



**NATIONAL SEMINAR ON  
Energy Access and Security in  
Emerging Energy transition**

**Organised by**

**Indian Energy Congress**

**and**

**Indian Institute of Technology, Bhubaneswar**

**NIST University, Berhampur**

**Date: 17<sup>th</sup>-18<sup>th</sup> March, 2025**

**Venue: Community Centre,  
Indian Institute of Technology, Bhubaneswar**

**Organizing Committee**

General Chair

**Dr. Pravakar Swain, Indian Energy Congress**

Organising Chair

**Prof. S. R. Samantaray, IIT Bhubaneswar**

Organizing Member

**Prof. U. Ojha, IIT Bhubaneswar**

Organizing Member

**Prof. Sarat K. Panda, IIT Bhubaneswar**

Organizing Member

**Dr. Venugopal Arumuru, IIT Bhubaneswar**

Organizing Member

**Dr. Chandra Sekhara Perumalla, IIT Bhubaneswar**

Organizing Member

**Dr. Sasmita Padhy, NIST University, Berhampur**

Finance Chair

**Dr. Shishir Kumar Sahoo, Indian Energy Congress**

Publicity Chair

**Prof. P. K. Parhi, Indian Energy Congress**

**ABOUT THE NATIONAL SEMINAR:**

Energy conservation and energy management play a key role in reducing current energy consumption by upgrading and redesigning energy systems and processes, which result in efficient and cost-effective solutions to control greenhouse gas (GHG) emissions. Sustainable economic development with a green environment is a prime focus for the world today, which has been discussed in global summit held in Madrid Climate and Energy Summit, which was aimed to galvanize international efforts to realize the Paris Agreement's ambitious target of limiting global warming to 1.5°C. The conference is multidisciplinary in nature covering all branches of engineering and science and it gives a unique opportunity to participate and understand the recent advances in the energy sector relating to new sources of energy generation, conservation, economics, energy policy, and waste recovery, energy tools, etc. This conference is designed to strengthen the understanding of advanced concepts of energy conservation, energy management, energy economics, and new sources of energy generation. This event will primarily benefit thought leaders, energy sector promoters/executives, faculty members, researchers, Ph D Scholars and students from various disciplines. In summary, the main emphasis of this program will be to give exposure to cutting-edge research in the field of energy conservation and management with enhancement in research and developmental activities among all categories of research and energy production. A series of invited lectures will be delivered by thought leaders, industry executives and researcher from prominent academic and research institutes. The conference shall publish a technical journal covering the presentation of invited speakers, invited/selected papers by the researchers and industry experts aligning with the theme of the conference.

## TOPICS:

The topic for the conference include but not limited to:

- Renewable Energy Integration
- Energy Storage integration
- Control and Operational Challenges
- Green Hydrogen
- Electric Vehicle integration
- Energy Economics and Audit
- Energy access and Security
- Net Zero Buildings
- Life Cycle Analysis of Multi-Energy Vectors
- Energy Efficiency
- Regulatory Framework
- Policy and Recommendation

## HOW TO APPLY:

The interested candidates can fill up the registration form available in Indian Energy Congress website at: [www.indianenergycongress.com](http://www.indianenergycongress.com) or <https://nist.edu/conference/iec/2025>

Participants also can email their registration information in the email: [indianenergycongress@gmail.com](mailto:indianenergycongress@gmail.com). Only after receiving the filled up on line forms from the participants, confirmation of participation will be intimated through E-mail. Registration Kiits, working lunch and tea will be provided to all the registered delegates.

## REGISTRATION:

Registration Fee is Rs 1000/- for industry and R&D delegates from Govt. /Private Organizations. There is no registration fee for the M Tech students, Ph D scholars and faculty members for attending the conference. However, only the registered participants will be allowed to attend the program. The registration fee is to be paid in advance through online in favour of “Indian Energy Congress” through online transfer to the savings bank account of Indian Energy Congress bearing Account No: 19120110044735, UCO Bank, Old Secretariat- Cuttack Branch with IFSC No.: UCBA0001912. Last date of registration is 15<sup>th</sup> March, 2025.

## SPONSORSHIP:

The sponsorship for publication of advertisement in the technical journals as follows:

- Back Cover Page: Rs. 50,000 (Rupees fifty thousand)
- Inner Cover Page: Rs. 40,000 (Rupees forty thousand)
- Full Inner Page: Rs. 30,000 (Rupees thirty thousand)
- Half Inner Page: Rs. 20000 (Rupees twenty thousand)

In addition, sponsors are encouraged to sponsor technical sessions, lunch, dinner, snacks, registration kiits, etc.

