



G.VENKATASWAMY NAIDU COLLEGE (Autonomous), KOVILPATTI 6
(Re-Accredited by NAAC with 'A' Grade)

DEPARTMENT OF CHEMISTRY

Department activities for the period June - 2023 to May - 2024

1. Orientation programme for freshers:

Department of Chemistry participated in the Orientation programme for first year UG students organised by Department of English from 19th June to 23rd June, 2023. In the programme Dr. B. Umadevi, Associate Professor & Head, Department of Chemistry and CDC Convener gave necessary guidance to the students about the Course Structure, Curriculum Design, Mandatory credits to be earned for the completion of the Course and various Campus activities and extra-curricular activities carried out through various clubs viz. Nature club, Quiz club, NSS, Sports club, Yoga club, YRC, Red Ribbon club etc. on 19.06.2023. On the second day of the programme, students visited the Department. Mr. R. Venkatesan Associate Professor, Department of Chemistry spoke to the students about general disciplinary measures. Mrs. G. Kalarani, Assistant Professor and Dr. P. Santharaman, Assistant Professor, Department of Chemistry spoke about the history of the Department, infrastructure facilities and various opportunities available for Chemistry graduates.

2. Bridge Course

Department of Chemistry conducted Bridge Course for first year students in the last week of June. List of Tamil equivalents for English Scientific terms was given for the benefit of Tamil medium students. Important Chemistry terms and concepts were explained.

- 3. Fresher's day party for welcoming first year students was celebrated on 24.07.2023 to introduce them to the campus life.**

3. Hands on Training programme for +2 students

A two Days Hands-on Training Programme for +2 students has been organized by Department of Chemistry in association with Department of Electronics, Mathematics, Physics, Botany & Zoology on 30.08.2023 and 31.08.2023. About 250 students participated and benefitted from this programme. Experienced Professors conducted practical demonstrations of Volumetric Analysis techniques including acid base titrations, redox titrations and complexometric titrations. Participants observed and learned essential laboratory techniques such as pipetting, burette calibration indicator selection and end point recognition to ensure accurate and precise results. Organic Analysis demonstration focused on qualitative

identification of organic compounds through tests for functional groups, solubility and chemical reactivity. The participating school students were provided with practical knowledge and skills essential for conducting accurate chemical analyses in laboratory settings. The live demonstration of Volumetric Analysis and Organic Analysis practicals provided school students with an enriching and memorable educational experience, sparking their interest in analytical chemistry and scientific inquiry.

4. Certificate Course on in Medical Lab Technician Course:

Department of Chemistry in association with Department of Zoology is offering a Certificate Course in **Medical Lab Technician** for final year students who have studied Biology in +2.

6. Participation of staff/ students in Seminars/Workshops/ Conferences etc.

i) Dr. B. Umadevi, Associate Professor & Head, Mr. R.Venkatesan, Associate Professor, Dr. V. Gomathi Sankareswari, Associate Professor and Dr. G. Kalarani, Assistant Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti participated in the *Two days State Level Technical Workshop on Intellectual Property Rights* organised by G.Venkataswamy Naidu College, Kovilpatti sponsored by TANSCH, Govt. of Tamil Nadu, Chennai and DST, Govt. of India, New Delhi on 21.07.2023 and 22.07.2023.

ii) Mr. R.Venkatesan, Associate Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti presented a paper on 'Natural pigment extracted from Borassus Plabellifer fruit for sensitizing efficient DSSC in the International Conference on *Technologically important materials for device fabrication* organised by Department of Physics, Aditanar College of Arts and Science, Tiruchendur on 1st September, 2023.

iii) Mr.R.Venkatesan, Associate Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti presented a paper on '*Copper porphyrin modified electrode to mimic enzymes for stable and cost effective electrochemical sensor for dopamine detection*' in the International Conference on Recent advances in Chemical Sciences(ICRACS-23) organised by Department of Chemistry, St. Xavier's College, Palayamkottai on 26th September,2023.

iv) Ms. A.Selvam, Assistant Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti participated in the 5 days Faculty Development Programme on *Advanced Materials For Energy Applications* organised by Sathyabama Institute of

Science and Technology, Chennai, Tamil Nadu from 9th October 2023 to 13th October 2023.

v) Ms. A.Selvam, Assistant Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti participated in the '*Hands on Training Programme on GC/MS Quantitative Analysis*' organised by Centre for Ocean Research in association with Ministry of Earth Sciences-Earth Science and Technology Cell(MoES-ESTC) at Sathyabama Research Park, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu from 13.09.2023 to 15.09.2023.

