

SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV)



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CHEM NEWS



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Annual Newsletter of Department of Chemistry

2024-25



"The best chemists are those who were inspired by a passionate chemistry teacher."

Patrons

Brahmibhuta jagadguru

Sri Jayendra Saraswathi Swamigal

& His Holiness Sri Shankara Vijayendra Saraswathi

Swamigal

& His Holiness Sri Satya Chandrasekharendra Saraswathi Swamigal

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Dr. B. Muthukumaran, Assistant Professor of Chemistry

Mrs. C. Jeyalakshmi, Assistant Professor of Chemistry

Mrs. M. Parameswari, Assistant Professor of Chemistry

Mrs. V. Vaidehi, Assistant Professor of Chemistry

Spectroscopy, Spectrofluorometer, flame

Issue Editor

Dr. R. Manjupriya, Assistant Professor of Chemistry

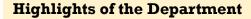


About the Department of Chemistry

Where Science Meets Spirituality

The Department of Chemistry at SCSVMV offers a comprehensive academic journey through its B.Sc., M.Sc., M.Phil., and Ph.D. programmes. Rooted in the vision of blending scientific inquiry with spiritual insight, the department strives to ignite curiosity, inspire innovation, and nurture a balanced approach to knowledge among young minds. Our department is driven by a team of highly qualified, passionate, and research-oriented faculty members, dedicated to excellence in both teaching and discovery.

The department has sophisticated instrument transforms infrared UV/visible spectroscopy, spectroscopy, spectrofluorometer, flame photometry, Infra-red CO2 analyzer, COD reactor, water quality analyzer, and ultrasonic interferometer. The department organizes various seminars and workshops funded by different funding agencies...



- Offers UG, PG and PhD programmes
- Qualified and Research Oriented Faculty
- > Well organized departmental library
- ➤ Well Equipped Research Laboratory
- > Advanced Instrumentation facilities
- > Publications in High Impact Journals
- > Research Consultancy Services
- > Seminar and Workshops by Experts
- > Internship Programs

Programmes Offered

- B.Sc. (Chemistry)
- ➤ M.Sc. (Chemistry)
- Ph.D (Chemistry-full time & part time)

Areas of Research

- > Electrochemistry
- Supramolecular Chemistry
- Crystal Growth
- Environmental Chemistry
- > Electrocatalysis
- Computational Chemistry
- Nano-catalysis

DEPARTMENT ACTIVITIES

Invited Lecture on Optical Spectroscopy – 08.08.2024

The Department of Chemistry successfully hosted an invited lecture on Optical Spectroscopy on August 8, 2024, featuring Dr. Ashok Kumar Mishra from IIT Madras as the distinguished speaker.

The event began with a welcome address by Mr. V. Santhanam, Head (i/c), Department of Chemistry. The session drew the participation of around 45 students from the Chemistry and Physics departments, all eager to deepen their understanding of the subject. Dr. Mishra delivered a captivating talk that bridged both theoretical concepts and practical applications optical spectroscopy. of underlining its significance in scientific research.





The Department extends its **heartfelt thanks to Dr. Mishra** for his valuable insights and engaging presentation. We look forward to future opportunities for collaboration and knowledge sharing.







Seminar on "Birth of Quantum Mechanics" - 25.10.2024

The Department of Chemistry hosted an insightful invited lecture on "Birth of Quantum Mechanics" by Dr. Raji Pingali, a distinguished chemist and passionate STEM educator. The event took place as part of the department's ongoing expert lecture series aimed at enriching academic exposure.





The session began with a warm welcome by **Mr. V. Santhanam**, **Head (i/c)**, Department of Chemistry. Dr. Pingali delivered a thought-provoking presentation that explored the foundational concepts and historical milestones of quantum mechanics, sparking curiosity and meaningful discussion among the attendees.

ICC Awareness Program by "Gender Champions Club" – 05.02.2025

The ICC Awareness Program organized by the Gender Champions Club under the Department of Chemistry. The event aimed to raise awareness about the Internal Complaints Committee (ICC) and its significance in promoting a safe and inclusive environment in SCSVMV for all students.











