

## SCOPE OF CONFERENCE

The Green technology is the knowledge for conserving natural environment and resources and reducing human involvement. It can operate in diversified areas such as bio-fuel, eco-forestry, renewable energy, and solid waste management ICGEST-2023 is the International conference on Green Energy and Sustainable Technology. To be organised by the School of Renewable Energy and Efficiency. Department of Electrical Engineering, National Institute of Technology, Kurukshetra. The international conference has kept its theme as Green and *Sustainable Energy Systems and Environment*. The Inte. Conf., aims at bringing the advancement in the field of Green Energy, Renewable Energy, Environmental Science, and Green Technologies with an emphasis at Educating and informing environmental researcher, industry professionals with the latest knowledge of technologies that can be applied to different fields that includes:

•Geothermal Energy, Bioenergy, Green Energy, •Biomass Energy, Waste-to-Energy, Sustainable Energy and Developments, Solar Energy, Wind Energy, Environmental Engineering and Environmental Science, Green Buildings, Impact on Agriculture, smart transportation, The Int. Conference has the key objective of providing an international forum and platform for academics, researchers and scientists from worldwide to discuss worldwide results and proposals regarding to the issues related to Green Energy and Environmental Technologies.

## NIT KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA and MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

## SCHOOL OF RENEWABLE ENERGY AND EFFICIENCY

The School offers M.Tech and Ph.D. Degrees in the area of green energy, bio fuels, environmental science, thermal and heat energy, and all relevant fields to the green energy and sustainable technology. The School of Renewable Energy and Efficiency is jointly run by the Electrical and Mechanical Engineering Department. Presently, the school is running M.

Tech. program and offers Ph.D. in different areas with the evolving innovations and developments in all disciplines of Renewable Energy.

## KURUKSHETRA

Kurukshetra is described as DHARAMKSHETRA, with historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna preached the philosophy of "KARMA" as enshrined in the holy book "Shrimad Bhagwad Gita." It is one of the premier pilgrimage center attracting devotees all round the year. Kurukshetra is very well connected by Rail, Delhi-Ambala section, by Road (NH1, connecting Delhi-Chandigarh-Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

## IMPORTANT DATES

Last date for submission of paper	15/09/2023
Intimation of acceptance (on website or by email)	on or before 05/11/2023
Submission of Camera Ready Paper	25/11/2023
Early Bird Registration Starts	01/12/2023
Early Bird Registration Ends	07/12/2023
Last date of Registration with late fees	12/12/2023

## PATRON

Dr. B.V. Rammana Reddy, Director, NIT Kurukshetra

## GENERAL CHAIRS

Dr. Ashwani Kumar

Professor(s), EED, NIT Kurukshetra

Dr. Shelly Vadhera, Assoc. Prof.

## ORGANISING SECRETARIES

Dr. Pradeep Kumar, Dr. Rajesh Kumar,

Dr. Chandrashekara M.

Assistant Professors, EED/MED, NIT Kurukshetra

## PUBLICITY, TECHNICAL MANAGEMENT CHAIR

Dr. Jagan Nath Officer Incharge CCN

## TECHNICAL PROGRAM COMMITTEE

Dr. Shivam, Dr. Murlidhar Killi, Dr. Rajan NIT Kurukshetra, Dr. Om Hari Gupta, NIT Jamshedpur, Dr. Jitender Kumar, NIT Jamshedpur, Dr. Navneet Kumar Singh, NIT Allahabad, Dr. Nitin Kumar Saxena, KIET Ghaziabad

## FINANCE MANAGEMENT CHAIR

Dr. Shivam, NIT Kurukshetra



## International Conference on Green Energy and Sustainable Technology

Theme: Green and Sustainable Energy  
Systems

(ICGEST-2023)

(Dec. 15-17, 2023)

IN HYBRID MODE (ONLINE & OFFLINE)



Organized by

School of Renewable Energy and Efficiency,  
National Institute of Technology Kurukshetra,  
India

## CONFERENCE TRACKS

### TRACK-I: Green Energy/Renewable Energy

Solar, wind, geothermal, bio gas, green energy in Electric Power Generation, Transmission and Distribution, baggasee, Smart Grid and Renewable Energy, Renewable power generation & clean energy technologies, Integration of renewable energy sources and storage systems, Renewable power generation forecasting and Optimization etc.

### TRACK-II: Smart Grid and Energy management

Micro grids, smart grids, Protection Issues of Hybrid Microgrids, Challenges in Grid Integration of microgrids, Security and stability of islanded Microgrids, Active distribution networks and AC/DC Microgrids, Demand side energy management & prosumers participation. Rural Development through Green Energy, energy storage, Cloud Computation/ Edge Computation, Data Acquisition and Monitoring, Data Management, Distributed Optimization, Modern Heuristic Optimization, High Performance Computing for Grid Analysis big data analytics and machine learning real-time vulnerability assessment, demand management, predictive analytics, theft detection, energy trading, economic dispatch etc.

