

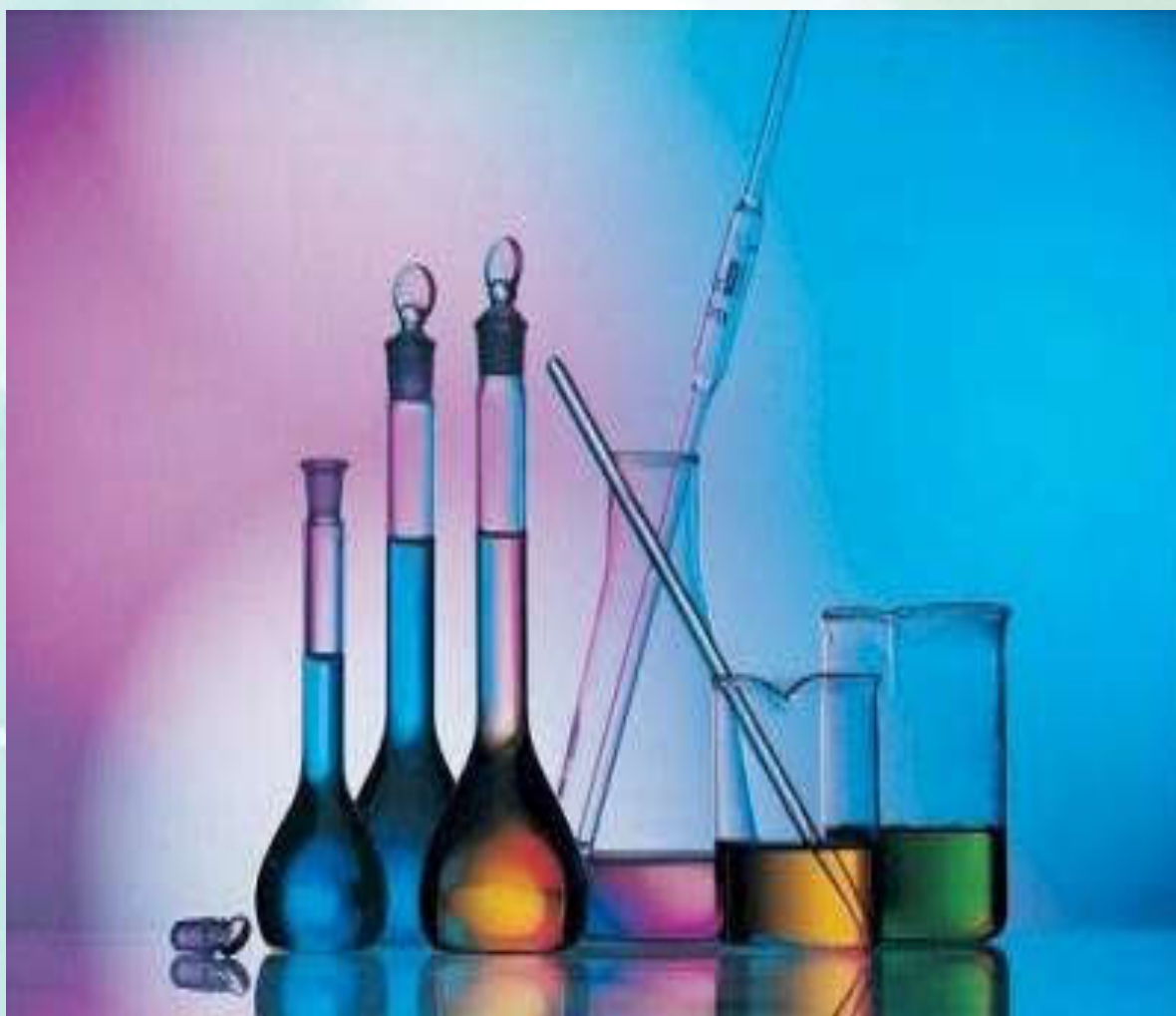
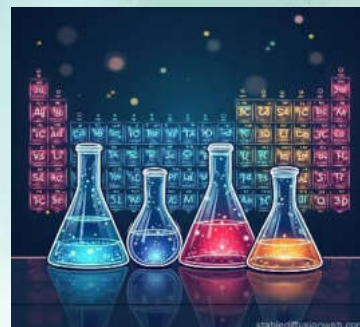


