATORY

## INAUGURATION

- Shri Rajendrabhai V.Gandhi, Managing Director at GRP Ltd. inaugurated the new chemistry laboratory for undergraduate and postgraduate studies in organic chemistry at the Department of Chemistry, SRICT-ISR.
- The laboratory contains modern equipment like calorimeter, conductometer, potentiometer, pH meter, double distillation chamber, microwave, fume hood and organic or inorganic reagents, that would be of great benefit to both undergraduate and postgraduate students for scientific experiments.



Shri Rajendra V. Gandhi, Managing Director at GRP Ltd. inaugurated the new laboratory



**“IT’S NOT THAT I’M SO SMART, IT’S JUST THAT I STAY WITH PROBLEMS LONGER.”  
ALBERT EINSTEIN”**



# PLACEMENT & TRAINING ACTIVITIES (SUMMER, 2023)

Reputed companies indulged in the placement of M.Sc. Final year students



- We are striving for 100 % placement for eligible candidates
- Students of final semester have become completely eligible for the placement in reputed companies as well as industries



# ONE TO ONE MEETING

A one-to-one meeting had been organized for the students of B.Sc. (1st semester) with the honorable Dean Sir Dr. Snehal Lokhandwala (Science and sustainability) and HOD (SRICT-ISR) on 3rd of May and 9th of May, 2023 consecutively.



- This interactive session was organized to motivate the students to improve their overall academic performance.
- It helps to maintain appropriate boundaries between students and teachers.
- Students were also encouraged to participate in various activities in order to sharpen their skills and work hard for the upcoming university examination, concomitantly.



***"THE TOTAL NUMBER OF MINDS IN THE UNIVERSE IS ONE."  
ERWIN SCHRODINGER***

# PEER LEARNING INITIATIVE (PLI)

## SUMMER 2023



- In a collaborative peer learning environment, each student's strengths complement the group and facilitate learning. The ability to learn from peers can begin at an early age in the classroom.
- Students often fail to identify gaps in their knowledge. But as they learn with their peers, they can identify new processes for answering questions and finding creative, collaborative solutions of each problem.
- Peer learning encourages diversity and depth of student's knowledge and perspectives. Learning from peers of different backgrounds, perspectives, and ethnicities fosters an environment of mutual respect, gratitude, and advancement.
- It is the differences among students that enrich the learning environment. Promoting diversity through peer learning is part of culturally-directed instruction.
- Total nineteen PLI'S have been completed in summer 2023 and listed below.

SERIAL NUMBER	PROGRAM	SEMESTER	NO. OF PLI (COMPLETED)
1	B.SC.	2	10
2	B.SC.	4	5
3	M.SC. (REGULAR)	2	4



## INDUSTRIAL VISIT (SUMMER 2023)

- Industrial visit is considered as one of the tactical methods of teaching. Students will gain a better understanding of the rules and regulations of the industry.
- Therefore, when they start working in the company, they will be more cautious and perform tasks according to the rules.
- Visiting the industry broadened their horizons and they learned how to use different effective methods to get a job done.
- Total number of 9 visits has been completed for B.Sc. and M.Sc. students in between January to June (Summer), 2023 timeline.

### Name of the companies

1 COLOURTEX PVT. LTD., G.I.D.C. VILAYAT, GUJARAT.

2 LION COLOR., SAYAKHA, VILAYAT, GUJARAT.

3 SHREE GANESH KHAND UDYOG SAHKARI MANDALI LIMITED.,  
VATARIA, GUJARAT.





## SUMMER INTERNSHIP B.SC. SEM III

- Internships provide students with an opportunity to put into practice skills they have learned while in school.
- In addition, students should have the opportunity to improve these skills, gain insight into the work environment, and benefited from the experience and advice of a mentor or supervisor.
- A detailed report has been prepared by the student individually on the specific work and submitted to department coordinator.
- The evaluation of 50 marks was done by a committee consisting of faculty members from department nominated by Head of department.



**Department coordinator : Dr. Trupti Patel**

**Committee members : Dr. R. Marikumar**

**Dr. Tulasi Barik**

**Dr. Manik Chandra Sil**

# MEMORANDUM OF UNDERSTANDING (MOU)

## BENEFITS OF MOU

- EXPERT LECTURE
- VIRTUAL VISITS
- INTERNSHIP
- WORKSHOP
- PLACEMENT

## LIST OF MOU

- DIFFERENTIATED AND SUSTAINABLE SOLUTIONS (LLP)
- SNEHA INSULATION PVT. LTD.i
- DEO PIYU INDUSTRIES (GOVT. RECOGNIZED EXPORT HOUSE )
- LION - COLOUR PVT. LTD )
- SAMIR AGRO PRODUCTS PVT. LTD.
- AASHTHA ANALYTICAL SERVICES
- KRISHNA DYE CHEM
- HAATKESH CHEM & ENG. IND





# PARENTS – TEACHER MEETING, 2023



## Overview

Parents-Teacher meetings were organized by SRICT-ISR on 29th April 2023 at 10 am in the Seminar Hall-II for B.Sc. second semester and B.Sc. fourth semester students, respectively. Dr. Snehal lokhandwala, the Dean of SRICT-ISR gave an overview of the University's culture and elaborated the scope of further improvement in the performance of the students to their parents.



