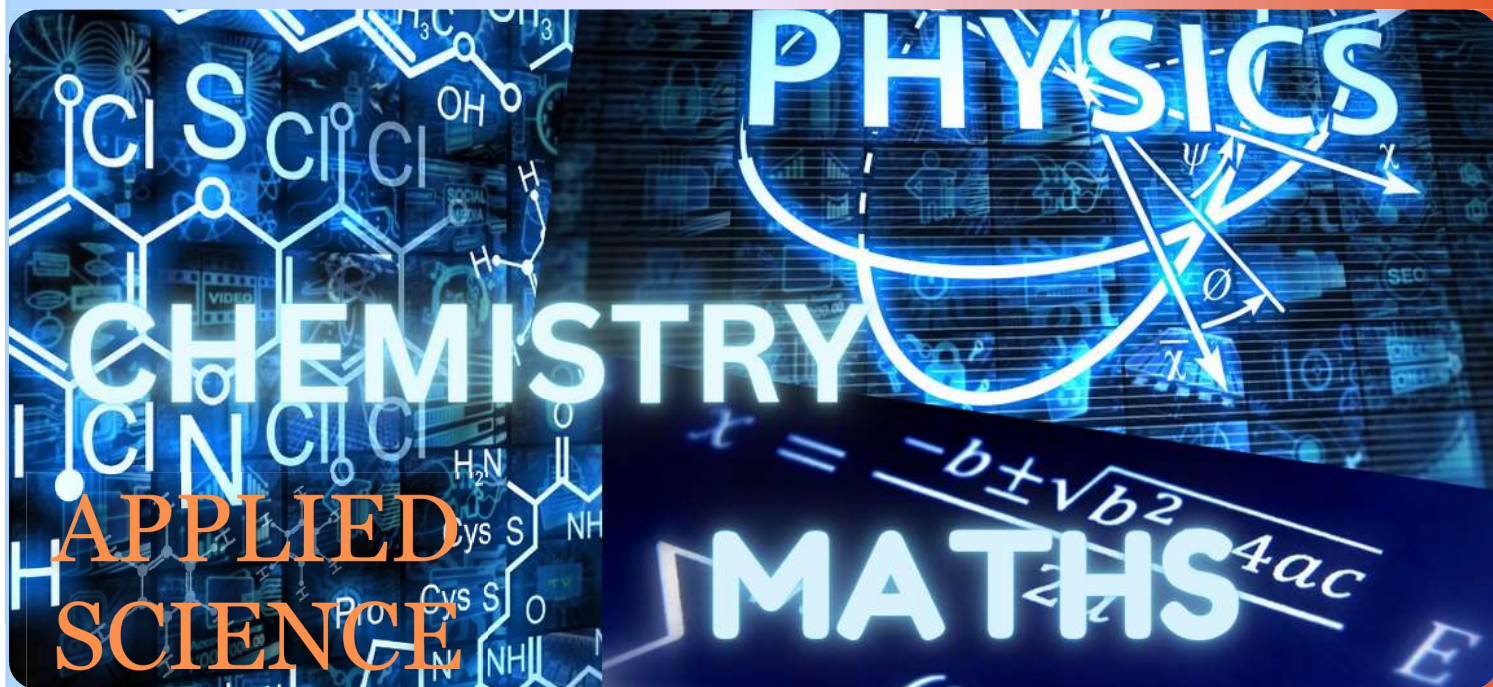


**NEWSLETTER
APPLIED SCIENCE
2023, Issue 1, Published on 15.7.2023**



Department of Applied Science



HoD's Message

Welcome to the Department of Applied Science, SATI, Vidisha. We, the Department of Applied Science, have great pleasure to introduce the first issue of Half Yearly Newsletter, which consists of departmental activities and achievements. I would like to thank all the faculty members, non-teaching staff and students for their support and sincere progressive efforts. On this occasion, I congratulate all the team members of the editorial board for bringing up this issue to this shape.

Dr. Manoj Datar

Faculty Members

Applied Physics

- Dr Jetendra Parashar
- Dr Sachin Mahajan
- Dr Ravi Jain

Applied Chemistry

- Dr Manoj Datar (HoD)
- Dr Namrata Rajawat
- Dr Raje Sengar
- Dr Swati Dubey

Applied Mathematics

- Dr Shailesh Jalori
- Dr Rajendra Dubey
- Dr Poonam Lata Sagar
- Dr Rajendra Pathak

DEPARTMENTAL OVERVIEW

DEPARTMENT VISION

We aim to enhance scientific research standards in the fields of knowledge, the skill level and we try to keep the students abreast with the information of recent scientific developments.