CHEMISTRY NEWSLETTER 2022-2023



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Dr. B. Divya	Assistant Professor
Dr. A. Parveen Sulthana	Assistant Professor
Dr.G.Amala Jothi Grace	Assistant Professor





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Department Activities 2022-2023

Association Activities

The Department of Chemistry organized its Chemistry Association Meeting on the topic “Be a Smart Food Consumer” on 18th October 2023 in the Star Hall. Mr. S. Pandiyaraja, Joint director, Food Safety and Standards Authority of India, Food import office, Thoothukudi was the resource person. The resource person gave an input session about food and the right choice of food. He explained about important things that should be noted on Food labels and about the healthy consumption of food in everyday life. He also explained in brief about the smart way to choose and consume the food. Later Ms. Mahalakshmi, Technical Officer, Food Safety and Standards Authority of India, Food import office, Thoothukudi explained about the career opportunities available for the chemistry graduates in FSSAI.



On 08.09.2022, Department of Chemistry organized an Online Invited talk on Nature Inspired Technology, Dr. K. Jeyasubramanian, Senior Professor & Head, Department of Chemistry, Mepco Schlenk Engineering College, Sivakasi, Tamilnadu. 95 BSc students from the department of Chemistry attended the meeting actively and interacted with the resource person.



On 17.11.2022, an invited talk on the Topic greener practices in academic science laboratories to reduce chemical wastage was conducted at 5pm through zoom platform. D. R. Meena, Associate Professor of Chemistry, Bangalore Institute of Technology, Karnataka was the resource person. She clearly explained the need to reduce the chemical waste in laboratories and also she suggested some methods to reduce and recycle the organic and inorganic waste formed during chemistry practical. 120 BSc Chemistry students attended the meeting enthusiastically and interacted with the resource person.



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INVITED LECTURE
on
GREENER PRACTICES IN ACADEMIC SCIENCE LABORATORIES TO REDUCE CHEMICAL WASTAGES
UNDER STAR COLLEGE SCHEME
2022-2023
Sponsored by

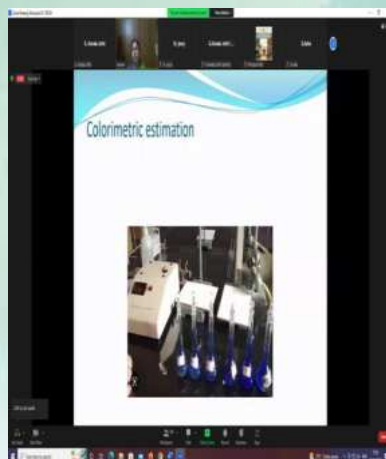
Department of Biotechnology
Govt. of India, New Delhi

17th November 2022 Time: 5.00 - 4.90 p.m.

Resource Person
Meena D R
Associate Professor of Chemistry
QIP and NIP Coordinator
Women empowerment Director - Rotary 3190 division
Bangalore Institute of Technology
Bangalore, IN
Karnataka

Join Zoom Meeting <https://us02web.zoom.us/j/82067592892>

Organized by
MARIAN STAR CENTRE
School of Physical Science
St. Mary's College (Autonomous)
(RE-ACCREDITED WITH 'A' GRADE BY NAAC)
Thoothukudi - 628001



STAR COLLEGE PROGRAMME
2022-2023
Sponsored by
DEPARTMENT OF BIOTECHNOLOGY, GOVT OF INDIA, NEW DELHI

Greener practices in academic science laboratories
November 17, 2022
Organized by
Department of Chemistry
St. Mary's College (Autonomous), Thoothukudi-628001, Tamil Nadu
(Re-Accredited with 'A' Grade by NAAC)

CERTIFICATE

This is to certify that **M. S. M. Dr.** has participated in the
Greener practices in academic science laboratories organized by Department of Chemistry, St. Mary's College
(Autonomous), Thoothukudi on November 17, 2022.