## Outcomes

- Interaction between parents and teachers for creating healthy teaching-learning environment.
- To inform parents regarding detain rules and attendance Rules.
- To check and improve academic performance of students.
- To improve result of students by taking various action.
- To encourage parents to give their feedback.
- A small refreshment has also been arranged for parents in the canteen.
- Lot of appreciation was received from parents for the efforts given by faculty members and administration of the institution.





# EXPERT LECTURES

## Overview

- SRICT-ISR organized Expert Lecture for the students (semester II, semester IV) of B.Sc and M.Sc. organic chemistry (semester II) students on 24th and 27th of February, 2023, consecutively.
- This Expert Lecture was delivered by Dr. J.K. Astik (Sub Con Auditor, Bureau Veritas, Baroda), Dr. Mayank Patel (R&D Head of Cardkem Pharma) and Dr. Shilpa Bhavsar based on "Total Quality Management" , " spectroscopic techniques: NMR", and "Laser and its application, respectively.



**DR.J.K. Astik**



**DR.Shilpa Bhavsar**



**Dr. Mayank Patel**

## Outcomes

- All the chief guest's were also represented their thought in term of scientific approach based on their specialization towards the B.Sc. s as well as M.Sc. students.
- Total 16 number of expert lecture has been conducted by the SRICT-ISR department of UPL University of Sustainable Technology.
- These expert lecture has been helpful for the young mind in terms of knowledge as well as the amplification of the power of knowledge in different scientific area.

***"NOTHING IS LOST, NOTHING IS CREATED, EVERYTHING IS TRANSFORMED"***

***ANTOINE LAVOISIER***

2023

# ABHYUTTAN

## Overview

- A felicitation Ceremony, ABHYUTTAN 2023, was coordinated to felicitate. 2021 batch B.Sc. (3rd and 1st Semester) & M.Sc. (3rd and 1st Semester) students of UPL University for their results of Winter-2022 on 17th April, 2023.
- The program was coordinated by Chemical Engineering Dept. Dr. Shrikant J. Wagh (Provost, UPL University of Sustainable Technology), in his speech, motivated and appreciated students for scoring very excellent results.
- President of UPL University, Mr. Ashok Panjwani, applauded the students for their efforts and also shared unique details of the results of Winter-2022 examinations.
- Some meritorious students shared their feedback for their success and support provided by the University to get such wonderful results.



**"HOW WONDERFUL THAT WE HAVE MET WITH A PARADOX"**

**NIELS BOHR**

## Details of award winners from M.Sc. 3rd semester

Sr. No.	Branch	Enrollment No.	name	SPI	CPI	RESULT	Award (Rs)
1	M.Sc. Regular	210203108020	DHIRSINH NARENDRASINH PARMAR	8.56	8.22	PASS	1000
2	M.Sc. Regular	210203108030	NISHTHABEN MAHENDRABHAI PATEL	8.56	8.22	PASS	1000
3	M.Sc. Regular	210203108035	RAHULKUMAR CHANDUBHAI PATEL	8.56	8	PASS	1000
4	M.Sc. Regular	210203108044	ANKITKUMAR JAYESHKUMAR RANA	8.56	8.06	PASS	1000
5	M.Sc. Regular	210203108045	VAIBHAVIBEN TAKHATSINH RANA	8.56	8.11	PASS	1000
6	M.Sc. Regular	210203108046	AMIBEN NARENDRASINH RATHOD	8.56	8.28	PASS	1000
7	M.Sc. Regular	210203108049	SHATISHBHAI PARSOTTAMBHAI RATHWA	8.56	8.22	PASS	1000
8	M.Sc. Regular	210203108052	DHAVALKUMAR DIVYESHKUMAR SHAH	8.56	8.33	PASS	1000
9	M.Sc. Regular	210203108056	RAVIRAJ SINH RAJENDRASINH SOLANKI	8.67	8.17	PASS	1000
10	M.Sc. Regular	210203108058	QUEENA NILESH VYAS	8.67	8.56	PASS	1000
11	M.Sc. Regular	210203108012	AMANKUMAR SHREE RAVISHANKAR MANDAL	8.78	8.72	PASS	1000
12	M.Sc. Regular	210203108038	SHUBHAM DINESHBHAI PATEL	8.78	8.61	PASS	1000
13	M.Sc. Regular	210203108053	RACHANAKUMARI ASHWINBHAI SHAH	8.78	8.67	PASS	1000
14	M.Sc. Regular	210203108002	HARSH PRAGNESHKUMAR CHAUHAN	8.89	8.28	PASS	1000
15	M.Sc. Regular	210203108014	HETVI MAHESHKUMAR MISTRY	8.89	8.67	PASS	1000
16	M.Sc. Regular	210203108026	DINKAL SANJAYBHAI PATEL	8.89	8.11	PASS	1000
17	M.Sc. Regular	210203108040	UVESH SHOEB PATEL	8.89	8.56	PASS	1000
18	M.Sc. Regular	210203108051	BHARGAV MAHENDRABHAI SHAH	8.89	8.56	PASS	1000
19	M.Sc. Regular	210203108023	AKSHU SURESHBHAI PATEL	9.11	8.67	PASS	2000
20	M.Sc. Evening	210203109008	DHRUV MANHARBHAI KASWALA	9.11	9.11	PASS	2000
21	M.Sc. Regular	210203108010	ANJALIKUMARI HARENDRASINH KOSAMIYA	9.22	8.83	PASS	2000
22	M.Sc. Regular	210203108059	ANJALI AVDHESH YADAV	9.44	9.39	PASS	2000
23	M.Sc. Regular	210203108013	RITU KETAN MEHTA	9.56	9.56	PASS	3000

