



CHEM FRONTIER

Issue 3, 2022



Highlights of the issue >>>

- ✓ Prof. ARV Fellowship
- ✓ International Virtual Conference
- ✓ CHEMFEST 2K22
- ✓ National Science Day Celebration
- ✓ Achievements of Students



Vision of the Department

- Integral formation of the students with scientific skills and social responsibilities

Mission

- To provide facilities for academic excellence, training in soft and professional skills and job placement.
- To enable the students to become agents of social transformation by imparting skills in research.

PG Department of Chemistry Arul Anandar College (Autonomous)

(Reaccredited by NAAC at 'A' Grade with a CGPA of 3.66)
(DST-FIST Sponsored College)

(Affiliated to Madurai Kamaraj University)

Karumathur – 625 514, Madurai District.

From the Editor-in-Chief's Desk...

It is indeed a great honour to be the Editor in Chief for the **CHEM FRONTIER** and an immense pleasure to release the third issue of the newsletter.

As you explore this issue, you will find a wealth of information about the activities of the Department, Faculty and students from June 2021 till May 2022. Like everyone, everywhere, the Department of Chemistry, AAC has experienced tremendous upheaval over the past year due to the COVID-19 pandemic. Our students, staff, and faculty have risen to the challenge and adapted, repeatedly, to advance our mission in research, teaching, and service despite the prevailing challenges. I'm inspired by their dedication and resilience, and I'm so proud to be a member of the Chemistry Department.

In this academic year 2021-22, the Department of Chemistry has adopted in-person instructional mode from online mode. The department resumed various academic activities like organizing a *career-oriented programme, an international virtual conference on Expanding Frontiers in Chemistry (EFC-21), CHEMFEST-an intercollegiate competition, National Science Day celebration and Mendeleev commemoration day celebration*, etc.

In addition, our students brought laurels to the Department. They have received *summer internships, student project from TNSCST, won many prizes in intercollegiate competitions, published research articles, placed at recognized industries, underwent internships by II & III UG students, presented research articles in conferences and completed SWAYAM/NPTEL online courses*. I hope that this newsletter will give a complete picture of the achievements of our faculty, students and activities of the Department.

Dr. S. Rayappan
(Editor-in-Chief)



Editor-in-Chief

Dr. S. Rayappan

**Assistant Professor
& Head**



Editor

Dr. M. Amalraj

Assistant Professor

Uniqueness of the Department

- Conducting Orientation Program for Freshers (Both UG and PG)
- Celebrating National Science Day since 2019
- Celebrating Mendeleev's Commemoration Day
- Organizing National or International Seminar on Expanding Frontiers in Chemistry (EFC) every year since 2001
- Conducting intercollegiate and intra-collegiate competitions for Chemistry students (CHEMFEST)
- Conducting intra-collegiate competitions for other science disciplinary students
- Encouraging and motivating students to attend Summer Internship Programme and apply for student projects

Healthy Practices

- Organizing guest lectures
- Industrial visit for final year UG and PG students
- Open Student feedback on teachers and their teaching methodologies
- Remedial classes for slow learners
- Conducting Alumni Meet every year
- Encouraging and motivating students to take part in National and International seminars and intercollegiate competitions
- Alumni and Faculty of the Department extending financial assistance to the students in greater need
- Prof. MSN Endowment Scholarship for Undergraduate students
- Prof. ARV Fellowship for Postgraduate students

Message from Retired Faculty

I appreciate Dr. S. Rayappan and his team on the successful release of CHEM FRONTIER, Issue 3, 2022, Chemistry Newsletter from the Department of Chemistry, Arul Anandar College. The Head, Faculty and Students make this department reach new milestones with outstanding achievements. I feel great that I was a part of this incredible team that works with complete dedication and consistency. Congratulations to all of you.

Dr Charles J A

Former Head, Dept. of Chemistry,
Arul Anandar College, Karumathur
Deputy Principal, Loyola College, Chennai



Welcoming our New Faculty

Dr. K. Kombaiah joined the Department of Chemistry in 2021 as an Assistant Professor. He has completed under graduation, post-graduation and doctorate degrees at Loyola College, Chennai. He has also completed CSIR-NET exam organized by joint CSIR-UGC, New Delhi. He has published 16 research articles in reputed journals and presented many papers in National and International conferences and his h-index is 14. His research area is Materials Science, Nanotechnology, Catalytic studies and Energy & Environment.

To welcome Dr. K. Kombaiah and Dr. F. Michael Raj, a welcome lunch was arranged at JB Restaurant on 26-08-2021 and all the professors of the Department jointly welcome Dr. K. Kombaiah and Dr. F. Michael Raj who joined in the academic year 2020-21.



Department of Chemistry welcomes Dr. K. Kombaiah to the Department.

Activities of Faculty

The faculty of the department has been involved in many academic and research activities.

Ph.D. Registration

Mr. S. A. Deva Prince registered his doctoral degree under the guidance of **Dr. K. Arun Prasath Lingam**, Assistant Professor, Department of Chemistry, Kamaraj College, Thoothukudi on 16.08.2021 (Reg. No. MSUPH21112442). His research area is the synthesis and characterization of inorganic metal complexes.

Research Publications

1. **Dr. M. Amalraj** and **Dr. A. John Jeevagan** along with four II M.Sc. students of 2019-2021 batch namely *Mr. C. Hayagreevan, Mr. B. Siva, Mr. R. Rahul, Mr. S. Denisdon* published a research article entitled “Sulphonated silica and sulphonated silica/carbon particles as efficient catalysts for hydrogen generation from sodium borohydride hydrolysis” in the *International Journal of Hydrogen Energy* 46 (2021) 33849-33863. (<https://doi.org/10.1016/j.ijhydene.2021.07.195>)

Impact Factor: 7.138

2. **Dr. M. Amalraj** has published a research article entitled “Role of Mg^{2+} substitution on viscosity and thermal conductivity of nickel ferrite based magnetic fluids” in the *Journal of Dispersion Science and Technology* (2021) 1-8. (<https://doi.org/10.1080/01932691.2021.1951752>). **Impact factor: 2.042**

3. **Dr. M. Amalraj** and **Dr. A. John Jeevagan** published a research article entitled “Synthesis and potential applications of aminoantipyrinoanthracenyl imine as corrosion inhibitor of mild steel in H_2SO_4 medium” in the *Journal of Adhesion Science and Technology* (2022) 1-20. (<https://doi.org/10.1080/01694243.2022.2040226>)

Impact factor: 2.431

4. **Dr. M. Amalraj** and **Dr. A. John Jeevagan** published a research article entitled “Evaluation of Microbiologically Influenced Corrosion Inhibition Behaviour of BIFILAC Drug on Mild Steel in Acidic and Saline Media” in the *Journal of Bio and Tribo Corrosion* 8 (2022) 1-20. (<https://doi.org/10.1007/s40735-022-00651-7>)

Impact factor: 2.817

5. **Dr. K. Kombaiah** published a research article entitled “Multifunctional Core-Shell $NiFe_2O_4$ Shield with TiO_2/rGO Nanostructures for Biomedical and Environmental Applications” in the *Bioinorganic Chemistry and Applications* (2022) (<https://doi.org/10.1155/2022/4805490>) **Impact Factor - 7.778**



International Journal of Hydrogen Energy
Volume 46, Issue 68, 1 October 2021, Pages 33849-33863

Sulphonated silica and sulphonated silica / carbon particles as efficient catalysts for hydrogen generation from sodium borohydride hydrolysis

Hayagreevan C^a, Siva B^a, Rahul R^a, Denisdon S^a, John Jeevagan A^a, Adinaveen T^a, Amalraj M^{a, *}

^a Department of Chemistry, Anul Andar College (Autonomous), Karumathur, Madurai, 625514, Tamilnadu, India

^b Department of Chemistry, Loyola College (Autonomous), Nungambakkam, Chennai, 600034, Tamilnadu, India



Journal of Dispersion Science and Technology

Role of Mg^{2+} substitution on viscosity and thermal conductivity of nickel ferrite based magnetic fluids

T. Adinaveen^a, P. Leema Sophie, D. Saritha Chandrig & M. Amalraj^a

Received 25 June 2021; Accepted 23 Jan 2022; Available online 29 Jul 2022

Download citation: <https://doi.org/10.1080/01932691.2021.1951752>



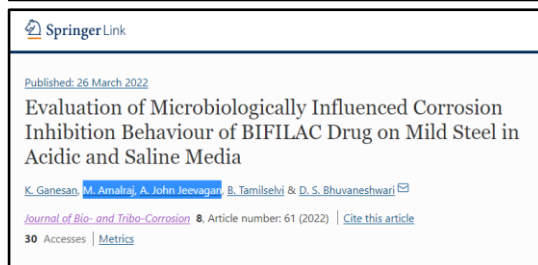
Journal of Adhesion Science and Technology