Mr. S. Kani Rajan
Head, Department of Chemistry

Dr. Anitha Anitha Nishan
Guest Lecturer & Resource Person
St. Mary's College

Dr. S. J. Jemima Juliana
Principal

On 31.01.2023, Department of Chemistry organized a Guest lecture on metals in biology, Dr. S. Jemima Balaselvi Juliana, Associate Professor, Department of Chemistry, The American College, Madurai, was the resource person 57 UG students from the department of Chemistry attended the meeting. Resource person clearly explained the role of metal ion in the biological system. Students interacted well with the resource person.

Guest Lecture
on
"Metals in Biology"
UNDER STAR COLLEGE SCHEME
2022-2023
Sponsored by

Department of Biotechnology
Govt. of India, New Delhi.

Date: 30th January 2023 Time: 5.30 p.m. - 6.30 p.m.

Resource Person :
Dr. S. Jemima Balaselvi Juliana,
Associate Professor,
Department of Chemistry,
The American College,
Madurai.

Organized by
MARIAN STAR CENTRE
Department of Chemistry
St. Mary's College (Autonomous)
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Thoothukudi - 628001

Metals in Biology

Dr. S. Jemima Balaselvi Juliana
Associate Professor of Chemistry
The American College, Madurai

Sponsored by
Department of Biotechnology
Govt. of India, New Delhi

Organized by
MARIAN STAR CENTRE
Department of Chemistry
St. Mary's College, Thoothukudi

On 03.02.2023 Guest lecture on chemical equilibrium, was organized. Dr. P. Sami, Associate Professor, Department of Chemistry, VHNSN College (Autonomous), Virudhunagar was the resource person. 53 students from the department of chemistry attended the program. Resource person explained the concept of chemical equilibrium with examples. Third year students interacted with the resource person actively.



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Guest Lecture
on
"Chemical Equilibrium"
UNDER STAR COLLEGE SCHEME
2022-2023

Sponsored by
Department of Biotechnology
Govt. of India, New Delhi.

Date: 03.02.2023 Time: 5.30 p.m. - 6.30 p.m.

Resource Person :
Dr. P. Sami,
Associate Professor,
Department of Chemistry,
VHNSN College (Autonomous),
Virudhunagar-626 001.

Organized by
MARIAN STAR CENTRE
Department of Chemistry
St. Mary's College (Autonomous)
(RE-ACCREDITED WITH 'A+' GRADE BY NAAC)
Thoothukudi - 628005

Chemical Equilibrium: Definition

- Equilibrium is the state at which the concentration of reactants and products do not change with time. i.e., concentrations of reactants and products become constant

The graph shows Concentration on the y-axis and Time on the x-axis. Two curves are shown: one for Reactants and one for Products. The Reactant concentration starts high and decreases over time, while the Product concentration starts at zero and increases over time. Both curves eventually level off at the same horizontal line, indicating that the concentrations of reactants and products have become constant.

A faculty training program was organized from 13.02.2023 to 15.02.2023 on the topic Molecular Modeling and Dynamics. Dr. Murali Krishnan, Assistant Professor of Chemistry, Bannari Amman Institute of Technology, Institute of Technology, Sathyamangalam was the resource person. He demonstrated the modelling of molecules using software and also gave training in docking studies. 16 staff members from the department of Chemistry, physics, botany and Zoology participated in this training program. Training for students was also given by the resource person.

Three Day
Hands on Training Programme
on
"Molecular Modeling and Dynamics"
UNDER STAR COLLEGE SCHEME
2022-2023

Sponsored by
Department of Biotechnology
Govt. of India, New Delhi.

Date: 13-02-2023 to
Time: 9.30 a.m. - 12
Venue: Central Com

Resource Person :
Dr. M. Murali Krishnan,
Assistant Professor,
Bannari Amman Institute of T
Sathyamangalam - 638 401,
Erode District,
Tamil Nadu.

Organized by
MARIAN STAR CENTRE,
Department of Chemistry,
St. Mary's College (Autonomous),
(RE-ACCREDITED WITH 'A+' GRADE BY NAAC),
Thoothukudi - 628005.