***"SCIENCE IS NOT EVERYTHING, BUT SCIENCE IS VERY BEAUTIFUL"***

***J. ROBERT OPPENHEIMER***

## Details of award winners from B.Sc. 3rd semester

Sr. No.	Branch	Enrollment No.	name	SPI	CPI	RESULT	Cash Award (Rs)
1	B.Sc.	210202107003	HET VIPULBHAI BHATT	8.55	8.36	PASS	1000
2	B.Sc.	210202107004	RIYAZ RASHID BOBAT	8.55	8.55	PASS	1000
3	B.Sc.	210202107029	KARTIK LALITKUMAR PATEL	8.55	8.27	PASS	1000
4	B.Sc.	210202107035	SRUSHTI PRAVINBHAI PATEL	8.64	8.73	PASS	1000
5	B.Sc.	210202107042	M ZUHER ARIF HUSSEN SHAIKH	8.64	8.55	PASS	1000
6	B.Sc.	210202107031	KRUPALIBEN ARVINDBHAI PATEL	8.73	8.55	PASS	1000
7	B.Sc.	210202107044	SEEMA CHANDESHWAR SHARMA	8.73	8.59	PASS	1000
8	B.Sc.	210202107007	OMKAR SHIVAJI DESAI	8.82	8.45	PASS	1000
9	B.Sc.	210202107012	DEEP MAHENDRBHAI GORIYA	8.82	8.86	PASS	1000
10	BSc	210202107040	BHAVIKAKUMARI NAGENDRA PRASAD	8.91	8.86	PASS	1000
11	BSc	210202107002	SEEMABEN RAMESHBHAI AHIR	9.09	8.73	PASS	2000
12	BSc	210202107018	MOHAMMADZUNED ZAKIR KHER	9.27	9.23	PASS	2000
13	BSc	210202107058	SANDEEP MANOJ YADAV	9.27	9.23	PASS	2000
14	BSc	210202107059	TANU SURENDRA YADAV	9.27	9.32	PASS	2000
15	BSc	210202107047	SAKSHI DURGA SINGH	9.36	9.41	PASS	2000
16	BSc	210202107023	NISHA DHARMENDRA PANDEY	9.55	9.68	PASS	3000
17	BSc	210202107010	TANMAY SUBHASH FATANGARE	9.64	9.59	PASS	3000



***"Good Wishes Alone Will Not Ensure Peace"***

***Alfred Nobel***



# CARVING-CLAY MODELLING COMPETITION



- ON THE AUSPICIOUS OCCASION OF GANESH CHATURTHI, DEPARTMENT OF CHEMISTRY, SRICT-ISR HAS BEEN ORGANIZED MODELING COMPETITION ON 27 AUGUST, 2022 AS A PART OF EXTRACURRICULAR ACTIVITY.
- CLAY MODELLING IS AN ACTIVITY THAT HELPS IN THE DEVELOPMENT OF STUDENTS IN SEVERAL WAYS.
- IT NURTURES A STUDENT'S CREATIVITY, BOOSTS IMAGINATION AND IMBIBES SELF-CONFIDENCE.
- THE TOUCH AND FEEL OF CLAY HAVE A NATURALLY RELAXING QUALITY. BY PRESSING, SQUEEZING, POKING AND RESHAPING THE CLAY INTO DIFFERENT SHAPES, IMPROVES A STUDENT'S MOTOR SKILLS.
- THE STUDENT'S PROBLEM-SOLVING SKILLS CAN BE EXPLORED WHEN HE DECIDES HOW FAR THEY CAN SHAPE THE CLAY BEFORE IT BREAKS, DE-SHAPES AND FALLS.
- IT WAS A GREAT WAY TO DEVELOP IMAGINATION AND SPARKLE CREATIVITY TO THINK OUT OF THE BOX.
- TOTAL 45 STUDENTS FROM B.Sc. CHEMISTRY AND M.Sc. CHEMISTRY (REGULAR) HAVE BEEN PARTICIPATED ENTHUSIASTICALLY AND MADE COLORFUL IDOLS OF LORD GANESHA FROM ECO-FRIENDLY CLAY.
- THE EVENT WAS COORDINATED BY JESHAL PUNAMIYA AND TULASI BARIK AND WAS JUDGED BY DR. TRUPTI PATEL AND DR.TULASI BARIK.



**STUDENTS ENHANCED THEIR MOTOR SKILLS  
THROUGH CLAY MODELLING ACTIVITY**

# NATIONAL SCIENCE WEEK CELEBRATIONS 2023



- Science day celebrations started with the inaugural session on 21st Feb 2023. Inauguration Function started with welcoming the Provost, Dean (Science & Sustainability), Dean (Engineering) and HOD (SRICT &SRICT-ISR).
- Science helps students to increase their fundamental knowledge, provides pathway to share knowledge, remain organized, focused and even enhance the scientific intellectuality.
- Science Week was an opportunity for students to discover treasures of nature for our wellbeing and also show concern towards our environment.
- With this view in mind, celebration of science week from 21st Feb to 28th Feb 2023 , SRICT- ISR (Chemistry) conducted Science Week celebrations in UPL University of sustainable Technology.
- Different technical events, poster and oral presentation, essay writing, sketch your ideas, working model, debate storming, elocution, quizzes, extempore, seminars were organized in which more than 300 Students actively participated in different events with great enthusiasm.

