



ST. MARY'S COLLEGE (Autonomous)
Re-accredited with 'A+' Grade by NAAC (4th Cycle)
Thoothukudi- 628001,
Tamil Nadu
June 2023-May 2024
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DEPARTMENT OF CHEMISTRY

DEPARTMENT ACTIVITIES

HUMAN CHAIN

School of Physical Science and IQAC organized a “Human Chain” in front of the college portico to create awareness on advantages of using “Millets & Millet Based Products” on 9th September 2023 at 11.05 a.m. S. Aswarniha of III B.Sc. Chemistry gave a speech on the topic “Importance of Millet based products and healthy life”. organized a poster Making Competition on “Importance of Millets and Millet based Products” in commemoration of “International Year of Millets 2023” on 8th August, 2023.



ASSOCIATION MEETING

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.

DEPARTMENT OF CHEMISTRY

WORKSHOP



Workshop on “Green Synthesis of Metal Nanoparticles and Evaluation of Catalytic and Antioxidant properties” was organized under STAR COLLEGE SCHEME sponsored by Department of Biotechnology, Government of India, New Delhi. on 16th February 2024 , Dr.K.Muthu, Assistant Professor of

Chemistry, Manonmaniam Sundaranar University, Tirunelveli was the resource person.

He shared his expertise on the green synthesis of metal nanoparticles using plant extracts. He gave an insight about the characterization of nanoparticles using UV-Vis, FTIR, SEM EDAX and TGA-DTA studies. He also explained the evaluation of dye degradation and antioxidant property of prepared nanoparticles.



DEPARTMENT OF CHEMISTRY



TRAINING

LECTURE CUM TRAINING PROGRAMME

Lecture cum training programme on “Introduction of Organic Sciences and Synthetic Methods” was organized under STAR COLLEGE SCHEME sponsored by Department of Biotechnology, Government of India, NewDelhi on 20th February 2024 Dr. R. Imran Khan, National Postdoctoral Fellow, Department of Organic Chemistry, Indian Institute of Science, Bangalore, Karnataka. was the resource person. He shared his expertise on the topic “Introduction of Organic Sciences and Synthetic Methods”. He gave an overview about the science behind every chemical reactions. He also outlined the mechanism of formation of supramolecular structures such as crown ethers, cyclodextrin. After the lecture session the training was conducted in the chemistry lab. The importance of formation of imine as intermediate in an organic reaction is clearly demonstrated to the students.

DEPARTMENT OF CHEMISTRY

WORKSHOP

One Day workshop on “Budding Chemist as Cosmetic Entrepreneurs” was organized under STAR COLLEGE SCHEME sponsored by Department of Biotechnology, Government of India, NewDelhi on 26th February 2024. Ms. Bridgitta Vinnarasi S, RB Make Over, Thoothukudi was the resource person.



Hands on training on facial, hair straightening, eyebrow shaping, pedicure and manicure was given by the resource person. An overview on the advantages and disadvantages of facial, pedicure and manicure was also clearly explained by the resource person.



INTERNATIONAL SEMINAR



An International Seminar on “Recent Trends and Advance in Chemical Sciences” was organized on 7th March 2024 under STAR COLLEGE SCHEME sponsored by Department of Biotechnology, Government of India, NewDelhi. Dr. C. Vedhi, Associate Professor of Chemistry, V.O.Chidambaram College; Dr. Krishnapandi Alagumalai Research Assistant Professor, School of Chemical Engineering, Yeungnam University, South Korea; Dr. Mani Sivakumar, Assistant Professor, Department of General Pathology, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai and Dr. Y. Manoj Kumar, Assistant Professor, PG and research Department of chemistry, Bishop Heber college, Tiruchirappalli were the resource persons. Around 113 under graduate and post graduate Chemistry students from our college and 43 students, research scholars and faculty from other colleges updated and upgraded themselves through this seminar.

DEPARTMENT OF CHEMISTRY

INVITED LECTURE

Invited Lecture on “Organic Polymers” was organised under star college scheme by Marian Star Centre, Department of Chemistry, St. Mary’s College (Autonomous), Thoothukudi on 25th March 2024.

