

Registration Open Date: 8<sup>th</sup> June, 2024  
Registration Deadline: 5<sup>th</sup> July, 2024 (Limited Seats)

## ADVISORY COMMITTEE



### NOTE:

- Confirmation of participation will be informed by 6<sup>th</sup> July 2024 via email.
- Concessional support for outstation participants for accommodation and logistics.
- Preference shall be given to female participants.

### Contact us

☎ 9716912100

✉ rdc@shyamlal.du.ac.in

🌐 <https://www.slc.du.ac.in/RDC-Summer-School/>

### Chief Patron

**Ms. Savita Gupta**  
Chairperson, SLC

### Patron

**Prof. Rabi Narayan Kar**  
Principal, SLC

### Director, IQAC

**Prof. Kusha Tiwari**

### Convenor, R&D Centre

**Dr. Niti Agrawal**

### Organising Team

Dr. Pradeep Sharma

Dr. Sunny Agarwal

Dr. Kanika Solanki

Dr. Padma Dechan

Dr. Aditi Puri

Dr. Seema Guglani

Dr. Rahul Boadh

Dr. Virender

Dr. Neelam Dabas

Dr. Sushil Kumar

Dr. Pranav Dass

Dr. Leena Singh

Dr. Neha Bothra

Mr. Aakash Kumar Soni

**Prof. Avinash Chandra Pandey**

Director IUAC, New Delhi

**Prof. R. K. Sinha**

Vice Chancellor, Gautam Budh University

**Prof. Raj Kishore Sharma**

Dean Research, University of Delhi

**Dr. Ajay Kumar**

Scientist E, DRDO

**Dr. Supravat Karak**

Department of Energy Studies and Engineering, IIT Delhi

**Prof. Sujeet Choudhary**

Department of Physics, IIT Delhi

**Dr. R. K. Kotnala**

Scientist of Eminence, CSIR-NPL Delhi

**Prof. Ashutosh Bharadwaj**

Department of Physics & Astrophysics, DU

**Prof. Amarjeet Kaur**

Department of Physics & Astrophysics, DU

**Dr. Garima Gupta, Scientist F**

Department of Biotechnology

**Dr. Pankaj Sharma**

NITTR, Chandigarh

**Prof. Bidyut Baran Saha**

Kyushu University, Japan



**SLC**(University Of Delhi)

**SHYAM LAL COLLEGE**

G.T.ROAD, SHAHDARA, DELHI -110032

Tel:+91-011-35016514

Website: [www.slc.du.ac.in](http://www.slc.du.ac.in)

**SLC**(University of Delhi)

**SHYAM LAL COLLEGE**

NAAC A++, NIRF 68<sup>th</sup>, DBT Star College

## National Summer School & Workshop on Semiconductors

Hands-on-training for Undergraduates

**10-19 July, 2024**

organized by

**Research & Development Centre  
and IQAC, SLC**

in collaboration with

**IUAC Delhi, IIT Delhi**

**Research Council, University of Delhi  
Miranda House, University of Delhi**



Shyam Lal College  
Shahdara, Delhi-32





## Thematic Background

Semiconductors form the cornerstone of modern technology, driving innovation across diverse sectors such as electronics, telecommunications, renewable energy, automotive, healthcare, and aerospace. With a firm grasp of semiconductor principles, individuals can contribute to India's technological progress in these fields. Additionally, a thriving semiconductor industry contributes to economic growth, job creation, and national security. However, many undergraduates struggle to comprehend semiconductor intricacies within traditional academic settings. Recognizing this challenge, the Research and Development Centre & IQAC at Shyam Lal College are organizing a National Summer School & Workshop on Semiconductors in collaboration with IUAC Delhi, IIT Delhi, Research Council, University of Delhi and Miranda House, University of Delhi. It is driven by the India Semiconductor Mission (ISM), a vital initiative under the Development of Semiconductors and Display Manufacturing Ecosystems in India program launched by the Government of India. This workshop aims to bridge the gap by offering students a deeper understanding of semiconductor fundamentals, empowering them to actively engage in research, development, and innovation that transcends the boundaries of conventional classroom instruction.

