

Report on
One Day International Seminar
“Green Energy & AI: Challenges and Pathways for Solutions”

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:
Material Research Society of India, Kolkata Chapter
Society for Materials Chemistry, Kolkata Chapter
Indian Photobiology Society, JU Campus, Kolkata
Subhami Biopharma Pvt Ltd, Kolkata
Sripat Singh College, Murshidabad
People's Association for Science and Environment (PASE) , Kolkata

Title: “One Day International Seminar “Green Energy & AI: Challenges and Pathways for Solutions”.

Date: October 13, 2026

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

No. of participant: 55

Time: 2 PM onwards

Mode: Offline

Introduction:

The Department of Basic Science & Humanities (BSH), Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex (SurTech), JIS Group, Kolkata, organized a One-Day International Seminar entitled “Green Energy & AI: Challenges and Pathways for Solutions” on Tuesday, 13 October 2026, at the SurTech campus, Kolkata.

The seminar was conceptualized to highlight the growing importance of sustainable energy technologies and the transformative role of Artificial Intelligence (AI) in addressing contemporary energy and environmental challenges. With the increasing global demand for clean energy, energy efficiency and sustainable technological solutions, the integration of green energy systems with AI-driven approaches has emerged as an important area of scientific research and technological innovation.

The programme provided an academic platform for interaction among academicians, researchers, students, technology professionals and industry experts. It aimed to explore emerging developments in hydrogen technologies, renewable energy, intelligent energy management and AI-based solutions for sustainable development.

The seminar also reflected SurTech's commitment to promoting interdisciplinary education, research, innovation and industry–academia collaboration through meaningful engagement with distinguished experts from India and abroad.

Objectives: The seminar was organized with the following objectives:

1. To create awareness about recent advances in green energy technologies and sustainable energy systems.
2. To explore the role of Artificial Intelligence in energy generation, storage, distribution and optimization.
3. To discuss the challenges and future prospects of hydrogen technologies and other clean energy alternatives.
4. To encourage interdisciplinary research at the interface of energy science, engineering, materials science and AI.
5. To provide students and faculty members with exposure to contemporary industrial practices and research developments.
6. To promote interaction among academic institutions, research organizations and industry professionals.
7. To identify potential opportunities for collaborative research, innovation, technology development and knowledge exchange.
8. To inspire young researchers and students to contribute to sustainable energy solutions and environmentally responsible technological advancement.
9. To strengthen industry–academia partnerships and explore pathways for translating scientific research into practical applications

.Inaugural Ceremony:

The seminar commenced with a formal inaugural session at the SurTech campus. The programme was organized under the guidance of the **Department of Basic Science & Humanities** and the organizing team of the **NEST Lab**. The programme began with the traditional **lighting of the ceremonial lamp**, symbolizing knowledge, innovation, and scientific excellence. Faculty members, invited experts, resource persons, research scholars, and participants attended the inaugural ceremony.

Patron:

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

Program Chair:

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

Co-Chair:

- **Dr. Soumen Basu**, Registrar, SurTech.

Coordinators:

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



SurTech

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Phone: +91 22 25603889, 25603898, 65330375

Website: www.surtech.edu.in; Email: info@dsec.ac.in

Eminent Speakers

Sl. No.	Name	Designation	Institute / Organization
1	Dr. Goutam Kumar Dalapati	Co-Founder and Chief Technology Officer (CTO)	HYDGEN (Hydrogen Innovation Pte Ltd.), a deep-tech spin-off from the National University of Singapore (NUS).
2	Dr. Swagata Sarkar	Professor and Head	Department of Artificial Intelligence and Data Science, Sri Sairam Engineering College, Chennai, Tamil Nadu

Programme Highlights

The principal highlights of the programme included:

1. Green energy and sustainability: Discussion of the importance of clean energy technologies in addressing environmental concerns and supporting sustainable development.
2. Hydrogen innovation: Emphasis on hydrogen-based technologies and their potential contribution to the future clean-energy landscape.
3. Artificial Intelligence in energy systems: Exploration of the relevance of AI and data-driven approaches in improving energy-system performance, monitoring and optimization.
4. Industry-academia interaction: Engagement with expertise spanning deep-tech entrepreneurship, hydrogen innovation and academic research in AI and Data Science.
5. Interdisciplinary learning: Integration of scientific, engineering and computational perspectives to address complex energy challenges.
6. Research and innovation: Encouragement of research-oriented thinking among students and faculty members, with a focus on practical and application-driven solutions.
7. Sustainable technological development: Emphasis on the need for innovative, efficient and environmentally responsible approaches to energy generation and utilization.