***"ASK THE RIGHT QUESTIONS, AND NATURE WILL  
OPEN THE DOORS TO HER SECRETS"***  
***C. V. RAMAN***

# Activities in Science Week

Sr. No.	Date	Day	Activity
1	21-2-23	Tuesday	Essay Writing
			1.Science-present & future
			2. Global Science for Global Wellbeing
			3. Sustainability in terms of Education
2	21-2-23	Tuesday	Sketch your ideas (THEME-Sustainable Development/Green Chemistry)
3	22-2-23	Wednesday	Poster Presentation-Printed (Scientists, Nobel Prize Winners etc.)
4	22-2-23	Wednesday	Video/Movie
5	23-2-23	Thursday	Seminar
6	24-2-23	Friday	Quiz
7	27-2-23	Monday	Working Model Competition
8	28-2-23	Tuesday	Elocution-Science behind Indian Culture
9			Extempore
10			Debate Storming
11			Element SUDOKU & Cross Word
12			Oral Presentation-Green Chemistry, Global Science for Global Wellbeing
			Validactory function



# Winstinct-2023



- UPL University of Sustainable Technology has celebrated sports days (WINSTINCT-2023) on 9th, 10th and 11th of March, 2022, consecutively.
- The inaugural ceremony of the WINSTINCT-2023 commenced by our honorable vice chancellor of UPL University of Sustainable Technology Mrs. Sandra R. Shroff in the presence of president Mr. Ashok Panjwani, Provost, Dean (Science and Sustainability), Dean (Engineering and COE), HOD of ISR, HOD's from other departments, teaching/non-teaching staff and students at 9:30 am on 10th of March, 2023 in UPL University's cricket ground.
- Total sixteen number of sport events including sprint-100 meter, 400 meter relay, shot put ball, disc throw, table tennis, badminton, basketball, cricket, volleyball, carom, box cricket (for girls), chess, tug-of-war, football, long jump and Kabbadi were incorporated in this Winstinct 2023.
- More than thousands of participants from different branches of engineering and science division have registered their name in this above mentioned event.
- Every year UPL University of Sustainable Technology used to celebrate Winstinct in order to improve the mental strength and personality of every young mind belonging to this University.
- Another more important part of this event is to find out the best players from this University who may also participate in national or international level sports belonging to any particular sport events.

# National Service Scheme (NSS)

## AWARENESS OF YOGA AND ITS IMPORTANCE



## LECTURE ON THE TOPIC OF " IMPACT OF DEFORESTATION ON HUMAN LIFE"



- The National Service Scheme (NSS) is a Central Sector Scheme of Government of India, Ministry of Youth Affairs & Sports. It provides an opportunity to the student youth to take part in various government led community service activities & programs.
- The sole aim of the NSS is to provide hands on experience to young students in delivering community service.
- The motto of National Service Scheme is NOT ME BUT YOU
- More than 100 students of SRICT-ISR students are part of NSS. They have actively participated in various actives held under the banner of NSS.

# National Cadet Corps (NCC)

- NCC stands for National Cadet Corp, a training program.
- It's a voluntary program and any student can join it.
- This program teaches students to follow a disciplined life. It's a Tri-Services Organization and engaged in grooming the youth in India to become patriotic citizens.
- According to the National Cadet Corps', the main aim of NCC is to create an organized, trained and motivated youth.
- With this aim, NCC not only creates soldiers for the nation but it also develops the leadership skills in the youth.
- Eight students from B.Sc. Chemistry have been actively participated in NCC programs organized by UPL University of Sustainable Technology.
- After attending a minimum of 75% of NCC training, the students get a certificate from NCC according to their level. These certificates help the students to in their career.





# Industrial Visit for Faculty Member

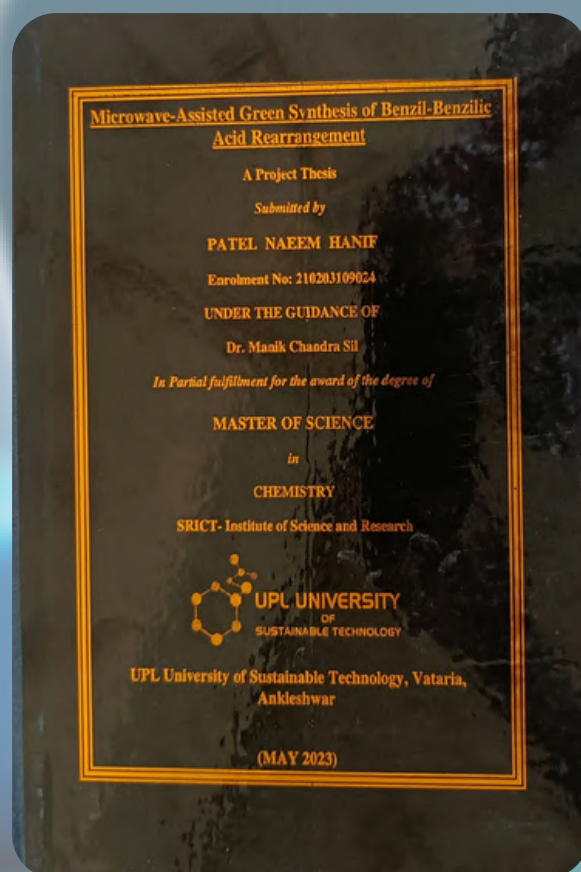
- Industrial visit of faculty member is also important to make a bridge in between University with Industry/company for the improvement of research and development with specific technical skill.
- Dr. Nikhil M. Parekh [ JAYSHREE AROMATICS, Ankleshwar, from 11/06/2023 to 18/06/2023], Dr. K. Nagraj [UPL Limited (Unit 3), Ankleshwar from 16/01/2023 to 22/01/2023] and Dr. Trupti Patel [Lion Color at Sykha, Bharuch from 30/01/2023 to 04/02/2023] have completed the tenure of Industrial training successfully.