Synthesis and potential applications of aminoantipyrinoanthracenyl imine as corrosion inhibitor of mild steel in H_2SO_4 medium

K. Ganesan, M. Amalraj, A. John Jeevagan & D. S. Bhuvaneshwari

Received 25 Jun 2021; Accepted 23 Jan 2022; Available online 29 Jul 2022

Download citation: <https://doi.org/10.1080/01694243.2022.2040226>



Springer Link

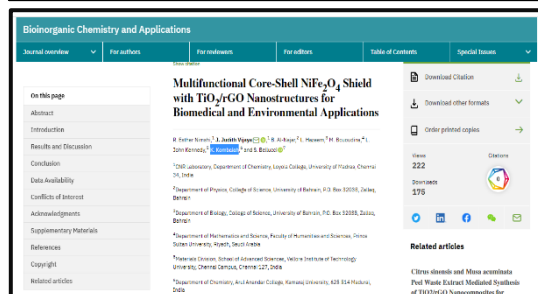
Published: 26 March 2022

Evaluation of Microbiologically Influenced Corrosion Inhibition Behaviour of BIFILAC Drug on Mild Steel in Acidic and Saline Media

K. Ganesan, M. Amalraj, A. John Jeevagan, B. Tamilselvi & D. S. Bhuvaneshwari

Journal of Bio- and Tribo-Corrosion 8, Article number: 61 (2022) | [Cite this article](#)

30 Accesses | [Metrics](#)



Bioinorganic Chemistry and Applications

Multifunctional Core-Shell $NiFe_2O_4$ Shield with TiO_2/rGO Nanostructures for Biomedical and Environmental Applications

K. Kombaiah^{1,2}, J. Jeevagan³, T. R. Arun⁴, P. Leema Sophie⁵, D. S. Bhuvaneshwari⁶

¹Department of Chemistry, Kamaraj College, Thoothukudi, Tamil Nadu, India

²Department of Physics, College of Science, University of Bahrain, P.O. Box 32038, Doha, Qatar

³Department of Biology, College of Science, University of Bahrain, P.O. Box 32038, Doha, Qatar

⁴Department of Pharmacology and Biophysics, Faculty of Medicine and Sciences, Dhaka State University, Dhaka, Bangladesh

⁵Department of Chemistry, Kamaraj College, Thoothukudi, Tamil Nadu, India

⁶Department of Chemistry, Anul Andar College, Karumathur, Madurai, Tamil Nadu, India

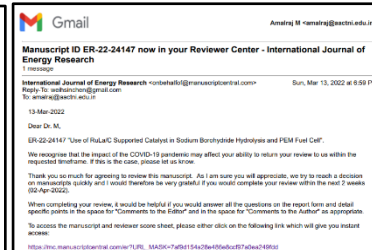
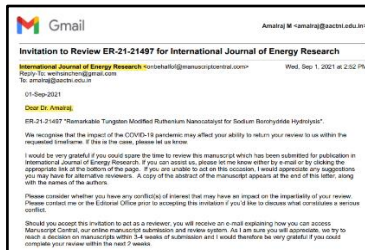
View: 222
Downloads: 175

Google Scholar URL of the Department:

<https://scholar.google.com/citations?user=TWfaMfUAAA&hl=en&authuser=1>

Reviewer to Journal Articles

Dr. M. Amalraj was recognized as a reviewer for the *International Journal of Energy Research, Wiley Publications*. He has reviewed two research articles ER-21-21497 and ER-22-24147 during the academic year 2021-22.



Faculty as Resource Person

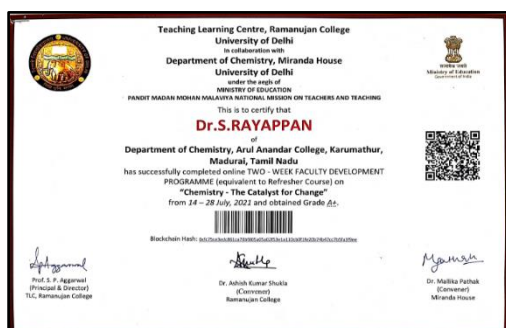
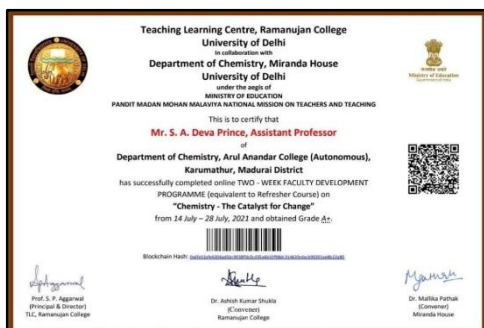
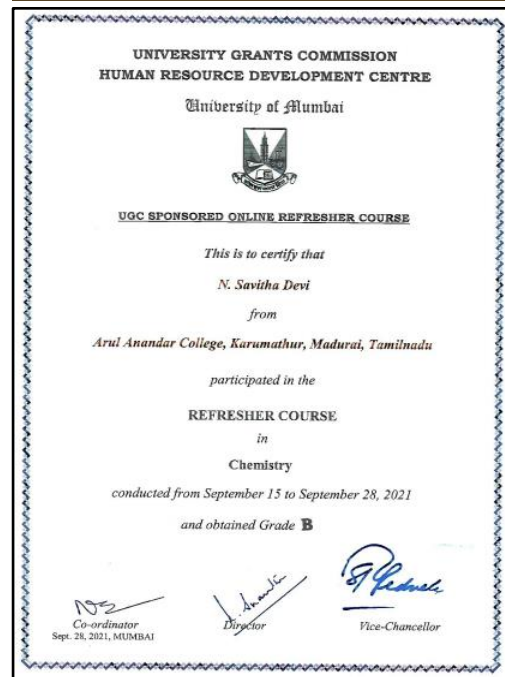
- Dr. M. Amalraj** delivered a guest lecture on “*Science in and around us*” in the orientation programme organized by Sri Venkateswaraa College of Technology, Oragadam on 12-10-2021.
- Mr. S. A. Deva Prince** delivered a guest lecture as the resource person on the topic “*Learning Chemistry is Interesting*” in the virtual seminar on Career Opportunity in Chemistry organized by the Department of Chemistry and Placement Cell, Noorul Islam College of Arts and Science, Kumaracoil, Kanyakumari District on 23-10-2021.
- Dr. M. Amalraj** delivered a guest lecture as the resource person on the topic “*Higher education and career opportunities in Chemistry*” in the virtual seminar on Career Opportunity in Chemistry organized by the Department of Chemistry and Placement Cell, Noorul Islam College of Arts and Science, Kumaracoil, Kanyakumari Dt on 23-10-2021.
- Mr. S. A. Deva Prince** acted as a resource person and delivered a lecture entitled “*Tricks and Tips to Crack CSIR-NET/SET Exams*” in the Chemistry Association Meeting held on 30-10-2021 organized by the Department of Chemistry, Kamaraj College, Thoothukudi.
- Dr. M. Amalraj** was invited as the resource person to give a lecture on “*Food Adulteration*” to the World University Forum at SVN College, Madurai on 10-3-2022.
- Mr. S. A. Deva Prince** delivered a guest lecture on the topic “*Applications of NMR Spectroscopy to Inorganic Compounds*” in the Department of Chemistry, Annai Velankanni College, Tholayavattam, Kanyakumari District on 04-04-2022.

Conference and Seminar Participation

- Dr. M. Amalraj** has published a research abstract entitled “*Catalytic Generation of Hydrogen from Sodium Borohydride Hydrolysis using Sulphonated Silica and Sulphonated Silica/Carbon Particles*” in the proceedings (ISBN: 978-81-953568-7-4) of the AICTE Sponsored Second International Conference on Energy, Environment and Advanced Materials for a Sustainable Future (ICEEAMSF-2021) organized by Department of Physics & Chemistry, Kongu Engineering College 15-16 July 2021.
- Dr. M. Amalraj** presented a research article entitled “*Glucose mediated synthesis of copper nanowires for the selective and sensitive electrochemical determination of paracetamol*” at the 6th International Conference on Recent Advances in Material Chemistry (ICRAMC – 2022), Organized by the Department of Chemistry, SRM Institute of Science and Technology, Kattankulathur, India.
- Dr. A. John Jeevagan** presented a research article entitled “*Graphene Oxide Decorate Bimetallic (NiCo) Nanohybrids used an Electrocatalyst for Methanol Oxidation*” at the International Conference on Smart Materials Chemistry (CHEMSMAT-21) organized by the Department of Chemistry, St. Joseph College, Trichy on July 29-31, 2021.
- Dr. N. Savitha Devi** has participated in two days “*In-service Teacher Training*” programme in Physical Sciences held at Sri Meenakshi Government Arts College for Women (Autonomous), Madurai on 05-05-2022 to 06-05-2022.

