

Report on
One Day Colloquium Programme with the Inauguration of Vertical of Excellence in
'Materials Science & Nanotechnology' - NEST Lab.

Organized by
Department of Basic Science & Humanities,
Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex,
(Sur Tech),(Autonomous) JIS Group, Dum Dum
In Association with



Title: One Day Colloquium Programme with the Inauguration of Vertical of Excellence in 'Materials Science & Nanotechnology' – NEST Lab.

Data: March 02, 2026

Mode: Offline

Venue: Dr Sudhir Chandra Sur Institute of Technology and Sports Complex, Dum Dum, Kolkata

No. of participant: 75

Introduction:

Inspired by the forward-looking global vision of our Hon'ble Managing Director of the JIS Group to develop specialized **Verticals of Excellence** across group institutions, a significant academic initiative was undertaken at **Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex (SurTech)**.

With the dynamic leadership of the respected Director and the continuous encouragement and guidance of our National Leader, the Hon'ble Pro-Chancellor of JIS Group, SurTech organized a **One-Day Colloquium Programme** along with the **Inauguration of the Vertical of Excellence in "Materials Science & Nanotechnology."**

The event brought together eminent scientists, academicians, researchers, and faculty members from leading research institutions and universities of West Bengal. The colloquium aimed to establish a collaborative research ecosystem that would foster innovation in **materials science, nanotechnology, energy research, and device engineering**.

A key highlight of the initiative is the **NEST (Nanoelectronics for Energy and Smart Technologies) Laboratory**, which already hosts several advanced scientific instruments and research facilities supported by funding from the **Government of India (ANRF, PM-ECRG)** as well as JIS Group resources.

Objectives of the Colloquium:

The primary objectives of organizing the colloquium and launching the Vertical of Excellence were:

1. Establish a Collaborative Research Ecosystem

To create a common research platform for faculty members, scientists, and students working in the fields of materials science and nanotechnology across JIS Group institutions and partner organizations.

2. Promote High-Impact Research

To encourage high-quality research publications, patents, funded projects, and technological innovations in advanced materials and nanotechnology.

3. Strengthen Interdisciplinary Research

To integrate disciplines such as Physics, Chemistry, Materials Science, and Engineering for solving complex technological challenges.

4. Develop Research Capacity

To train undergraduate, postgraduate, and doctoral students in advanced experimental techniques and emerging research methodologies.

5. Align Research with National Missions

To contribute to flagship national programs including:

- Nano Science and Technology Mission
- National Quantum Mission
- National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)
- National Green Hydrogen Mission
- India Semiconductor Mission

6. Build Long-Term Sustainable Research Programs

To establish research clusters, shared facilities, and collaborative projects within the JIS Group ecosystem.

Inaugural Ceremony:

The conference commenced on **March 02, 2026**, with a **grand inaugural ceremony** held at the **Dr. A.P.J. Abdul Kalam Auditorium**. The event was graced by the presence of distinguished dignitaries:

- **Guest of Honor: Prof. Kalobaran Maiti – Director, Indian Association for the Cultivation of Science (IACS), Kolkata**
- **Patron:**
- **Sardar Taranjit Singh, MD, JIS Group**
- **Sardar Haranjit Singh, Jt. MD, JIS Group**



SurTech

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- **Sardar Simarpreet Singh, Director, JIS Group**

Special Guest:

- **Prof. Ajoy Kumar Ray, Director, JISIASR**
- **Prof. Neeraj Saxena, Pro Chancellor, JIS University**
- **Prof. Bhaskar Gupta, Vice Chancellor, JIS University**
- **Prof. Chittaranjan Sinha, Secretary, Indin Photobiology Society, Jadavpur University Campus, Kolkata**
- **Dr. Subhalakshmi Ghosh – Subham Biopharma(OPC) Pvt. Ltd., Kolkata**
- **Dr. Abhishek Basu, Associate Prof., Sripat Singh College, Murshidabad**

Program Chair:

- **Prof. (Dr.) Saradindu Panda, Principal, SurTech**

Co-ordinator:

Dr. Biswajit Das, Asst. Professor, Basic Science & Humanities, SurTech

Co- Co-ordinator:

Dr. Dipakar Das, HoD & Asst Professor, Basic Science & Humanities, SurTech

The inaugural session began with the **traditional lighting of the lamp and Bengali song**, followed by an inspiring address from the dignitaries. They emphasized the role of **materials science in advancing sustainable technologies**, highlighting its applications in **renewable energy, nanomedicine, and environmental solutions**.