## Project viva & review (M.Sc. final year)



- M.Sc. Final semester project with viva has been intended to provide a set of specific and uniform guidelines of research to the M.Sc. students.
- The content of the report has been submitted to the UPL University of Sustainable Technology in partial fulfilment for the award of the degree of Master in Science.
- It is also imperative that the report, to be acceptable by the University, should essentially meet a uniform format emphasizing readability, concordance with ethical standards and University-wide homogeneity.



***"WE ARE NOT SUFFICIENTLY ASTONISHED BY THE  
FACT THAT ANY SCIENCE MAY BE POSSIBLE"  
LOUIS DE BROGLIE***

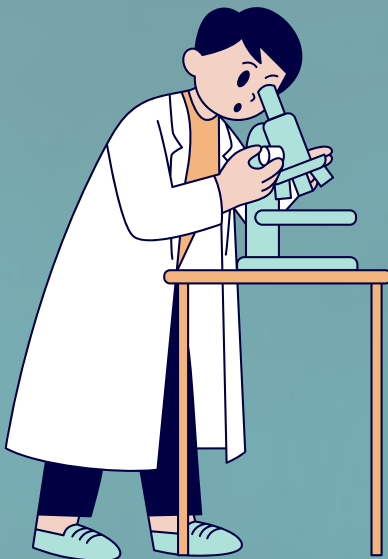


# New Venture B.Sc. Microbiology, 2023



Microbiology course has been started from this current year

- **Strong faculty strength**
- **Exposure to Industrial world**
- **Well defined industry oriented syllabus**
- **Grooming students to be industry-ready**
- **Special session on soft skill development**
- **Well equipped laboratories/research facilities**



# DEPARTMENTAL PUBLICATION, 2023

## BOOK PUBLICATIONS 2023

Sharma, B.K., Singh, M., Lokhandwala, S., Wagh, S., Chowdhury, S.R., Ray, S. (2023). Radiation Processed Emerging Materials for Biomedical Applications. In: Chowdhury, S.R. (eds) Applications of High Energy Radiations. Materials Horizons: From Nature to Nanomaterials. Springer Nature, Springer, Singapore. 15th May 2023, pp 185-218.  
[https://doi.org/10.1007/978-981-19-9048-9\\_6](https://doi.org/10.1007/978-981-19-9048-9_6)  
ISBN: 978-981-19-9047-2

## ARTICLE PUBLICATION 2023

- 1. Nagaraj. K.;\* Kamalesu. S.; Lokhandwala. S.; Parekh. N. M.; Sakthinathan. S.; Chiu. T. W. *Spectrochim. Acta A: Mol. Biomol. Spectr.* **2023**, *286*, 122015-122025.
- 2. Nagaraj. K.;\* Thankamuniyandi. P.; Kamalesu. S.; S.; Lokhandwala. S.; Parekh. N. M.; Sakthinathan. S.; Chiu. T. W. *Inorg. Chem. Comm.* **2023**, *148*, 110362-110375.
- 3. Nagaraj. K.;\* Naman. J.; Dixitkumar. M.; Priyanshi. J.; Thankamuniyandi. P.; Kamalesu. S.; S.; Lokhandwala. S.; Parekh. N. M.; Sakthinathan. S.; Chiu. T. W.; Karuppiyah. C.; Karthikeyan. A.; Selvam. I. J.; *Inorg. Chem. Comm.* **2023**, *151*, 110635-110674.
- 4. Kerina. H.; Nagaraj. K.; Kamalesu. S.\* *Mat. Today: Proceed.* **2023**, *26*, 2023, 735-745.
- 5. Nagaraj. K.;\* Thankamuniyandi. P.; Kamalesu. S.; S.; Lokhandwala. S.; Parekh. N. M.; Sakthinathan. S.; Chiu. T. W.; Panda. S. W.; Karuppiyah. C.; Karthikeyan. A.; Selvam. I. J. *Spectrochim. Acta A: Mol. Biomol. Spectr.* **2023**, *296*, 122693-122705.
- 6. Radha. R.;\* Christygnanatheeba. P.; Nagaraj. K.; Karuppiyah. C.\*\* *Processes* **2023**, *11*(4), 1250-1264.
- 7. Nagaraj. K.;\* Priyanshi. J.; Naman. J.; Dixitkumar. M.; Thankamuniyandi. P.; Kamalesu. S.; S.; Lokhandwala. S.; Parekh. N. M.; Sakthinathan. S.; Chiu. T. W.; Karuppiyah. C. *J. Biomol. Str. Dyn.* (Accepted Manuscript).
- Hsu, Y.-C.; Chandra Sil, M\*.; Lin, C.-H.; Chen, C.-M\*. Modification of covalent organic framework by hydrolysis for efficient and selective removal of organic dye. *Appl. Surf. Sci.* **2023**, 155890.