Refresher and Faculty Development Programme by Faculty

1. **Dr. S. Rayappan** has participated and completed two weeks Faculty Development Programme (equivalent to Refresher Course) on *Chemistry – The Catalyst for Change* from 14-07-2021 to 28-07-2021 and obtained a grade ‘A+’ organized by Teaching Learning Centre, Ramanujan College, the University of Delhi in collaboration with Department of Chemistry, Miranda House and University of Delhi.
2. **Mr. S. A. Deva Prince** has participated in and completed two weeks Faculty Development Programme (equivalent to Refresher Course) on *Chemistry – The Catalyst for Change* from 14-07-2021 to 28-07-2021 and obtained a grade ‘A+’ organized by the Teaching Learning Centre, Ramanujan College, the University of Delhi in collaboration with Department of Chemistry, Miranda House and University of Delhi.
3. **Mr. S. A. Deva Prince** participated in two weeks online Faculty Development Programme on *Pedagogy and Research Methods* from 24-05-2021 to 06-06-2021 and obtained a grade ‘A+’ organized by the Human Resource Development Centre and Internal Quality Assurance Cell, Academy of Maritime Education and Training (AMET).
4. **Dr. M. Amalraj** participated in the UGC-sponsored sixth online Faculty Induction Programme from 06-09-2021 to 05-10-2021 and obtained the grade ‘A’ organized by Human Resource Development Centre, Bharathidasan University, Tiruchirappalli – 620 023, Tamil Nadu.
5. **Dr. N. Savitha Devi** has participated in the UGC-sponsored Refresher course in Chemistry organized by University of Mumbai, Mumbai from 15 September 2021 to 28 September 2021.
6. **Dr. M. Amalraj** participated in one-week Faculty Development Programme on *Recent Advances in Analytical Chemistry* from April 18 to April 23, 2022, organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore and Department of Chemistry, Shri Vaishnav Institute of Science.



Academic Achievements of Faculties

- Dr. M. Amalraj** received a prize from the management of Arul Anandar College for the *Best e-content* during the two day virtual workshop for the training of e-content preparation on 18 and 19, July 2021.
- Dr. A. John Jeevagan** and **Dr. K. Kombaiah** have received seed money research grants of Rs. 9000/- each for the promotion of research provided by the management of Arul Anandar College. The proposed research topic of Dr. A. John Jeevagan is “Sn₃O₄ supported PdNi ordered Intermetallic Photocatalyst for Hydrogen Generation under Visible Light” and for Dr. K. Kombaiah is “The Synergic effect of novel metal ferrite (MFe₂O₄, M = Zn, Co, Cu, Ni) MoS₂/rGO ternary composites for effective water splitting and H₂ production”.
- Dr. N. Savitha Devi** was recognized as the **research guide** by Madurai Kamaraj University, Madurai on 31-08-2021.
- Dr. M. Amalraj** has completed for online 12-week Course with an Elite certificate entitled “Symmetry and Group Theory” organized by NPTEL/AICTE through SWAYAM/MOOC portal in September 2021.
- Dr. N. Savitha Devi** received a research grant of Rs. 7500/- under the student project scheme, Tamil Nadu State Council for Science and Technology, Chennai. The proposed research title is “Domino synthesis and study of anticancer activity of 4H-pyrans derived from ethyl 4-chloroacetoacetate”.
- Dr. F. Michael Raj** has completed an online 12-week course entitled “Human Nutrition and Biochemistry” organized by NPTEL/AICTE through SWAYAM/MOOC portal. He is waiting for the results.
- Mr. S. A. Deva Prince** and **Dr. M. Amalraj** completed an online course 12-week course entitled “Co-Ordination Chemistry (Chemistry of Transition Elements)” organized by NPTEL/AICTE through SWAYAM/MOOC portal from January 2022 to April 2022. **Mr. S. A. Deva Prince** was awarded **Elite+Gold** Category and also awarded with **Topper (Top 2% category)** and **Mr. M. Amalraj** was awarded **Elite+Silver** Category for the course “Co-Ordination Chemistry (Chemistry of Transition Elements)”

Prize for Best e-content to Dr. M. Amalraj



Seed Money Research Grant Received by Dr. A. John Jeevagan



Seed Money Research Grant Received by Dr. K. Kombaiah



**TNSCST Project received by
Dr. N. Savitha Devi**

Dr. R. Srinivasan, M.Sc., Ph.D., F.I.C.S., M.A.C.S.(USA),
Member Secretary
11/03/2022

To: The Principal
Arul Anandar College
Karumathur, Madurai-625514

Sub: TNSCST – Student Project Scheme (2021-2022) – approval letter

With respect to the above scheme, the list of projects approved by the State Council is enclosed along with terms and conditions. You are requested to adhere to terms and conditions such as submission of I/O and seminar paper in time.

Sr.	Guide Name and Institutional Address	Title of the Project	Students Name	Project Code	Amount
1	Dr. J. Indu Vaidya, Assistant Professor (S.P.), Department of Physics, Arul Anandar college, Madurai-625514	Usage of natural iron oxides for waste water treatment	K.Mehta	PS-282	7500/-
2	Dr. N. Savitha Devi, Assistant Professor, Department of Chemistry, Arul Anandar college, Madurai-625514	Domino synthesis and study of anticancer activity of 4H-pyrans derived from ethyl 4-chloroacetoacetate	M. Anish, K. Jeeva Deepthi, J. Kiruthi Aneery	PS-069	7500/-
3	Dr. S.P. Malarikannan, Assistant Professor, Department of Rural Development, Science, Arul Anandar College, Madurai-625514	Formulation, optimization and evaluation of unique herbal milk as a supplement to boost the immunity of COVID 19 patients	Ramona Karabakaran-J	VS-042	7500/-
4	Dr. Savitha Devi, Assistant Professor, Department of Mathematics, Arul Anandar College, Madurai-625514	Puzzly cognitive study on the post pandemic impact on the occupational health with special reference to ushinnampatti block	L. Merin Saverina, T. Priya, P.S. Sivarajula, A. Velankanni Ananth	SS-296	7500/-

Hereby enclosed the cheque for the approved grant and disburse the grant to the concerned student through the guides at the earliest.
Kindly send the utilization certificate (format enclosed) and seminar paper (Ref TAC- No. 586) on completion of the project.
Thanking you,

Yours faithfully,
Member Secretary

Enc: a) Terms & Conditions (TSC)
b) Format of Utilisation Certificate (UC)
c) Cheque for Rs. 30,000/- No. 2021094 dt: 11/03/2022

Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
DEVA PRINCE S A
for successfully completing the course

Co-Ordination Chemistry (Chemistry of Transition Elements)

with a consolidated score of **90** %

Online Assignments 24.06/25 | Proctored Exam 66/75

Total number of candidates certified in this course: 307

Jan-Apr 2022
(12 week course)

Prof. Jayanta Mukhopadhyay
Prof. Debajani Chakraborty

swayam

Indian Institute of Technology Kharagpur

Roll No: NPTEL22CY20543920057

Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
M AMALRAJ
for successfully completing the course

Co-Ordination Chemistry (Chemistry of Transition Elements)

with a consolidated score of **81** %

Online Assignments 24.06/25 | Proctored Exam 57/75

Total number of candidates certified in this course: 307

Jan-Apr 2022
(12 week course)

Prof. Jayanta Mukhopadhyay
Prof. Debajani Chakraborty

swayam

Indian Institute of Technology Kharagpur

Roll No: NPTEL22CY20543810836

Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
M AMALRAJ
for successfully completing the course

Symmetry and Group Theory

with a consolidated score of **64** %

Online Assignments 19/25 | Proctored Exam 44.63/75

Total number of candidates certified in this course: 14

Jan-Apr 2021
(12 week course)