DEPARTMENT MISSION

The department of Applied Science works with a mission of generating between core areas of basic science and engineering, so that the outcome is a generation of better mental abilities for understanding, communicating and solving the engineering problems.

ABOUT THE DEPARTMENT

The Department of Applied Science was set up in 1956 to impart higher education in Engineering Physics, Applied Chemistry and Applied Mathematics in addition to take up courses to three core engineering branches i.e. Civil, Electrical and Mechanical in 1st and 2nd year. In the Department Post graduate and Ph.D. programs were started in 1972. Presently, the department teaches courses in Applied Physics, Applied Chemistry and Mathematics to all the branches of Engineering. The Department of Applied Science has acquired and accomplished a number of projects in the field of science and technology, funded from reputed organizations like AICTE, New Delhi and MPCST, Bhopal attributable to key areas of research such as Nanomaterials, Electronics, Atmospheric Physics, Organic and Inorganic Chemistry. Re-designated as the Department of Applied Science from the academic session 2021-22, the department brings together the well qualified and experienced faculties from the Physics, Chemistry and Mathematics streams as the department aims to provide learner centric education to the students of First Year through innovative and methodical approach. The department looks towards inculcating the scientific and technical skills among the learners simultaneously.

According to the requirements of today's industries, notably those in the pharmaceutical, cement, paint, fertilizer, and petrochemical sectors, the subject of applied chemistry seeks to provide a strong chemistry foundation. We fervently think that students who get careful instruction will be employable by industries and able to meet future societal requirements.



Faculty Achievements



Dr. Manoj Datar

- Delivered an Expert lecture at Career College on 6.5.2023 on Energy and Development.
- Attended DRDO (Defense Research & Development Organisation) Academia Conclave on "DRDO-Academia Partnership Opportunities and Challenges" at New Delhi 25, 26 May 2023.



Dr. Namrata S. Rajawat

- Attended Webinar on "Uses of AI & Big Data in Biomedical innovations" organized by Educare Taiwan with National Sun Yat-sen University of Taiwan.
- Attended Webinar on "Internship, Master & Ph.D (Career opportunities in chemists, biomedical & clinical applications" organized by Educare Taiwan with Kaohsiung Medical University.
- Paper Publication:
 1. Study of Phytochemical Activity and Pharmacological Action of Selaginella bryopteris for Management of Oxidative Stress. METSZET Journal, volume 7, issue 12, Dec 2022".



Dr. Jitendra Parashar

- Delivered an Invited Talk on "Surface Plasma Waves and Some Allied Phenomenon" at 3rd International Conference on Plasma Theory and Simulations (PTS-2023) held at Jawaharlal Nehru University, New Delhi 21-23 September 2023.
- Delivered a Key note address on "Plasma Physics" at National Conference on Physics & Environment, LNCT Bhopal M.P. on 01.07.2023.
- Papers were published / presented :-
- Terahertz Generation by Beating Laser Driven Plasmons in Graphene Embedded Metal Film, Swati Saxena and J. Parashar, European Journal of Applied Physics ISSN: 2684-4451 (2023).
- Microwave pulse propagation through a plasma filled waveguide, Priyanka Jatav, Jitendra Parashar and P.K.Sharma, 3rd International Conference on Plasma Theory and Simulations (PTS-2023), JNU, New Delhi, 21-23 September 2023.
- Effect of d.c. magnetic field on surface plasma wave propagation over a thin metal film and excitation by a laser, Swati Saxena, Ashish Mishra, Mitoo Singh and J. Parashar, 3rd International Conference on Plasma Theory and Simulations (PTS-2023), JNU, New Delhi, 21-23 September 2023.



Dr. Raje Sengar

- Attended 5 days FDP (Online mode) in "Recent Trends in Chemistry" organized by Vellore Institute of Technology, Andhra Pradesh in association with American Chemical Society from 19 June - 23 June 2023.
- Coordinated model science competition organized by MPCST in 38th MPYSC & SF program of MPCST, Bhopal, March 17-19, 2023 held at SATI, Vidisha M.P.