Hands on Training Programme
On
"Molecular Modeling and Dynamics"
2022-2023

Sponsored by
Department of Biotechnology, Govt. of India, New Delhi

Organized by
Marian Star Centre,
Department of Chemistry,
St. Mary's College (Autonomous), Thoothukudi
(RE-ACCREDITED WITH 'A+' GRADE BY NAAC)

CERTIFICATE

This is to certify that Mr. _____ has participated in the hands on training programme on "Molecular Modeling and Dynamics" organized by Marian Star Centre, Department of Chemistry, St. Mary's College (Autonomous), Thoothukudi.

M.S. Ravi Jayaramy
Head, Marian Star Centre

Dr. Dr. Anandha Jeevitha Alphonse
Head, Department of Chemistry

Dr. Dr. A.J.J. Lucia Rose
Principal

Department of Chemistry and Physics jointly organized a training programme to the outgoing students on 16.02.2023 in Stat Hall. Dr. Ganesh Prabhu, Scientific Officer E, Process control and Analytical Laboratory, Heavy water plant, Thoothukudi, Mr. P. John Bensam, Technical incharge, Heavy water plant, Thoothukudi were the resource persons. 100 third year BSc students from department of physics and Chemistry participated in the training programme. A quiz program was also conducted by the resource persons. Students actively participated in the quiz and won prizes.



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The Department of Chemistry of St. Mary's College, (Autonomous) Thoothukudi has organized the International Symposium on "Smart Materials" on 18th March 2023 at 9.30 a.m. in the College Auditorium. Rev.Sr.Dr. C.Shibana, Secretary of the institution felicitated over the event. Dr.S.Veerapandian, Research Assistant Professor, Department of Material Science and Engineering, POSTECH University, Korea delivered the Keynote Address and lecture on the topic "The Role of Stretchable Metal Particles for Next Generation Electronic Devices". Dr. M.Mahendran, Professor &Head, Dept. of Physics, Thiagarajar College of Engineering, Madurai delivered the lecture on the topic "Magnetic Shape Memory Alloys" and Dr.Antony, Assistant Professor of Chemistry, Mepco Schlenk Engineering College, Sivakasi delivered the lecture on the topic "Catalytic Materials for Oxidative Desulfurization". The arrangement of the International Symposium was made by the students and Professors of UG and PG Chemistry Department.



As a part of the curriculum in the laboratory the quantitative, qualitative analysis, gravimetric analysis are performed for the core papers and allied practicals

- ♣ I main- 10 experiments
- ♣ II main- 10 experiments
- ♣ III main- 20+ 12 experiments
- ♣ I Allied physics- 7+10
- ♣ I Allied Zoology-7+10
- ♣ II BSc Botany- 7+10



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Mentor Mentee System

St. Mary's College (Autonomous), Thoothukudi		St. Mary's College (Autonomous), Thoothukudi		St. Mary's College (Autonomous), Thoothukudi	
2022-2023		2022-2023		2022-2023	
Tutor / Mentor List - III B.Sc. Chemistry		Tutor / Mentor List - III B.Sc. Chemistry		Tutor / Mentor List - III B.Sc. Chemistry	
1. Dr. J. Nagarajan	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
2. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
3. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
4. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
5. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
6. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
7. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
8. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
9. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha
10. Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha	Dr. S. Radha

Certificate Courses

Nutritional Food Science was offered as Certificate course for the III B.Sc., Chemistry students from 29th August 2022 to 12th October 2022. Ms.T.Vasanthi was the instructor. About 39 students enrolled and have completed 30 hours of the course successfully. Students were given training on various methods of cooking, nutritional value of food and importance of balanced diet. Students were evaluated by giving practical test at the end of the course. They were given certificates with their grades based on their performance. 39 students were benefitted out of this course

The Board of Studies Meeting was conducted on 24th February 2023 at 10.00 a.m in the Department of Chemistry. Dr. Nagarajan Srinivasan, Assistant Professor, Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli-627012, is the university nominee. Dr.S.Radha, Assistant Professor, Department of Chemistry, Saiva Bhanu Kshatriya College, Aruppukottai and Dr.S.Jemima Balaselvi Juliana Associate Professor, Department of Chemistry, The American College, Madurai are the subject experts. Dr.P.Karpagavinayagam, Assistant Environmental Engineer, DCW Ltd, Sahapuram, Thoothukudi as Industrialist and Dr.S.Priya Velammal, Assistant Professor of Chemistry, V. O. Chidambaram College, Thoothukudi as Alumnae attended the meeting.