Programme Outcome:

The seminar provided a valuable opportunity to strengthen awareness of emerging developments at the intersection of green energy and Artificial Intelligence. The expected academic and professional outcomes included:

1. **Enhanced subject knowledge:** Improved understanding of the importance of renewable energy, hydrogen technologies and AI-enabled solutions.
2. **Awareness of emerging technologies:** Greater familiarity with contemporary developments in clean-energy innovation and intelligent technological systems.
3. **Interdisciplinary research orientation:** Encouragement to explore research problems combining energy science, materials science, engineering and computational intelligence.



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4. Industry–academia engagement: Exposure to perspectives from deep-tech industry and higher education, helping bridge academic learning and practical applications.

5. Student motivation: Inspiration for students to pursue projects, internships and research activities related to clean energy and AI.

6. Research collaboration opportunities: Identification of potential areas for future academic interaction, joint research and technology-oriented initiatives.

7. Sustainability awareness: Reinforcement of the importance of scientific innovation in developing cleaner, more efficient and sustainable energy systems.

These outcomes represent the intended academic benefits of the seminar. Specific measurable outcomes, such as attendance figures, feedback scores or confirmed collaborative projects, may be added when the relevant records are available.

Acknowledgement:

The Department of Basic Science & Humanities, SurTech, expresses its sincere gratitude to the management of JIS Group for its continued encouragement and support in organizing academic and research-oriented programmes of this nature.

The department conveys its heartfelt thanks to Sardar Taranjit Singh, Managing Director, JIS Group; Sardar Simarpreet Singh, Director, JIS Group; Prof. (Dr.) Saradindu Panda, Principal, SurTech; and Dr. Soumen Basu, Registrar, SurTech, for their guidance and institutional support.

The department extends its sincere appreciation to **Dr. Goutam Kumar Dalapati and Dr. Swagata Sarkar** for their association with the seminar and for contributing their expertise to its central theme.

Special acknowledgement is extended to all the collaborating organizations **MRSI Kolkata Chapter, SMC Kolkata Chapter, IPS, Sripat Singh College, Subhami Biopharma Pvt. Ltd. and PASE Kolkata for their valuable association and support.**

The department also acknowledges the efforts of the faculty members, organizing committee, student volunteers, administrative personnel and supporting staff whose cooperation contributed to the organization of the programme.

Finally, sincere thanks are extended to all participants for their interest, engagement and enthusiasm in making the seminar a meaningful academic initiative.

Valedictory Session:

The seminar concluded on 13th October 2026 with a valedictory session and certificate distribution ceremony. Participants presented their mini-projects and shared their learning experiences. The organizing committee appreciated the enthusiastic participation, discipline, and scientific curiosity demonstrated throughout the programme.



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The organizers expressed sincere thanks to all delegates, speakers, session chairs, sponsors, faculty members, student volunteers, and organizing committee members for their immense support and contribution toward the grand success of seminar.

Conclusion:

The One-Day International Seminar on “**Green Energy & AI: Challenges and Pathways for Solutions,**” organized by the Department of Basic Science & Humanities, SurTech, on 13 October 2026, represented a significant academic initiative focusing on two transformative areas of contemporary science and technology.

By bringing together perspectives from hydrogen innovation and Artificial Intelligence, the seminar emphasized the importance of interdisciplinary approaches to sustainable energy development. It provided a platform for academic engagement, awareness of emerging technologies and discussion of potential research and innovation pathways.