Dr. Sachin Mahajan

- Delivered an Expert Lecture on Visible emission of the Optical Materials Govt Dr. Shyama Prasad Mukharjee Science & Commerce PG College, Bhopal on 7th march 2023.
- Best research paper presentation awarded (In Physical Science section) Second Global conference on Recent Advances in Sustainable Materials (GC-RASM 2022) 28-29, July 2022, Mangalore, Karnataka (declared in Jan23) (For paper titled "Synthesis and intense visible emission of Er³⁺/Yb³⁺ ions co-doped lithium tellurite glasses under UV and IR excitation")
- Coordinated Physical Sciences Session in 38th MPYSC & SF program of MPCST, Bhopal, March 17-19, 2023 held at SATI, Vidisha M.P..
- Conference Attended
 1. International Conference on Advanced Technologies in Chemical, Construction and Mechanical sciences at KPR Institute of Engineering and Technology Coimbatore, Tamil Nadu 09-10 Feb 2023.
- Paper published;
 2. Studies on optical and electronic characteristics of ternary zinc-tellurite glasses with varying Zn doping concentration Sukhdev Bairagi, K.S. Bartwal S.K. Dhiman, S.K. Mahajan, Ghizal F. Ansari, Materials Today: Proceedings 80,427-433, (2023)
 3. Synthesis and intense visible emission of Er³⁺/Yb³⁺ ions codoped lithium tellurite glasses under UV and IR excitation Shivangi Parashar, Kratika Parashar, S.K. Mahajan Materials Today: Proceedings 80,981-984, (2023).



Dr. Swati Dubey

- Attended 5 days FDP (Online mode) in "Recent Trends in Chemistry" organized by Vellore Institute of Technology, Andhra Pradesh in association with American Chemical Society from 19 June - 23 June 2023.
- Coordinated Chemical Sciences Session in 38th MPYSC & SF program of MPCST, Bhopal, March 17-19, 2023 held at SATI, Vidisha M.P.

Students Achievements....

M.Sc Applied Chemistry students participated in State Level Model exhibition competition in 38th MP Young Scientist Congress (sponsored by MPCST, Bhopal) held at Samrat Ashok Technological Institute, Vidisha M.P. from 17 - 19 March 2023. M Sc Applied Chemistry students prepared a working model based on use of waste to produce green energy under the guidance of Dr Swati Dubey, Dr Namrata Rajawat and Dr Raje Sengar. This working model was adjudged Runners up in the State Level Competition. Congratulations to all students



Science Day Celebration

National Science Day was celebrated from 27 Feb to 28 February 2023. The program was sponsored by M P Council of Science & Technology, Bhopal. The theme of program was "Global Science for Global Well being". Around 160 students actively participated in several events like Debate, Speech, Science Quiz, Bio-rangoli, Poetry, Science Model and Poster presentation etc. The audience got benefitted by expert lectures of (i) Dr. Anupama Kumar, Prof. & Head of Chemistry Department, Vishveshvaraiya National Institute of Technology, Nagpur (VNIT) (ii) Dr. R.K Pandey, Associate Professor, Physics Department, Guru Ghasidas Central University, Bilaspur(C.G.) and (iii) Dr. S.K. Upadhyay Professor & Head of Chemistry department, S.S.L Jain PG College, Vidisha. In valedictory session, Certificates and Prizes were distributed to winners and participants by the Chief Guest Dr. S.K.Upadhyay, Dr. Jetendra Parashar (Dean Academic) and Dr.Manoj Datar (Professor & Head, Applied Science).



Interaction with alumni.....

Interacting with Alumni is a meaningful way to stay connected and take benefits from college's network of MSc applied chemistry . Following alumni of 2006 batch guided students by sharing their experience new updates and upcoming opportunities to the fresher:

Interaction with M Gagan Jain (2006), Sr Director, Quality Control and Stability Department, Teva API India Pvt Ltd., Gajraula (U.P), Mr Sourabh Sharma (2006), Sr Executive - II Level, Macleods Pharma, Daman (U.T.) and Mr Ankit Singhai (2006), Sr Executive, Quality Control Department, Sun Pharma Industries Ltd Dewas (M.P.) on 6.2.2023



- Interaction with Mr Pankaj Jain (1996), Manager, QC, J B Pharma, Ankaleshwar (Gujarat) on 7.5.2023



