



SRI CHANDRASEKHARENDRA SARASWATHI VISWAMAHAVIDYALAYA (SCSVMV)

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Annual Newsletter of Department of Chemistry



July 2018

ChemNews

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"Skills are cheap; Chemistry is expensive" — Mal pancoast

About the Department of Chemistry

The Department of Chemistry, SCSVMV offers B.Sc., M.Sc., M.Phil., and Ph.D programmes in Chemistry. To present and promote science and spirituality in a balanced manner so as to ignite and steer the young minds in the pathway of science and technology. The department has highly qualified, motivated and research oriented faculty members. The department has a research project Funded by UGC-DAE-CSR, Kalpakkam. The department has sophisticated instruments facility such as cyclic voltammetry, fourier transform infrared spectroscopy, UV/visible spectroscopy, spectrofluorometer, flame photometry, infra red CO₂ analyzer, COD reactor, water quality analyzer, ultrasonic interferometer. The department organizes various seminars and workshops funded by different funding agencies.

Highlights of the Department

- Offers UG, PG and Research degrees
- Qualified and Research Oriented Faculty
- Well stacked departmental library
- Fundings from Government of India
- Well Equipped Laboratory
- Advanced Instrumentation facilities
- Faculty Engaged in Emerging Research Areas
- Publications in High Impact Journals
- Research Consultancy Services
- Seminar and Workshops by Experts

Courses Offered

- B. Sc. (Chemistry)
- B.Sc. (Environmental Science)
- M. Sc. (Chemistry)
- M. Phil. (Chemistry – Full Time)
- Ph. D (Chemistry – Full Time & Part Time)

Areas of Research

- Electrochemistry
- Supramolecular Chemistry
- Crystal Growth
- Environmental Chemistry
- Computational Chemistry
- Electrocatalysis
- Chemical study of herbs

Department Activities

Hands on Training on “Analytical Techniques for Chemical Characterization”

The Department of Chemistry conducted “Hands-on Training Series on “Analytical Techniques for Chemical Characterization– 2017” on 20/08/2017, for the students, Industrialists and research scholars of the disciplines of Chemistry, Biotechnology and Physics to familiarize the theory, instrumentation and applications of “Spectroanalytical Techniques”. More than 30 research scholars participated and gained knowledge on various spectroanalytical techniques.



Training program on online lab for school teachers

(Supported by Department of Information Technology, GOI)

The Department of Chemistry, SCSVMV organized Training Programme on “Online Labs” for school teachers held on 09/09/2017 in association with Center for Research in Advanced Technologies for Education, Amrita University. More than 50 school teachers from various Government and private schools in and around Kanchipuram participated in the training programme.

National Workshop on “Microscale and Green Chemistry”

(Sponsored by Tamilnadu State Council for Science and Technology, Chennai & National Council for Science and Technology, New Delhi)

The Department of Chemistry, SCSVMV University organized a Two day National Workshop on “Microscale and Green Chemistry” on 26th and 27th October 2017. Dr.S.Murugan, Prof and Head (Retd), Dept.of Chemistry, S.T.Hindu college, Nagerkovil and Jeya Rajendran, Prof, Dept.of Chemistry Loyala college, Chennai delivered a lecture about microscale Chemistry. Both the resource persons gave hands on training for inorganic salt analysis, organic analysis and Physical Chemistry experiments. Dr.S.Rani, Asst.Prof, Dept.of Chemistry, Arignar Anna Govt. Arts college, Cheyyar delivered lecture on microscale and Green Chemistry, with the help of videos.



Lecture Workshop on "Spectroscopy and Microscopy"

(sponsored by Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad.)



The Department organized a two day Science Academies Lecture Workshop on "Spectroscopy and Microscopy" sponsored by Indian Academy of Science, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Science, Allahabad during 29-30th January, 2018. Prof.Dr.E.Arunan, Department of Inorganic and Physical Chemistry, Indian Institute of Science as Convener and Prof.Dr.K.Sivakumar, Head, Department of Chemistry, SCSVMV as Coordinator. The Aim of the workshop to enhance the knowledge of the students, teachers and the research scholars on the most versatile topic "Spectroscopy and Microscopy" to chemical structure elucidation and to motivate more students into higher studies and research in science.

