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NSES2024

INTERNATIONAL CONFERENCE

on

**Natural Sciences and Engineering for
Sustainable Development**

(NSES2024)

6th & 7th March, 2024

Organized by

**Centre for Organic Spintronics and Optoelectronics
Devices (COSOD)**

Faculty of Science and Engineering,

Kazi Nazrul University, Asansol

West Bengal, India



**Venue: Kazi Nazrul University, Asansol,
Paschim Bardhaman, West Bengal, India**

Eminent Keynote/Invited Speakers :

1. Prof. Mukti M. Rana (*Offline: Confirmed*)

Professor of Engineering
Division of Physical and Computational Sciences & Director
and Principal Investigator, Optical Science Center for Applied
Research (OSCAR)
Delaware State University, USA



2. Prof. Nibir K Dhar (*Offline: Confirmed*)

Professor and Director of Virginia Microelectronics Center
Department of Electrical and Computer Engineering
Virginia Commonwealth University, USA



3. Prof. S. M. Yusuf (*Offline: Confirmed*)

Head, Solid State Physics Division, BARC,
Professor, Homi Bhabha National Institute (HBNI), Mumbai
India



4. Prof. Ajoy Kumar Ray (*Offline: Confirmed*)

Director JIS Institute of Advanced Studies & Research
Padma Shri Former Director, IEST Shibpur
Former Professor, IIT Kharagpur



5. Prof. Xi Chen (*Online: Confirmed*)

School of Physical Science and Technology,
Lanzhou University
Lanzhou, China



6. Prof. Carlos J. Gómez García (*Online: Confirmed*)

Professor of Inorganic Chemistry
Valencia University
Spain





Committees for NSES D 2024

Patron

**Prof. (Dr.) Debashis Bandyopadhyay, Vice
Chancellor, Kazi Nazrul University, Asansol**

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Prof J. N. Roy, KNU & Dr. Puja Dey, KNU

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- p) Prof. Projjal Basu, Kazi Nazrul University**
- q) Prof. Debashish Ghosh, Calcutta University**
- r) Prof. Prabir K. Haldar, Panchanan Barma University**
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Organizing Committee

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2. Dr. Puja Dey, Joint Coordinator, Physics, KNU
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5. Dr Lalit Kumar Joshi, Commerce, KNU
6. Mr. Subhadip Roy, KNU

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2. Dr. Manas Paramanik, Animal Science, KNU
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5. Prof. Asamanja Chatteraj, Animal Science, KNU
6. Dr. Sujay Bandyopadhyay, Geography, KNU (Co-Ordinator)
7. Mr. Arjun Mondal, Laboratory Assistant, Physics, KNU

Registration and Reception

1. Dr. Sujata Home Roy Konar, Finance Officer, KNU (Co-Ordinator)
2. Dr. Sasanka Ghosh, Geography, KNU
3. Ms. Pallabi Kalikotay, Physics, KNU
4. Mr. Sushil Kumar Singh, Finance Department, KNU
5. Mr. Argha Chatterjee, Finance Department, KNU
6. Mr Somnath Dutta, KNU
7. Ms. Pratima Hembram, Laboratory Attendant, Physics, KNU



Publication Committee

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5. **Dr. Ashif Raja**, Former PhD Scholar, Physics, KNU

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1. **Mr. Ashif Ahmed**, System Administrator/Analyst, KNU (Co-Ordinator)
2. **Mr. Sourav Jana**, KNU
3. **Mr. Debashis Bandyopadhyay**, KNU