List of Eminent Speakers:

The colloquium was graced by distinguished scientists and academicians from leading institutions:

- **Prof. Kalobaran Maiti – Director, Indian Association for the Cultivation of Science (IACS), Kolkata**
- **Prof. Rahul Banerjee – IISER Kolkata**
- **Prof. Kalyan Kumar Chattopadhyay – Jadavpur University**
- **Prof. Chittaranjan Sinha – Jadavpur University**
- **Prof. Dibakar Dhara – IIT Kharagpur**
- **Prof. Ashok Kumar Mishra – IIT Madras**
- **Dr. Jayanta Mukhopadhyay – CSIR-CGCRI, Kolkata**
- **Prof. Nil Ratan Bandyopadhyay – IEST Shibpur**
- **Prof. Debnarayan Jana – University of Calcutta**
- **Prof. Debashis De – MAKAUT**
- **Dr. Subhalakshmi Ghosh – Subham Biopharma(OPC) Pvt. Ltd., Kolkata**
- **Dr. Kamal Krishna Sarkar – Sripat Singh College, Murshidabad**



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Key Highlights of the Colloquium

Role of NEST Lab: The **Nanoelectronics for Energy and Smart Technologies (NEST) Laboratory** will function as the technological backbone of the Vertical. The laboratory currently houses several advanced instruments including:

- Thermal Evaporation Unit
- Source Measurement Unit (SMU)
- UV–Visible Spectrometer
- Photocatalytic Reactor
- Micro Balance
- Spin Coating Unit
- Probe Station
- Electrochemical Workstation
- Nonlinear Optical (NLO) Setup
- Centrifuge
- Magnetic Stirrer with Hot Plate
- Ultrasonic Bath

These facilities enable a complete experimental workflow from **material synthesis to device fabrication, characterization, and application testing.**

Focus Research Areas

a) Advanced Materials Research:

- Nanomaterials and 2D materials (Graphene, Phosphorene, MoS₂, etc.)
- Functional oxides and semiconductor materials
- Quantum materials and devices
- Photocatalytic and hydrogen-based energy materials

b) Device Fabrication and Characterization

- Thin film deposition and device prototyping
- Electrical and quantum transport measurements
- Nonlinear optical investigations
- Advanced materials characterization

c) Energy and Sustainability

- Green hydrogen production
- Energy storage and conversion materials
- Electrochemical and photocatalytic energy systems



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Outcomes of the Colloquium:

The one-day colloquium achieved several important outcomes:

1. Establishment of a **dedicated research vertical** in Materials Science & Nanotechnology within the JIS Group ecosystem.
2. Initiation of **inter-institutional collaborations** between SurTech and premier research institutions.
3. Identification of **potential joint research projects** in areas such as nanomaterials, quantum transport, and green hydrogen technologies.
4. Strengthening of the **research culture among faculty members and students**.
5. Development of a **strategic roadmap** for expanding research infrastructure and collaborative initiatives.
6. Encouragement for **joint funding proposals to national agencies such as ANRF, DST, SERB, and Semiconductor Mission**.

About Participant:

Around 75 participant coming from different esteemed institutes of JIG Group colleges like GNIT,NIT, GKCEM, JIS University, JISCE ,GNIPST , JISIASR ,Jadavpur University, IIT Khaaragpur, IACS, SNBNCBS, CSIR-CGCRI, IEST, IISER, University of Calcutta, ISI, KIIT, MAKAUT, SNU. The participants held diverse designations such as Professor, Assistant Professor, Associate Professor and Research Scholar, and represented a mix of private, public, and government colleges and universities. This diverse group contributed to a dynamic and enriching environment throughout the event.

