

## Inter-College Summer Training Program Report

The Inter-College Summer Training Program was organized by the Department of Chemistry, Shivaji College, University of Delhi under the aegis of DBT Sponsored Star College Scheme on "Green Fabrication of Nanostructures and their Characterization" under the supervision of Dr. Rangnath Ravi from 15<sup>th</sup> June - 30<sup>th</sup> June 2023. The program convenor was Dr. P.K.Sahu and Co-Convenor Dr. Richa Arora of Department of Chemistry. Total 25 students participated in this program from different colleges of University of Delhi.

The inaugural day of the program was felicitated by Professor Sharif Ahmad and the faculty members of the Department of Chemistry. The inauguration was commenced with auspicious lamp-lighting ceremony, followed by introduction of the workshop by Dr. Bhasha Sharma. This was then followed by an interactive lecture on green fabrication of nanoparticles and a brief discussion on its applications and characterization by Professor Dr. Sharif Ahmad.

### About the Speaker

Dr. Sharif Ahmad, as Pro-Vice-Chancellor (Research & Consultancy) SGT University, Gurugram, NCR-Delhi, INDIA, is a Superannuated Professor of Materials Chemistry, did his Masters (1976) and Doctoral (1981) in Chemistry from AMU, Aligarh. In recognition of his work, He was nominated as a member of the prestigious American Chemical Society for three years (2015 - 2018) and had a membership of Royal Chemical Society, UK. Former Dean, Natural Science, Jamia Millia Islamia.

On the 2<sup>nd</sup> day, a lecture on green chemistry was conducted by Dr. Bhasha Sharma, followed by lecture on evolution of green chemistry and nanoparticles by Dr. Abhijeet Mishra. All the students were then given an assignment on the previous lecture. This was followed by a lecture on research protocols and publishing of articles by Dr. Rangnath Ravi. On Day 3, synthesis of iron oxide nanoparticles was introduced using co-precipitation method of  $\text{FeSO}_4$  and  $\text{FeCl}_3$ .

In the 2<sup>nd</sup> week of the Summer Training Program, synthesis of iron oxide, silver oxide, bimetallic nanoparticles and composites was conducted by students divided into 5 groups of 4-5 students each, using plant extract from different sources such as mulberry leaves, champa leaves, bougainvillea petals, etc.. The samples were then collected to be characterized later. Also a guest lecture was organised on the 9<sup>th</sup> day by Dr. Abhijeet Mishra on the green synthesis of nanoparticles.

In the 3<sup>rd</sup> week, after collecting samples from synthesis done, a visit was organised to Jamia Millia Islamia on 27<sup>th</sup> June 2023 for the characterization of the samples for each group such as UV-Visible Spectroscopy, X-Ray Diffraction, Zeta potential analyzer and FT-IR. On 28<sup>th</sup> June 2023, another visit was organised to IUAC to understand the working of various other characterization techniques like XRD, XRF, SEM and ICPMS.

The Valedictory Ceremony was then organized on 3<sup>rd</sup> July 2023 to mark the end of the workshop followed by submission of the reports by each student and also felicitation by the then Peincipal Professor Shiv Kumar Sahdev.

## The resource person of the program

Dr. Rangnath Ravi, Department of Chemistry, Shivaji College, University of Delhi

## Posters

The poster is for an inter-college summer training program. At the top, it features logos for the Department of Biotechnology, Ministry of Science & Technology, Government of India; the 75th Independence Anniversary (75 आज़ादी का अमृत महोत्सव); G20 India 2023; and Shivaji College's 100th anniversary (100 YEARS 1922-2022). The main text identifies the host as Shivaji College, NAAC Accredited Grade 'A', University of Delhi, Department of Chemistry. It states the program is under the aegis of the DBT sponsored Star College Scheme and is organized by the Department of Chemistry. The training is on 'Green Fabrication of Nanostructures & their Characterization' from June 15th to June 30th, 2023. The venue is the Chemistry Lab at Shivaji College, with Dr. Rangnath Ravi as the resource person. A list of conditions for participation includes: only under-graduate science students can apply, no registration fee, limited seats (25), and a certificate for all participants upon completion. The convenor is Dr. P. K. Sahu, co-convenor is Dr. Richa Arora, coordinator is Dr. Renu Baweja, and the principal is Prof. Shiv Kumar Sahdev. A contact email is provided at the bottom: starcollegechemshc@gmail.com.

**SHIVAJI COLLEGE**  
NAAC Accredited Grade 'A'  
UNIVERSITY OF DELHI  
**DEPARTMENT OF CHEMISTRY**  
under the aegis of DBT sponsored Star College Scheme  
Organizes  
**Inter-College Summer Training**  
on  
**Green Fabrication of Nanostructures & their Characterization**  
15<sup>th</sup> June – 30<sup>th</sup> June, 2023

**Venue: Chemistry Lab, Shivaji College**  
**Resource Person: Dr. Rangnath Ravi**

- ❖ Only under-graduate science students can apply.
- ❖ No Registration Fee.
- ❖ Limited seats are available (25).
- ❖ Certificate to all the participants on completion of training.

**Convenor**  
Dr. P. K. Sahu

**Co-Convenor**  
Dr. Richa Arora

**Coordinator**  
Dr. Renu Baweja

**Principal**  
Prof. Shiv Kumar Sahdev

For any query, drop in a mail at [starcollegechemshc@gmail.com](mailto:starcollegechemshc@gmail.com)

## Photographs





