

**K.M.G. COLLEGE OF ARTS AND SCIENCE,
GUDIYATTAM.**



**P.G. AND RESEARCH DEPARTMENT OF CHEMISTRY
ANNUAL REPORT [2023-2024]**

ANNUAL REPORT [2023-2024]

ACADEMIC ACHIEVEMENTS:

Results Produced by all classes of our department in the academic year (2022-2023 Even Semester):

II M.Sc. Chemistry	–	53%
I M.Sc. Chemistry	–	12%
III B.Sc. Chemistry	–	67%
II B.Sc. Chemistry	–	53%
I B.Sc. Chemistry	–	48%

FRESHER'S DAY PROGRAMME

P.G. and Research Department of Chemistry was organized, “**FRESHER'S DAY**” on 14.07.2023 [Friday] at 2.00 pm in the KMG Seminar Hall. The second PG, third UG and second UG students made all the arrangements and program activities with faculties for the first UG students. The program begins with Thamizhthai Valthu and lightning of Kuthu Vilakku, **Dr. S. Praveen Kumar**, Head P.G. and Research Department of Chemistry, Welcomes the gatherings, our respected Principal **Prof. Dr. M. SENTHILRAJ** has given the presidential address, Principal Sir advice the first year students to join with seniors in all the activities, for that the Fresher's Day helps to have good coordination, **Dr. J. Jayakumar**, Students Coordinator and Head Department of Thamizh, has given the felicitation address, then Mrs. Nathiya from II M.Sc., Chemistry, Ms. R. Selvi and Ms. E. Mageshwari from II B.Sc., Chemistry have given inspirational speech with few lines of poem. Before begins the cultural program, the live launching of CHANDRAYAAN – 3 has shown to the students. Then **Mrs. Jayapriya**, First year student has proposed the vote of thanks. Finally the program ends with National anthem.

104th FOUNDER'S DAY CELEBRATION QUIZ PROGRAMME

P.G. and Research Department of Chemistry was organized, a QUIZ PROGRAMME in CHEMISTRY, for the celebration of "**104th FOUNDER'S DAY**" - on 19.07.2023 (Wednesday). There are six teams had participated in the programme. The first three teams were awarded with momentums. **Dr. S. Praveen Kumar.**, Head, P.G. and Research Department of Chemistry, Welcomes the gatherings, our respected Principal **Prof. Dr. M. SENTHILRAJ** has given the presidential address. **Mr. B. BALAJI**, and **Mr. V. UMAMAGESHWARAN** both the faculties regularized the QUIZ programme.

CHEMISTRY ASSOCIATION INAUGURATION

The P.G. and Research Department of Chemistry was organized, "**CHEMISTRY ASSOCIATION INAUGURATION**" on 28.07.2023 [Friday] at 12.30 pm in the KMG Seminar Hall. The program begins with Thamizhthai Valthu and lightning of Kuthu Vilakku, **Dr. S. Praveen Kumar**, Head P.G. and Research Department of Chemistry, Welcomes the gatherings, our respected Principal **Prof. Dr. M. SENTHILRAJ**, has honor the Chief Guest and given the presidential address, **Mr. E. Jagan**, Assistant Professor, P.G. and Research Department of Chemistry, has introduce the Chief Guest **Dr. B. MUTHURAAMAN**, Head, Department of Energy, University of Madras, Guindy Campus, Chennai. Our Chief Guest has given the invited talk on "**Green Energy**". Sir focused on the Solar cells, particularly dye sensitized solar cells, he has given the initial stages of solar cell fabrication and few ideas to minor projects in dye sensitized solar cells. Students enjoy the session and gain the knowledge. The association members have been introduced by Dr. S. Praveen Kumar, Head P.G. and Research Department of Chemistry. Mrs. K. Gandhimathi, Assistant Professor as Faculty In-Charge, Mr. S. Selvakumar, II M.Sc., Chemistry, President, Ms. N.P. Sugitha, III B.Sc., Chemistry, Secretary,

Ms. E. Mageshwari, II B.Sc., Chemistry, Join Secretary and Mr. S. Mohanraj, I B.Sc., Chemistry, Join Secretary. Then **Mr. V. Umamageshwaran**, Assistant Professor, P.G. and Research Department of Chemistry has proposed the vote of thanks. Finally the program ends with National anthem.