Skill Development Program on Basics of MS-Office

Skill Development Program on Basics of MS Office, Usage of Search Engines and Email for B.Sc Chemistry III year students was organized by the Department of Chemistry from 26.02.2018 to 13.03.2018. Students were trained by Dr.N.R.Ananthanarayanan Associate Prof. Department of Computer Science and Applications during the programme. The skill development programme aimed on motivating the students to know about the usage of computer apart from the subject and to improve their employability skills. Students feedback shows that they learned basics of Ms office and also how to use email.



Ellakana payirchi pattarai

Department of Tamil organized the "Ellakana payirchi pattarai" workshop on 21.03.2018 Dr.Vijayalakshmi Assistant Professor of Tamil Department organized the workshop. The students (II B.Sc-49 students) from department of chemistry participated in that event. The aim of the workshop was to motivate the students to learn about the basics of grammar and its importance in Tamil.

Dengue Awareness Programme

Dengue Awareness Campaign was organized by the NSS of SCSVMV University on 2.11.2017. The main purpose of this campaign was to create awareness among the students and public on dengue fever and the importance to keep the surrounding clean. The I B.Sc., Students (16 Students) from the Department of Chemistry as NSS volunteers participated in the Dengue awareness rally at Arignar Anna aragam, Kanchipuram. Students gave a cup of Nilavembu kasayam to the public and issued pamphlets about the dengue fever and prevention steps.



World Peace Day celebration



Department of English organized the Human Chain on 21.09.2017 to celebrate the World Peace day. Dr.T.Venugopal, Dean, Arts and Humanities, inaugurated the event. Being the chief guest Dr. Chandrasekharan, Senior Professor of Mathematics, VIT made the occasion gracious. Dr.K.Narasimma Bharathi, Guest Faculty, and G.Shanmuga priya, Assistant Professor of English Department organized the event. Department of Chemistry I B.Sc students (60 students) & II B.Sc (49 students) participated in this event.

Swachh Bharat Celebration



NSS and the Green Thinkers of SCSVMV organized 'Swachh Bharat Campaign' on 13.10.2017. The main purpose of this campaign was to create awareness among the students on Cleanliness and its benefits. The Vice Chancellor and the Registrar along with the staff members of SCSVMV took part in the Swachh Bharat Abhiyan campaign in the office premises. On the occasion I M.Sc., Students (9 Students) from the Department of Chemistry as NSS volunteers participated in the sanitation and plantation work at New Railway Station, Kanchipuram under the slogan of 'Swachh Bharat Abhiyan'.

Industrial Visit

A batch of III B.Sc, I M.Sc and II M.Sc. Students (70 Students) and 6 Staff Members of the Department of Chemistry visited Hutsun Milk Agro Chemicals at Vellaigate in Kanchipuram on 18.08.2017. The Quality Control Officer explained the pasteurization process of the milk and also different stages to determine quality of the milk to the students. This visit was highly useful for the students to gain the practical knowledge about the working of an industry and this will help students to mould themselves for their career.



Special Achievements by the Department:

- Received Rs. 20000/- funding from Tamilnadu State Council for Science and Technology, Chennai & National Council for Science and Technology, New Delhi for the National Workshop on Micro scale Chemistry and Green Chemistry organized during 26th & 27th /10/2017.
- Received funding of Rs. 1,34,060/- from Indian Academy of Sciences, Bengaluru Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad, for organizing Science Academies' Sponsored Lecture Workshop on Spectroscopy and Microscopy on 29th & 30th /01/2018.
- Ph.D Public viva-voce examination was held on 28/08/2017 for Mr.R.Karnan. Title of the thesis: "Chemical Investigation of Certain South Indian Medical plants and their Antimicrobial and Antioxidant studies".
- Dr. K. Sivakumar, Professor and Head of the Department of Chemistry has been appointed as "Editor" of Open Chemistry journal published by De Gruyter, Germany.

Student Placements

- R.Meena (III B.Sc) was selected in Fincare Small Finance Bank Ltd recruitment drive held on 27.02.2018.
- III B.Sc Student Miss.Nair Vijayalakshmi Padmanaban was selected in Sutherland Global Services recruitment drive held on 12.03.2018.