A detailed presentation was provided by gender champions Monika (III B.Sc) and Gokul (II M.Sc). The presentation covered:

- √ Roles and responsibilities of the ICC
- ✓ Procedures for filing complaints
- ✓ Importance of gender sensitivity on campus

Students participated in interactive discussions, sharing their thoughts and experiences, which fostered a deeper understanding of the issues at hand. Total of 27 students & 6 faculty members participated in the program, actively engaged in discussions and activities.

Lecture on "Sustainable Waste Management for a Circular Economy" - 24.01.2025



On January 24, 2025, Prof. Dr. R. Vinu, a professor in the Department of Chemical Engineering at IIT Madras, delivered a lecture on "Sustainable Waste Management for a Circular Economy." Organized by the Departments of Chemistry and Mechanical Engineering.

The session aimed to highlight innovative strategies and practices in waste management that support circular economy principles. Following the lecture, an interactive session allowed students and faculty members to engage in discussions, ask questions, and explore collaborative opportunities in sustainable practices. As part of the lecture titled "Sustainable Waste Management for a Circular Economy," he visited the Chemistry Research Lab. During this visit, he interacted with Mr. V. Santhanam, the Head of the Department of Chemistry, as well as with all faculty members.

Chemistry Unnoticed

Scientists have discovered water on the Moon using a variety of analytical techniques, primarily involving infrared spectroscopy. Instruments like the Moon Mineralogy Mapper (M3) and NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) have been instrumental in detecting water molecules, including those in sunlit areas of the Moon.









Nikita Containers Pvt. Ltd, SIP, Irungattukottai, Sriperumbudur) on 29.07.2024

Students from B.Sc. (I, II, III year) and II M.Sc. along with all faculty members, visited Nikita Containers Pvt. Ltd at Pennalur, Kanchipuram (Sipcot Industrial Park, Irungattukottai, Sriperumbudur). Their containers are known for their durability and are used for packaging items such as cookies, candles, cosmetics, and spices.



During the industrial visit, they gained valuable insights into the **manufacturing processes of shampoo and conditioner.** The visit provided an excellent opportunity to enhance their understanding of industrial operations.

Mahaveer Surfactant, Thervoy Kandigai on 05.03.2025

Students of I M.Sc and II M.Sc. along with faculty members. (Dr.B.Muthukumaran, Asst.Professor & Mrs.C.Jeyalakshmi, Asst.Professor) visited Mahaveer Surfactant Private **Limited**. During the visit, they gained valuable insights about the working involved surfactant processes in production...



The integration of **quality control and innovative manufacturing** techniques reflects the company's dedication to excellence and sustainability in the chemical industry. The visit provided an excellent opportunity to enhance their understanding of industrial operations











Internship to Nippon Paints India Private Limited (22.12.2024-22.01.2025)

Chandralekha, and P. Gokul completed a one-month internship program at Nippon **Paints**. As part of their knowledge sharing initiative and to motivate junior students, they presented their experiences and insights about the workplace and quality sector to all the UG and I M.Sc students on 21.2.2025.



Seminar on "Drug Development – Bench to Bedside (Mouse to Man)" 14.03.2025

As part of the Connectivity of Vishwadarshan Lecture Series, the Department of Chemistry at SCSVMV organized a seminar on "Drug Development - Bench to Bedside (Mouse to Man)" on 14th March 2025 at the ECE Seminar Hall. The session was delivered by Dr. Ramesh Visvanathan, Head of QA, QC, and Compliance at Allianz Biosciences Pvt. Ltd., Pondicherry, who provided an insightful and enthusiastic overview of the drug development process from initial research and testing in animal models to clinical application in humans. He elaborated on key concepts such as drug mechanisms, the importance of statin therapy, and the regulatory challenges involved in translating laboratory research into real-world medical treatments. The seminar highlighted the importance of translational medicine in bridging basic science and patient care, aligning well with the seminar's title. Both UG and PG students, Research scholar and all faculty members actively participated and gained knowledge. The program concluded with a vote of thanks delivered by Mr. V. Santhanam, Head of the Department of Chemistry.