CHEM-FEST - 2023

P.G. and Research Department of Chemistry was organized intra department **CHEM-FEST - 2023**, in Chemistry Association to conduct different competition for the students on 18.08.2023 (Friday). The **CHEM-FEST – 2023** was started with Thamizh thai valthu, then Ms. N.P. Sugitha Secretary, Chemistry Association, from III B.Sc., Chemistry, welcome the gatherings. Our respected Principal **Prof. Dr. M. SENTHILRAJ**, has been encouraged the students to participate all the activities, sir also said that “Participation is better than winning”, so don’t miss any chance. The following programs were conducted and its winning students enclosed in this report. Drawing, elocution, Slogan writing and dumb charades. There are nine teams were participated in the dumb charades each team have four members, first three teams were selected based on their performance. Then, Ms. E. Mageshwari, Join Secretary, Chemistry Association, from II B.Sc., Chemistry, was proposed vote of thanks. Finally the **CHEM-FEST – 2023** ended with national anthem.

INDUSTRIAL VISIT ON 15.09.2023 (FRIDAY)

“INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH (IGCAR)”

The PG & Research Department of Chemistry organized an Industrial Visit at Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam on 15th September 2023 (Friday). Totally 30 students from our department (II M.Sc., Chemistry – 16 and III B.Sc., Chemistry – 14) along with two faculty members went to IGCAR.



NATIONAL CONFERENCE ON “RECENT ADVANCE MATERIALS IN CHEMISTRY (NCRAMC - 2023)”

The PG & Research Department of Chemistry organized a National Level Conference on “**RECENT ADVANCE MATERIALS IN CHEMISTRY (NCRAMC - 2023)**” at 23rd September 2023. Prof. Dr. M. Senthilraj, Principal of K.M.G. College of Arts and Science, Gudiyattam, inaugurated and presided over the function. Dr. S. Praveen Kumar, Head, Department of Chemistry welcomed the gathering. **Prof. Dr. K. Dinakaran**, Professor and Head, Department of Chemistry, and Research Director Thiruvalluvar University, Vellore, was the resource person and he delivered an invited talk on “Organic polymeric conductors for Dielectric and PEMFC applications” and **Dr. J. Venkatesan**, Assistant Professor, Biomaterials Research Laboratory, Yenepoya Research Centre, Yenepoya Deemed to be University,

Mangaluru, was another resource person and he delivered an invited talk on Bionanomaterials: Preparations and Biomedical Applications. Mr. E. Jagan, Assistant Professor, PG and Research Department of Chemistry, Introduced the resource person Prof. Dr. K. Dinakaran and Mrs. K. Gandhimathi, Assistant Professor, PG and Research Department of Chemistry, Introduced the resource person Dr. J. Venkatesan. 92 students and 22 faculty members from 12 colleges participated in this national level conference. 10 oral presentations and 26 poster presentation totally 36 papers from 8 colleges were Presented. Dr. J. Venkatesan one of our resource person judged the oral presentation and Dr. D. Ramasamy, Assistant Professor of Chemistry, Government Thirumagal Mills College Gudiyattam, judged the Poster presentation. At the end of the program our respected Principal distributed the prizes to the winners in Paper presentation. Mr. S. Sathiesh, Assistant Professor, PG and Research Department of Chemistry proposed a vote of thanks.