Dr. M. Kathiresan, Scientist, Electro Organic Division, CSIR - Central Electrochemical Research Institute, Karaikudi shared his expertise on the topic “Organic Polymers”. He gave brief overview about the usage of

polymers as energy storage device, lighter vehicles and insulated buildings, package for consumable goods, reduce land use and fertilisers, synthetic fibres, coatings and medical applications.



ASSOCIATION MEETING

The second Association Meeting was organized on the topic “Estimating Iodine in Salt using



Iodometric Titration” on 26th March 2024 in the Star Hall. Mr. A. Sankar, Honorary Secretary, EMPOWER INDIA gave the special address on importance of iodine in our daily life. Mr. G. Mariappan, Sr. Chemist, Nutritional International, Chennai and Mr. Ramamoorthy, Ex. Senior Chemist of Regional Food

Lab, GOI Shreya Lab, Thoothukudi handled the technical session The resource person gave a hands on experience on the estimation of iodine in salt samples. Students were also given training on the estimation of calcium and magnesium. They were also enlightened by the steps and process involved in the production of salt in salt pans.

DEPARTMENT OF CHEMISTRY

Hands on Training

A Hands on Training Programme in “Clinical Chemistry” under Star College Scheme sponsored by Department of Biotechnology, Government of India, New Delhi was organised on 27th March 2024. Mr. Manikandan and Ms. Muthulakshmi, Emmanuel Institute of Health and Science, Tirunelveli, handled this training program. The parameters such as

blood sugar, bilirubin, hemoglobin, lipid profile, urea, and creatinine were analysed using semi autoanalyzer. Around 26 students of II B.Sc. Chemistry students were benefited through this programme.



INDUSTRIAL VISITS

- Students of III B.Sc., Chemistry (42 students) accompanied by two staff members visited CECRI, Karaikudi on 01st December 2023.



DEPARTMENT OF CHEMISTRY

- Students of I B.Sc., Chemistry (43 students) accompanied by two staff members Dr. A.Parveen Sulthana and Dr. G. Amala Jothi Grace visited Aavin, Tirunelveli on 13th February 2024.



- Students of II B.Sc., Chemistry (34 students) accompanied by Dr.B.Divya visited Zirconium Complex, Pazhayakayal. on 20th February 2024.



- Students of III B.Sc., Chemistry (42 students) accompanied by Dr.B.Divya visited NIIST Trivandrum on 28th February 2024.

DEPARTMENT OF CHEMISTRY

COMMUNITY DEVELOPMENT PROGRAMME

7 activities were carried out under Community Development Programme.

Activity 1: Teacher's Day Celebration

5th September 2023



Teacher's day was celebrated in R.C. Middle School, Anthonyarpuram. 27 students of II B.Sc Chemistry along with the CDP incharges Dr.B.Divya and Dr.G.Amala Jothi Grace have organized this teacher's day celebration with the support of Sr. Stella, Head Mistress , R. C. Middle School, Anthonyarpuram. The occasion was marked with the activities such as skit, song, dance and speech by our second year students. Rev.Fr. Stephen Mariadoss is the chief Guest. Games were conducted for the school teachers. Our students conducted quiz questions in grade level for school students . The students were gifted with saplings.

Activity 2: "Understanding Science" (Through Experiments)

4th December 2023

On 4th December, "Understanding Science" (Through Experiments) was organized to the adopted village by Dr.G.Amala Jothi Grace and Dr.C. Zozymus Divya Lobo.. Students of R.C. Middle School of class VI, VII and VIII have participated actively and enthusiastically in the event.

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EXPERIMENTS DEMONSTRATED

1. Water Purification
2. An Experiment with Needle
3. An Experiment with Balloon
4. Density of water
5. The burning Candle
6. Water
7. Acid- Base in daily life.
8. Creating Volcanoes
9. An experiment with lemon and water
10. Water Pressure



Also quiz on science facts was conducted for all grades. The students felt happy to understand the science experiments through practical learning.

Activity 3: Flood Relief

23rd December 2023

In association with Rotary club, Thoothukudi, the Department of Chemistry distributed flood relief items (5 Kg Rice and Groceries) to 25 families of anthonyarpuram during severe flood in Thoothukudi District. Rev. Sr. Dr. Jessie Fernando Principal,



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Dr. Irudaya Antonat Sophia, Head, Department of Chemistry, Dr.B. Divya, Assistant Professor of Chemistry and Shamini Rani of III B.Sc Chemistry interacted with the people of anthonyarpuram.