The sponsors' signage will appear in different areas of the conference in form of flex banners and standees.

The sponsorship amount and advertisement amount may be released in shape of A/C PAYEE Cheque or Bank Draft in favour of “Indian Energy Congress” through online transfer to the savings bank account of Indian Energy Congress bearing Account No: 19120110044735, UCO Bank, Old Secretariat, Cuttack Branch with IFSC No : UCBA0001912.

**CONFERENCE WEBSITE:**

<https://nist.edu/conference/iec/2025>

**About Indian Energy Congress:**

Indian Energy Congress was established on 7th August 2019 as a registered national professional society under the provisions of the Societies Registration Act 1860 (Act XXI of 1860) bearing registration no: 157/7201900069 of 2019-20. Its primary aims are to bring thought leaders and researchers in energy sector together and lead various initiatives to address the energy challenges that our humanity faces today. The basic objectives of the Society are: to undertake intensive study & research in engineering with multidisciplinary approach in developing energy resources and their utilization; to promote awareness among people about the production, conservation, & utilization of energy; to create awareness in the society to protect environment and to develop social energy responsibility. The interests of the organization cover all aspects of renewable and non-renewable energy resources, including characteristics, effects and methods of use, and it provides a common platform to all those concerned with the nature and utilization of non-polluting resources.

**About IIT Bhubaneswar:**

IIT Bhubaneswar is one of the eight new Indian Institutes of Technology established by the Ministry of Human Resource Development, Government of India under The Institutes of Technology (Amendment) Act, 2011. Indian Institute of Technology Bhubaneswar (IIT BBS) was established on 22nd July, 2008. The Institute strives to offer the best engineering education with unmatched novelties in curriculum. Within a short span of incipience, IIT BBS has made rapid strides towards becoming one of the elite technology institute of India spurred by sustained creation of knowledge and innovation, through high quality R&D activities and commitment to holistic education. The Institute aims to develop and pursue dynamic and flexible curricula designed to facilitate creativity and cognitive thinking among students through productive partnership with industries. Students get exposed to a wide variety of activities through societies and clubs, involving liberal arts, design, dramatics, robotics, music, dance and sports, instilling them with social awareness, a spirit of innovation, entrepreneurship and a thirst of discovery. All academic activities of the Institute are being carried out from the picturesque permanent campus at Argul, spreading over 936 acres of land with unique serene and pollution-free academic environment, in the state of Odisha, India. It is located on the foothills of the magnificent Barunei, having link with Indian freedom movements. At present, the Institute has seven schools and within a short period of time, IIT BBS has been able to build up world class infrastructure for carrying out advanced research and is equipped with state-of-the-art scientific and engineering laboratories. The Institute has a pleasant and friendly environment which facilitates a multidimensional growth of the individual in the campus.

**About NIST University, Berhampur:**

NIST University (<https://nist.edu>), Institute Park, Berhampur, Odisha is a premier research University in the country today. Nestled in the green hills of Pallur, it is spread over 65 acres of lush green campus with world class academic infrastructure, Center of Research Excellence (CREs) and Global Innovation Centers (GIC), halls of residence, sport complex and other facilities. NIST currently offers various undergraduate, graduate, and Ph.D. program in Engineering, Science, and Management. It is expected to offer courses in Allied Health, Medical Science, Agriculture and Animal Husbandry, Liberal and Performing Arts etc. in near future.

Global Innovation Centers (GICs) in areas like: 5G and Future Communications, Semiconductors using advanced material, Artificial Intelligence (AI) and Biotechnology are expected to carryout extensive applied research and creating technology hub leveraging research and innovation at the University. NIST faculties are among BOYSCAST and Fulbright scholars, INSA fellows, USRI scientist award recipients including other achievements. University has research collaboration with Universities around the globe and strong industry academia partnership with multiple industries in different sectors. NIST has been ranked highly in the country by multiple ranking organizations including Govt. of India.

