

DEPARTMENT OF CHEMISTRY

REPORT

It is with great pleasure I share with you the annual report of chemistry department for the session 2018-19 of Shri R.L.T. College of Science, Akola. Department is contributing significantly in creating and disseminating knowledge in various areas through undergraduate, postgraduate and doctoral programmes and providing an education through practically focused, multidimensional, quality teaching-learning process in excellent academic environment. In our pursuit of excellence, we persistently seek and adopt innovative methods to improve the quality of education. The benchmarks we set for ourselves in the field of teaching and research propel us in our journey towards excellence. Faculty of the department comprises qualified and goal-oriented members and always at forefront to organize various academic activities to inculcate effective learning abilities and research skills, to extend the intellectual depth, to make students creative, innovative and self-reliant.

To expose the students in the frontier areas in chemistry and to enhance employability skill of them, department is always ahead in performing the various academic activities. The important academic activities and the programmes organized by the department of chemistry during the session 2019-19 are as mentioned below.

Inauguration of 'CRYSTAL Club'

To enhance the academic activity of student and to increase the participation of student in social activity, department of chemistry has decided to establish one student club and in view of this our department establishes 'CRYSTAL Club' (*Chemical Research by Young Scientist & Technicians Aborting Lacking of Society*) which was inaugurated on 12th September 2018. Principal Dr. V.D. Nanoty was the president for this function and Dr. R.J. Chavan, Head, Department of Electronics was the inaugurator for the function. Presence of head's of various departments had been added grace to this function. Ms. Sapana Chavhan was the student President of this club and students from M.Sc. I & II year are the members of this club with some officiating body.

National Level Workshop on "Art of Perfume & Soap Making"

"Education must be for giving the jobs, not for securing the jobs" with this motto Department of Chemistry's CRYSTAL Club organized a One Day National level workshop on 'The Art of Perfume & Soap Making' on 9th September 2018. Hon'ble Dr. Ranjeet Patil, Minister of Home Affairs was the Inaugurator of the workshop. IAS, District Collector, Akola Hon'ble Shri Astikkumar Pande was the Guest of Honor for this workshop. Hon'ble Dr. R.B. Heda, the President of The B.G.E. Society, Akola was the President for the Programme. The Inauguration of workshop took place in the gracious presence of Honorary Sec. of the B.G.E. Society Adv. Motisinghji Mohta and all the executive member of the B.G.E. Society. Er. Ashween Nannware, Scientist, CSIR central Institute of Medicinal and Aromatic Plant Lucknow and Mr. and Mrs. Mukul Agrawal Industrialist of Manufacturing Perfume and fragrance Product, Nagpur was the Resource person of the workshop. More than 500 students from all over the region got benefited by this workshop. All the staff members and members of crystal club organized the event

successfully.

One Day workshop on “Self Employment: Manufacturing of Fragrance Stick”

CRYSTAL Club Department of Chemistry organizes one day workshop on manufacturing of fragrance stick to make the students self employed and to develop a practical skill among the students. Alumni of our department give the demonstration how to make the fragrance stick and which chemicals were used to make various types of fragrance. Apart from this the second part of workshop includes the environmental friendly fragrance preparation by using the temple waste known as Nirmalya. This is the best part of the workshop. Student themselves prepared the stick by using the Nirmalya and sold these sticks to the teaching and non teaching staff members of the college and money collected from this activity was donated for Kerala flood victims.

Organization of Workshop of “Agarbatti Making (Fragrance Stick Making & Making of Paper Bag)” at Village Appoti during the Residential Camp

Crystal Club not only stop this activity by preparing these fragrance stick by their own but also the students of CRYSTAL Club gave the demonstration of this Agarbatti making to developed a self employment among the village people. Also to bring the environment awareness among these village people students of our college gave them the demonstration about the making of paper bag.

The important academic activities of department of chemistry during the session 2018-19 are as highlighted below.

Guest Lecturers

‘CRYSTAL Club’ organized the guest lectures of eminent personalities in the subject chemistry. **Dr. Rajesh Singh, Scientist-C, Environmental Hydrology Division, National Institute of Hydrology, Roorkee** delivered the guest lecture on ‘Water Quality and Control’ on 3rd January 2019 for the B.Sc as well as M.Sc. students.

Organization of Poster Presentation Competition

‘CRYSTAL Club’ of Chemistry Department is always ahead for the co-curricular activities. This year CRYSTAL Club organizes the Poster Presentation Competition for M.Sc.-I & M.Sc.-II year students on January 14, 2019. The topics given for the poster presentation competition were air pollution, water pollution, soil pollution, green chemistry. The aim of the poster Presentation Competition was to bring the Environment awareness among the students and also to cover their academic syllabus. This activity also motivates the student to participate in various co-curricular activities and also develop self confidence in them.

Total 27 Students participated in this activity. The best poster presentation has been awarded by giving the prizes in the form of the Book. Prizes were sponsored by the alumni of the Chemistry Department. **Ms. Shraddha Hatgaonkar** from M.Sc.-Ist Year received First Prize. Similarly **Ms Supriya Sahu (M.Sc.-I)** & **Ms Sapana Chavhan (M.Sc.-II)** stood second and third for this competition.