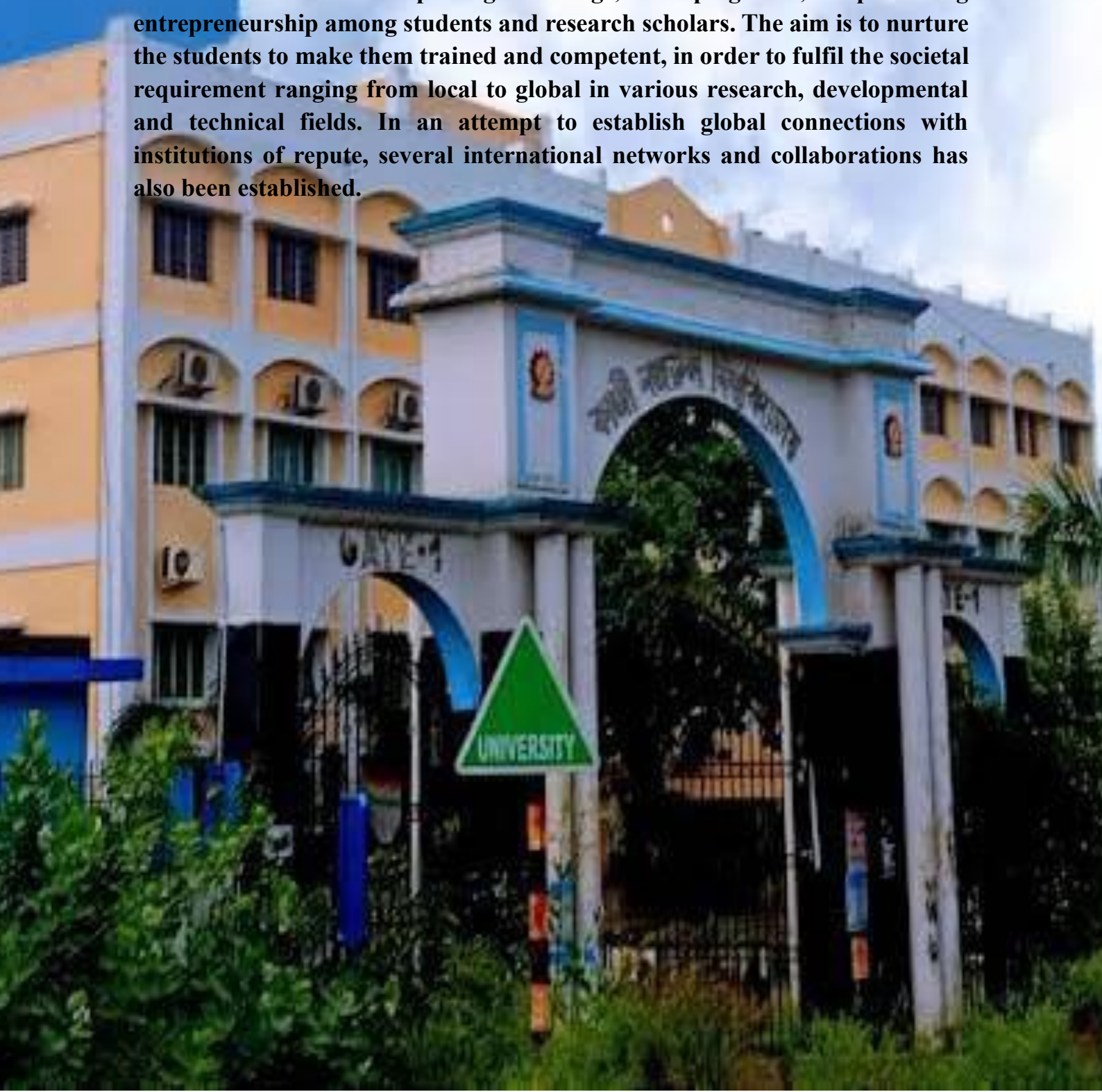
Student Committee

1. **Mr. Apurba Pal**
2. **Mr. Nitish Ghosh**
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4. **Mr. Arindam Changder**
5. **Sk. Siddik**
6. **Mr. Abhas Biswas**
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13. **Ms. Beas Brahma**
14. **Ms. Atreyee Banerjee**
15. **Ms. Payel Banerjee**
16. **Mr. Koushik Sutradhar**



About the University

Situated in the heart of industrial belt in West Bengal, Kazi Nazrul University (KNU) gloriously runs diversified courses, such as diploma, UG, PG, M. Phil. and Phd courses in the faculty of arts and fine arts, faculty of science & technology, faculty of law, and faculty of commerce & management on its own campus and also in its affiliated colleges. Starting its journey only in 2012, within a very short span of time of ten years, KNU has started to keep signature of its existence in academia, research and also in performing arts. The key motivations of KNU are imparting knowledge, developing skills, and promoting entrepreneurship among students and research scholars. The aim is to nurture the students to make them trained and competent, in order to fulfil the societal requirement ranging from local to global in various research, developmental and technical fields. In an attempt to establish global connections with institutions of repute, several international networks and collaborations has also been established.



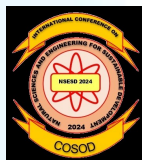
About the Centre

The CENTRE FOR ORGANIC SPINTRONICS AND OPTOELECTRONICS DEVICES (COSOD) is an interdisciplinary research platform by Faculty of Science and Technology, Kazi Nazrul University Asansol. In this Centre, thrust has been given for integration of research activities through interdisciplinary knowledge, training etc., which might prepare a workforce undertaking scientific challenges in innovative ways. The centre has also started offering Phd course from 2020 onwards. We also aim to bring the Engineering Faculty in the contour of this Centre. Our objectives comprises (i) setting up an Inter-disciplinary Research Collective; (ii) Designing and Fabrication of Organic Semiconductor based Spintronics and Optoelectronics Devices, Organic Photodetector, high-performance *Magnetic Organic Photodetector*, combining both the photodetector and spin valve characteristics in a single device; (iii) Designing of and Fabrication of Solar Cell; (vi) Development of *Graphene-based*



Glance of Experimental Activities at COSOD

Spintronics and Optoelectronics Devices for *Tera Hertz* Application; (vii) Development of a new branch, namely Organic Opto-Spintronics Devices. The motivation of the Centre is to build global networks with a view to connect with latest advancement and research in these fields and to materialize intersections between the Science, Engineering and the Industry.