Prof. Harish Chandraiah
Prof. Andrew Thangaraj

swayam

Indian Institute of Science Education and Research Pune

Roll No: NPTEL1714CY053890019

Academic Events and Association Activities

Webinar on Fundamentals and Career Opportunities of Chemistry Students

PG Department of Chemistry, Arul Anandar College organized a webinar on Fundamentals and Career Opportunities of Chemistry Students on 22-07-2021 to provide career guidance to UG/PG students. The program begins with the invocation. Then, **Dr. S. Rayappan**, Assistant Professor and Head delivered the welcome address and initiated the first academic event of the academic year 2021-22 after the lockdown due to the COVID-19 pandemic. Then **Rev. Dr. John Pragasam S.J., Rector**, Arul Anandar College felicitated the program with his inspirational words. **Rev. Dr. Godwin Rufus S.J., Principal** delivered his inaugural address via pre-recorded video and highlight how important the topic seminar at the current scenario. Then, **Dr. N. Savitha Devi**, Assistant Professor introduced the resource person and highlighted the achievements of the resource person **Mr. GM Srinivasan**, B. Tech, Founder, Sriluck Paints, Harur -Dharmapuri district. Then, Mr. GM Srinivasan delivered his lecture by highlighting the various job opportunities available in various branches of chemistry. About 125 students attended the program (90 students through Google Meet and 35 students via YouTube Live Streaming). He also interacted with the students and gave many ideas to get the job in various companies and also highlighted the various entrepreneurship opportunities in various fields of Chemistry. Rev. **Dr. John Pragasam** enlightened the importance of career-oriented courses in the syllabus of both undergraduate and postgraduate programmes. Finally, **Dr. M. Amalraj**, the organizing secretary proposed a vote of thanks and thanked all who make the program a great successful one. The whole program was live-streamed in YouTube (<https://youtu.be/tC6-qgDS9Ik>).



ARULANANDAR COLLEGE (Autonomous)
(Re-accredited by NAAC at 'A' Grade with a CGPA of 3.66)
(DST-FIST Sponsored College)
Karumathur - 625 514, Madurai District.
cordially invites you to the webinar on

Fundamentals and Career Opportunities of Chemistry Students
Resource Person

Mr. GM Srinivasan, B. Tech
Founder -Sriluck Paints
Harur -Dharmapuri district



Organized by
PG Department of Chemistry

Date: 22-07-2021
Time: 10.30 am -12.00 pm

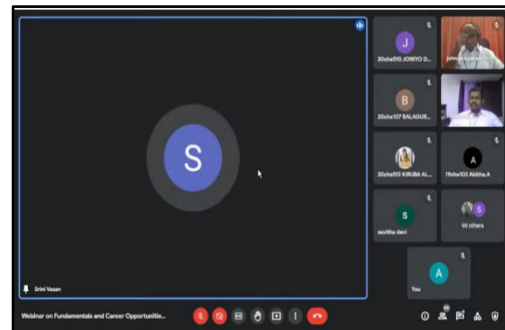


Platform:
Google Meet



Convenor
Dr. S. Rayappan
Assistant Professor and Head

Organizing Secretary
Dr. M. Amalraj
Assistant Professor



Fresher's Day celebration

Fresher's day celebration was organized by II UG, III UG and II PG students to welcome the First year undergraduate and postgraduate students on 04-10-2021. **Dr. S. Rayappan** welcomed the fresher students and introduced all the faculty of the department to the fresher students. Then, the faculty of the department motivated the first-year students and wish them for their future success. Then, a cultural programme was organized by II and III UG students. A memorable gift was also given to fresher students by the senior students of the department. Finally, **Dr. N. Savitha Devi** proposed the vote of thanks.

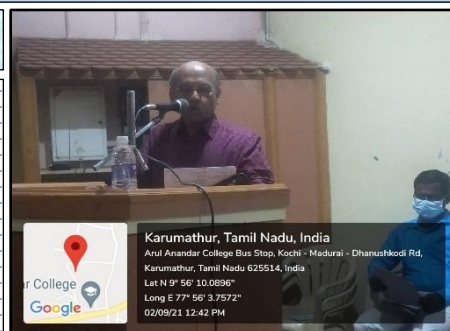
Prof. ARV fellowship and release of Chem Frontier Newsletter

Prof. ARV scholarship was initiated for M.Sc. Chemistry Students by **Dr. Mohamed Ibrahim** Ph.D., Senior Scientist, USA, **Dr. Prapha Ibrahim**, Ph.D., Senior Scientist, USA, **Prof. S. Ponnudurai**, HOD of Chemistry (Retired), H. H. Rajah's College, Pudukkottai – 622 001 in the previous academic year. This year, Prof. S. Ponnudurai accepted to give the scholarship to the same students **Mr. Sunil Dass** and **Ms. Alphonsa Rainy** for the second year on 02-09-2021. It was also planned to release the second issue of the **CHEM FRONTIER (Issue 2)** newsletter on the same day. The programme started with a prayer by II M.Sc. Chemistry students. **Dr. S. Rayappan**, Assistant Professor & Head welcomed the gatherings. Then **Rev. Dr. John Pragasam S.J.** Rector offered his words of felicitation, congratulated the department for the release of the newsletter and thanked **Prof. S. Ponnudurai** for the fellowship. **Rev. Dr. Gilbert Camillus S.J.** Secretary also thanked Prof. S. Ponnudurai and insisted the students to utilize the fellowship for their growth in studies. Then **Dr. R. Sundararaj**, Deputy Principal honoured the chief guest with a memento. **Rev. Dr. Godwin Rufus S.J.** Principal welcomed and thanked Prof. S. Ponnudurai and his spouse for the campus for providing **Prof. Dr. A. R. Venkitaraman Scholarship**. Then Prof. S. Ponnudurai highlighted the importance of Prof. ARV fellowship. Then, he gave a cheque of **Rs. 25,000/-** to each of Mr. Sunil Dass and Ms. Alphonsa Rainy, II M.Sc. Chemistry, Department of Chemistry, Arul Anandar College.

Then, **Dr. S. Rayappan** briefly summarized the contents present in the Newsletter. Then, the first copy of the second issue of the **CHEM FRONTIER Newsletter (Issue 2)** was released by **Rev. Dr. Godwin Rufus S.J.** and the I copy was received by **Rev. Dr. John Pragasam S.J.** Finally, **Dr. M. Amalraj**, Vice president delivered the vote of thanks and thanked Prof. S. Ponnudurai and other who stand for the success of the programme.

Scholarship by Alumni

The Department of Chemistry arranged an Alumni scholarship for deserving students. **Mr. M. Annapushparaja**, Senior Chemist, EGA, Dubai, UAE – an alumnus of the Department of Chemistry, Arul Anandar College (2002 - 2005) donated **Rs. 25,000/-** to give a scholarship to deserving students. 5 students namely **Ms. Nikkitha**, **Ms. Abitha** and **Mr. Balakumar** from III B.Sc. Chemistry and **Ms. Sangeetha** and **Ms. Priyadharshini** from II B.Sc. Chemistry were selected to receive the alumni scholarship considering their academic performance and financial situation and the programme was organized on 25-10-2021. **Dr. S. Rayappan**, Assistant Professor and Head talk about our alumni Mr. M. Annapushparaja and the purpose for him to donate the amount to deserving students. Then, a cheque for the students (Each Rs. 5000/-) was issued by **Rev. Dr. Godwin Rufus S.J.** and he advised the students to extend their help to deserving students in the future. Finally, the students thank the department and management for providing the scholarship.



International Virtual Conference on Expanding Frontiers in Chemistry – EFC

PG Department of Chemistry, Arul Anandar College (Autonomous), Karumathur, Madurai has organized *International Virtual Conference on Expanding Frontiers in Chemistry EFC- 21* on 11th and 12th November 2021. The conference began with a prayer song followed by the welcome address by **Dr. S. Rayappan**, Convenor and Head, AAC. **Rev. Dr. Gilbert Gamillus S.J.** Secretary felicitated the conference with his inspiring words. Then **Rev. Dr. Godwin Rufus S.J.** Principal delivered the presidential address and wish the participants to acquire more knowledge through the conference. Then, the inaugural address was delivered by **Prof. S. Thayumanavan**, Department of Chemistry and Head, Director, Center for Bioactive Delivery, Institute for Applied Life Sciences, USA. Then, the abstract of the *conference proceedings* with ISBN (978-93-91987-20-6) was released by **Rev. Dr. Godwin Rufus S.J.** and the first copy was received by **Rev. Dr. John Pragasam S.J.** Then, **Dr. N. Savitha Devi**, Assistant Professor proposed the vote of thanks.