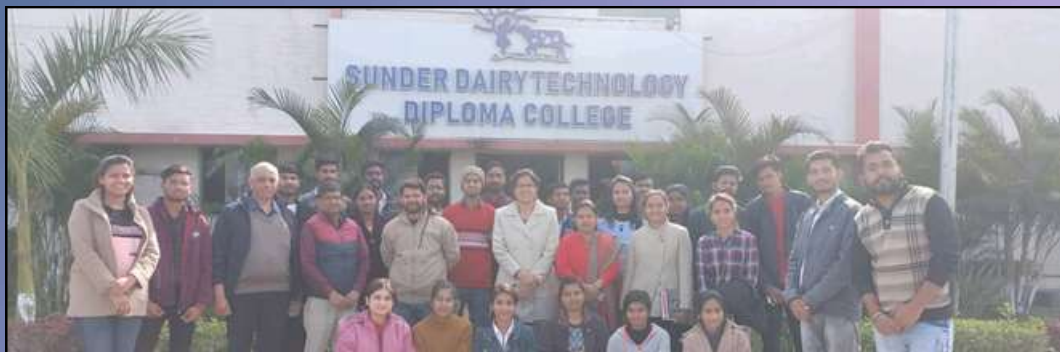
- Interaction with Dr Sunil Tiwari (2003), DGM, QC, Viatrix Pharma, Pithampur and Dr Rajneesh Jain (2003), Director, R & D, Glenmark Life Sciences, Ankaleshwar (Gujarat) on 10.5.2023



INDUSTRY VISITS.....

1. SUDHAMRIT - SUDHA FOODS AND DAIRY:

On 2.2.2023 the visit was arranged for M Sc II and M Sc IV Sem students. Sudhamrit Sudha Foods and Dairy is an industry to manufacture several dairy products like pasteurised milk, paneer, ghee etc. Industry has mechanised system for extracting milk from kettles in a hygienic way. The waste products of the industry are treated in an Effluent Treatment Plant to ensure no discharge of waste.



2. REFUTO PLASTIC WASTE INDUSTRY (JAMBAR BAGRI INDUSTRIAL ESTATE, VIDISHA M.P.):

On 2.2.2023 the visit was arranged for M Sc II and M Sc IV Sem students. Management of Plastic waste is a big problem at present. Refuto is an industry which manufactures diesel oil from plastic waste.



3. ADANI WILMAR LTD, VIDISHA:

On 2.2.2023 the visit was arranged for M Sc II and M Sc IV Sem students. Adani Wilmar is an MNC and operating a Soya oil extraction plant and its downstream products at Vidisha.



OUTING ACTIVITY.....

Visit to nearby historical places: Heliodorus Pillar, Udaigiri Caves.....



PLACEMENT.....



SHUBHI SHARMA
PI Health Sciences Ltd,
Hyderabad
Package: 4.00 LPA



DARSHAN KALAMBE
Resustainability Pvt Ltd,
Hyderabad
Package: 3.5 LPA



DEEPAK SHARMA
Resustainability Pvt Ltd,
Hyderabad
Package: 3.5 LPA



SHAFEEQ KHAN BEHNA
GlennMark Ltd,
Ankaleshwar, Gujarat
Package: 3.25 LPA



SHARAD BAIRAGI
GlennMark Ltd,
Ankaleshwar, Gujarat
Package: 3.25 LPA



HIRDESH AHIRWAR
GlennMark Ltd,
Ankaleshwar, Gujarat
Package: 3.25 LPA



SURAJ SEN
GlennMark Ltd,
Ankaleshwar, Gujarat
Package: 3.25 LPA



VISHAL SINGH
RAKS Pharma
Bharuch, Gujarat
Package: 2.40 LPA



MANJEET MEENA
Lupin Ltd, Mandideep,
Madhya Pradesh
Package: 2.1 LPA



MANSI RAJPUT
Teaching Profession
Vidisha, Madhya Pradesh
Package: 1.80 LPA

EDITORIAL BOARD

Advisor
Dr Manoj Datar

Coordinator
Dr Swati Dubey

Members (Faculty)
Dr Raje Sengar
Dr Namrata Rajawat

Members (Student)
Ritu Yadav
Shubhi Sharma
Darshan Kalambe
Anjali Pandey
Neha Kanojia
Gaurav Maithil
Ritik Yadav