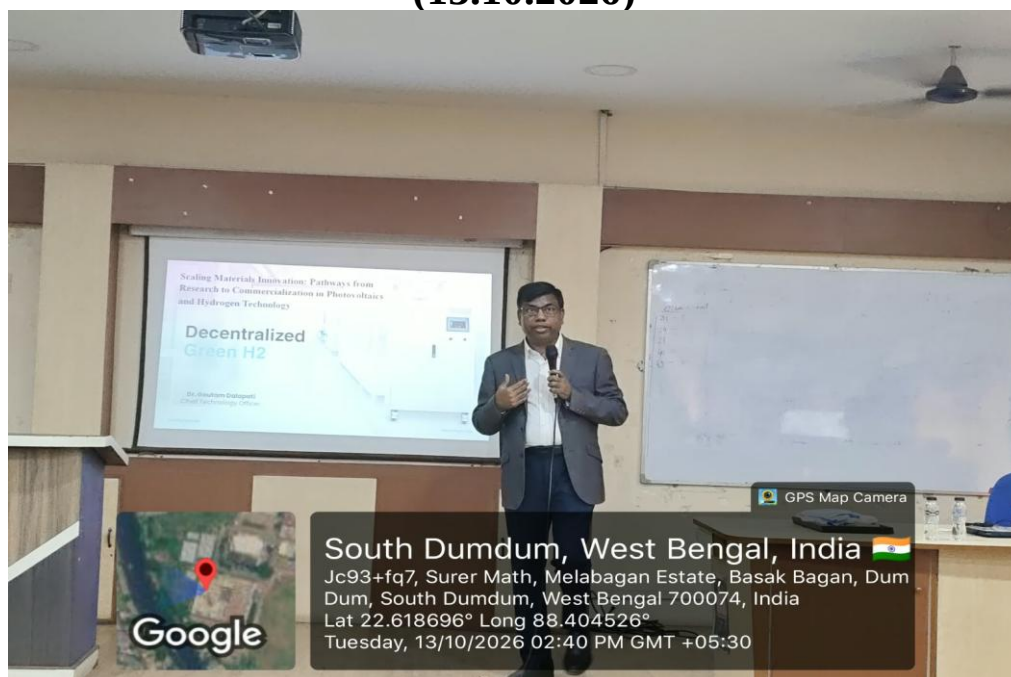
The programme reinforced the need for stronger connections among fundamental science, engineering, computational intelligence and industrial applications to address the challenges of energy sustainability. It also reflected SurTech's commitment to fostering a research-oriented academic environment and encouraging students and faculty members to engage with emerging technological developments.

The Department of Basic Science & Humanities remains committed to organizing similar seminars, workshops and research-oriented programmes to promote scientific excellence, innovation, sustainability and meaningful industry–academia collaboration.

Glimpses of the Event:



One Day International Seminar (13.10.2026)



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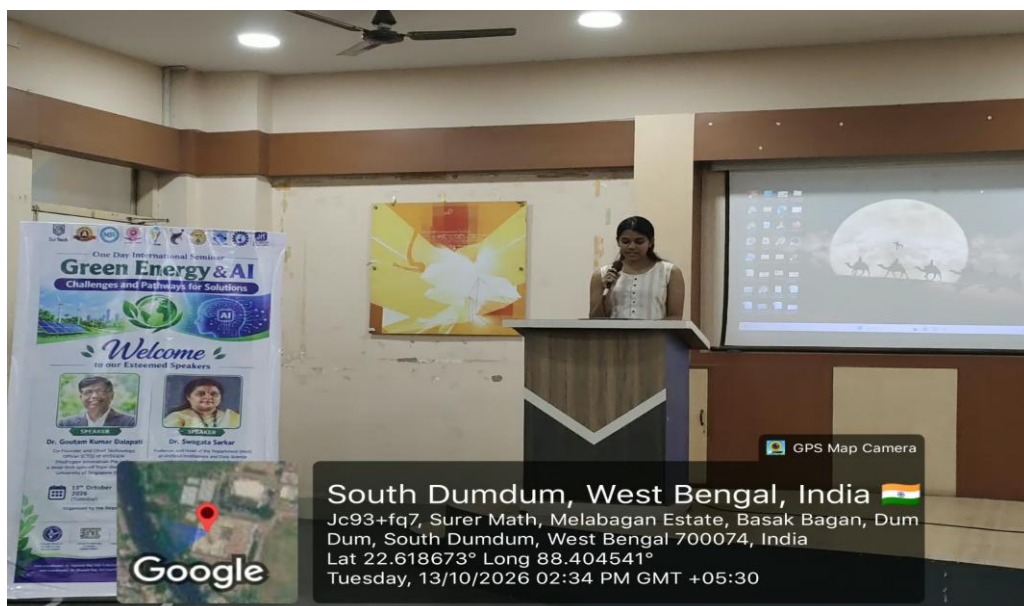


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