About Conference :

NSESDESD2024 *Conference* is expected to host gathering of researchers to cultivate recent trends, activities, strategies and challenges in the research field of Natural Sciences, like Physics, Chemistry, Mathematics, Geography, Biology etc. and all Engineering Disciplines and promote connections among the researchers across the globe. It would be a promising platform, which is supposed to spark development and showcase latest research and technological developments in Natural Sciences and all Engineering Disciplines at different fields for *Sustainable Development* and global requirements and would evolve to be an assemblage of inspirational Plenary and keynote addresses, top-notch educational sessions, interactive panels, and networking events.

Broad Theme of the Conference

“Natural Sciences and Engineering in the context of *Sustainable Development*”

Subject Areas

The conference invites contributions on the following themes but not limited to:

- Physical Sciences
- Nanocarbon; Graphene, Nanotube, Fullerene
- Carbon Fibres and Composites
- Physical Properties & Characterization
- Nanomaterials and Nanotechnology
- Materials Science and Engineering
- Low-Dimensional and 2D materials
- Chemical Sciences
- Electrochemistry and Applications
- Quantum Chemistry
- Carbonization and Graphitization
- Mathematical Sciences,
- Machine Learning, IT, IoT and its applications
- Engineering and Emerging Technologies
- Earth Sciences



- **Geology, Geoinformatics and Hydrogeology**
- **Biological Sciences**
- **Biotechnology and Microbiology**
- **Medical Sciences including Forensic sciences**
- **Environmental Sciences**
- **Veterinary Sciences**
- **Disaster Management**
- **Biological and Medical Applications**
- **Hydrocarbons & Biofuels**
- **Nanoscale Carbons**
- **3D Printed Materials**
- **Green Chemistry & Synthetic chemistry**

Call for Papers

NSEPD2024 will cover a wide range of themes spanning the entire spectrum of Natural Sciences, like Physics, Chemistry, Mathematics, Geography, Biology etc. and all Engineering Disciplines that are relevant in the context of sustainable development and are of current and possible future interests to researchers and professionals from academia, research, industry and policymakers. NSEPD2024 will be structured in some appropriate events consisting of invited & keynote lectures from leading experts in the related fields as well as contributory papers presentations.

Presentation and demonstration from Industries will also be there as special session. NSEPD2024 will be consisted of theme based parallel sessions over diversified concepts. Overall, NSEPD2024 programme is sure to provide the participants an enriching experience. The paper should only be submitted by **Email at nsepd2024@gmail.com.**

Call for Abstracts

Authors are requested to submit abstracts latest by 16th January 2024. The abstract, not exceeding 500 words with maximum five keywords, should be

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NSES2024

submitted through email at nsesd2024@gmail.com. The abstract should be prepared using template as attached below/provided on the conference website.

Abstract Template:

https://docs.google.com/document/d/1gNbnBu9CKQH1FK2Rfsx_krz0cSqs3Dm9/edit?usp=sharing&oid=118186537427484102010&rtpof=true&sd=true

Key Dates

Abstract Submission Deadline: 16th January, 2024

Abstract Acceptance: 20th January, 2024

Full Paper Submission: 20th February, 2024

Guidelines for Authors for Full Paper Submission:

Length of the Paper: Maximum 4 pages

Font Type: Times New Roman

Font Size: Title-(14pt. Bold), Subtitle- (12pt. Bold), Text for main content-(12p Regular), Text for abstract (12p Italic) Line Spacing: Single for main content 1.5 for Abstract

Paper Templet :

https://docs.google.com/document/d/1Drfa_94MOhcL4ZplJQaZXSQ9lmL6Rfpy/edit?usp=sharing&oid=118186537427484102010&rtpof=true&sd=true **[Avoid large PDF files (7 MB maximum)]**

Abstract submission: Submission through Email at nsesd2024@gmail.com

Full paper submission: Submission through Email at nsesd2024@gmail.com

Mode of presentation: Oral/poster [Virtual mode will be available as per request]



Publication Opportunity

The good quality research papers from the conference, after thorough peer review, will be published in a conference proceeding possessing ISBN number.

Registration

❖ Participants are requested to register and pay online:

<u>CATEGORY</u>	<u>INR</u>	<u>USD</u>
Academics & R&D Lab	2000	100
Industry	2500	100
Research Scholar	1500	50
Students	700	50
Accompany/Spouse	1500	50

*****Note: Registration is mandatory to participate*****

For the participants unable to attend the conference at the venue due to unavoidable reasons, special **online** sessions for presentation will be arranged.

Registration and Payment Link :

Registration will open shortly



Contact

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How to reach the landmark:

1. From Nearest Railway Station (Asansol Junction)

Google map link: <https://maps.app.goo.gl/zFivPsPvozuxiu8o8>

2. From Nearest Bus Stand (Asansol City Bus Terminus)

Google map link: <https://maps.app.goo.gl/rmVwpjKTvz3TrfxX8>

3. From Nearest Airport (Kazi Nazrul Islam Airport)

Google map link: <https://maps.app.goo.gl/Azq7zAqATJ1UNFEK8>

For regular updates, please keep eye on <https://nsesd2024.in/>