STAHL India Pvt. Ltd Visit to the Department – 21.04.2025

The Industry-Academia Collaboration Meet resulted in valuable internship and placement opportunities for UG and PG chemistry students. Mr. Saji HR & amp Team Members visited the department in presence of the Mr. V. Santhanam, Head of the Department of Chemistry and Dr. K. Sivakumar, Research Director. These initiatives aim to strengthen institutional partnerships and bridge the gap between academic **learning and industry practices.** This collaboration significantly enhances students' exposure to real world applications.

Career Guidance Programme - "The Chemistry of Success" on 06.03.2025



offered, emphasizing the program's vital networking techniques. role in enhancing their career readiness. At the conclusion of the program, students shared their feedback. expressing that they gained valuable knowledge and learned various ideas related to pursuing higher studies and job opportunities. The event was successfully coordinated by Mrs. C. Jeyalakshmi, Assistant Professor in the Department of Chemistry.

Career quidance programme for final year students (UG & PG) was organized by the Department of Chemistry on 06.03.2025 from 9:30 AM to 1:30 PM in the Chemistry Research Lab. The primary aim of the event was to equip students with essential skills and knowledge for their future careers. All the Faculty members provided valuable insights into emerging job trends, skill requirements, and effective job search strategies. The interactive sessions Students expressed their appreciation for provided students with opportunities to engage the practical advice and resources in resume building, interview preparation, and











Educational Tour

Visit to Sri Jayendra Saraswathi Ayurveda College and Hospital on 19.03.2025

As part of our academic learning and practical exposure, Faculty members of Department of Chemistry and UG Chemistry students visited Sri Jayendra Saraswathi Ayurveda College and Hospital for an educational tour on 19.03.2025. The aim was to explore the traditional Ayurvedic system of medicine and gain firsthand knowledge of how Ayurvedic medicines are prepared.





One of the most fascinating parts of the visit was observing the preparation of **Bhasma**, a fine ash made by incinerating purified metals and minerals. The staff emphasized how these steps are essential to ensure the safety and effectiveness of the final product. We also got to witness the traditional **Puta** process, where the materials are heated using cow dung cakes or specially designed furnaces.

Depending on the material, different types of Puta are used to control the intensity and duration of heat. It was impressive to see how ancient techniques incorporate such precision and scientific thought.

Chemistry Riddles

I go up when things get hot, I go down when they cool a lot. I'm not a balloon, but I expand and contract. What am I?

***** Answer: Mercury in a thermometer









Celebrations

Fresher's day celebrations on 23.08.2024



the First Year B.Sc. and M.Sc. students of the Department of Chemistry were organized by the UG and PG students on 23.08.2024 between 10.00 am-11.30 am at Vidhya Vihar Block (Ground floor). The grand event aimed to help the fresher allay fear and develop friendships with the seniors and juniors.

Mr. V. Santhanam, Head (i/c) Dept. of Chemistry wished the freshers and insisted to the students that they must assimilate knowledge from the core subject and also maintain discipline in the classroom. All the faculty members of the Department of Chemistry gave their hearty wishes to the freshers. The program ended with the National anthem and Tea and snacks were distributed to the students

Saraswathi Pooja Celebrations on 10.10.2024

The Department of Chemistry celebrated

Saraswathi Pooja on 10th October 2024

with great devotion and enthusiasm in the

Chemistry Lab premises. The celebration

commenced at 10:30 AM, with faculty

members, research scholars, and students

joining together to invoke the blessings of

Goddess Saraswathi.



Students actively participated in organizing the event and took the initiative to prepare prasadham as an offering to the goddess. The pooja was conducted with traditional rituals and creating a divine atmosphere within the department.









Pongal Celebrations on 10.01.2025



UG and PG students of the Department of Chemistry celebrated Pongal festival on 10.01.2025 in front of the Vidhya Vihar block to portray the tradition. Delicious Pongal dishes were prepared and shared among attendees, fostering a sense of community and togetherness.

