

1<sup>st</sup> International Online Conference

**Sustainable Development in Civil and Electrical Engineering** 



## **COMMITTEE**

## **PATRON**



Director, NIT Kurukshetra

### **CO-PATRON**



Dean (R&C) & Professor, Civil Engg. Deptt.

## **ORGANISING CHAIRMAN**









Assistant Professor, Electrical Engg. Deptt.

### Assistant Professor, Civil Engg. Deptt. INTERNAL ADVISORY COMMITTEE

- Dr. K S Sandhu, Professor, EED, NIT Kurukshetra
- Dr. Baldev Setia, Professor, CED, NIT Kurukshetra
- Dr. S K Patidar, Professor, CED, NIT Kurukshetra

# Dr. Mehar Prasad, IIT Madras

- Dr. Anupam Chakrabarti, IIT Roorkee
- Dr. Mirzi Betasolo, PNG University, Papua New Guinea

- Dr. Mukand Singh Babel, A. I. T., Thailand
- Dr. Adebayo J. Adeloye, Heriot Watt University, UK
- Dr. K C Patra, NIT Rourkela
- Dr. S K Singh, NIH, Roorkee
- Dr. Suby Bhattacharya, University of Surrey, UK
- Dr. Sanjay Kumar Shukla, E. Cowan Uni., Australia
- Dr. Debasish Roy, IIT Kharagpur Dr. Anil Dikshit, IIT Bombay
- Dr. Ligy Philip, IIT Madras
- Dr. Albert Butare, CEO: Africa Energy Services Group
- Dr. Faisal Husain, Univ. of Washington, Seattle, USA
- Dr. Satish Chandra, IIT Roorkee
- Dr. R D Gupta, MNNIT Allahabad
- Dr. Wenzhong Gao, Denver University, USA
- Dr. Anurag K. Srivastava, Washington State Univ., USA Dr. V K Sood, University of Ontario, Canada
- Dr. S C Srivastava, IIT Kanpur
- Dr. Ankush Sharma, IIT Kanpur
- Dr. S N Singh, Professor, IIT Kanpur
- Dr. G B Kumbhar, IIT Roorkee
- Dr. Debapriya Das, IIT Kharagpur
- Dr. Siva Sarma DVSS, NIT Warangal
- Dr. R C Bansal, Professor, EE Dept, Univ. of Sharjah
- Dr. S A Soman, IIT Bombay
- Dr. N K Roy, NIT Durgapur
- Dr. Mukhtiar Singh, DTU

- Dr. Dilbag Singh, NIT Jalandhar Dr. M. P. Selvan, NIT Trichy
- Dr. H M Suryawanshi, VNIT Nagpur



Professor & Head, Civil Engg. Deptt.







Dr. Atma Ram Gupta

- Dr. A Swarup, Professor, EED, NIT Kurukshetra
- Dr. Ratna Dahiya, Professor, EED, NIT Kurukshetra
- Dr. S K Madan, Professor, CED, NIT Kurukshetra
- Dr. Praveen Aggarwal, Professor, CED, NIT Kurukshetra

# **EXTERNAL ADVISORY COMMITTEE**

- Dr. Abdul Hamid, Adelaide University, Australia
- Dr. Mohamed-Ouejdi Belarbi, Biskra, Algeria Dr. Ashraf M. Zenkour, Kafrelsheikh University, Iran
- Dr. V P Singh, Texas A&M University, USA Dr. C S P Ojha, IIT Roorkee
- Dr. Ian Holman, Cranfield University, UK.
- Dr. Rajagopalan Balaji, University of Colorado, Boulder

- Dr. Goudappa R. Dodagoudar, IIT Madras

- Dr. R K Dutta, NIT Hamirpur

- Dr. K Shanti Swarup, IIT Madras
- Dr. Barjeev Tyagi, IIT Roorkee
- Dr. D.M. Vinod Kumar, NIT Warangal
- Dr. Srinivasa Rao Sandepudi, NIT Warangal
- Dr. Sukumar Mishra, IIT Delhi
- Dr. Madhusudan Singh, DTU
- Dr. BalaKrishna Pamulaparthy, GE Renewable Energy

### **ABOUT SDCEE 2021:**

An International Online Conference on Sustainable Development in Civil and Electrical Engineering is being organised by Departments of Civil and Electrical Engineering, National Institute of Technology, Kurukshetra. The need of the era is sustainable development. Sustainable development is the idea that human societies must live, and meet their needs, without compromising the ability of future generations to achieve their requirements. The conference aims to stimulate the exchange of information on current research, development and sharing of relevant experience in the spcific areas of Civil Engineering and Electrical Engineeering. The conference shall provide a useful forum to academicians, technologists, entrepreneurs and the research scholars in respective domain to

**Call for Papers:** 

Submission link (Easychair): https://easychair.org/conferences/?conf=sdcee2021

share ideas, for further benefit of the mankind at large.