Parent Teacher Association Meeting The Parent Teacher Association Meeting for the academic year 2022-2023 was held on 21st January 2023. The Inaugural address was given by our Principal, Dr. Sr. Jessie Fernando. and instructed the parents the Marian norms. The second Parent-Teachers Association Meeting for the academic year 2022-2023 was held on 05th November 2022 for the final year students. The third Parent-Teachers Association Meeting for the academic year 2022-2023 was held on 29th September 2022 for the parents of III UG students in the college auditorium



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Dr.J.Martin Rathi served as a University nominee in the Board of Studies at G.Venkataswamy Naidu College, Kovilpatti, Thoothukudi District, Tamil Nadu.

Participation in RC/OC/Seminars/WS

1	Dr.B.Divya	Completed programme by Bharathidhasan University.	Faculty induction organized by	30 days	1st September to 30th September 2022
2	Dr. Irudaya Antonat Sophia	Attended Online Refresher course in Chemistry organized by Ramanujam College, University of Delhi.		15 days	29th November to 13th December 2022
3	Dr.A.Lakshmi				
4	Dr.B.Divya				
5	Dr. A.Parveen Sulthana				

- G. Amala Jothi Grace - Filed a patent on “Herbal Cosmetics for Skin Care Formulation” – Application Number: 202241051885 on 12/09/2022 and “Tellurium Nanoparticles using *Conus betulinus* and its Applications” – Application Number: 202241065623 on 16/11/2022
- Irudaya Antonat Sophia, A.Lakshmi, B.Divya, A.Parveen Sulthana participated in Tamilnadu State Council for Higher Education at Rani Anna Government College for Women on Tirunelveli 05.05.2022 & 06.05.2022
- A.Lakshmi has presented two papers and G.Amala Jothi Grace seven papers in International Conferences

Community Development Programme

An awareness programme on “National Flag Hoisting” in commemoration of 75th Independence Day celebration was organized in the adopted area Anthoniyarpuram, Thoothukudi as a part of Unnat Bharat Abhiyan programme on 13th August 2022. II B.Sc. Chemistry students explained the importance of hoisting the flag in their home and insisted the patriotic feel with the glorious history of its people, culture and achievements. People were given national flags to be hoisted in their home as per the regulations of Government. This programme is dedicated to the people of Anthoniyarpuram being instrumental in bringing the people in their evolutionary journey of 75 years of independence. Fr.Stephen Mariadas, Parish Priest of Anthoniyarpuram made the arrangements for smooth conduct of the program. Around 150 Village people got benefited through this awareness programme.

An awareness programme on “Adulteration of food items and Women Empowerment” in was organized in the adopted area Anthoniyarpuram, Thoothukudi as a part of Unnat Bharat Abhiyan programme on 7th March 2023. II B.Sc. Chemistry students explained the importance of purity of food items and they explained how adulteration has done in food items in their home and insisted the awareness about that by explaining the health hazards of the adulteration. People were given demonstration of adulterants in food packs they use in their homes. This programme is dedicated to the people of Anthoniyarpuram being aware of adulterants and wishing the people to lead a Hygienic life. Fr. Stephen Mariadas, Parish Priest of Anthoniyarpuram made the arrangements for smooth conduct of the program. Around 135 people got benefited through this awareness programme.



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IIC Report

On 30.08.2022, the Department of Chemistry (UG, PG-SSC) in association with Institution's Innovation Council, St.Mary's College, (Autonomous) Thoothukudi has organised a webinar on the topic " Entrepreneurship in Marine Products" at 2.30 p.m. Dr P.Ganesan, Assistant professor and Head, Department of Fish Processing technology, Fisheries College and Research Institute, Thoothukudi gave an idea about avenues for start-up in fishery products. He also gave a clear insight about the methods of preparation of value added fishery products such as fish fillets, muffins, pasta, pickles, battered & breaded bakery products containing fish. He also motivated the students to start a business in the field. Faculty members and students have attended this webinar.



