

National Conference  
On  
**Renewable Energy and  
Sustainable Environment**

(NCRESE-2020)

(August 28-29, 2020)



**Organised by**  
School of Renewable Energy and Efficiency, NIT  
Kurukshetra

**In association with**



Bureau of Energy Efficiency, GOI, Ministry of Power  
Department of New and Renewable Energy, Haryana  
Haryana Renewable Energy Development Agency,  
Panchkula

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**IMPORTANT DATES**

Call for Paper: **30 May 2020**  
Paper Acceptance: **15 June 2020**  
Revised Paper Submission: **20 June 2020**  
Early Bird Registration: **16 June 2020**  
Registration with Late Fee: **25 June 2020**  
Date of Conference: **28-29 August 2020**

**CORRESPONDANCE**

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**KURUKSHETRA**

Kurukshetra is described as DHARAMKSHETRA, with historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shri Krishna preached the philosophy of "KARMA" as enshrined in the holy book "Shrimad Bhagwad Gita." Kurukshetra is very well connected by Road (NH44, connecting Delhi-Chandigarh-Amritsar-Jammu), by Rail, (Delhi-Ambala section), and by Air (Delhi 160 km and Chandigarh 80 km). The NIT Kurukshetra campus is situated about 10 km from Pipli bus stand located on NH44 and about 4 km from Kurukshetra railway station.

**NATIONAL INSTITUTE OF TECHNOLOGY  
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.

**SCHOOL OF RENEWABLE ENERGY AND  
EFFICIENCY (SREE), NITK**

School of Renewable Energy and Efficiency was established in 2012. The School offers courses M. Tech., and Ph.D. Degrees since its inception. Research and development activities on various relevant aspects of non-conventional energy sources have been envisaged keeping synergy with the evolving innovations and developments in Renewable Energy.

**BUREAU OF ENERGY EFFICIENCY**

The Government of India has setup Bureau of Energy Efficiency (BEE) on 1<sup>st</sup> March 2002 under the provision of Energy Conservation Act 2001. The mission of BEE is to assist in developing policies and strategies with a thrust on self regulation and market principles with primary objective of reducing energy intensity of Indian economy within the overall framework of the Energy Conservation Act 2001.

**DEPARTMENT OF NEW AND RENEWABLE ENERGY**

The Department of New and Renewable Energy (DNRE) is responsible for formulating policies and programmes necessary for popularizing the applications of various non-conventional and renewable sources of energy in the State. It implements various schemes concerning

utilization of solar energy, bio gas, micro hydel, bio mass energy. The Department is also acting as a State Designated Agency for the implementation of the Energy Conservation Act, 2001. State Govt. has also set up a new agency called Haryana Renewable Energy Development Agency (HAREDA) in May, 1997 for implementation of various centrally and state sponsored schemes/ projects in the area of renewable energy in the State.

### OBJECTIVES

The National Conference on “Renewable Energy and Sustainable Environment” aims to bring together leading academic scientists, researchers, scholars and students across the globe to exchange and share their experiences and research results and development about all new technologies in the field of renewable energy to help the Environment Professionals to harness the full potential. The whole idea of the conference is to exchange thoughts and ideas in the concerned fields, and transform those in real time to solve the problems. The conference is a rare opportunity for all individuals of the environment community to know about the latest technologies and strategies.

### TRACKS

The research papers for the conference are invited based on original work on the following broad Topics/ Areas but not limited to:

- **Renewable Energy and Harvesting Technologies:** Renewable energy economics and policy, Renewable energy resource assessment, Operations management and sustainability, Energy audit, Global warming, Waste and resource management, Green energy deployment, Green buildings, Integration of green energy, Energy efficiency. Bio-diversity: it's past and prospects, Advancing sustainable food systems, Sustainable agriculture, Atmosphere, Climate issues, Meteorology, Mitigation technologies (e.g. carbon capture and storage (CCS), Carbon capture and utilization (CCU).
- **Alternate Energy Resources :** Tidal power, Hydrogen energy, Biomass, Geothermal, Hydropower, Solar energy, Wind energy, Future challenges, and Emerging technologies.
- **Wind Energy:** Wind farms, Rotors and blades, Aerodynamics, Fluid dynamics, Distributed wind, Wind effects on large scale structures, Wind tunnel modelling, Wind loads and structural response, Codes and regulations of wind energy systems, Electrical machines design and modelling for wind energy systems, Off-shore & Grid connected wind energy systems.
- **Solar Energy:** Modelling and designing of solar cell, Fabrication technology of solar cells, Solar appliances, Control of converters for

efficient solar system, Solar energy home automation, Recycling of PV cells.