The event also served as an opportunity for everyone to learn about the significance of Pongal and its rich cultural heritage.



Farewell day celebrations on 05.05.2025



Farewell celebration for the final-year B.Sc. and M.Sc. students of the Department of Chemistry was organized by their juniors on 05th May 2025, from 10:00 AM to 12:30 PM at the Vidhya Vihar Block. The event was filled with memories, gratitude, and wishes for a bright future as the graduating students step into the next chapter of their lives.









Mr. V. Santhanam, Head of the Department, addressed the students with motivational words, encouraging them to be disciplined, well-mannered, punctual, and responsible in all aspects of life as they step into their careers. Faculty members extended their heartfelt wishes to the outgoing students. The event featured a variety of games conducted by the juniors, followed by a touching video montage recalling cherished memories from the students' journey.



Several students also shared their experiences and fond memories of their time in the department, making the event both emotional and memorable.

Student Achievements

- S. Pavithra and B. Chandralekha II M.Sc students got I and II prize in the Craft competition in ELITE 2k24 a 6th National Level Technical Symposium organized by Computer Science and Applications on 09.10.2024.
- ➤ II M.Sc. students S. Pavithra, B.

 Chandralekha, and P. Gokul

 completed a one-month internship

 program at Nippon Paints. As part of

 their knowledge sharing initiative

 and to motivate junior students, they

 presented their experiences and

 insights about the workplace and

 quality sector to all the UG and I M.Sc

 students on 21.2.2025



General facts

- * Nobel prize is given "to those who, during the preceding year, shall have conferred the greatest benefit on mankind."
- * The smell of rain (petrichor) is caused by a compound called geosmin, produced by soil-dwelling bacteria.





In the Spardhaa sports event organized by the Department of Physical Education from 15th April to 16th April 2025, both boys and girls from the Department of Chemistry actively participated in various events. The girls' team won first prize in Cricket (11 members) and runners-up in Kho-Kho (11 members).

Faculty Activities

Articles published by the Faculty members

- ➤ Jeyashri, K. R., Logeshwari, G., Rajapandiyan, U., **Sivakumar, K.,** Selvanayagam, S., Manikandan, H., & Kaviyarasu, K. (2024). Synthesis and crystal structure of (2E)-1-[3, 5-bis (benzyloxy) phenyl]-3-(4-ethoxyphenyl) prop-2-en-1-one. Structure Reports, 80(9).
- ➤ Raja, R., Seshadri, S., & **Santhanam, V.** (2024). Synthesis, growth and characterization of nonlinear optical crystal: propylenediamine picrate (PDP) single crystals. Journal of Materials Science: Materials in Electronics, 35(25), 1693.
- ➤ Jeyashri, K. R., Logeshwari, G., **Sivakumar, K.,** Selvanayagam, S., Manikandan, H., Sakthivel, P., & Thirunavukkarasu, V. (2025). Spirooxindole-Pyrrolizidine: Synthesis, Crystal Structure, and Anticancer Activity. Polycyclic Aromatic Compounds, 1-34.
- ▶ Parameswari, M., & Jayamoorthy, K. (2025). Imidazole derivatives synthesis: exploring different methods. Phosphorus, Sulfur, and Silicon and the Related Elements, 200(5), 413-430.





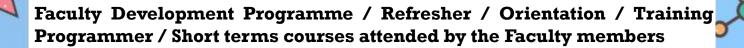




Seminars / Conferences / Workshop / Webinars attended by the Faculty members Name of the Seminar/Workshop/Webin ar/ Conference/etc. One Day National Workshop Vengunady College of