Activity 4: “Aari Work Training”

8th February 2024



32 students of II B.Sc Chemistry organised a Hands on Training on Aari work for the self help groups. 26 women of the adopted village participated and got benefited from this training programme.

Activity 5: “Voter Awareness Rally”

To create awareness among the people of anthonyarpuram, Voter Awareness Rally was organised. The rally aims to inculcate the value of a vote, that create a change and difference in community. The rally came up with excellent posters and the students were encouraged by the people of anthonyarpuram.



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Activity 6: Awareness Programme on Lack of Clean Drinking water

4th April 2024

An awareness programme on “Lack of clean drinking water under” Unnat Bharat Abhiyan -Community Development Programme on 4th April 2024 in the adopted area anthonyarpuram was organized. The students of II B.Sc Chemistry created an awareness about the clean drinking water and the diseases which were caused due to



the lack of clean drinking water. Through drama and speech, the students of chemistry made the people to realize the impact of water. A rally was organized to encourage active participation of the village people. Hand

notice was also distributed to the people regarding the importance of clean drinking water. This programme was sponsored by the State Institute of Rural development and Panchayat Raj under low cost and no cost activities, Grama Panchayat Development Plan.

Activity 7: Celebration of Village Health and Nutrition Day

4th April 2024

On 4th April 2024, the Department of Chemistry organized the “Celebration of village health and nutrition day” under Unnat Bharat Abhiyan Community Development Programme in the



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adopted area anthonyarpuram. The students of II B.Sc chemistry explained the diseases which were caused due to the nutrients deficiency. The students highlighted the foods that supply essential nutrients in our daily life. The second year students of chemistry explained the importance of nutritional foods through drama and speech. A rally was organized to encourage active participation of the village people. Hand notice was also distributed to the people regarding the nutritional foods. This programme was sponsored by the State Institute of Rural development and Panchayat Raj under low cost and no cost activities, Grama Panchayat Development Plan.

STAFF ACTIVITIES

PATENT

Dr. Irudaya Antonat Sophia and Dr. A. Lakshmi published a patent “A Method of Preparation of Titanium Coated Graphite-Carbon Nanotube (CNT) Acrylonitrile –Butadiene-Styrene (ABS) Nanocomposite For Dye Removal-Appln. No: 202341072898) on 15.12.2023

PAPERS PUBLISHED

G. Amala Jothi Grace published a paper *Biogenic Synthesis, characterisation and applications of Tellurium nanoparticles from Chicoreus virgineus (Roding, 1798) Journal of Current Science and Technology second Scopus Q4 2023 13,2,,237-250*

PAPERS PRESENTED

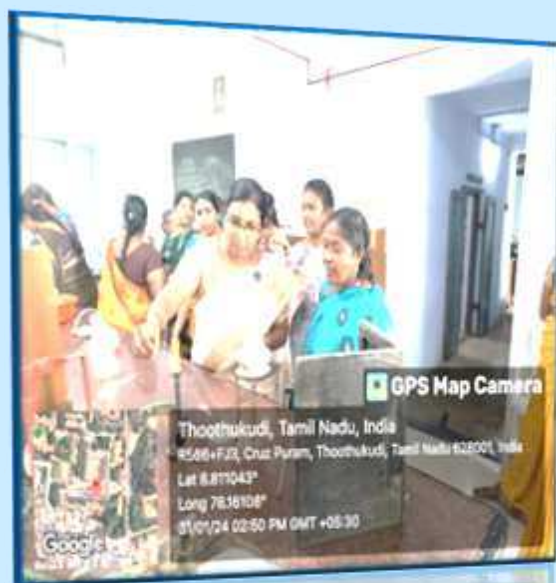
- Dr.G.Amala Jothi Grace, Assistant Professor of Chemistry Presented a paper entitled “Synthesis and characterisation of Palladium nanoparticles using the marine gastropod Strombuscanarium (Linnaeus,1758)” in the National Conference on “Disease Diagnosis and Drug Development against Human Pathogens” organized by Muthayammal College of Arts and Science, Namakkal from 15th November 2023 to 17th November 2023.