### TRACK-III: Sustainable energy Policies

Green energy Policies and Programmes, Electricity Market, Market Mechanism, Power System Economics, Carbon Transactions, Ancillary Services, Blockchain and Transactive Energy Systems, Energy Policies, Future Energy Markets, Energy Efficiency, Big Data, Digital Twin, Energy Management, Demand Response/ Demand Side Management, Forecasting in Energy Systems, System Modelling and Simulation, Co-Simulation and Real-Time Simulation, Income generation with green energy. National bioenergy programmes: economic, political and social issues etc.

### TRACK-IV: PLANNING AND OPERATION WITH RENEWABLE ENERGY

Operations and Planning, Power System Flexibility, Active Distribution Networks, Multi-Energy Systems, Simulation & Control For Power System With High Penetration of Renewables, Impact Of Climate Change Impacts on Grid, Smart Cities Solutions, Urban Power System, T&D Interface Issues and Solutions, Bulk Power System, Restoration and Mitigation of Extreme Events, Power System Restoration with Renewable Energy Sources, Electrical and Gas Systems, Integrated Resource Planning, Advancements in ADMS, DERMS, EMS, and OMS Solutions, Uncertainty

Management, Energy storage and cyber security for smart grids etc.

### TRACK-V: Bio Fuels, Bio energy, Thermal energy

Bioenergy supply management strategies, Biofuels in developing economies, Biomass, Renewable Energy for Power and Heat, Solar thermal and photovoltaics, Greening the Fossil Fuels, Carbon and Methane capture, Thermal and recycling, Solar Desalination, Hydrogen and fuel cell, Alternative Fuels, CFD in green energy etc.

### TRACK-VI: ELECTRIC MOBILITY AND ENERGY STORAGE SYSTEMS

Power electronics for hybrid and electric vehicles, Small, medium and long-range wireless power transfer, Modelling and design of wireless power transfer coils, Vehicle power electronic circuits and systems, Charging systems, Batteries, super capacitors and flywheel, Power electronics topologies for integration of energy storage etc.

### TRACK-VII: Waste to Energy

Waste management, green energy and impact on waste, energy harvesting from waste, Energy in food production, agriculture and processing etc.

### TRACK-VIII: Energy, Environment and green buildings

Integration of renewable energy sources in buildings, Sustainable materials for buildings, Greening Urbanization and Urban settlements, Energy and Health, Energy and Water, Energy efficiency in building designs and management, Integration of renewable energy sources in buildings, smart transportation, Advance biofuel for a sustainable heavy-duty transport and aviation, Sustainable materials for buildings, GIS applications in renewable energy, green energy sources identification using satellite remote sensing, Environmental applications of remote sensing and GIS, AI in green buildings, Drone applications in sustainable buildings etc.

### Track IX: Climate Change and Renewable Energy

Rapid urbanization and energy-environmental implications, Green Energy in Transport and impact on environment, Remote sensing and GIS for climate change analysis and prediction.

## SUBMISSION GUIDELINES & INDEXING

Research papers should present novel perspectives within the general scope of the conference.

It is proposed to submit the conference proceedings for inclusion in reputed publishers like Springer. The manuscript must adhere to the Springer conference template format. The conference paper template is available on the conference

website. The paper's length should not exceed 20 pages. All submitted papers will be subjected to a "Plagiarism check" by Turnitin Software. Papers achieving less than 20% similarity score will only be sent for the formal review. The paper must be submitted only in PDF format.

To submit the manuscript, the authors are requested to use the link available in conference [website. www.icgest2023.com](http://www.icgest2023.com) The papers received will be peer reviewed before being accepted for presentation.

## REGISTRATION INFORMATION

It is mandatory for at least one author of an accepted paper for the paper to appear in the proceeding. Co-authors must register by paying full registration fees, in case they want to attend and get presentation certificate as a conference delegate. The application should be made on the registration form and should accompany registration fee as below:

Early bird registration

Participant's category	Registration Fee* (in Indian Rupees)	
	Online	Offline
Students Authors	1000/-	1500/-
Faculty Delegates	2000/-	2500/-
Industry Delegates	2500/-	3000/-
Foreign Participants	\$100	\$200/-

Late Registration

Participant's category	Late Registration Fee* (in Indian Rupees)	
	Online	Offline
Students Authors	1500/-	2000/-
Faculty Delegates	2500/-	3000/-
Industry Delegates	3000/-	3500/-
Foreign Participants	\$110	\$220/-

\* **Registration fee is non-refundable under any circumstances.**

- In the case of offline participation, the delegate needs to make arrangements for the stay on their own.
- One single Registration includes presenting 2 accepted papers.
- Payment can be made through SBI Collect. Payment link will be displayed soon.