On 18.11.22, the Department of Chemistry (UG, PG-SSC) in association with Institution's Innovation Council, St.Mary's College, (Autonomous) Thoothukudi has organised a invited talk on the topic " My Story - Motivational Session by Successful Innovators" at 2.30 p.m. Mr. Abishek Benjamin, Director, Abi macroons, Abi technochem pvt ltd (Activated Carbon Manufacturing Unit), SDR Restaurant & Cafe Thoothukudi gave a clear input on the difference between business and entrepreneurship. He explained about the business opportunities available for women that are sustainable and profitable. From his talk, it's helpful for the students to build, sustain and lead the business of their dreams. He also motivated the students to start a business in the field. Faculty members and 120 students have attended the meeting.





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Industrial Visit

44 students of II B.Sc Chemistry as part of curriculum based on the subject Soil Science and Agricultural Chemistry visited Department of Agricultural College and Research Institute, Killikulam, Vallanad.on 11.11.2022.

- Nearly 13 UG Projects were guided this year.

Name	Class & Department	Name of the Competition	Prize Won	Organised by
Aswarniha S.	II BSc Chemistry	Essay writing	Third	V.O. Chidambaram Port Authority, Thoothukudi
		Elocution	Third	Tamil valarchi thurai Thoothukudi district
			First	Fatima College, Madurai
			Third	Sarah Tucker College, Tirunelveli
		Third	Victoria girls School, Thoothukudi	
Anushiya R.	II BSc Chemistry	Poetry	First	Holy Cross home Science College, Thoothukudi
Manjula	II BSc Chemistry	Slogan writing	Third	Manonmanium Sundaranar University, Tirunelveli.
Harini P	II BSc Chemistry	Poetry	Fifth	Kurunjikabilar Tamil sangam

Higher Education / Placement – Five of them are placed in jobs

Name	Placement
AARTHI S & ARUL PRIYA C	Tuticorin Alkali Chemicals & Fertilizers Limited. P4RX+8MP, Spic Nagar, Muthiahpuram, Thoothukudi.
KAVITHA PRIYA J	AVM Hospital Pharmacy, Thoothukudi
MUTHU RATHI J	ZOI FINTECH SERVICES PVT LTD, Software Company, Tirunelveli.
VINNARASIA	Divine myn division & therapy centre, Chennai.

Name	Higher studies
AROCKIYA MASHINA J, MANDHIRA PRIYA R, SURIYA C S	M.Sc., Chemistry St.Mary's College (Autonomous), R566+CH5, ECR Road (SH-49), Cruz Puram, Thoothukudi.
CRAYNA J	M.Sc., Chemistry Kamaraj College 482, Tiruchendur Rd, CGE Colony, Thoothukudi.
DELOSINI A & DEVA THARSHINI A	DMLT Government Medical College, Kamaraj Nagar, Thoothukudi, Tamil Nadu 628008 Thoothukudi
INDHU MATHI S, KAVITHA M, MARIA SUDHANSI S, MUTHU DURGA L, PRIYADARSHINI S, RANJITHA M, SHALIKA BEGAM S, SNEHA B, STRIFINA J,	M.Sc., Chemistry V.O.Chidambaram College , Q4VG+VVG, Palayamkottai Rd, Subbiah Puram, Thoothukudi
PANIMAYA ROSY A	M.Sc., Chemistry A. P. C.Mahalakxmi college for women, Thalamuthu Nagar, Sankaraperi, 628002.Thoothukudi, Tamil Nadu.
SAGAYA KANUTE J	M.Sc., Chemistry MS University, Tirunelveli Rd, Abishekapatti, Thirunelveli- 627012 Tamil Nadu.
SUBHALAKSHMI S	M.Sc., Chemistry Madurai Kamaraj University, Palkalai Nagar, Tamil Nadu Madurai-625021
VARSHA ANTANITTA S	M.Sc Material Science Defence Institue of Advance Technology Girinagar, Next to Khadakwasla Dam, Pune - 411025, Maharashtra