| | S.No. | Name of the Faculty Mr .V. Santhanam | Name of the Seminar/Workshop/Webin ar/ Conference/etc. | Date and Venue | |
|-----|-------|---------------------------------------|--|---|--|
| 9 9 | 1 | | One Day National Workshop on "Applications of Chemical Compounds in Diagnostic Imaging" | Department of Chemistry, Kongunadu College of Engineering and Technology (Autonomous) - 26.07.24 | |
| | 2 | Dr .B. Muthukumaran | One Day National Workshop on "Applications of Chemical Compounds in Diagnostic Imaging" | Department of Chemistry, Kongunadu College of Engineering and Technology (Autonomous) - 26.07.24 | |
| | 3 | Mrs C. Jeyalakshmi | One Day National Workshop on "Applications of Chemical Compounds in Diagnostic Imaging" | Department of Chemistry, Kongunadu College of Engineering and Technology (Autonomous) - 26.07.24 | |
| | | | Current Trends in Chemistry and its Diverse Applications – 2025 (CTCDA-2025)" | Department of Chemistry, Pachaiyappa's College for Men, Kanchipuram, (Autonomous) -25.01.2025 | |
| | 4 | Mrs. M. Parameswari | Current Trends in Chemistry and its Diverse Applications – 2025 (CTCDA-2025)" | Department of Chemistry, Pachaiyappa's College for Men, Kanchipuram, (Autonomous) -25.01.2025 | |
| | | | International webinar on Accelerating Equity in Science (GWB-2025) | IQAC & Department of Chemistry, Jagat arts, Commerce & I.H.P. Science college, Goregaon, Dist. Gondia, 11.02.2025 | |
| | 4 | Mrs V. Vaidehi | One Day National Workshop on "Applications of Chemical Compounds in Diagnostic Imaging" | Department of Chemistry, Kongunadu College of Engineering and Technology (Autonomous) - 26.07.24 | |
| | | | Current Trends in Chemistry and its Diverse Applications – 2025 (CTCDA-2025)" | Department of Chemistry, Pachaiyappa's College for Men, Kanchipuram, (Autonomous) -25.01.2025 | |
| | 5 | Dr. R. Manjupriya | Current Trends in Chemistry and its Diverse Applications – 2025 (CTCDA-2025)" | Department of Chemistry, Pachaiyappa's College for Men, Kanchipuram, (Autonomous) -25.01.2025 | |

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Mr.V. Santhanam

- > Online National Level One Week Faculty Development Programme on "Research Methodology", organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur between 22.07.2024 to 27.07.2024.
- ➤ 5 Days International online FDP on "Working with Emotional Intelligence and Life Skills Management" organized by Department of English. Bapatla Engineering College, Gutur in association with ELTAI Guntur Chapter between 02.12.2024 to 06.12.2024.
- ➤ Five days Online Faculty Development Programme on "Multidisciplinary approach on nanotechnology" organized by Department of Chemistry, Vellalar College for women, Erode from 23.09.2024 to 27.09.2024.

Dr. B. Muthukumaran

- ➤ Online National Level One Week Faculty Development Programme on "Research Methodology", organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur between 22.07.2024 to 27.07.2024.
- ➤ 5 Days International online FDP on "Working with Emotional Intelligence and Life Skills Management" organized by Department of English. Bapatla Engineering College, Gutur in association with ELTAI Guntur Chapter between 02.12.2024 to 06.12.2024.
- ➤ Five days Online Faculty Development Programme on "Multidisciplinary approach on nanotechnology" organized by Department of Chemistry, Vellalar College for women, Erode from 23.09.2024 to 27.09.2024.

Mrs. C. Jeyalakshmi

- > Online National Level One Week Faculty Development Programme on "Research Methodology", organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur between 22.07.2024 to 27.07.2024.
- ➤ Five days Online Faculty Development Programme on "Multidisciplinary approach on nanotechnology" organized by Department of Chemistry, Vellalar College for women, Erode from 23.09.2024 to 27.09.2024.



- "Advancement in materials" organized by Department of Physics, KPR Institute of Technology, Coimbatore from 20.01.2025 to 24.01.2025.
- Presidency University, Bengaluru from 06.01.2025 to 10.01.2025.

Mrs. M. Parameswari

- ➤ Online National Level One Week Faculty Development Programme on "Research Methodology", organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur between 22.07.2024 to 27.07.2024.
- ➤ Five days Online Faculty Development Programme on "Multidisciplinary approach on nanotechnology" organized by Department of Chemistry, Vellalar College for women, Erode from 23.09.2024 to 27.09.2024.
- Presidency University, Bengaluru from 06.01.2025 to 10.01.2025.
- ➤ AICTE Training and Learning (ATAL) organized by St. Joseph's college of engineering from 20.01.2025 to 25.01.2025.