vi) Ms. A.Selvam, Assistant Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti participated in the International Conference on '*Functional nanomaterials and nano devices(ICFNN 2023)*' organised by Faculty of Allied Health Sciences, Chettinad Academy of Research and Education, Kelambakkam, Tamil Nadu, India on 26th September 2023.

vii) Dr.B.Umadevi, Associate Professor & Head, Mr. R.Venkatesan, Associate Professor, Dr. V. Gomathi Sankareswari, Associate Professor and Ms. A.Selvam, Assistant Professor, Department of Chemistry, G. Venkataswamy Naidu College, Kovilpatti participated in the Faculty Development programme on *NAAC Accreditation process and SSR preparation* organized by Internal Quality Assurance Cell, G.Venkataswamy Naidu College(Autonomous), Kovilpatti on 09.12.2023.

viii) Dr. M. Sivakavinesan Assistant Professor, Department of Chemistry, G.Venkataswamy Naidu College, Kovilpatti participated in the two days National Level Technical Workshop on *Blended learning and tools for effective teaching* organized by Department of Library and Internal Quality Assurance Cell, G.Venkataswamy Naidu College(Autonomous), Kovilpatti held on 23rd and 24th January, 2024.

7.Member in BoS

Dr. V.Gomathi Sankareswari is appointed as a Subject Expert in the Board of Studies of B.Sc. Chemistry, VVV College for women, Virudhunagar for a period of three years from 13.02.2023 to 12.02.2026

8.Saraswathi Pooja celebration

Saraswathi Pooja was celebrated in our department at 11 a.m. on 21.10.2023. Aval, Pori and Sweet Pongal were distributed to the students and staff.

9. Samathuva Pongal celebration:

Samathuva Pongal was celebrated in the Department on _____ to commemorate the rich cultural heritage of Tamil Nadu and to foster a sense of unity and harmony among students and staff members. . Students and Staff gathered in the site with joy, unity and cultural richness. The festive site was adorned with vibrant decorations, rangoli and floral arrangements, creating a festive ambience. The celebration commenced with traditional pongal rituals symbolizing abundance and prosperity. Dance and music performances by students added vibrancy to the celebration. Students and staff actively participated in the process, symbolizing the collective spirit of the festival. A sumptuous sweet pongal was served to all the attendees. The event provided a platform for students and staff to come together and celebrate shared traditions, serving as a testament to the inclusive ethos of the institution.

10. BARC Essay Contest

Seven students submitted Essays in the 35th BARC Essay Contest on Nuclear Science and Technology. S. Thrilochana Gayathri, III B.Sc. Chemistry and G. Dharmalakshmi, II B.Sc. Chemistry submitted essays on **Radioisotopes and Radiation Technologies Harbinger of Prosperity and well being**. M. Jasmine, III B.Sc. Chemistry, S. Brama lakshmi, II B.Sc. Chemistry and M.Thanga Madhavan, II B.Sc. Chemistry wrote on **Application of Laser and Plasma Technologies in the Nuclear Fusion Energy**. M. Selvalakshmi, III B.Sc. Chemistry and R.Nikitha, II B.Sc. Chemistry wrote on *Nuclear Power- A viable option against global warming*. **G.Dharmalakshmi, II B.Sc. Chemistry is shortlisted for oral presentation at BARC, Mumbai.**

11. Papers published:

- i) Dr. M.Sivakavinesan, Assistant Professor in Chemistry published an article on ‘Synthesis and characterization of hybrid nanocatalyst (AgNPs-Fe₂O₃) for catalytic remediation of hazardous 2, 4-dinitrophenol’ in Bulletin of the Chemical Society of Ethiopia, (2024) 38 (1): 113-121
- ii) Dr. M.Sivakavinesan, Assistant Professor in Chemistry published a review article on ‘The Use of AI in Diagnosing Diseases: Present and Future’ in Transdis. Ins. Life Sci.(2024)2(1):129-140

12. Association Activities:

- i) **Free Course on Digital Literacy**

Chemistry Association organised a 10 days **free Course on Digital Literacy** under the scheme 'Pradhan Mantri Garmin Digital Saksharta Abhiyan' of Ministry of Electronics and Information Technology, Government of India for all the second year UG students. The training programme was scheduled in three batches starting from 25.09.2023 and ending on 19.12.2023. At the end of the 10 days training programme, online examination were conducted and certificates were provided to the successful candidates. Mr.S.Saravanalingam, an alumnus of our department(2016-2019 Batch) is the trainer.