Dr. P.P. Deohate, Asst. Professor Dept. of Chemistry & Dr. S.R. Kohchale, Asst. Professor Dept. of Zoology were the Jury Member for this Competition. Principal Dr. V.D. Nanoty Sir & IQAC Co-ordinator Dr. Rahatgaonkar was the Chief Guest for this Programme.

Seminars and Group Discussions

The seminars and group discussions of B.Sc.-II & III students were conducted in the months of September, October-2018 and February, March-2019 under the supervision of all the staff members of the department.

Organization of Online Chemistry Aptitude Test (Quiz Competition) for B.Sc. Students

Department of Chemistry developed e-module of online test conduction and conducted the online aptitude quiz test of B.Sc. students on 21st January 2019. The student who stood first was given a text book in the form of gift. Total 60 students participated in this test.

Atchem ... Aptitude Test in Chemistry

To create interest in chemistry, assess the conceptual understanding and to upgrade the subject knowledge, aptitude test in chemistry was conducted for B.Sc.-III year students on 5th March 2019. **Ms. Rewati S. Wankhade** and **Ms. Mansi R. Heda** achieved the 1st and 2nd position respectively. Total 287 students participated in this test. Test was co-ordinated by Dr. Pradip P. Deohate.

Consultancy Services

Consultancy services like analysis of drinking water, irrigation water, determination of physico-chemical parameters and different types of estimations of samples of projects of school and college students are engaged.

The important achievements of the faculty members of department of chemistry during the session 2018-19 are as highlighted below.

- **Dr. Pradip P. Deohate** published 6 research papers in national and international journals. He has participated in 1 conference, 3 seminars cum workshops and presented 1 research paper. Under his guidance 1 student has awarded with Ph.D. degree and 1 student is doing the Ph.D. research work. He has guided 3 students for research project and 2 students for Avishkar. He has received the state level "Ideal Teacher Award" from Congress Teachers Cell, Akola for academic excellence and research contribution. He is working as the chief editor of "AUCTA Newsletter" and editor of science magazine "infoSCIENCE". His 2 educational articles were published in the newspapers Sakal and Matrubhumi. He has delivered a guest lecture on "Stereochemistry" at Arts, Commerce and Science College, Arvi (Wardha).
- **Dr. Poonam T. Agrawal** has been recognized as a Ph.D. Supervisor of S.G.B. Amravati University, Amravati, and Amravati. She has published 3 research papers in international journal. She has participated in 2 conferences, 1 workshop and presented 3 research papers. She has guided 3 students for research project and one student for Avishkar. She worked as a course coordinator for the four days soft Skill development workshop organized by Shri R.L.T. College of Science, Akola in collaboration with S.G.B. Amravati University Amravati. She has worked as a resource person and jury member for various academic and scientific programmes.
- **Dr. Pravin R. Kawle** has been recognized as a Ph.D. Supervisor of S.G.B. Amravati University, Amravati. He published 1 research paper international journals. He participated in 2 conferences, 2 workshop and presented 2 research papers. He guided 3 students for research project and

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one student for Avishkar.

- **Dr. Kavita M. Heda** published 3 research papers in national and international journals. She participated in 2 conferences, 2 workshops and presented 2 research papers. She guided 3 students for research project. She worked as a jury member for various academic and scientific programmes.
- **Dr. Ashish G. Sarap** published 1 research papers in international journal. He has participated in 2 conferences, 1 workshop and presented 2 research papers. He guided 3 students for research project. He delivered a guest lecture at Sangdudkar Mahavidyalaya, Daryapur. He has guided 3 students for research project.
- **Mr. Vinod D. Deotale** published 2 research papers in international journal. He participated in 2 conferences, 1 workshop and presented 2 research papers. He delivered a talk on Late Dr. A.P.J Abdul Kalam on Wachan Prerana Din and also delivered guest lecture in NSS camp of Shri R.L.T. College of Science, Akola and Khandelwal College, Akola. He has guided 3 students for research project.
- **Mr. Sankesh C. Zyate** published 1 research paper in international journal Presented 1 research paper in conference. He has started the NET/SET Coaching class for the M.Sc. Students of our department. He has guided 4 students for research project.
- Research student **Ms. Ketki D. Bansod** has been awarded with Ph.D. degree by S.G.B. Amravati University, Amravati and **Ms. Kalpana A. Palaspagar** is working for Ph.D. degree under the guidance of Dr. P.P. Deohate. They have also published research papers in national and international journals, attended the conferences and presented research papers.

Students are at the centre of all endeavors in department of chemistry. During the session 2018-19, additions to the students' achievements are as follows.

- **Ms. Vasundhara Dutonde** (B.Sc.-III) participated in district, university and state level research festival "Avishkar" and achieved the colour coat of S.G.B. Amravati University, Amravati. She was guided by Dr. P.P. Deohate.
- **Ms. Aishwarya Banait** (M.Sc.-II) achieved 2nd prize in university level intercollegiate seminar competition organized by AUCTA.
- **Ms. Shraddha Akhare** (M.Sc.-II) achieved 1st prize in university level intercollegiate poster competition organized by AUCTA.
- **Ms. Megha Rajpal** (B.Sc.-III) achieved 1st prize in university level intercollegiate seminar competition organized by AUCTA.
- **Ms. Aarti More** and **Ms. Anuradha Mahajan** (B.Sc.-I) participated in university level intercollegiate chemistry-quiz competition.

Dr. Poonam T. Agrawal
Head, Department of Chemistry
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