Recent Research Publications

Total No. of papers published: 11

- Govindan Muthuraman, K, Chandrasekara Pillai, Balaji Subramanian, and Il-Shik Moon. "Studies on Effective Generation of Mediators Simultaneously at Both Half-Cells for VOC Degradation by Mediated Electroreduction and Mediated Electrooxidation." *ACS Omega* 2, no. 7, (2017), 3562-3571.
- Muthuraman, G., S. Balaji, and I-S. Moon. "Scalable and simultaneous generation of homogeneous acid Co (III) and base Co (I) electrocatalysts using a divided electrolyzer." *Journal of industrial and engineering chemistry*, 58 (2018), 240-245.
- K.Sivakumar,G.Parinamachivayam,M.Murali Krishnan, Sujay Chakravarty , A. Bharathi, "Preparation, characterization and molecular modeling studies of the beta-cyclodextrin inclusion complex with benzoguanamine and its analytical application as chemosensor for the selective sensing of Ce⁴⁺",*Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*,200 (2018), 212–225.(I.F 2.5)
- K. Sivakumar, V. Komathi, M. Murali Krishnan, "Dinitrophenylhydrazine: β -cyclodextrin inclusion complex as a novel fluorescent chemosensor probe for Ce⁴⁺", *Res Chem Intermed*, 44,(2018), 5301–5327. (I.F 1.3)
- M. Murugan , A. Anitha, K. Sivakumar, R. Rajamohan, "Supramolecular Interaction of Primaquine with Native β -Cyclodextrin", *J. Solution Chem*,47, (2018), 906–929.(I.F 1.3)
- Usha Rani Pisipaty, S. Balaji, "Effect of Indian Gooseberry doping on Potassium Dihydrogen Phosphate Crystals (KDP)", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, (2018) 41-45.
- R.Raja, S.Seshadri, V.Santhanam, D. Vedhavalli, "Growth and characterization of nonlinear optical crystal – Semicarbazide Picrate", *Journal of Molecular Structure*, (2017), 515-519.(I.F 2.01)
- Muthukumar, B., and S. Balaji. "Electrocatalysed Oxidation of Methanol by Pd-Ni Nanoparticles Supported on Vulcan Carbon/Nafion Composite in Alkaline Medium", *international journal of chemistry and chemical sciences*, Vol.7(10), (2017), 863-870.
- Muthukumar.B, Santhanam.V, P. Parimala, "Growth and characterization of pure and Magnesium Sulphate doped Potassium Hydrogen Phthalate crystals", *International Journal of Advanced Research in Science, Engineering and Technology*, (2018),6200-6204.
- Jeyalakshmi.C, Santhanam.V, Mohandoss.A, "Synthesis and Spectral Characterization of N-[(2-Carboxyphenyl-3- Diazenyl Salicylidine) -2-Amino Benzoic Acid]", *International Journal of Advanced Research in Science, Engineering and Technology*, (2018), 6113-6120.
- Jeyalakshmi.C, Santhanam. V, Srinivasan.M, "Synthesis of ortho-phenylenediamine by oxidative polymerization technique," *International Journal of Advanced Research in Science, Engineering and Technology*, (2018), 6148-6155.

Student activities

- Department of English organized the Human Chain programme on 21/09/2017 to celebrate the World Peace day, I-B.Sc (60 students) & II-B.Sc Chemistry (49 students) participated in the event.
- I-M.Sc student Mr.S.Ravikumar got 1st prize in Mock interview event in ELIT 2K17 3rd National level technical symposium held on 25/10/2017 organized by department of Computer Science and Applications
- I-M.Sc students Mr.S.Ravikumar and Padmapriya got 1st prize in poster presentation event in ELIT 2K17 3rd National level technical symposium held on 25/10/2017 organized by department of Computer Science and Applications.
- I-MSc NSS volunteers (9students) were actively participated in the Swachh Bharat Campaign' on 13/10/2017 organized by NSS and the Green Thinkers of SCSVMV.
- NSS volunteers from I B.Sc Chemistry (16students) were actively participated in the Dengue Awareness Campaign on 02/11/2017 organized by the NSS wing of SCSVMV.
- More than 80 students participated in the University annual sports meet Spardha held on 08/03/2018 and won the prizes.
- R.Meena (III B.Sc) won I prize in Painting event in Impulse 2K18 in association with Sankara Bhautika Sastra Parishad on 27.02.2018 organized by the Department of Physics in connection with National Science Day celebration.
- A.Balaji (III B.Sc) won I prize in Scientific Model and II prize in Painting events in Impulse 2K18 in association with Sankara Bhautika Sastra Parishad on 27.02.2018 organized by the Department of Physics in connection with National Science Day celebration.