## CONFERENCE/ SEMINAR 2023

- "The effect of accelerated damp heat (DH) ageing on the interfacial bonding between Ethylene vinyl acetate (EVA) copolymer and substrate back sheet for Solar PV module application". Bhuwanesh K. Sharma, "Frontiers at the Chemistry: Allied Sciences Interface (FCASI-2023)", University of Rajasthan, Jaipur, India, 20th -21st April, 2022.
- "Faculty Development Programme on Teaching, Learning and Assessing in 2023" . Reena Verma, Department of Physics, Faculty of Engineering and Technology, SRM institute of Science and Technology, Ramapuram Campus, Chennai, India, 6th June to 23rd June 2023.

# TECHNICAL ARTICLE - I

## DINNER PLANS



WRITTEN BY  
MS. RITU MEHTA  
M.Sc. STUDENT (SEM-IV)

A man, named Guru, walks into his office having a wooden desk and several files. His eyebrows are furrowed, as if he is deep in thought. His desk chair faces away from him and his secretary's voice answers him.

Man : Okay, let's go over it again. What do we have planned for tomorrow? Woman: You have four appointments tomorrow.

Man : Oh boy, another long day! What's the point of having a secretary if she can't even schedule the meetings correctly. Hmm, when is my last meeting tomorrow? Woman: It is at 7 p.m. and is an hour long.

Man: Wow, I won't even be able to eat dinner in peace? How ridiculous. Woman: If you want, I can cancel your 7 p.m. appointment and schedule some free time for dinner.

Man: Hmm, that's not such a bad proposition. But I'd have to run that by my boss, Akshay.

He's very particular about giving him ample notice. Can you send him that message? My wife will be calling me any moment and it wouldn't be good to get caught talking to you at the same time.

Woman: You sound stressed. Should I get you something?

Man: No, it's just the usual. Work stress plus home stress plus...this stress. Woman: In the meantime, I have a draft message to send to Akshay. Do you want to hear it?

Man: Sure, why not. It's not like I can't be too careful.

Woman: Here's the message: "Akshay, let us cancel tomorrow's meeting so I can have dinner." Should I send it?

**Man: No, no. You shouldn't be that blunt. Woman: What should I send instead?**

**Man: Tell him I have some personal matters to attend to and that I**

**can't make it to our 7 p.m. meeting tomorrow. Woman: Personal matters? It's no one's birthday or anniversary tomorrow.**

**Man: That's not the only personal matter I have to deal with. Woman: Should let your wife know about the personal matter? Man: You? Let's her know? That would start another world war.**

**Woman: War?**

**Man: Oh, you're so dim-witted.**

**Woman: Sorry, I'm working on that.**



**Man: Anyway, let Akshay know I have some urgent personal matters and that I cannot make it to our 7 p.m. meeting tomorrow.**

**Woman: Sure, I'll send that.**

**Man: You're rather calm today. You're really accepting my criticisms. Woman: Is there something else I can help with?**

**Man: Oh, don't be a glutton for work. Learn to ease up and work less!**

**Woman: Hmm, I'm not quite sure what you mean by that. Man: Never mind, I'll let my wife know we**

**can have dinner at 7 p.m. tomorrow.**

**Woman: Should I set up an appointment?**

**Man: My wife and live in the same house... Woman: Hmm, I'm not quite sure what you mean by that.**

**Man: It means we don't need a calendar appointment to eat together at the same dining table.**

**Woman: There are some cheap dining tables on amazon.com. Should I**

**show you the options? Man: And here my wife was getting suspicious I was spending too**

**much time with my "personal secretary. "Step aside, Alexa, I'll handle**

**this myself. Guru walks over to the chair and spins it around, revealing an empty cushion. A grey, cylindrical device on the corner of his desk pulsates a dim white light. A machine is a machine is a machine!**

# TECHNICAL ARTICLE - II

## SATELLITE TV



Satellite TV is a type of television programming that is wirelessly delivered to TV sets across the world via a network of radio signals, communications satellites, broadcast centers and outdoor antennas. Broadcast signals are transmitted from satellites orbiting the Earth and received by local and regional satellite TV systems. How Satellite TV service works

Satellite TV technology makes use of specialized antennas known as satellite dishes. These satellite dishes transmit signals to a satellite receiver such as a set-top box or satellite tuner module within a TV set. The programming source transmits signals to a satellite provider broadcast center and these waves are then picked up by a compact satellite dish and broadcast onto television sets.

Overview of Satellite TV Video Content Delivery  
Satellite TV service can also be referred to as direct broadcast satellite (DBS or DBSTV) service. A DBS provider will select programming—often a wide range of channels and services—and will then broadcast this content to satellite TV subscribers as part of a larger TV package. DBS programming can either be sent to a digital satellite receiver or an analogue satellite receiver. Analogue satellite television is slowly being replaced by digital satellite programming. Digital satellite television has become increasingly available in better quality known as HD TV (high-definition television). Digitally-broadcast content is characterized by greater picture and sound quality.



WRITTEN BY  
NISHA PANDEY  
B.Sc STUDENT (SEM-IV)

Satellite stations and broadcast television stations both transmit TV programming through radio signals. Years ago, the first satellite television TV technologies were broadcast in the C-band radio frequency range. Today, digital satellite TV content is transmitted in the Ku frequency range.

To further understand the technology behind direct-broadcast satellite systems, it is important to review the top features and elements involved in direct-broadcast satellite TV video content delivery: programming sources, satellite provider broadcast centers, satellites, satellite dishes and the satellite receivers, Programming sources refer to networks or channels that offer TV shows and movies for the enjoyment of subscribers. A broadcast center plays an integral role in video content delivery. At broadcast centers, TV providers receive and send broadcast signals to satellites orbiting the Earth.