In the first technical session, **Prof. S. Thayumanavan** delivered his lecture on “*Inspirations from Nature: Responsive Materials for the Modern World*” during the first technical session. In the second technical session, **Dr. Muthu Ramalingam Bose**, Postdoctoral Fellow, Department of Chemistry, University of Central Florida, USA delivered his talk on “*Synthetic studies on Calothrixin B analogues and their in vitro cytotoxicity*” During the afternoon session on November 11, 2021, oral and e-poster presentations of participants from other institutes were organized via virtual mode as five parallel sessions and **Dr. Muthuraj**, VHNS college, **Dr. M. Sundrarajan**, Alagappa University, **Dr. K. Karthik Kumar**, The American College, **Dr. P. Prakash**, Thiagarajar College, **Dr. Arun Prasad Lingam**, Kamaraj College were assigned as Jury for Oral and e-Poster Presentations and selected 6 Best presentations.

On the second day of the conference, **Dr. Prabha Ibrahim**, Chief Technology Officer, Blade Therapeutics, South San Francisco, USA delivered her talk on “*The Role of Chemistry in Small Molecule Drug Discovery and Development*” in the third technical session. In the fourth technical session, **Prof. A. Sakthivel**, FRSC, FICS, Professor and Head, Department of Chemistry, Central University of Kerala, Kerala -671320 delivered his lecture on “*Hydrotalcite based materials as potential catalysts for biomass model component to value added chemicals*”. In the fifth technical session, **Dr. S. Abraham John**, Director, Centre for Nanoscience & Nanotechnology, Gandhigram Rural Institute, Gandhigram delivered his lecture on “*Unusual reactivity of graphene quantum dots and their silver nanoparticles composite with heavy metal ions*”. In the sixth technical session, **Dr. M. Jaccob**, Assistant Professor (DST INSPIRE Faculty Fellow), Department of Chemistry, Loyola College, Chennai delivered his talk on “*The role of theoretical methods on exploring the mechanism of chemical reactions*”.

In the valedictory function, **Dr. S. Martin** welcomed the participants and **Dr. A. Sundararaj**, Deputy Principal delivered the felicitations. Then the valedictory address was delivered by **Dr. S. Abraham John**, GRI followed by vote of thanks by **Dr. M. Amalraj**, Organizing secretary, AAC. All technical sessions, oral and e-poster presentations were organized in virtual mode via Google Meet and for the students of AAC, the whole program was live streamed at MTH, Arul Anandar College in addition to YouTube live streaming (<https://www.youtube.com/watch?v=VeVP5PEt7aA&list=PLt7bOgK9yL-urYc6CGGGChW0KkjmG8REc>). A total of 52 participants from other institutes and 155 students from Chemistry Department, AAC attended the program.

Prof. S. Thayumanavan, **Dr. Muthu Ramalingam Bose** and **Dr. Prabha Ibrahim** have not accepted the remuneration paid to them for giving the invited lecture. According to the request of the experts, the remuneration amount was given to 9 students (each Rs. 1000), for paying their examination fees.

Invited Speakers for EFC-21



Prof. S. Thayumanavan
Department of Chemistry
and Head, Director, Center
for Bioactive Delivery,
Institute for Applied Life
Sciences, USA



Dr. Prabha Ibrahim
Chief Technology Officer,
Blade Therapeutics,
South San Francisco,
USA



Dr. S. Abraham John
Director,
Centre for Nanoscience &
Nanotechnology,
Gandhigram Rural Institute,
Gandhigram.



Prof. A. Sakthivel
FRSC, FICS,
Professor and Head,
Department of Chemistry,
Central University of
Kerala,
Kerala -671320

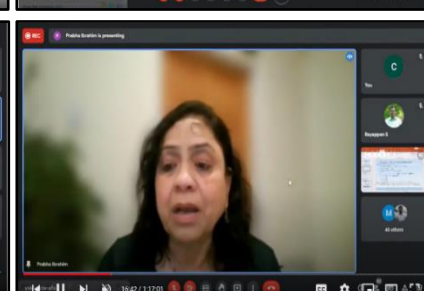
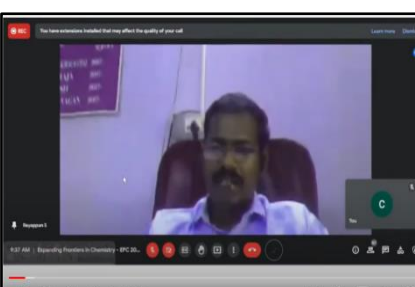


**Dr. B. Muthu Ramalingam
Bose**
Postdoctoral Fellow,
Department of Chemistry,
University of Central
Florida,
Florida,
USA.



Dr. M. Jaccob
Assistant Professor (DST
INSPIRE Faculty Fellow),
Department of Chemistry,
Loyola College,
Chennai

Photo Gallery

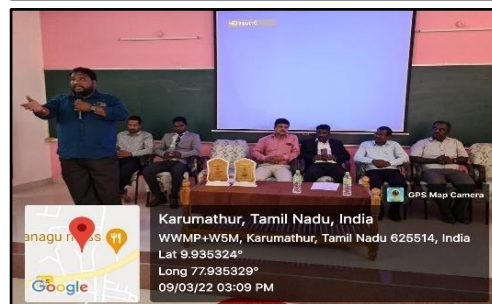


Alumni Scholarship from the remuneration of Resource Persons



National Science Day & Mendeleev Commemoration Day Celebration

Department of Chemistry, Arul Anandar College is celebrating National Science Day every year Since 2018. This year, **National Science Day & Mendeleev Commemoration Day** has celebrated on 09-03-2022 at Gnanarathinam Hall between 2.00 and 4.00 pm. The programme started with an invocation by II M.Sc. students. Then **Dr. S. Rayappan**, Assistant Professor & Head welcomed the gatherings and highlighted the importance of celebrating National Science Day & Mendeleev Commemoration Day. Then **Rev. Dr. Godwin Rufus, S.J.** Principal, delivered the presidential address and makes the students to think out of box with his inspirational words. Then **Mr. S. A. Deva Prince** introduced the motivational speakers **Dr. S. Jegatheeswaran** M.Sc., Ph.D. Research Scientist, Zhejiang Sci-Tech University, Hangzhou, PR China, Managing Director, BioMe Live Analytical Centre, Karaikudi and **Dr. J. Ananda Raj**, M.Sc., Ph.D. Scientist, BioMe Live Analytical Centre, Karaikudi and the speakers are honored with a memento by **Rev. Dr. John Pragasan S.J.** Then, the motivational speaker and the alumni **Dr. S. Jegatheeswaran** shared his research experience in starting the company BioMe Live Analytical Centre, Karaikudi. Then **Dr. J. Ananda Raj** M.Sc., Ph.D. also shared his research and college experience to motivate the students. Then, the first resource person, **Dr. A. Pandikumar** M.Sc., Ph.D. Scientist, CSIR- Central Electrochemical Research Institute, Karaikudi was introduced by **Dr. A. John Jeevagan** and he was honoured with a memento by **Dr. S. Rayappan**. Then, he delivered his lecture on “*Solar Hydrogen Production: Way to Achieve Net-Zero Carbon Emission*”. Then, the second speaker, **Dr. P. Boomi** M.Sc., Ph.D. Assistant Professor, Department of Bioinformatics, Alagappa University, Karaikudi was introduced and honoured by **Dr. S. Martin** and talked about “*How to Protect from Communicable Diseases?*” and talk elaborately about communicable diseases like corona. Finally, **Dr. M. Amalraj**, Vice-President proposed the vote of thanks.



Prof. ARV Fellowship for I M.Sc. Students

Prof. ARV scholarship was initiated for M.Sc. Chemistry Students by **Dr. Mohamed Ibrahim** Ph.D., Senior Scientist, USA, **Dr. Prapha Ibrahim**, Ph.D., Senior Scientist, USA, **Prof. S. Ponnudurai**, HOD of Chemistry (Retired), H. H. Rajah's College, Pudukkottai – 622 001 in the previous academic year. **Dr. S. Rayappan** & the faculty of the department suggested two I M.Sc. Chemistry students **Mr. Arun Pradeepan** and **Mr. Vijayan** to receive the fellowship by considering their academic performance and financial situations. Then, **Prof. S. Ponnudurai** came to the college on 17-03-2022 to give the scholarship to I M.Sc. Chemistry students. **Dr. S. Rayappan** welcomed **Prof. S. Ponnudurai** along with **Rev. Dr. John Pragasam S.J.** Rector and **Rev. Dr. Gilbert Camillus S.J.** Secretary and **Rev. Dr. Godwin Rufus S.J.** Principal and other officials and faculty. Then, **Rev. Dr. Godwin Rufus S.J.** thanked **Prof. S. Ponnudurai** for continuing the scholarship to the students of AAC and guided the students to utilize the scholarship to improve their growth. Then, **Prof. S. Ponnudurai** gave a cheque of **Rs. 25,000/-** to each of **Mr. Arun Pradeepan** and **Mr. Vijayan**. Then, **Dr. A. John Jeevagan**, Assistant Professor proposed the vote of thanks.