ii) Chemistry Association organised a **one day workshop on Cheminformatics** on 09.01.2024. Dr. J. Vinnarasi, Assistant Professor in Chemistry, Standard Fireworks Rajarathnam College for Women(Autonomous), Sivakasi was the Resource person. Dr.Vinnarasi gave a lecture on *Drug design and Cheminformatics*. She gave insightful presentation on topics ranging from molecular modeling to drug discovery using computational approaches. Dr.M.Subbulakshmi, Principal i/c presided over the meeting. Dr. B.Umadevi, Associate Professor and Head, Department of Chemistry spoke about the challenges and opportunities in the field. She highlighted the application of cheminformatics in various fields including pharmaceuticals . The meeting was followed by Hands on training on *Cheminformatics* to about 40 final year Chemistry students. Participants gained valuable insights into the latest advancements in cheminformatics tools and techniques. The workshop provided a comprehensive platform for the participants to delve into the intersection of Chemistry and informatics. Practical sessions allowed the participants to apply theoretical knowledge using cheminformatics software

iii) Chemistry Association organised an **Awareness Meeting on Important instructions, preparation tips and techniques for TNPSC Group IV Exam** with the aim of providing participants with valuable insights and strategies to excel in the Examination. Mr. R.Maheswaran, Mentor & Faculty for Competitive Exams, Founder Director, Enlight Career Centre, Kovilpatti acted as the Resource person. He stressed on the importance of understanding fundamental concepts with clarity. Comprehensive guidance was provided for subject wise preparation including General Science, General knowledge, Aptitude and Mental ability and Tamil language sections. He discussed the strategies for staying updated with current affairs especially those relevant to Tamil Nadu.Participants were encouraged to solve sample papers to familiarize themselves with the Exam pattern to improve speed and accuracy, Dr.B. Umadevi, Associate Professor and Head, Department of Chemistry presided over the meeting. She stressed on the need to understand the structure of TNPSC Group IV Exam, the importance of solving previous year question papers and time management . The meeting served as a platform for the

participants to gain valuable insights, tips and techniques to prepare effectively for the TNPSC Group IV Exam.

iv) Chemistry Association organized an ***Awareness Rally on Environmental protection*** to educate the community about the importance of safeguarding our environment and promoting sustainable practices. The Principal of our College Dr.M.Subbulakshmi flagged off the rally from College entrance. The participants marched through the streets of Ayyaneri village holding placards with messages advocating for environmental protection. Students raised slogans drawing the attention of the community to the cause and reached the Hindu Middle School, Ayyaneri where an Awareness meeting was held. Dr.M.Subbulakshmi, Principal i/c presided over the meeting. She stressed on the importance of conserving energy, managing waste and adopting eco friendly habits in our daily life. Dr.B.Umadevi, Associate Professor and Head, Department of Chemistry spoke on environmental protection strategies, sustainable living tips, bio-diversity conservation etc. UG Chemistry students and Hindu Middle School students participated in the rally. The rally reinforced the importance of collective efforts in safeguarding our planet for future generations.

v) Chemistry Association organized an ***'Awareness programme on Food safety'*** on 21.02.2024 with the aim of educating the participants about the importance of consuming safe and unadulterated food items and the risks associated with consuming adulterated food products and to promote healthy eating habits. Dr.B.Umadevi, Associate Professor and Head, Department of Chemistry presided over the meeting. In her presidential address, she stressed the need for educating the community about the importance of food safety and hygiene. Dr.S.Mariyappan, Designated Officer, Food safety and drug administration, Thoothukudi (Dist.) and Mr. G. Chellapandi, Food safety officer, Kovilpatti block, Thoothukudi (Dist.) acted as resource persons. Dr.S.Mariyappan spoke on 'Food safety' and stressed on the importance of consuming safe and unadulterated food products and empowered the audience with knowledge and skills to identify common food adulterants. Mr. G. Chellapandi conducted live demonstrations to show the participants how to identify common food adulterants, artificial colours, synthetic sweeteners and harmful chemicals. The participants were empowered with knowledge to identify and report food adulteration incidents.

vi) Chemistry Association organized a webinar on 'Importance of higher studies and global research opportunities for chemists' on 28.02.2024. Dr. K. Kanaga Sabapathi, CEO, SK Resins LLC, USA spoke on the 'Importance of higher studies.