Before sending out a signal, a broadcast center will convert programming into a digital stream of content. Once satellites have received and processed all of these uncompressed signals, they ultimately rebroadcast them to satellite dishes on Earth. Next, a subscriber's outdoor satellite dish will pick up the broadcast signal and transmit it to the satellite receiver located inside of a home. A satellite receiver then completes the information transmission by processing the signal and passing it on to a viewer's television set.



### Reliability and Reception

If a satellite dish or antenna is knocked out of place by inclement weather, homeowners may need to climb a roof to adjust these settings

**Bundle Services** Bundling services like television, Internet, phone and home security is often a very convenient option for customers. One advantage of bundled service is a single bill. While cable TV providers frequently offer bundles, satellite TV companies may need to partner up with other carriers in order to provide Internet, phone and other services to their customers. **Online Streaming Service** If you are interested in streaming live TV and watching video content online, you may want to carefully review package details to ensure you sign on with a provider—whether Internet, cable or satellite—that offers a wide array of live TV streaming content, both in-home and on-the-go. Do you want to stream your favourite TV shows and movies online or would you prefer to watch live TV on your mobile devices?

### Direct broadcast via satellite

Direct broadcast satellite, (DBS) also known as "Direct-To Home" can either refer to the communications satellites themselves that deliver DBS service or the actual television service. Most satellite television customers in developed television markets get their programming through a direct broadcast satellite provider. Signals are transmitted using Ku band and are completely digital which means it has high picture and stereo sound quality. Programming for satellite television channels comes from multiple sources and may include live studio feeds. The broadcast centre assembles and packages programming into channels for transmission and, where necessary, encrypts the channels. The signal is then sent to the uplink where it is transmitted to the satellite. With some broadcast centres, the studios, administration and uplink are all part of the same campus. The satellite then translates and broadcasts the channels.

EVERYDAY PLASTIC PRODUCTS - SUCH AS COFFEE CUPS - RELEASE TRILLIONS OF MICROSCOPIC PARTICLES INTO WATER

# DO YOU KNOW?



WRITTEN BY  
**AMANKUMAR SHREE RAVISHANKAR  
MANDAL**  
M.Sc STUDENT (SEM-IV)

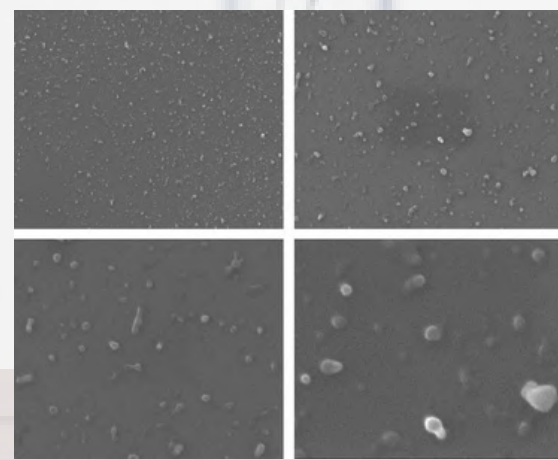
**Abstract:** NIST researchers analysed single-use beverage cups, such as coffee cups, which can release trillions

of nanoparticles, or tiny plastic particles, from the inner lining of the cup when the water is heated. Plastics are all around us, whether it's the grocery bags we use at the supermarket or household items such as shampoo and detergent bottles. Plastics don't exist only as large objects either, but also as microscopic particles that are released from these larger products. These microscopic plastics can end up in the environment, and they can be digested into our bodies.

Now, scientists at the National Institute of Standards and Technology (NIST) have analysed some widely used consumer products to better understand these microscopic plastics. They found that when the plastic products are exposed to hot water, they release trillions of nanoparticles per litre into the water

The NIST researchers recently published their findings in the scientific journal *Environmental Science and Technology*. "The main takeaway here is that there are plastic particles wherever we look. There are a lot of them. Trillions per litre. We don't know if those have bad health effects on people or animals. We just have a high confidence that they're there," said NIST chemist Christopher Zangmeister. There are many different types of plastic materials, but they are all made up of polymers, which are natural or human-made substances composed of large molecules linked together. Scientists have found microscopic particles from these larger plastics in many environments including the oceans. Researchers categorize them into two groups: micro- and nanoplastics.

HIGH-RESOLUTION IMAGES OF THE NANOPARTICLES FOUND IN SINGLE-USE BEVERAGE CUPS, SUCH AS COFFEE CUPS, AT THE MICROMETER (ONE MILLIONTH OF A METER) SCALE.



Microplastics are generally considered smaller than 5 millimetres (0.2 inches) in length and could be seen by the naked eye, while nano plastics are smaller than one millionth of a meter (one micrometre) and most can't even be seen with a standard microscope. Recent studies have shown some consumer products that hold liquids or interact with them, such as polypropylene (PP) baby bottles and nylon plastic tea bags, release these plastic particles into the surrounding water. In their study, the NIST researchers looked at two types of commercial plastic products: food-grade nylon bags, such as baking liners clear plastic sheets placed in baking pans to create a non-stick surface that prevents moisture loss and single-use hot beverage cups, such as coffee cups. The beverage cups they analysed were coated with low-density polyethylene (LDPE), a soft flexible plastic film often used as a liner. The LDPE-lined beverage cups were exposed to water at 100 degrees Celsius (212 degrees Fahrenheit) for 20 minutes

**MS. ANJALI YADAV**

**DO YOU  
KNOW?**



M.Sc. SEM 4  
SRICT - ISR

People have been enjoying ice cream for hundreds of years.