Participant Feedback

Participant feedback from the **One-Day Colloquium on Materials Science & Nanotechnology** was highly positive. Attendees appreciated the quality of the sessions, the relevance of the topics, and the opportunity to interact with eminent scientists and researchers. The participants also commended the excellent organization of the programme, including the venue, hospitality, and research infrastructure of the NEST Lab. Many participants noted that the programme helped update their knowledge and would support their teaching and research activities. Overall, the feedback indicated that the colloquium was highly beneficial, and several participants expressed interest in attending similar programmes in the future.

Acknowledgement:

The organizing team expresses sincere gratitude to the **Hon'ble Managing Director of JIS Group** for his visionary initiative in establishing Verticals of Excellence across the group institutions. We extend our heartfelt thanks to the **Hon'ble Pro-Chancellor** and the **Respected Director** for their continuous encouragement, guidance, and leadership in making this initiative successful.



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We also convey our sincere appreciation to the **association partners like Indian Photobiology Society, Jadavpur University campus, Sripat Singh College, Murshidabad and Subhami Biopharma (OPC) Pvt. Ltd, Kolkata, distinguished guests, and eminent speakers** for their valuable presence and insightful contributions to the colloquium. Finally, we also thank to Prof. (Dr.) Saradindu Panda, Principal and Dr. Soumen Basu, Registrar, the faculty members of the Department of Basic Science & Humanities and all staff of SurTech.

Conclusion:

The One-Day Colloquium and Inauguration of the Vertical of Excellence in *Materials Science & Nanotechnology* marked an important step toward strengthening the research ecosystem of SurTech and the JIS Group. By utilizing the facilities of the NEST Laboratory and promoting collaboration with leading academic and research institutions, this initiative aims to foster advanced research, innovation, and interdisciplinary learning. The newly established vertical is expected to contribute significantly to national missions in nanotechnology, semiconductor technology, quantum science, and green hydrogen, supporting India's scientific and technological progress.

Glimpses of the Event:



Some photos of lamp lighting and group photo of one day colloquium held on 2.3.26 organized by BSH Dept.



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Some photos of eminent speakers during felicitation of one day colloquium on 02.03.2026 organized by BSH Dept.at SurTech



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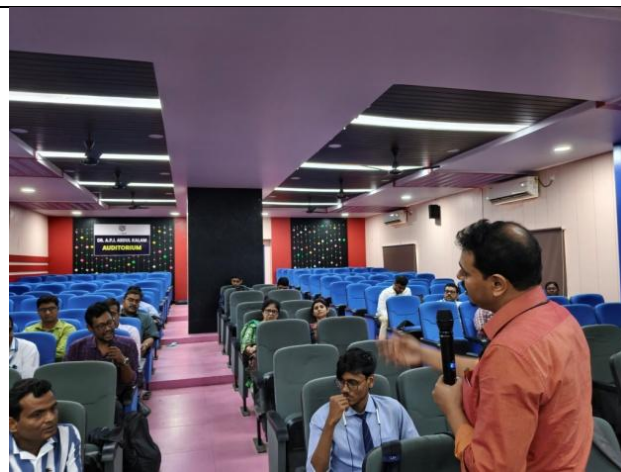
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Some photos during Inauguration of NEST Lab and brainstorming session held on 2.3.26 of one day colloquium organized by BSH Dept.



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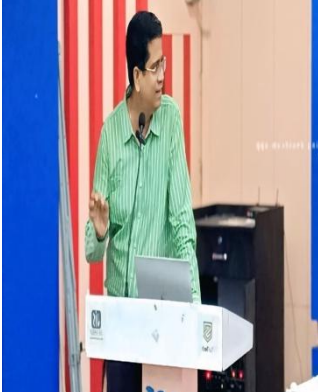
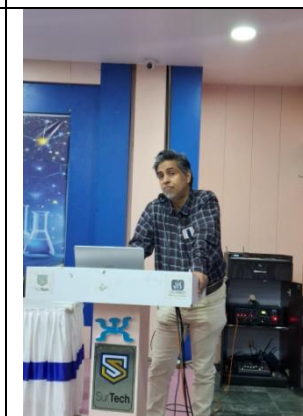
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Some photos of eminent speakers during their valuable speech of one day colloquium on 02.03.2026 organized by BSH Dept.at SurTech