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National Science Day Competitions

Department of Chemistry, Arul Anandar College is celebrating **National Science Day** every year Since 2017. To celebrate National Science Day, **speech competitions and drawing competitions** were arranged for the Science students of Arul Anandar College on 18-03-2022. For the speech competitions, **"Integrated Approach in Science and Technology for Sustainable Future"** was given as the topic whereas for drawing competitions, **"The Future of Science & Technology in 2050"** was given as the topic. **Mrs. P. Revathi**, Assistant Professor and Head, Department of Food Science & Technology acted as Jury for speech and drawing competitions. The prize winners were awarded a prize in the valedictory function of "CHEMFEST 2K22" on 23-03-2022.



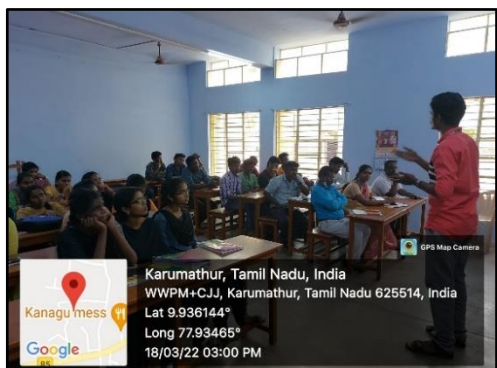
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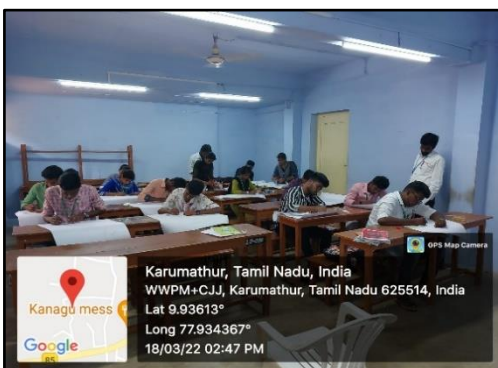
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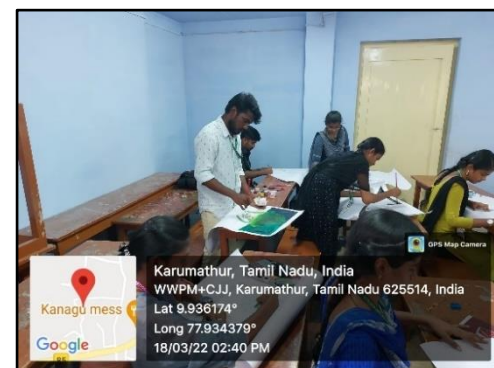
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CHEMFEST 2K22- An Intercollegiate Competition

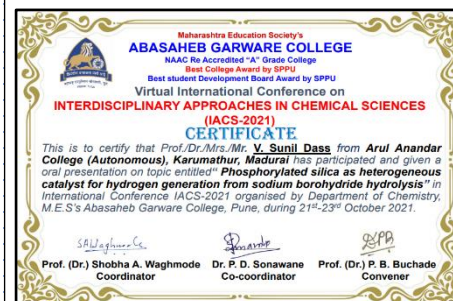
Department of Chemistry, Arul Anandar College organized **CHEMFEST 2K22 – An intercollegiate competition** on 23-03-2022. Various colleges from all over Tamil Nadu were invited to participate and exhibit the talents of students. The programme was inaugurated with a prayer followed by the welcome address by **Dr. S. Rayappan**, Convenor. Then, **Rev. Dr. Rev. Dr. Gilbert Camillus S.J.** Secretary felicitated the gathering and explained the importance of participating in the competitions. Then **Rev. Dr. Godwin Rufus S.J.** Principal delivered the presidential address and encouraged the students to learn as much as possible from the competitions. Then, Rev. **Dr. Rev. Dr. Gilbert Camillus** released the **OVERALL CHAMPIONSHIP TROPHY** and **Rev. Dr. Godwin Rufus S.J.** released the **Mr./Ms. CHEMIST TROPHY**. Various events like **CHEM PRESENTATION UG, CHEM PRESENTATION PG, CHEM QUIZ UG, CHEM QUIZ PG, CHEM POSTER MAKING, CHEM SONG, CHEM MEME, CHEM CONNECTION** and the multitasking competition **Mr. / Ms. CHEMIST** were conducted. A total of 16 colleges with 178 students have participated in this event. The event focused on students' skill, learning via experience and exposure to students' talents. **Dr. M. Rajan** from Madurai Kamaraj University, **Dr. V. Muthuraj**, VHNSN College, Dr. S. Amalraj, Headmaster, Government High School were invited as Jury for various events. In the valedictory function, **Dr. R. Sundararaj**, Deputy Principal felicitated the gathering and **Rev. Dr. Godwin Rufus S.J.** Principal delivered the valedictory address. Then, prizes for various events and prizes for National Science Day Competitions were given to the best performers. **Thiagarajar College (Aided), Madurai** won the overall championship. **Dr. M. Amalraj**, organizing secretary proposed the vote of thanks and thanked everyone who make the event a successful one.



Achievement of the Students

Presentation in Conferences and Seminars

- Ms. P. Ajitha** and **Mr. V. Sunildass** presented a research paper entitled *“Sulphonated Silica/Carbon Particles as Heterogeneous Catalysts for the Catalytic Generation of Hydrogen from Sodium Borohydride Hydrolysis”* at the virtual International Conference on Smart Materials Chemistry (CHEMSMAT-21) organized by **PG and Research Department of Chemistry, St. Joseph’s College (Autonomous), Trichy** on 29-31 July 2021.
- Ms. M. Sambika** presented a research paper entitled *“pH Responsive Anthocyanin Filter Paper as a Visual Indicator for Volatile Gases and Food Deterioration”* at the virtual International Conference on Smart Materials Chemistry (CHEMSMAT-21) organized by **PG and Research Department of Chemistry, St. Joseph’s College (Autonomous), Trichy** on 29-31 July 2021.
- Mr. V. Sunildass** presented a research paper entitled *“Sol-Gel derived Phosphoryled Silica as heterogeneous catalyst for hydrogen production from sodium borohydride hydrolysis”* at the International Conference on Recent Advances in Materials and Measurements (RAMRAM - 2022) organized by the **Department of Physics, Sri Sivasubramania Nadar, College of Engineering, Kalavakkam** during 10-11, 2022.
- Mr. V. Ajith, Mr. S. Maria Selvaraj** and **Ms. A. Shalini**, II M.Sc. Chemistry has participated and presented a research paper entitled *“Green Synthesis of Nanoparticles using Biophytum Sensitivum Extract and its Electrocatalytic Activity”* at the National Conference on “Emerging Trends in Chemistry – ETC” organized by the **Department of Chemistry, Saiva Bhanu Kshatriya College, Aruppukottai, Tamil Nadu** on 13-04-2022.
- Ms. P. Ajitha**, II M.Sc. Chemistry has participated and presented a research paper entitled *“Glucose mediated synthesis of copper nanowires for the selective and sensitive electrochemical determination of paracetamol”* at the National Conference on “Emerging Trends in Chemistry – ETC” organized by the **Department of Chemistry, Saiva Bhanu Kshatriya College, Aruppukottai, Tamil Nadu** on 13-04-2022.



Student Project Scheme under TNSCST

Mr. M. Anish, Ms. K. Joniyo Deepthi and **Ms. J. Kiruba Ancy** under the guidance of **Dr. N. Savitha Devi** have applied for a research grant under **Student Project Scheme (2021-2022)**, Tamil Nadu State Council for Science and Technology (TNSCST), Chennai and received the fellowship of Rs. 7500/- for the project proposal entitled *“Domino Synthesis and Study of Anticancer Activity of 4H-pyrans derived from ethyl 4-chloroacetate”*.