SUMMARY REPORT OF NATIONAL LEVEL CONFERENCE – 23.09.2023

Total no of Colleges Participated = 12

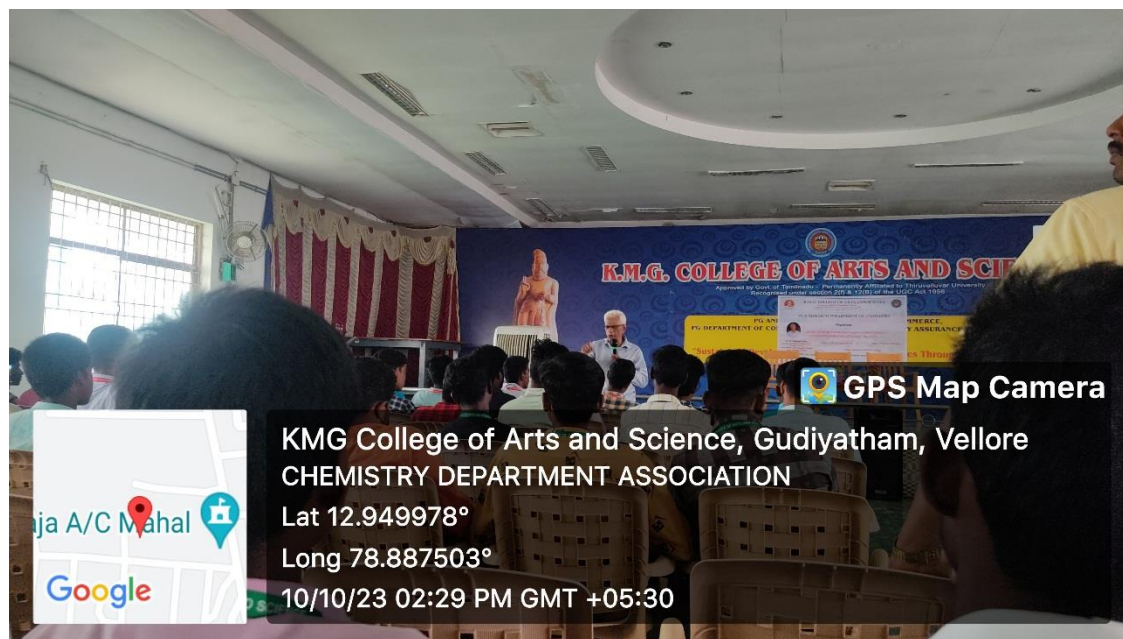
Total no. of Students from Other Colleges = 92

Total no. of Staff from Other Colleges = 22



Guest Lecture

P.G. and Research Department of Chemistry was organized a Guest Lecture on **10th OCTOBER 2023 (TUESDAY)** behalf of Chemistry Association activity, **Dr. N. SOMANATHAN**, Sr. Principal Scientist & Head (Ret.), Polymer Division, CSIR-Central Leather Research Institute, Adyar, Chennai – 600 020 was the Chief Guest. He has given the lecture on **“MOLECULAR UNDERSTANDING OF FLEXIBLE ORGANIC OPTOELECTRONICS”**. Dr. S. Praveen Kumar, Head PG and Research Department of Chemistry welcome the gatherings. Our respected Principal **Prof. Dr. M. SENTHILRAJ**, has given the Felicitation Address and Honor the Chief Guest. Finally Mr. D. Nandakumar, Assistant Professor, PG and Research Department of Chemistry, was proposed vote of thanks.



INDUSTRIAL VISIT ON 01.02.2024 (Thursday)

“ISRO Propulsion Research Complex (IPRC)” Mahendragiri, Tamil Nadu – 627133.

The PG & Research Department of Chemistry organized an Industrial Visit at ISRO Propulsion Research Complex (IPRC)” Mahendragiri on 01.02.2024 (Thursday). Totally 44 students from our department (II M.Sc., Chemistry – 13, I M.Sc., Chemistry – 04, III B.Sc., Chemistry – 16 and III B.Sc., Chemistry – 08) along with six faculty members went to the Industrial visit.

EXTENSION ACTIVITIES:

Dr. S. Praveen Kumar Head of the PG and Research Department of Chemistry, have given a lecture in the In-service training programme for Science teachers on 10.01.2024 (Wednesday) on “ Easy way to learn Basic Chemistry” Organized by KMG College of Arts and Science and Tamil Nadu State Council for Science and Technology.