## PROGRAM AGENDA - DAY 1 | MARCH 17<sup>th</sup> 2025

MARCH 17<sup>th</sup> 2025

### INNAGURAL SESSION [Community Centre, IIT Bhubaneswar ] (10.00 – 11.15 AM)

|                                               |                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------|
| Introduction about seminar (5 min)            | <b>Prof. P. K. Parhi</b> , Secretary General, Indian Energy Congress (IEC) |
| Welcome Address (10 min)                      | <b>Prof. S. R. Samantaray</b> , HOS, Electrical & Computer Sc., IIT BBS    |
| Address by Member IEC (5min)                  | <b>Shri. Saumitra Das</b> , Indian Energy Congress                         |
| Address by Guest of Honor (10 min)            | <b>Dr. Sukant K Mohapatra</b> , Founder President, NIST University         |
| Address by Guest of Honor (10min)             | <b>Prof. Sukumar Mishra</b> , Director, IIT (ISM)                          |
| Presentation by Chief Guest (10 min)          | <b>Prof. Shreepad Karmalkar</b> , Director, IIT Bhubaneswar                |
| Felicitatation of Guests on the Dias (10 min) |                                                                            |
| President's Address (10 min)                  | <b>Dr. Pravakar Swain</b> , President, Indian Energy Congress              |
| Vote of Thanks (5 min)                        | <b>Er. Pabitra Mohan Sahu</b> , Treasurer, Indian Energy Congress          |

### TEA BREAK [Community Centre, IIT Bhubaneswar] (11.15 AM – 11.45 AM)

### TECHNICAL SESSION -1 [Community Centre, IIT Bhubaneswar ] (11.45 AM – 1.30 PM)

|                                |                                            |
|--------------------------------|--------------------------------------------|
| <b>Invited talk 1</b> (45 min) | Prof. Sukumar Mishra, IIT ISM              |
| <b>Invited talk 2</b> (45 min) | Shri. Mahesh Prasad Das, CPM, RENA, GRIDCO |

### LUNCH BREAK [Community Centre, IIT Bhubaneswar ] (1.30 PM – 2.30 PM)

### TECHNICAL SESSION -2 [Community Centre, IIT Bhubaneswar ] (2.30 PM – 3.15 PM)

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| <b>Invited talk 3</b> (45 min) | <b>Prof. Chandan Kumar Chand</b> , IEST, Shibpur |
|--------------------------------|--------------------------------------------------|

### TEA BREAK [Community Centre, IIT Bhubaneswar] (3.15 PM – 3.30 PM)

### Panel Discussion (3.30 PM – 5.30 PM): Challenges and Opportunities in emerging Energy Transition

Prof. Ashok Tripathy, Former DG, CPRI

Mr. Kedar Ranjan, MD, OGPC

Mr. P. K. Patnaik, Director OPTCL

Dr. M. V. Rao, Chairman Regulatory Commission

Prof. S. R. Samantaray, IIT Bhubaneswar

### HIGH TEA [Community Centre, IIT Bhubaneswar] (5:30 PM)

## PROGRAM AGENDA - DAY 2 | MARCH 18<sup>th</sup> 2025

March 18<sup>th</sup> 2025

### TECHNICAL SESSION -3 [Community Centre, IIT Bhubaneswar ] (9:30 AM – 11:15 AM)

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| <b>Invited talk 4</b> (35 min) | <b>Dr. M. V. Rao</b> , Chairman Electricity Regulatory Commission, W.B |
| <b>Invited talk 5</b> (35 min) | <b>Prof. U. Ojha</b> , IIT Bhubaneswar                                 |
| <b>Invited talk 6</b> (35 min) | <b>Prof. Kanika Das Bhattacharjee</b> , IEST, Shibpur                  |

### TEA BREAK [Community Centre, IIT Bhubaneswar ] (11:15 AM to 11:30 AM)

### TECHNICAL SESSION -4 [Community Centre, IIT Bhubaneswar ] (11:30 AM – 12:15 PM)

|                                |                                            |
|--------------------------------|--------------------------------------------|
| <b>Invited talk 7</b> (45 min) | <b>Prof. S. K. Panda</b> , IIT Bhubaneswar |
|--------------------------------|--------------------------------------------|

### VALEDICTORY SESSION [Community Centre, IIT Bhubaneswar] (12.15 PM – 1.00 PM)

**Shri. B.C. Jena**, Former Chairman, Electricity Board, Odisha (**Chief Guest**)

**Prof. P.K. Hota**, Vice Chancellor, DRIEMS University, Cuttack (**Guest of Honor**)

### LUNCH [Community Centre, IIT Bhubaneswar] (1.00 PM – 2.00 PM)