## About SLC

Shyam Lal College (SLC) stands as a distinguished educational institution, providing an enriching and inclusive environment for the cultivation of excellence across academic, cultural, sports, and various student-driven pursuits. Established in 1964 by the visionary entrepreneur Padmashree (Late) Shri Shyam Lal Gupta, SLC is a co-educational constituent college affiliated with the University of Delhi. Over the past several years, SLC has been consistently advancing towards the attainment of academic excellence. In 2023, SLC reached a significant milestone by achieving an A++ grade accreditation from the National Assessment and Accreditation Council (NAAC). This achievement further solidifies SLC's commitment to providing a high standard of education. As per the National Institutional Ranking Framework (NIRF) for Colleges in India, SLC is among the 100 best Colleges of India for last six years. Additionally, SLC was selected to participate in the DBT STAR College Program under the Ministry of Science and Technology in 2020, demonstrating its dedication to excellence in education.

## About IQAC

As per National Assessment and Accreditation Council (NAAC) guidelines every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC, SLC works towards realization of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious and consistent improvement in the overall performance of the College through monitoring and facilitating academic, co-curricular and extracurricular initiatives. The IQAC of the College achieves all these through systematic and regular feedback mechanisms and pursues the achievement of new agendas and goals.

## About Research & Development Centre

SLC has established a Research and Development (R&D) Centre with the mandate for promoting quality research that contributes meaningfully towards the goal of a self-reliant India ("Atma-Nirbhar Bharat"), aligned with the provisions of NEP-2020. R&D Centre aims to create a conducive environment in the college for high quality, impactful and sustained research output. For this purpose, the R&D Centre will focus on promoting research activities to encourage faculty members and students to engage in research projects, arranging workshops to enhance research skills, disseminate knowledge and facilitate collaboration among researchers, promoting inter discipline research developing collaboration across industry, government, community-based organisations, and agencies at the local, national, and international level.

## About The Program

The National Summer School & Workshop on Semiconductors spans over 10 days, providing undergraduate students with exposure to semiconductor fabrication techniques, fostering scientific understanding, critical thinking, and innovation. Participants will engage in a diverse range of activities designed to enhance their understanding of semiconductor technology. Through a blend of expert-led lectures, laboratory sessions, fabrication & characterization techniques, industry insights and educational visits students will gain comprehensive insights into semiconductor fundamentals, materials, and devices. Additionally, the program will provide holistic opportunities for students and ignite passion for future pursuits in semiconductor-related fields.

**Program Highlights:** The program features hands-on training sessions aimed at providing practical experience in semiconductor technology. These sessions include:

- Deposition of Semiconductor Thin Films and their applications in Energy conversion (IUAC Delhi).
- Synthesis of semiconductor based micro-nano structures for environmental remediation (SLC & Department of Chemistry, University of Delhi).
- Deposition of thin films organic solar cells and measuring their fill factor and efficiency (IIT Delhi).
- Fabrication of nature-based dyes and exploring their role in dye-Sensitized Solar Cells for harvesting solar energy (SLC University of Delhi).

## Knowledge Partner

Partnerships with knowledge allies are essential on the journey of learning, offering diverse perspectives, specialized expertise, and vital resources. Through collaboration and shared dedication, they provide steadfast support, enriching comprehension and refining skills. Their guidance lights the way to achievement, sparking inspiration for ongoing growth and innovation. We are honored to present our esteemed knowledge partners: IUAC Delhi, IIT Delhi, Research Council, University of Delhi, Miranda House, University of Delhi and Department of Chemistry at University of Delhi.

**Who can Apply:** Undergraduate students from all engineering and science disciplines, particularly those with an interest in semiconductor science, technology, and applications from different institutions across the country.

**How to Apply:** The applicant must fill the online application form to apply using the google form link given below:  
<https://forms.gle/R2hvoHi9ZYg6LDmZ8>

Scan Here



## Registration Fee

Participants are required to pay the registration fee of 5000/- via NEFT/IMPS/UPI to the following account:

- Name: Shyam Lal College Conference and Seminars Account
- Bank: Central Bank of India, Shyam Lal College, Shahdara, Delhi-32
- Type of Account: Savings
- Account number: 3731428412
- IFSC: CBIN0283941
- MICR: 110016147

**Early Bird Offer :** Get a 20% discount and pay only Rs. 4000/- if registered before 30 June!

Registration fee includes the summer school registration kit, tea, snacks, lunch during school sessions and travel to multiple institutes during school sessions.