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- Dr. G.Amala Jothi Grace Presented a paper in International Conference on Advanced Materials and Their Applications 2023 Department of Chemistry, V.O.Chidambaram College, Thoothukudi 14.12.2023 & 15.12.2023.

RESOURCE PERSON

- Dr. G.Amala Jothi Grace served as a resource person in Grace college of Engineering on 13th September 2023 and delivered a talk on Can I or I Can to the Engineering students.
- Dr.A.Lakshmi, Dr.B.Divya, Dr. A.Parveen Sulthana, Dr.G.Amala Jothi Grace and Dr. C. Zozimus Divya Lobo served as resource person in In-service Training Programme for Science Teachers held at St. Mary's College (Autonomous), Thoothukudi on 31.01.2024.



Participation in seminar / workshop/webinar/ FDP

- Dr.A.Parveen Sulthana participated in National seminar on “Whack of technology on Women’s Esprit (WTWE’24) organised by the centre for Women Empowerment & Women Studies, Manonmaniam Sundaranar University on 19th January, 2024.
- Dr. C. Zozimus Divya Lobo participated in a Chemistry Beyond Borders- A Global Webinar Series Department of Chemistry, SRM Institute of Science and Technology, Ramapuram Campus, Chennai in association with the Association of Chemistry Teachers (ACT), Mumbai 18-12-2023-23-12-2023.
- Dr. C. Zozimus Divya Lobo participated in a workshop on Creating Documentaries as Tools for Teaching in Higher Education Centre for Education Beyond Curriculum Christ University, Bangalore & Eduplus: An Initiative of Christ Nodal Office, Thiruvananthapuram, Kerala 28.11.2023-29.11.2023.
- Dr. Irudaya Antonat Sophia, Dr. A. Lakshmi, Dr.B. Divya, Dr. A. Parveen Sulthana participated in a FDP on Preparing teachers for artificial intelligence driven education Annammal College of Education, Thoothukudi 6.11.23 to 10.11.23.
- Dr. Irudaya Antonat Sophia, Assistant Professor of Chemistry Dr. A. Lakshmi, Assistant Professor of Chemistry Dr.B. Divya Assistant Professor of Chemistry and Dr. A. Parveen Sulthana Assistant Professor of Chemistry attended the FDP on Preparing teachers for artificial intelligence driven education Annammal College of Education, Thoothukudi from 6th November 2023 to 10th November 2023.
- Dr. C. Zozimus Divya Lobo, Assistant Professor of Chemistry attended a “Workshop on Creating Documentaries as Tools for Teaching in Higher Education” organized by Centre for Education Beyond Curriculum Christ University, Bangalore & Eduplus: An Initiative of Christ Nodal Office, Thiruvananthapuram, Kerala from 28th November 2023 and 29th November 2023.

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PROPOSALS SUBMITTED

Dr. G.Amala Jothi Grace has submitted a proposal to Tamilnadu State Council for Science and Technology on the title “Large Scale Production of Microalgae Isolated from Thoothukudi Coast for Biofuel” on 15th September 2023.

Dr. B. Divya has submitted UBA SEG proposal to NCI on the title “Biochar Synthesis by Chemical and Microwave activation of crop waste and utilization as soil amendment” on 1st August 2023.

Dr. G.Amala Jothi Grace has submitted UBA SEG proposal to NCI on the title “SMOKELESS TECHNOLOGY USING BIOSTOVE TO PALM JAGGERY WORKERS FOR ELEVATING THE LIVELIHOOD OF PALM BASED ADOPTED AREA IN THOOTHUKUDI VILLAGES” on 1st August 2023.

STUDENT ACTIVITIES



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Name of the Student	Event	Venue	Prize	Date
Aswarniha S	Elocution Tamilnadu government	District Collectortate	First	01.08.2023
	Sol Sirappu Competition	Fatima college, Madurai	Second	16.09.2023
	Elocution by Kalai Ilakiya Thiran Vizha	St. Mary's College (Autonomous), Thoothukudi	First	10.09.2023
	Elocution – Independence Day	St. Mary's College (Autonomous), Thoothukudi	First	15.10.2023
	Elocution – Siruthaniyangal Vizha	St. Mary's College (Autonomous), Thoothukudi	First	30.11.23



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Our students participated in various activities.