Publication of Book Chapter in Elsevier

Dr. S. Praveen Kumar Head of the PG and Research Department of Chemistry, have published a book chapter in Reference Module in Materials Science and Materials Engineering, © 2024 Elsevier “Application of Polymer/Spinel Ferrite Composites for Removal of Organic/Inorganic Pollutants from Wastewater”

OUT-CAMPUS ACHIEVEMENTS:

1. One of our Faculty Mrs. K. Gandhimthi, has presented her research work in the 3rd National Conference on Recent Developments of Chemistry in Engineering Applications (NCEA-2023), on 17th June 2023, Organized by Department of Chemistry, SRM Valliammai Engineering College, Kattankulathur, Kanchipuram.

“Synthesis, Characterization of copper oxide using Ocimum tenuiflorum leaf extract and its photochemical applications”

2. One of our Faculty Mr. V. Umamageshwaran, has presented her research work in the 3rd National Conference on Recent Developments of Chemistry in Engineering Applications (NCEA-2023), on 17th June 2023, Organized by Department of Chemistry, SRM Valliammai Engineering College, Kattankulathur, Kanchipuram.

“Synthesis and Characterization of Mn doped Nickel Oxide and its photocatalytic application”

3. One of our Faculty Mr. E. Jagan, has presented her research work in the 3rd National Conference on Recent Developments of Chemistry in Engineering Applications (NCEA-2023), on 17th June 2023, Organized by Department of Chemistry, SRM Valliammai Engineering College, Kattankulathur, Kanchipuram.

“Green Synthesis and Characterization of Nickel Selenide nanoparticles and it’s nonlinear optical application”

4. One of our Faculty Mr. B. Balaji, has presented her research work in the 3rd National Conference on Recent Developments of Chemistry in Engineering Applications (NCEA-2023), on 17th June 2023, Organized by Department of Chemistry, SRM Valliammai Engineering College, Kattankulathur, Kanchipuram.

“Synthesis and Characterization of copper vanadate (Cu₂V₂O₇) nanoparticles and its photochemical applications”

5. One of our Faculty Dr. S. Praveen Kumar, has presented her research work in the 3rd National Conference on Recent Developments of Chemistry in Engineering Applications (NCEA-2023), on 17th June 2023, Organized by Department of Chemistry, SRM Valliammai Engineering College, Kattankulathur, Kanchipuram.

“Electrocatalytic sensing of paracetamol by electrochemically polymerized Mn(II) Schiff base complex modified GCE”

Faculty Development Programme

1. One of our Faculty Mr. S. Sathiesh attended Nan Muthalvan Faculty Development Programme, during 17th July 2023 to 21st July 2023 Organized by Thiruvalluvar University, Vellore.
2. One of our Faculty Mr. S. Sathiesh attended Nan Muthalvan Faculty Development Programme, during 22nd January 2024 to 30th January 2024 Organized by Thiruvalluvar University, Vellore.

3. Our Faculty Mr. V. Umamageshwaran, attended FDP - MOOC Course organized by NPTEL in the Sept – 2023 session, “ Metallocene and Metal – carbine based Organometallic Compounds as Industrially important Advanced polyolefin catalysis”.
4. Our Faculty Mr. E. Jagan, attended FDP - MOOC Course organized by NPTEL in the Sept – 2023 session, “ Metallocene and Metal – carbine based Organometallic Compounds as Industrially important Advanced polyolefin catalysis”.
5. Our Faculty Mr. B. Balaji, attended FDP - MOOC Course organized by NPTEL in the Sept – 2023 session, “Chemistry – II”.

100% Result in 2021 – 2022 April - May Exam

S.No	Subject	Class	Faculty Name
1	Inorganic Chemistry - III	II M.Sc., Chemistry	Mr. V. Umamageshwaran & Mrs. K. Gandhimathi
2	Inorganic Chemistry - IV	II M.Sc., Chemistry	Mr. V. Umamageshwaran

100% ATTENDANCE SECURED BY STUDENTS:

Most of our department students, both UG and PG secured 100% attendance