தமிழ்நாடு அறிவியல் மற்றும் தொழில்நுட்ப சபை
TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
(Established by Government of Tamil Nadu)
Department of Technical Education, Chennai - 600 025
Ph: 044-23301428, Telex: 044-2331552, www.tnsbstc.tn.nic.in

Dr. P. Srinivasan, M.Sc., Ph.D., F.I.C.S., M.A.C.S.(VISA)
Member Secretary
(L.No. TNSCST/SPS/2021-2022) 11/03/2022

To:
The Principal
Arul Anandar College
Kannurthi, Madurai-625014

Sir/Madam, Ref: TNSCST - Student Project Scheme (2021-2022) - approval intimation- grant release - 09.

With respect to the above scheme, the list of projects approved by the State Council is enclosed along with terms and conditions. You are requested to adhere to terms and conditions such as submission of I/C and seminar paper in time.

No.	Guide Name and Institutional Address	Title of the Project	Students Name	Project Code	Amount
1	Dr. J. Kiruba Ancy, Assistant Professor (S.P.), Department of Physics, Arul Anandar college, Madurai-625014	Usage of natural iron oxides for waste water treatment	K.Maha	PS-292	7500/-
2	Dr. N. Savitha Devi, Assistant Professor, Department of Chemistry, Arul Anandar College, Madurai-625014	Dyeless synthesis and study of anticancer activity of 4H-pyrans derived from ethyl-4-chloroacetate	M.Anish, K.Joniyo Deepthi, J.Kiruba Ancy	PS-969	7500/-
3	Dr. S. J. Manikandan, Assistant Professor, Department of Physics, Arul Anandar College, Madurai-625014	Formulation, optimization and evaluation of orange herbal milk as a supplement to boost the immunity of COVID-19 patients	Ramson	VB-042	7500/-
4	Dr. N. Savitha Devi, Assistant Professor, Department of Chemistry, Arul Anandar College, Madurai-625014	Fluorimetric study on the post-polymerization impact on the morphological study with special reference to castellanipipetti block	M. Anish, S. Joniyo Deepthi, J. Kiruba Ancy	SS-298	7500/-

Herewith enclosed the cheque for the approved grant and disburse the grant to the concerned student through the guide of the student.
Kindly send the utilization certificate (format enclosed) and seminar paper (Ref:T&C- No.58) on completion of the project.
Thanking you,

Yours faithfully,

Member Secretary

Enc: a) Terms & Conditions (T&C)
b) Format of Utilization Certificate (UC)
c) Cheque No. 44, 30,000, 30/03/2022, 11/03/2022

SWAYAM/MOOC Courses

1. **Ms. K. Joniyo Deepthi, Ms. J. Kiruba Alency, Mr. M. Manoj, and Ms. M. Sambika** has completed 12 weeks (3 credit) online course entitled “**Industrial Inorganic Chemistry**” organized by **NPTEL/AICTE** through **SWAYAM/MOOC portal** in September 2021.
2. **Mr. V. Sunildass** has completed 8 weeks (2 credit) online course entitled “**Metals in Biology**” organized by **NPTEL/AICTE** through **SWAYAM/MOOC portal** in September 2021.
3. **Ms. K. Joniyo Deepthi, Ms. J. Kiruba Alency, Ms. M. Sambika, Ms. Alphonsa Rainy, Ms. A. Shalini and Mr. S. Mariya Tony Jeyanth,** has completed 12 weeks (3 credit) online course entitled “**Co-Ordination Chemistry (Chemistry of Transition Elements)**” organized by **NPTEL/AICTE** through **SWAYAM/MOOC portal** during January - April 2022.



Prizes won at Intercollegiate Competitions

1. The students of the Department participated in the **intercollegiate competitions** organized by **Bishop Heber College, Trichy** on 04-04-2022 and won many prizes. **Mr. Mani Bharathi** (II M.Sc.) and **Mr. Hariharan** (I M.Sc.) won the **THIRD prize** in Chem-Quiz. **Mr. Gokulakrishnan** and **Mr. Tokophilus** (III B.Sc.) won the **THIRD prize** in Chem-Hunt. **Ms. Shalini** and **Ms. Evangeline Janet** (II M.Sc.) won the **THIRD prize** in Chem-Charades. **Mr. Kabilan** (III B.Sc.) won the **SECOND prize** in the event Amphoteric. Dr. F. Michael Raj, Assistant Professor accompanied the students and motivated them.
2. **Mr. A. Jakob Anbarasu** (III B.Sc.) has successfully participated and secured **THIRD place** in the online state-level Essay Writing Competition held in July 2021 for the feast of **St. Ignatius of Loyola** organized by **Campus Ministry, Loyola Institution, Chennai**.
3. **Mr. Gokulakrishnan, Mr. Tokophilus, Mr. Jacob Anbarasu, Mr. Sathish (III B.Sc.)** participated in a model exhibition competition at **GTN College, Dindigul** on 27 March 2022. They exhibited models like “**Hydrogen generation from NaBH₄ hydrolysis**” and “**pH sensing using anthocyanin plant extracts**”.



Prizes won at CAMPFEST

Students of the Department of Chemistry have participated in the **CAMPFEST – an interdepartmental cultural competition** organized by **Arul Anandar College** in December 2021. **Ms. Anitha & Ms. Nikkitha** (III B.Sc.) won the **THIRD prize** in **Rangoli**. **Mr. Sivanesaruru, Mr. Sivarama Krishnan, Mr. Balakumar** and **Mr. Kabilan** (III B.Sc.) won the **SECOND prize** in the **Handcraft event**. We got selected for onstage events namely **FOOTLOOSE, FOLK DANCE, FOLK SONG** and **AD-MAD**. The team of students **Mr. Gokulakrishnan, Mr. Tokophilus, Mr. Jacob Anbarasu, Mr. Deepak Manikandan** (III B.Sc.), **Mr. Maria Anish** and **Mr. Harish** (II B.Sc.) and **Mr. Joel Kevin** (I B.Sc.) participated in **AD-MAD** and won the **FIRST prize**.



IAS-INSANA-NASI Summer Research Fellowship

Mr. F. Arun Pradeepan got selected for the *Summer Research Fellowship at Science Academies (IAS-INSANA-NASI)*, Bengaluru (**Rs. 12500/- per month**) under **Dr. Debaprasad Mandal, Indian Institute of Technology (IIT), Ropar**.

Summer Research Internship Programme

- Ms. K. Joniyo Deepthi** and **Ms. J. Kiruba Alency** participated in the **17 days internship programme** (20th July 2021 – 07th August 2021) jointly organized by the Academy of Sciences, Department of Analytical Chemistry, University of Madras, Chennai and Department of Physical Chemistry, Madurai Kamaraj University, Madurai.
- Mr. V. Sunildass** has completed a summer project on “*Understanding Polymer Based Sensors for Heavy Metal Analysis*” under the supervision of **Prof. Raja Shunmugam** of the **Department of Chemical Sciences, Indian Institute of Science Education and Research (IISER), Kolkatta** from 17, June to 16 July 2021.

IELTS Cleared by Students

Mr. R. Rahul and **Mr. C. Hayagreevan** who completed M.Sc. programme in 2021 have cleared the IELTS examination in November 2021.

SARAL and THEATRE FEST

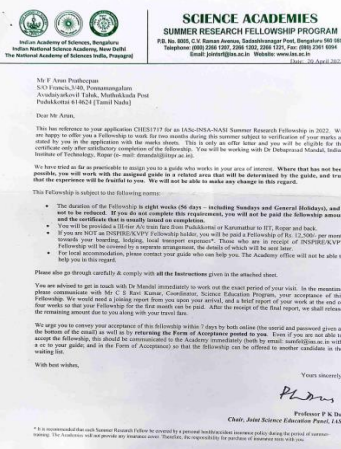
Our department students have actively participated in SARAL and THEATRE FEST – Tamil and English Drama competitions organized by the Tamil and English Department, respectively. **Ms. M. Monisha** (III B.Sc.) won the **BEST ACTRESS AWARD** in Theatre Fest.

Internship Programme at Chemical Industry

The Internship programme was introduced in the curriculum in the revised Outcome-based Education syllabi for the B.Sc. programme to give industrial exposure to students. Due to COVID situations, the II B.Sc. and III B.Sc. students went to various institutes from August 2021 to March 2022 during the holidays instead of visiting the companies during the summer holidays. Students have done their internship at companies like Sagar Brush Industries, Maravankulam, Madurai Road, Thirumangalam, Patwari Bakers Pvt. Ltd, SIDCO Industrial Estate, Kappalur, Madurai, Bhargave Rubber Pvt. Ltd, Melakkal Main Road, Kochadai, Madurai and Bose Clinical Laboratory & X-rays, Tamilsangam Road, Madurai.