## SPONSORSHIP

The organizing committee of SGESC-2023 invites companies and organizations to advertise themselves during the conference. Sponsors can showcase their service, technology and solutions to an august gathering of the foremost technologists in these areas in India. The conference

also provides extensive networking opportunities, which can be fully utilized by availing the complimentary registrations awarded to the sponsors. The conference presents the sponsorship opportunity in one of the following sponsor categories:

Sponsor Type	Amount	No. of Free Registration	Displayed on website of the conference
Diamond	60000	5	yes
Gold	40000	3	yes
Silver	20000	2	yes
Bronze	10000	1	yes

Apart from above all the sponsorship, categories will attract the following:

- Display of the sponsor's logo on the homepage of the conference website and other official documents of the conference
- Include one brochure/ pamphlet in the registration kit to the conference delegates
- Acknowledgment during the inaugural session
- Colour advertisement of sponsor details/ product details in the abstract book for Diamond, Gold and Silver sponsors

#### **INTERNAL ADVISORY COMMITTEE**

Dr. L. Dewan, Professor, EED, NIT Kurukshetra  
 Dr. R. Dahiya, Professor, EED, NIT Kurukshetra  
 Dr. Sathans, Professor, EED, NIT Kurukshetra  
 Dr. Yashpal, Professor, EED, NIT Kurukshetra  
 Dr. Hari Singh, MED, NIT Kurukshetra  
 Dr. V. K. Bajpai, Professor, MED, NIT Kurukshetra  
 Dr. Gian Bhushan, Professor, MED, NIT Kurukshetra  
 Dr. Arun Goel, Professor, CED, NIT Kurukshetra  
 Dr. Mahesh Pal, Professor, CED, NIT Kurukshetra

#### **EXTERNAL ADVISORY COMMITTEE**

Dr. Wenzhong Gao, Denver University, USA  
 Dr. Sheldon Williamson, Prof. Ontario University  
 Dr. Sanjay Chaudhary, Aalborg University, Sweden  
 Dr. Akhil Garg, Huazhong University of Science and Technology (HUST), China  
 Dr. Adarsh Pandey, Sunway University, Selangor, Malaysia  
 Dr. Sanjay Chaudhary, University of Aalborg  
 Dr. Akhtar Kalam, Victoria University, Australia  
 Dr. R. C. Bansal, Prof. EE Dept, University of Sharjah  
 Dr. Kankar Bhattacharya, Prof. of Electrical & Computer Engineering, University of Waterloo  
 Dr. Krishna Singh, National University of Singapore  
 Dr. Ankur Bhattacharjee, BITS Pilani  
 Dr. S.C. Srivastava, IIT Kanpur

Dr. K. Shanti Swarup, IIT Madras  
 Dr. Vivek Agarwal, IIT Bombay  
 Dr. S.N. Singh, Professor, IIT Kanpur  
 Dr. Ashish Garg, IIT Kanpur  
 Dr. Anoop Singh, IIT Kanpur  
 Dr. Ankush Sharma, IIT Kanpur  
 Dr. Deepika Swami, IIT Kanpur  
 Dr. Jayant K. Singh, IIT Kanpur  
 Dr. Kanwar Singh Nalwa, IIT Kanpur  
 Dr. Dibakar Rakshit (IIT Delhi)  
 Dr. Pramod Aggarwal, IIT Roorkee  
 Dr. Chandan Chakraborty, IIT Khargpur  
 Dr. Siddhartha Mukhopadhyay, EED, IIT Kharagpur  
 Dr. Sukumar Mishra, EED, IIT Delhi  
 Dr. Chitrlekha Mahanta, EED, IIT Guwahati  
 Dr. N.C. Shiva Prakash, EED, IISc Bangalore  
 Dr. Jagadeesh V., EED, IIT Madras  
 Dr. H.M. Suryawanshi, EED, VNIT Nagpur  
 Dr. Prerna Gaur, NSUT, New Delhi  
 Dr. Asheesh Kumar Singh, NIT Allahabaad  
 Dr. Vikrant Sharma, NISE, Haryana