But there have never before been as many flavors as we enjoy these days. From sweet to savory, the ice's cream wondrous variety is all due to chemistry

Ice cream is a heterogeneous mixture of a liquid and finely dispersed solids. That is why it is called a complex colloidal system.

Each part in this system has an important function. Air bubbles typically make up about 30 to 50 percent of the mixture's final volume. They illustrate the feeling of cold and provide suppleness.

If the air content is too low, the ice cream becomes hard. If it is too high, the treat becomes too frothy and loses its caste

Fat droplets make ice cream creamy, Proteins from milk form around the fat, a combination that helps to separate the droplets and stabilize the mixture.

Liquid sugars surround the insoluble particles. They determine sweetness and softness. In food science, the sweetness is recorded using a scale called "potere dulcification" ("sweetening power\*"), or POD. That part of sugar's contribution is obvious.

Less obvious is the fact that sugar lowers the freezing point of water, reducing the amount of ice that forms in the mixture. it therefore has "anti-freezing power,\* which is also called "potere anticongelante," or PAC.

The sugar sucrose sets the standard for PAC. which corresponds to how much the freezing point is depressed by, say, one pound of sucrose dissolved in 100 pounds of water. Ice cream manufacturers use many more sugars. The lower the serving temperature, more sugar is needed for creamy ice cream.



But there is more than just sugar, fat, ice and air in your scoops. In addition, there are neutral components, such as emulsifiers and stabilizers. They bind solid components or fats with water and thus influence the consistency. Locust bean gum and xanthan gum are most commonly used. The latter is obtained during the fermentation of sugar-containing substrates and serves as a thickening and gelling agent. For a long time, the ice cream industry expanded the palette of flavours. Now the focus is on less caloric and less sweet concoctions. To achieve this, sugars are replaced with polyols, and fats are replaced with insulin's.

# WORDS OF WISDOM FOR STUDENTS ON SOCIAL MEDIA

A social media has taken today's youth by storm; teenagers are going crazy over it and spend most of their time in social networking sites. At the same time,

parents are always worried about their children. Social Media has both pros and cons. but Let's look at take the positive aspect first.

Social networking sites spread news faster than any other media. These sites provide the best sources of news. They help students do better at schools and colleges. People can also connect with their family and friends living far away.



It also has disadvantages too addiction, mental illness, poor emotional health, decrease in face-to-face communication which consequently diminishes understanding and thinking. It also affects studies and health. Excess of everything is bad.

Students should be made aware of the pros and cons of anything before they indulge in it Never tell a lie Even if you have to die. Never give pain, whatever you gain Never be greedy but help the needy Be very brave Even to the grave..



MR. SUMIT  
BHANDARI  
BSC SEM 2



STUDENTS

HOBBY

CORNER

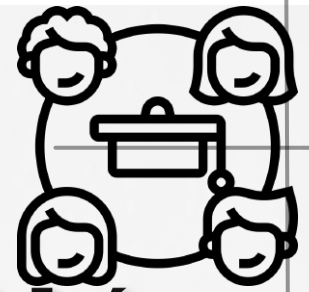
& SKILLS



MR.  
KHUMSINH  
RATHVA  
MSC SEM 4



# ALUMNI FEEDBACK



SRICT-ISR is a place of knowledge and bliss. It has provided me with a wonderful environment and the opportunity to learn and grow myself in every field. In SRICT-ISR not only i have got the boost for studies but also for other curriculum activities as well. I have got infinite love & support from my teachers at every step. They have encouraged me to polish my hidden talents in many ways. SRICT-ISR was not a college to me but it was like a Family and becoming a SRICT-ISRian was one of the best decision I am proud to be SRICT- ISRian.



**KINNARI NARENDRA KUMAR RAVAL**



**MINAL PATEL**

I would like to say that the two years at SRICT-ISR were one of the best periods of my life. At SRICT-ISR, i have always felt like a family, another home, which has helped me in my academic learning. I am thankful to all the faculty members of the College for their continuous efforts and support. Besides, excellent academic experience, I also gained the benefits of being a part of its Cultural Student' body. I cherish every moment spent at SRICT-ISR.

# ALUMNI FEEDBACK



My graduation at SRICT-ISR has been a very interesting and awesome journey. Choosing SRICT-ISR was one of the best decisions I have ever made. At This College I gained friendship and experiences which added a different perspective to my life. It feels great to be taught by amazing teachers who are the best. They always motivated and encouraged me to face the risks and learn new things. I am and will always be thankful to SRICT- ISR for making me a person I am Today.

## Infrastructure of SRICT-ISR.

Designed with perfection and wholeheartedness to create great deal of interest and to take us to virtual aspect of science, High tec. labs, classrooms, library, sports corner and canteen with high speed Wi-Fi all over the campus. Students get a very good exposure to the latest instruments in lab and the newest books from library. A perfect place for affirmed your subjects at its depth.



**AMAL C PILLAI**

## APART FROM DEPARTMENT

Industrial visits play a major role in educating us about what is actually happening outside our textbooks, how things are made and how life relies on science and innovation. Sports week unites us and teaches us the importance of team work. Expo's and exhibitions are for presenting yourself with confidence and makes you think like young scientist.

"True education is that what gives us knowledge and also shows its Practical applications in life"

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# THANK YOU

WHERE YOUR JOURNEY BEGINS



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