**Call for Papers:** SDCEE-2021, an International Conference on Sustainable Development in the areas of Civil and Electrical Engineering, provides a forum for presentation of technological advances, latest research and policies in theoretical, experimental and applied aspects of sustainable developments of the fields. High quality full length papers, which are not under review, and have not already been published or accepted for publication or communicated elsewhere, are solicited on the topics underlined and within the scope of conference theme and are expected to be communicated for possible publication. All submissions will be reviewed by the Technical Committee on the basis of technical quality, relevance to conference topics of interest, originality, significance, and clarity. By submitting your manuscript to the conference, it is understood that it is an original manuscript, an unpublished work and is not under

**About Place:** 

**About Institute:** 

of high quality.

Kurukshetra is described as DHARAMKSHETRA, a place of historical

and religious importance. The battle of Mahabharata was fought here.

Lord Krishna preached the philosophy of 'KARMA' as enshrined in the holy book 'Shrimad Bhagwad Gita'. It is one of the premier pilgrimage

centers attracting devotees all round the year. Kurukshetra is very well

connected by rail (Delhi - Ambala section), by road (NH44, connecting

Delhi - Chandigarh - Amritsar) and by air (Delhi - 160 km and Chandigarh

80 km). NIT Kurukshetra campus is located at about 10 km from Pipli bus

stand located on NH44, and about 4 km from Kurukshetra railway station.

NIT Kurukshetra, formerly known as Regional Engineering College Kurukshetra,

was established in 1963. It was conferred the NIT status on June 26, 2002. The

Institute offers B.Tech., M.Tech. and Ph.D in various disciplines of engineering, and MBA & MCA, with an annual intake of about 1800 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

consideration elsewhere. Conference Themes: Sustainable practices in the following areas of Civil and Electrical Engineering

Water Resource Engineering: Environmental Hydraulics; Geospatial Technologies in Water Resources Engineering; Soft Computing Techniques in Water Resources Engineering; Flood Forecasting and Mitigation Measures; Coastal/Harbor and Ocean Engineering; Experimental and Computational Fluid Mechanics; Fluvial Hydraulics; Hydrology and Hydrologic Modelling; Climate Change Impact on Water Resources; Hydraulic Structure and Hydropower Project; Challenges in Management of Water Resources and Flooding

**Geotechnical Engineering:** Geo-environmental Engineering; Ground Improvement Techniques; Geotechnical Earthquake Engineering; Soil-Structure Interaction; Landslides and Slope Stability

**Structural Engineering:** Green Building Materials and Technologies; Green Buildings and Architecture; Local and Recycled Construction Materials; Resilient

Transportation Safety

and Durable Construction Technologies; Optimization of Material Life Cycle; Life Cycle Assessment of Buildings; Bridge Engineering; Civil Engineering Design; Modern Construction Materials; Retrofitting / Rehabilitation of Structures; Applications of smart materials in civil engineering **Transportation Engineering:** 

Road & Bridge Engineering; Vehicle Safety and Emissions Civil and Urban Engineering; Sustainable Transportation Infrastructures;

Environmental Engineering & Management; Solid Waste Management Engineering; Surface and Ground Water Studies Sustainable building technologies; Climate change and the urban environment

**Geo-informatics**: Applications in Civil & Electrical Engineering

**Environmental Engineering:** 

**Power and Energy Systems:** Power and energy's ystems - stability, operation, and control; Power system economics and electricity markets; Wide-area monitoring and system protection; Smart grid architectures, networking and models; Cyber-physical systems, security and privacy; Computational intelligence in power and energy systems

Renewable power generation & clean energy technologies; Integration of renewables and energy storage systems; Renewable power

generation forecasting; Power electronics interface and control; Active distribution networks and AC/DC microgrids; Demand side