Mrs. V. Vaidehi

- > Online National Level One Week Faculty Development Programme on "Research Methodology", organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur between 22.07.2024 to 27.07.2024.
- ➤ Five days Online Faculty Development Programme on "Multidisciplinary approach on nanotechnology" organized by Department of Chemistry, Vellalar College for women, Erode from 23.09.2024 to 27.09.2024.

ChemFun.

- ✓ **Gold** is the best element because it's **AU-some**
- ✓ You must be made of copper and tellurium... Because you're Cu-Te.
- ✓ **LPG** is **odorless**, so a chemical called **ethyl mercaptan** (which smells like rotten eggs) is intentionally added as a safety measure to detect leaks easily.











Mrs. M. Parameswari

- ▶ Presented a paper entitled "Photoinduced elelctron-transfer from substituted benzimidazole to various nano metal oxides" in DST-SERB sponsored Third International Conference on Functional Materials for Next-Gen Applications (ICFMNA 2025) organized by Department of Chemistry, Sri Sivasubramaniya Nadar College of Engineering and The society for polymer science India, Chennai.
- ➤ Presented a paper entitled "Review on Green synthesis of Copper Nanoparticles and their diverse applications" in the National Conference on Advances in Engineering Materials (NCAEM-2025) organized by the Department of Science, St. Joseph's College of Engineering, Chennai during 21st & 22 nd March 2025.

Staff Participation (Delivered Lecture, acted as Resource Person Etc.) Dr. K. Sivakumar

➤ Acted as a resource person for the Career guidance programme and delivered a Lecture on "A-Z of Chemistry Careers" organized by Department of Chemistry, SCSVMV on 06.03.2025.

Mr. V. Santhanam

➤ Acted as a resource person for the Career guidance programme and delivered a Lecture on "Answering tough questions" organized by Department of Chemistry, SCSVMV on 06.03.2025.

Dr. B. Muthukumaran

➤ Acted as a resource person for the Career guidance programme and delivered a Lecture on "Mastering the art of selling concepts" organized by Department of Chemistry, SCSVMV on 06.03.2025.

Mrs. C. Jeyalakshmi

➤ Acted as a resource person on 5 days Faculty Development program on Embracing

Local Ecological Management and Environmental Norms through the

Teachings of Sustainability via Pancha Bhoota and Indian Knowledge Systems

(ELEMENTS-2024)¹ organized under the DBT STAR College Scheme from 17.10.2024

to 23.10.2024 by Department of Microbiology, Rathinam College of Arts & Science,

Coimbatore.

in

➤ Acted as a resource person for the Career guidance programme and delivered a Lecture on "Winning at Works: What Truly Matters" organized by Department of Chemistry, SCSVMV on 06.03.2025.

Mrs. M. Parameswari

➤ Acted as a resource person for the Career guidance programme and delivered a Lecture on "Resume Writing Techniques" organized by Department of Chemistry, SCSVMV on 06.03.2025.

Details of patents filed by the faculty members

| S.No. | Inventor | Designation | Month & Title and description | | Indian/ |
|-------|--------------|-------------|-------------------------------|------------------------|------------------|
| | | | Year | Internation | |
| | K. Sivakumar | Professor | 13.12.2024 | Method of synthesizing | |
| | | | | Spiro-Pyrrolizidine- | Indian Patent |
| 1 | | | | Benzyloxy hybrid with | Application. No. |
|) | | | | doxorubicin to enhance | 202441096248, |
| 5 | | | | anticancer activity | |

Details of Doctoral Committee Meetings

| S.No. | Date | Name of the scholar | I DC/II DC/ III DC /Synopsis/ viva voce | Title |
|-------|----------|---------------------|---|-------|
| 1 | 08.08.24 | Divya AnnaParvathi | IDC | - |

Get in Contact with us

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