



ST. XAVIER'S COLLEGE (AUTONOMOUS)
PALAYAMKOTTAI - 627 002
(Recognized as "College with Potential for Excellence" by UGC &
Accredited by NAAC at A++ Grade with a CGPA of 3.66 out of 4)



ANNUAL REPORT 2022-2023
DEPARTMENT OF CHEMISTRY (SHIFT- I & II)

An invited lecture was organized on 27.07.2022. Dr. Narayana Sasthri Somasundaram, Retired Senior Principal Scientist, Central Leather Research Institute, Chennai gave a lecture on photosensitized and conducting polymers, their syntheses, characterization and application.

A lecture on Nature and Future of Life was delivered by Dr. Sankara Subramanian, Acupuncture Physician on 18.08.2022.

Annual quiz programme namely CUBANE quiz, a State Level Inter school and Inter collegiate quiz programmes were organized in Fr. Lebeau Auditorium on 22.08.2022. Nearly 200 participants from various colleges and schools participated in the programme. Mr. Muthukumar, Retired Customs Superintend, an alumnus of chemistry department was the quiz master.

The Association activity of Chemistry Department was inaugurated by Rev. Fr. Mariadoss S.J. at 11.30 am on 07.09.2022 in Fr. Causannel Hall. Dr. Sankara Subramanian gave a lecture on Medicines without chemicals.

On 21.09.2022 the department of Chemistry has organized an International workshop on Solar Energy Harvesting using Thin Film Solar Cells in the Causannel Hall. Dr. K. Kalyanasundaram from Switzerland, Dr. A. Arun Gnanaraj from Dubai, Dr. Ujjwal Pal from Telungana and Dr. M. Praveen Kumar from Chile were the resource persons. Nearly one hundred participants from neighboring institutions participated in the workshop.

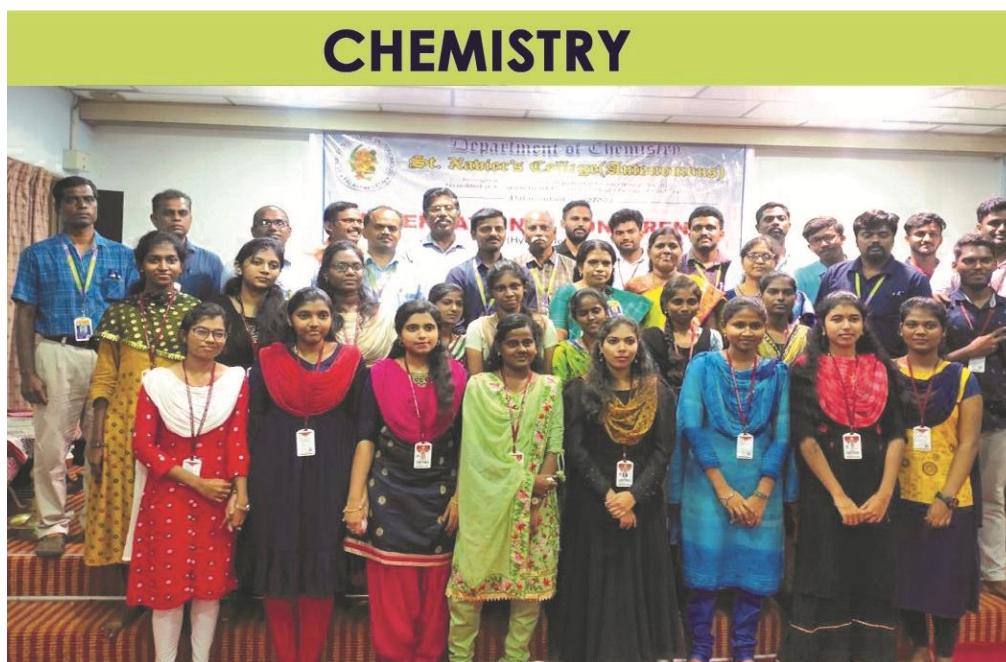
On 29.09.2022, the III B. Sc students had an Industrial visit to Kanyakumari district. They visited rubber factory, dairy works and Tamilnadu Horticulture department. Students actively participated and interacted with the technical officers.

On 09.01.2023, II B. Sc students enjoyed Industrial visit to Kanyakumari district. They have visited rubber factory, dairy works and Tamilnadu Horticulture department.

On 24.01.2023, I B. Sc students enjoyed an Industrial visit to Kanyakumari district. They have visited rubber factory, dairy works and Tamilnadu Horticulture department.

On 4th and 5th of February 2023, Centenary quiz programme was organised. This programme took place continuously for 27 hours and more than ten thousand questions were

asked. The programme has been send to Limca book of world records to claim as a world record. Mr. Muthukumaran IRS was the quiz master; he was one of the illustrious alumni of the chemistry department.



Chemistry Proficiency Examination, Tirunelveli District Level was conducted on 12.02.2023. 23 students from different colleges participated.

The valediction of chemistry association was on 15.03.2023. Dr. S. Antony Sakthi, Asst. Professor of Chemistry, St Joseph's College (Autonomous), Thiruchirappalli was the resource person delivered a lecture on "*An Overview Organic Reaction Mechanisms*".

The department has organized an on campus drive for UG and PG students for the post of Chemists in Orchid Pharmaceuticals on 28.03.2023.

TABLE.8.a. PAPERS PUBLISHED IN JOURNALS (2022-2023)

| S. NO | Name of the Teacher | Name of the Department | Title of the Paper | Name of the Journal | Volume No/ Issue No/ Page No / Year | ISSN No. / e-ISSN No. | Cited in Web of Science / Scopus Indexed/UGC Approved / Not Found in UGC-CARE List | National / International | Impact Factor |
|--------------|----------------------------|-------------------------------|--|---|---|------------------------------|---|---------------------------------|----------------------|
| 1 | Dr. A. Jerold Antony | Chemistry | Electrical conductivity and Electrochemical studies of Cr-doped MoO ₃ nanoflakes for energy storage applications | Journal of Solid State Electrochemistry/ Springer | https://doi.org/10.1007/s10008-022-05319-3 /2023 | 14328488, 14330768 | SCI/Web of Science/ Scopus Indexed/ UGC Approved | International | 2.747 |
| 2 | Dr. A. Jerold Antony | Chemistry | Visible Light Driven Effective Photodegradation of Alizarin Red S using Zirconium Doped Metastable Hexagonal MoO ₃ Nanorods | Journal of Cluster Science/ Springer | https://doi.org/10.1007/s10876-022-02371-x /2022 | 1040-7278/1572-8862 | SCI/Web of Science/ Scopus Indexed/ UGC Approved | International | 3.447 |

| | | | | | | | | | |
|---|-------------------------|-----------|---|--------------------------------|---|--|--|---------------|-------|
| 3 | Dr. A. Jerold Antony | Chemistry | Deep eutectic solvent mediated synthesis and fabrication of a WO ₃ - MgO nano composite as an electrode material for energy storage applications | New Journal of Chemistry/RSC | 47(6)/2797-2808/2023 | 1144-0546/1369-9261 | SCI/Web of Science/ Scopus Indexed/ UGC Approved | International | 3.925 |
| 4 | Dr. A. Anto Arockia Raj | Chemistry | In silico and biological exploration of greenly synthesized curcumin incorporated isoniazid Schiff base and its ruthenium complexes, | Structural Chemistry/ Springer | vol 22(5), 2022, 1-18. https://doi.org/10.1007/s11224-022-02065-0 | E. ISSN 1572- 9001 Print ISSN 1040-0400 | Web of Science | International | 1.795 |