#### **TECHNICAL COMMITTEE**

Dr. Bharat Singh Rajpuhorit, IIT Mandi.  
 Dr. Ranjan Behera, IIT Patna  
 Dr. Sanjoy Parida, IIT Patna  
 Dr. Barjeev Tyagi, IIT Roorkee  
 Dr. Prem Lata Jena, IIT Roorkee  
 Dr. Rhythm Singh, IIT Roorkee  
 Dr. C. C. Reddy, IIT Ropar  
 Dr. R. N. Sharma, NIT Hamirpur  
 Dr. R. K. Jarial, NIT Hamirpur  
 Dr. D. M. Vinod Kumar, NIT Warangal  
 Dr. D. K. Jain, DCURST, Murthal  
 Dr. Mukhtiar Singh, DTU, Delhi  
 Dr. Rajesh Kumar, EED, MNIT Jaipur  
 Dr. Sambhu Nath Sharma, EED, NIT Surat  
 Dr. Rajesh Gupta, EED, MNNIT Allahabad  
 Dr. Rabindra Nath Mahanty, NIT Jamshedpur  
 Dr. Niranjan Kumar, EED, NIT Jamshedpur  
 Dr. Vinod Yadav, Associate Professor, EED, DTU  
 Dr. Arup Goswami, Assoc.Professor, EED, NIT Silchar  
 Dr. Dipti Patra, EED, NIT Rourkela  
 Dr. Rohit Bhakar, Assoc.Professor, EED, MNIT Jaipur  
 Dr. Y. P. Verma, UIET Chandigarh  
 Dr. Bhavnes Kumar, NSIT Delhi  
 Dr. Baidynath Bag, NIT Raipur  
 Dr. Gaurav Dwivedi, MNNIT Bhopal  
 Dr. Jay Ram Nakka, NIT Andra Pradesh  
 Dr. T. Ramesh, NIT Andra Pradesh

Dr. Mrinal K. Sarkar, NIT Manipur  
 Dr. S. Karmakar, NIT Rourkela  
 Dr. Jitender Singh, NIT Jamshedpur  
 Dr. Om Hari Gupta, NIT Jamshedpur  
 Dr. Dhermender Dheer, NIT Surat  
 Dr. Aeidapu Mahesh, NIT Surat  
 Dr. Nitin Kumar Saxena, KIET Ghaziabaad  
 Dr. Manish Kumar, Central University of Haryana  
 Dr. Mayank Vyas  
 Dr. Navneet Kumar Singh, NIT Jamshedpur  
 Dr. Intender Kumar Singh, NIT Jamshedpur  
 Dr. M. Suman, NIT Allahabaad  
 Dr. V. Kartikeyan, NIT Calicut  
 Dr. Giribabu D. NIT Bhopal  
 Dr. Arun Verma, IIT Jammu  
 Dr. Avadhpati Pandey, NIT Silcher  
 Dr. Sunanda Sinha, NIT Jaipur  
 Dr. Avadesh Yadav, MED, NIT Kurukshetra  
 Dr. Rajneesh, MED, NIT Kurukshetra  
 Dr. Murlidhar Killi, NIT Kurukshetra  
 Dr. Rajan Kumar, NIT Kurukshetra  
 Dr. Rajesh Kumar, NIT Kurukshetra  
 Dr. Sudipta Ghosh, NIT Kurukshetra

#### **ORGANIZING COMMITTEE**

Dr. Saurabh Chanana, Asso. Prof. EED NIT Kurukshetra  
 Dr. Anil K. Dahiya, Asso. Prof. EED, NIT Kurukshetra  
 Dr. Bhanu Pratap, Asstt. Prof. EED, NIT Kurukshetra  
 Dr. M. P. R. Prasad, Asstt. Prof., EED, NIT Kurukshetra  
 Dr. Rahul Sharma, Asstt. Prof., EED, NIT Kurukshetra  
 Dr. Sandeep Kakran, Asstt. Prof., EED, NIT Kurukshetra  
 Dr. Kiran K. Jaladi, Asstt. Prof., EED, NIT Kurukshetra  
 Dr. Shivam, Asstt. Prof., EED, NIT Kurukshetra  
 Dr. Gulshan Sachdeva, MED, NIT Kurukshetra  
 Dr. Avadesh Yadav, MED, NIT Kurukshetra  
 Dr. Rajneesh, MED, NIT Kurukshetra  
 Dr. Murlidhar Killi, NIT Kurukshetra  
 Dr. Rajan Kumar, NIT Kurukshetra  
 Dr. Rajesh Kumar, NIT Kurukshetra  
 Dr. Sudipta Ghosh, NIT Kurukshetra

#### **ADDRESS FOR CORRESPONDENCE: ICGEST-2023**

**School of Renewable Energy and Efficiency  
National Institute of Technology  
Kurukshetra-136 119**

**Contact: (M)**

**Email: [icgest@nitkr.ac.in](mailto:icgest@nitkr.ac.in), [www.icgest2023.com](http://www.icgest2023.com)**