Name of the Student	Department	Event	Venue	Prize	Date
S. Aswarniha	III Chemistry	Book review	Library committee, St. Mary's College (Autonomous), Thoothukudi	First	22.02.2024
Sumaya Shifana Banu K.	III Chemistry	Quiz	Online	-	11.02.2024
Mahara Sakthi M.	III Chemistry	Quiz	Online	-	11.02.2024
Viniciya R.	III Chemistry	Quiz	Online	-	11.02.2024
S. Aswarniha	III Chemistry	Elocution	St. Mary's College (Autonomous), Thoothukudi	-	06.12.2023
Anushya	III Chemistry	Elocution	St. Mary's College (Autonomous), Thoothukudi	-	06.12.2023
Mahalakshmi	III Chemistry	Essay	St. Mary's College (Autonomous), Thoothukudi	Second	14.12.2023
D. Lakshmi Priya	III Chemistry	Essay	St. Mary's College (Autonomous), Thoothukudi	First	14.12.2023
S. Aswariha	III Chemistry	Elocution	St. Mary's College (Autonomous), Thoothukudi	First	30.11.23
Pon Dhanushya P	III Chemistry	India-Land of Agriculture	St. Mary's College (Autonomous), Thoothukudi	-	18. 10. 2023
Sindhu M.	III Chemistry	Quiz International day of non-violence	St. Mary's College (Autonomous), Thoothukudi	-	1.10. 2023
Pon Dhanushya P	III Chemistry	Quiz Tourism and green investment	St. Mary's College (Autonomous), Thoothukudi	-	27.9. 2023
Sindhu M.	III Chemistry	Quiz Tourism and green investment	St. Mary's College (Autonomous), Thoothukudi	-	27.9. 2023
S. Aswarniha	III Chemistry	Tamil Elocution	Fatima college, Madurai	Second	16.09.2023

B. Ponrani	II Chemistry	Celebrating colours	Fatima college, Madurai	First	16.09.2023
M. Abinaya	II Chemistry	Celebrating colours	Fatima college, Madurai	First	16.09.2023
S. Aswarniha	III Chemistry	Tamil Elocution	St. Mary's College (Autonomous), Thoothukudi	First	10.09.2023
K. Maria Agnes Preethi	III Chemistry	Drawing	St. Mary's College (Autonomous), Thoothukudi	-	10.09.2023
M. Sindhu	III Chemistry	Drawing	St. Mary's College (Autonomous), Thoothukudi	-	10.09.2023
S. Sahaya Aswathi	III Chemistry	Drawing	St. Mary's College (Autonomous), Thoothukudi	-	10.09.2023
S. Aswarniha	III Chemistry	Tamil Elocution	Caldwell higher secondary school, Thoothukudi	First 5000 cash prize	01.08.2023
B. Mahalakshmi	II Chemistry	Upcycling workshop (Swachhta Pakhwada 2023)	St. Mary's College (Autonomous), Thoothukudi	First	10.7.2023
S. Aswarniha	III Chemistry	Declamation	St. Mary's College (Autonomous), Thoothukudi	Second	13.07.2023
NCC					
Shamini Rani	III Chemistry	Annual Training Camp	Sarah Tucker College, Perumalpuram	-	05.06.2023 to 14.06.2023
Fine arts					
S. Aswarniha	III Chemistry	Flower Arrangement	St. Mary's College (Autonomous), Thoothukudi	Third	13.07.2023
Sports					
G. Gayathri	I Chemistry	Hockey-Women	Rani Anna government college For women Tirunelveli	Second	05.10.2023 and 06.10.2023
G. Gayathri	I Chemistry	Hockey	Anna Stadium, Palayamkottai	-	07.02.2024 and 08.02.2024
M. Gowsalya	I Chemistry	Hockey	Anna Stadium, Palayamkottai	-	07.02.2024 and 08.02.2024
M. Kayalvizhi	I chemistry	Tamilnadu Weight Lifting Championship	Sri Balamurugan Thirumana Mahal, Kattur, Salem		06.01.2024 and 07.01.2024

DEPARTMENT OF CHEMISTRY

RETIREMENT

A SALUTE TO SERVICE

Dr. T. Linda Fernando



Thank you for 37 incredible years of inspiring young minds in chemistry

Dr. T. Linda Fernando has been an inspiration to us all, demonstrating unwavering dedication and enthusiasm for teaching. She taught thousands of students, guiding them through complex chemistry concepts with clarity and care. She mentored countless colleagues, sharing her expertise and experience

BOARD OF STUDIES

The meeting of the Board of Studies of the Department of Chemistry was conducted on 09th March 2024 at 10.00 A.M in Department of Chemistry with 3 external members and 9 internal members.