Workshop / Conferences / other activities

Dr. K. Sivakumar, Professor & Head

- ❖ Convenor for "Analytical Techniques Demonstration"-2017 on 20/08/2017 conducted by the Dept. of Chemistry, SCSVMV.
- ❖ Acted as a Resource person for "Hands on Training Program on "Analytical Techniques for Chemical Characterization-2017" on 20/08/2017 conducted by the Dept. of Chemistry, SCSVMV University.
- ❖ Best teacher award-2017, SCSVMV University on 05/09/2017.
- ❖ Convener for Training program on online lab for school teachers supported by Department of Information Technology, GOI on 09/09/2017
- ❖ Convener for National Workshop on Microscale and Green Chemistry on 26th & 27th /10/2017
- ❖ Chairman for BOS 2018.

Mr. V. Santhanam, Assistant Professor

- ❖ Acted as a Resource person for "Hands on Training Program on "Analytical Techniques for Chemical Characterization-2017" on 20/08/2017 conducted by the Dept. of Chemistry, SCSVMV.
- ❖ Member- University Disciplinary committee.
- ❖ Special invitee for BOS-2018.

Mr. B. Muthukumar, Assistant Professor

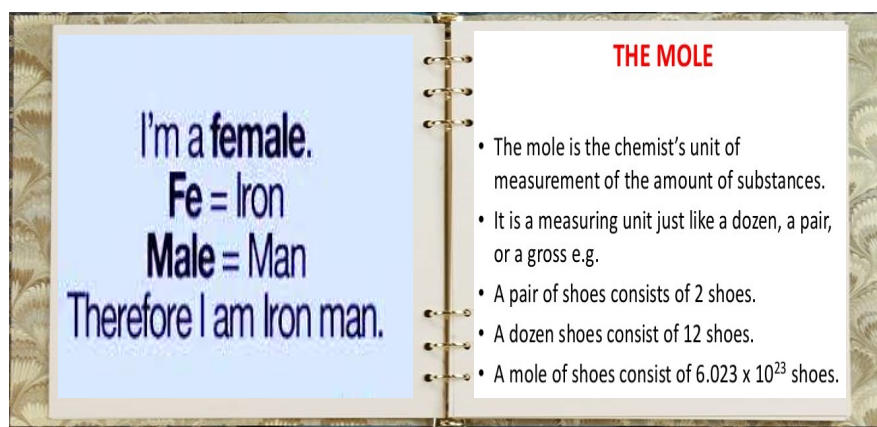
- ❖ Organizing secretary for Training program on online lab for school teachers supported by Department of Information Technology, GOI on 09/09/2017.
- ❖ Member- University Disciplinary committee.
- ❖ Member-BOS 2018.
- ❖ Delivered lecture and demonstration on FTIR spectroscopy on 11.08.2017 in entrepreneurship awareness camp, organized by ECE department, SCSVMV.

Mrs. C. Jeyalakshmi, Assistant Professor

- ❖ Acted as a Resource person for "Hands on Training Program on "Analytical Techniques for Chemical Characterization-2017" on 20/08/2017 conducted by the Dept. of Chemistry, SCSVMV.
- ❖ Member-BOS 2018.

Mrs. M. Parameswari, Assistant Professor

- ❖ Acted as a Resource person for "Hands on Training Program on "Analytical Techniques for Chemical Characterization-2017" on 20/08/2017 conducted by the Dept. of Chemistry, SCSVMV.
- ❖ Member-BOS 2018.
- ❖ Delivered lecture and demonstration on FTIR spectroscopy on 11.08.2017 in entrepreneurship awareness camp, organized by ECE department, SCSVMV.



Keep in Touch with us

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