**Renewable Energy Systems and Distributed Generation:** 

energy management & prosumers participation; Smart Buildings, IoT and Resource Aggregation **Power Electronics, Electrical Machines & System Integrations:** Emerging converter topologies - Modelling, simulation and control; Active Filters and harmonics; AC and DC Machines and Drives; EVs and electrification of transportation industry; EV battery storage and energy management systems, Regulatory and Energy Policies; Electricity market and power system economics; Smart grid architectures and cyber & physical security

**Control System Engineering:** Wide area measurements, WAMS, Advances in control & and instrumentation, Adaptive, robust, distributed, intelligent, and digital control, Process control and automation, Estimation, modelling and identification, Novel instrumentation for process measurement,

SMART sensors, vision sensors, sensor fusion, wireless sensors, and internet of things, MEMS, Mechatronics, Remote sensing, telemetry and its applications in Automated vehicle control. **High Voltage Engineering:** EHV/UHV Engineering, Condition monitoring and diagnostics methods of power equipment, Significance of preventive, condition based and other maintenance strategies. Ageing, deterioration and insulation failure of HVAC & HVDC equipment and PD

### measurements. Solid, liquid and gas insulation materials and degradation, consequence of multi-stresses on HV equipment. Pulse Power System and Flux Compression Generator, Grounding and Insulation Coordination.

**SUBMISSION** 

# **AUTHORS**

**Conference Proceedings** It is planned to publish the peer-reviewed and selected papers of the conference as proceedings with Springer in their prestigious Lecture Notes in Civil Engineering series <a href="https://www.springer.com/series/15087">https://www.springer.com/series/15087</a> and Lecture Notes in Electrical Engineering series <a href="https://www.springer.com/series/7818">https://www.springer.com/series/7818</a> . For detailed instructions for author and editors of conference proceedings, kindly visit the following link: <a href="https://www.springer.com/us/authors-editors/conference-proceedings">https://www.springer.com/us/authors-editors/conference-proceedings</a>

### Plagiarism, including duplicate publication of the author's own work, in whole or in part without proper citation, data fabrication and image manipulation are not tolerated by the symposium. If plagiarism is detected during the peer review process, the manuscript may be rejected. If plagiarism is detected after publication, we may publish a correction or retract the paper.

Submission link (Easychair): <a href="https://easychair.org/conferences/?conf=sdcee2021">https://easychair.org/conferences/?conf=sdcee2021</a>

The authors can download the manuscript templates in word and LaTeX

Registration For an accepted paper to be published in the Proceeding of SDCEE-2021 in LNCE, LNEE, Springer, at least one of the authors

for the accepted paper must have registered and present			
Participant category	Registration fee*		*Indian Aut
	Indian (INR)	Foreign	displayed so
Students/Research Scholars	1,000/-	\$50	A/C Name A/C No
Academicians/Industry person /R & D Professionals/Scientists	2,000/-	\$80	Bank Name
			i Bank Branc

ACCOUNT TYPE SAVING ACCOUNT

Additional details for international transactions

Beneficiary Bank Name: State Bank of India

er must have registered and presented the paper in the conference. \*Indian Authors Payment will be made through SBI iCollect (Payment link will be displayed soon) or NEFT in the following account

Director, NIT Kurukshetra

10116885013

SBIN0006260

State Bank of India

SBI, NIT Kurukshetra

A/C No Bank Name Bank Branch 1,000/-Additional paper per author IFSC Code

Beneficiary Bank Branch Name: NIT Kurukshetra Beneficiary Bank Branch SWIFT code: SBININBBP10

Beneficiary Bank Correspondent Bank Name: SBI SUGAR MILL AREAR BRANCH (50088) YAMUNANAGAR

Beneficiary Bank Correspondent Bank SWIFT code: SBININBBP10 Please do mention SDCEE-2021 in the remarks in case of online transfer and provide the transaction details during registration.

# **IMPORTANT DATES**

- ► Last date for submission of paper: 31<sup>st</sup> August, 2021.
- ► Intimation of acceptance: on or before 25<sup>th</sup> Oct., 2021.

If you have any questions related to the conference, please write to us sdcee@nitkkr.ac.in

- Submission of camera ready paper: 25th Nov., 2021
- Registration Starts: 1<sup>st</sup> Nov., 2020

Address for Correspondence: **SDCEE-2021** 

**Department of Civil Engineering National Institute of Technology** Kurukshetra - 136 119

Email ID: sdcee@nitkkr.ac.in Mobile: +91-7206514129 +91-9896279046

Last date of registration with late fees: 5th Dec., 2021.