MENTOR MENTEE SYSTEM

To render emotional support and guidance, the first year students of this academic year was mentored by Dr.B.Divya and Dr.G. Amala Jothi Grace, the second year students by Dr. Irudaya Antonat Sophia and Dr. A.lakshmi and the third year students by Dr.J.martin Rathi and Dr. A. Parveen Sulthana.

CERTIFICATE COURSES

The department of chemistry offered Nutritional Food Science for third year students and Computer Skills for Chemists to second year students of Chemistry.

NEW APPOINTMENT

Congratulations!

Congratulations to Dr. C. Zozimus Divya Lobo.

We're fortunate to have Dr. C. Zozimus Divya Lobo in the department of chemistry from 13.11.2023. Her Specialization area includes Organic Chemistry and Computational Chemistry.

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MOU

The Department has a life time MOU with **KALPAKA CHEMICALS PRIVATE LIMITED, 2/141, Puthiyamputhur Road, Nainarpuram Post, Thoothukudi.**

PLACEMENT

Our students B.Manjula got placed in SPIC Private Limited, B.Manjula and V. Mano Devi got placed in Greenstar Fertilisers Limited.

PARENT TEACHER'S MEETING

To improve the academic performance of the students and to encourage the Parental concern, Parent Teacher's Meet will be organised in every semester for all the students.

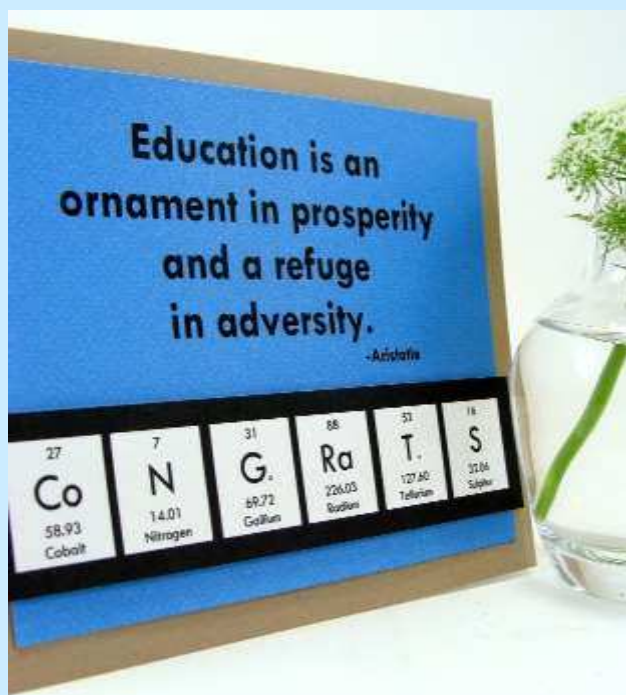


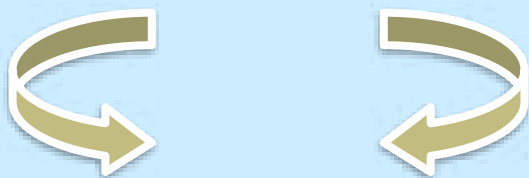
RANK HOLDERS

FIRST RANK- S. ASWARNIHA

SECOND RANK – S. SWETHA

THIRD RANK – S.M. MAHALAKSHMI





No. of Programmes - 16
No. of patents - 1
Paper Presentation - 2
Participation - 12
Student achievements- 13
Publications - 1
Industrial Visits - 4
Proposals Submitted – 3
Resource Person - 6

Editorial Board

Dr. Irudaya Antonat Sophia (HOD)	Assistant Professor
Dr. J. Martin Rathi	Associate Professor
Dr. A. Lakshmi	Assistant Professor
Dr. B. Divya	Assistant Professor
Dr. A. Parveen Sulthana	Assistant Professor
Dr. G. Amala Jothi Grace	Assistant Professor