- **Smart Grids:** Micro-grids, Hybrid energy systems, HVDC & FACTS, Power quality issues, Fault coordination and protection of DC grids; Autonomous, islanded and remote networks; Smart distribution networks, AC and DC load flow analysis, Advance metering infrastructure (AMI), Control and automation schemes, Wide area monitoring, protection and control (WAMPAC); PMUs, Communication infrastructure, Cyber security, IOT application in smart grid.
- **Electric Vehicle:** Electric propulsion systems for electric vehicles, Power converters for electric vehicles, Hybrid energy systems for integration of vehicle, Batteries active and passive Management Systems (BMS), EV's battery chargers: contact and contactless, Alternative vehicle technologies, Plug-in technologies (V-G and G-V), Wireless power transfer, IOT applications, Standards and regulation.
- **Energy Storage:** Batteries, Super capacitors, Hydrogen storage, Fuel cell, Flywheel, Storage technologies, Power electronics control for fast charging/discharging and SOC, Optimal sizing of storage systems, Energy management, other fuels.
- **Solar Thermal:** Desiccant air-conditioning, Cooking through concentrator, Ejector cooling, Vapour, Absorption refrigeration, Vapour adsorption refrigeration, Water production from atmospheric air, Desalination, Steam generation, Sensible and latent heat storage
- **Bio-Energy Technologies:** Bio-gas generation and purification, Bio-Ethanol & Butanol production from agriculture residue, Bio-Diesel production through natural oils.

### WHO SHOULD ATTEND?

Faculty members/ Research scholars/ Students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries etc. can attend the course.

It is mandatory for at least one author of an accepted paper should be registered and present the paper for publication 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. Registration fee includes: Conference kit, Tea/Coffee, Lunch, Grand Conference Dinner, and Conference Proceedings/CD.

The application should be made on the registration form and should accompany registration fee as below:

Participant's Category	Registration fee* (in Indian Rupees)
Students/Research Scholars	1500/-
Faculty	2000/-
Industry	3000/-

### Registration fee is non-refundable

Payment can be made through SBI Collect. Payment link will be displayed soon. Registration fee can also be paid through a bank demand draft in favour of “Director, NIT Kurukshetra” payable at SBI, NIT Kurukshetra

Participants will be provided meals and tea during the sessions. However, limited accommodation is available in the hostel/ guest house. The accommodation can be arranged on the request of the participants on payment basis, separately. No TA/ DA will be paid to the participants. For more details please refer to conference website: [www.ncrese2019.com](http://www.ncrese2019.com).

### SUBMISSION GUIDELINES & INDEXING

Faculty members/ research scholars/ scientists from India and abroad are invited to submit original unpublished research in the topics related to the conference. Research papers should present novel perspectives within the general scope of the conference. Literature reviews/survey papers will only be considered if they present a new perspective or clear benefit to the field and define the field in a new way or highlight exciting new technologies or areas of research. The manuscript must adhere to the Springer conference template format (<https://www.springer.com/us/authors-editors/conference-proceedings/conference-proceedings-guidelines>).

The conference paper template is available in conference website. The paper length should be more than 05 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. Paper must be submitted only in PDF/Word format. To submit the manuscript, the authors are requested to use the easy chair link (<https://easychair.org/conferences/?conf=ncrese2020>) available in conference website. **Conference website: [www.ncrese2019.com](http://www.ncrese2019.com)** The papers received will be peer reviewed before being accepted for presentation. All presented papers will be published in prestigious book series of Springer. The volumes of this book series will also be made available in Springer link digital library (confirmation is under process).