Placement Details

Mr. J. Charles Vijay, Mr. P. Nithish Kumar, Mr. A. Denison, Ms. A. Subha, Mr. C. Naveen, Mr. B. Siva, Ms. A. Ashwin Felicita, Mr. J. Nishanth Antony has been placed at various chemical companies with good salary. In addition, many UG students have joined PG programme at various institutes for higher studies and few PG students are looking for the opportunity to do Ph.D. at reputed institutes



SCIENCE ACADEMIES SUMMER RESEARCH FELLOWSHIP PROGRAM
The Institute of Science, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences, Pragraj

Dr. F. Arun Pradeepan
M.Sc. (Chem), IIT Madras
Academy of Sciences, Bengaluru
Publication ID: IAS-INSANA-NASI-2021-01

Dear Sir,

This is in reference to your application CHEE1717 for an IAS-INSANA-NASI Summer Research Fellowship in 2022. We are happy to offer you a Summer Research Fellowship to work on the project titled "Understanding Polymer Based Sensors for Heavy Metal Analysis" under the supervision of Dr. Debaprasad Mandal, Indian Institute of Technology, Ropar (e-mail: dmmandal@iitropar.ac.in).

We have an offer to provide you a stipend of Rs. 12,500/- per month. When that has been accepted, you will work with the assigned guide in a related area that will be determined by the guide, and that that the experience will be awarded to you. We will be able to make any change in the report.

This Fellowship is subject to the following terms:

- The duration of the Fellowship is eight weeks (56 days - including Sundays and General Holidays), and is not to be extended.
- You will be provided with a stipend of Rs. 12,500/- per month.
- You will be provided with a hostel facility at the Institute of Science, Bangalore.
- If you are not an IAS-INSANA-NASI Fellow, you will be paid a Fellowship of Rs. 12,500/- per month towards your travelling, food, transport, etc. You will also be exempted from IAS-INSANA-NASI Fellowship fee.
- For food accommodation, please contact your guide who can help you. The Academy office will not be able to help you in this regard.

Please also go through carefully & comply with all the instructions given in the attached sheet.

You are advised to get in touch with Dr. Mandal immediately to work out the exact period of your visit. In the meantime please communicate with Mr. C. B. Rave Kumar, Coordinator, Summer Education Program, your acceptance of this Fellowship. We would need a joining report from you upon your arrival, and a final report of your work at the end of four weeks to be sent to the Academy for the final award of the Fellowship. After the receipt of the final report, we shall release the remaining amount due to you along with your travel bills.

We urge you to convey your acceptance of this Fellowship within 7 days by both email (the email and scanned photo of the receipt of the mail) as well as by returning the Form of Acceptance posted to you. Even if you are not able to accept the Fellowship, this should be communicated to the Academy immediately through email and by returning the Form of Acceptance to the Academy so that the Fellowship can be offered to another candidate in the waiting list.

Yours sincerely,
Prof. F. R. Das
Chair, Joint Science Education Panel, IAS



भारतीय विज्ञान विद्या संशोधन संस्थान कोलकाता
INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH KOLKATA
The Institute of Science Education and Research, Government of India

SRP-2021/046 August 1, 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that

Mr. V. Sunil Dass
a student
of
Madurai Kamaraj University
has satisfactorily completed a Summer Project
on
“*Understanding Polymer - Based Sensors for Heavy Metal Analysis*”
under the supervision of
Prof. Raja Shunmugam
of
Department of Chemical Sciences
(Project Duration: 17/06/2021 to 16/07/2021)

Dr. Sumitra Ray
Coordinator
Summer Research Project

Kripasankar Ghosh
Coordinator
Summer Research Project



BoS Meeting

The Board of Studies Meeting was convened in the department, at 11.00 am on 15 February 2022.

Dr. S. Rayappan, the Chairperson, presided over the meeting. **Dr. V. Padmini** (University Nominee), Assistant Professor, Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai, **Dr. A. Mary Imelda Jeyaseeli** (GB Nominee), Associate Professor of Chemistry, PG & Research Department of Chemistry, Jayaraj Annapackiam College for Women, Periyakulam, **Dr. M. Sundararajan**, (GB Nominee), Assistant Professor of Chemistry, Department of Industrial Chemistry, Alagappa University, Karaikudi, **Lt. Dr. R. Pagutharivalan**, (GB Nominee), Assistant Professor & NCC Officer, Department of Chemistry, H.H. The Rajah's College (Autonomous), Pudukkottai and an Industrial expert and alumni of Chemistry Department, **Mr. P. Veera Muthu Ragavan**, Associate Manager, Enviro care India Private Limited, Arasaradi, Madurai gave valuable inputs for the revision of I UG and I PG Chemistry. They also suggested including the latest version of reference books and suggested including a scheme of valuation for practical courses according to Outcome Based Education (OBE). **Mr. S. A. Deva Prince**, Assistant Professor of Chemistry thanked the External Experts and the Members of the Board of Studies.

Department Meeting

To plan the academic and association activities, several meetings were arranged via virtual mode and also at the Department during the academic year 2021-22. Department meeting were held on 21-07-2021 (virtual meeting), 31-07-2021, 01-09-2021, 08-10-2021, 09-11-2021, 16-03-2022 and 21-03-2022. **Dr. S. Rayappan** convened the Department and the minutes of the meeting was recorded by **Dr. M. Amalraj**.

Parent – Teacher Meeting

Parent-teacher meeting is an opportunity to exchange observations of a student with each other. Parent Teacher Meeting was organized by the college on 09-04-2022 for III UG and II PG students and 07-05-2022 for I, II UG and I PG students. The parents of students visited the college and also visited the Department. **Dr. S. Rayappan**, Head welcomed all the parents. Then, the parents interacted with the HOD and the Faculty of the Department and were involved in a healthy discussion to improve the performance of the students. They also gave valuable feedback about the college as well as about the department.

Then, the students along with the parents met the course teachers to discuss their academic performance and also extra-curricular activities.



Industrial Visit

Industrial Visit was arranged for III B.Sc. Chemistry and II M.Sc. Chemistry students to Wayanad, Kerala on 26-28, May 2022. The students visited **Ashique Chemical Plant** (Thai Group), Sultan Bathery, Wayanad, Kerala on 26th May 2022 and learned about the process of making soap, detergent and dish wash. They also learned the various processes in their R & D laboratory. On 28th May 2022, the students visited **Achoor Tea Factory**, Achoor Estate, Wayanad, Kerala and learned the various process for the preparation of tea dust from the raw material. They also learned the quality analysis of tea. In addition to the company, the students also visited nearby places in Wayanad. **Dr. S. Rayappan, Dr. M. Amalraj, Dr. K. Jansi Rani** and **Dr. K. Kombaiah** accompanied the students for the industrial visit.



Farewell to III UG and II PG students

The farewell meeting for outgoing students was arranged on 07-06-2021 at 11.30 am. I M.Sc. and I and II B.Sc. students took the initiative to conduct the farewell celebration for outgoing students. The meeting began with a prayer and then, **Dr. S. Rayappan**, Head welcomed the students, shared his experience with outgoing students and also congratulated them to have a bright future. **Rev. Dr. John Pragasam S.J.** Rector also shared his experience with the students. It was also celebrated the Golden Jubilee of **Rev. Dr. John Pragasam S.J.** Then, **Dr. M. Amalraj** and **Dr. A. John Jeevagan** shared their experience with the II M.Sc. and III B.Sc. students. Then, students of III UG and II PG shared their experiences at Arul Anandar College and thanked all the professors for their support. Video prepared by **II B.Sc. and II M.Sc.** students was displayed as a token of love for their seniors. Finally, the meeting was concluded with the vote of thanks proposed by **Mr. S. A. Deva Prince**.



Faculty Get-Together

The faculty get-together was arranged on 15-06-2022 at Smoke Hub, Madurai. The faculties gathered at the smoke hub, discussed about the academic year 2021-22 and had lunch together.



Photo Gallery



“We think this newsletter just says a lot about Chemistry between Students and the Department!”

Department of Chemistry thanks the management of Arul Anandar College for their extensive support and guidance for the benefit of students as well as for the growth of the Department by taking many initiatives even during the pandemic.

Please read our First and Second issue of Chem Frontier, Scan the following image



CHEM FRONTIER Issue 1



CHEM FRONTIER Issue 2



I BELIEVE THAT THE SCIENCE OF CHEMISTRY ALONE ALMOST PROVES THE EXISTENCE OF AN INTELLIGENT CREATOR

- THOMAS ALVA EDISON

