

17th - 19th September, 2020

Extended date for submission
of full-length papers

May 30, 2020

Intimation of acceptance of
full-length papers

June 15, 2020

International Congress

Sustainable Development through Engineering Innovations

The Springer is publishing select papers in their
Scopus-indexed conference proceeding

Call for papers

The exploding world population, limited resources and the consequent global climate changes are leading to major concerns across the countries, such as power shortage, extreme weather conditions, limited space in and around the cities, environmental pollution and rapid depletion of the natural resources. Technological innovation is a “must” for sustainable development in the prevailing scenario. The best way, and the challenge today, is to learn from past mistakes and correct what can be corrected with due haste—and start doing so now.

The congress aims to provide a unique opportunity to identify all such approaches that would help the present generation to take corrective actions in the planning, design of the infrastructure/machinery / computing needed for the holistic growth and benefit of humankind.

The congress is inviting original research and practice papers from all engineering domains to provide innovative inputs to meet the needs of growing world population and with a focus on different methods and technologies that could minimize environmental damage and provide better livable conditions and mobility to peoples; Designing products and processes to enable the use of wastes from one as inputs to another; Incorporating environmental and social constraints as well as economic considerations into engineering decisions.

The range of subjects covered encompasses, but is not restricted to, strategies for reducing waste through better design, improved recovery and re-use, but also what the new computing technologies can offer to address these issues.



Organised by

**Guru Nanak Dev Engineering College,
Ludhiana (Punjab), INDIA**

Call-for-Papers

Prospective authors are invited to submit the full length papers (MS word file), relevant to the themes of the conference, listed below. The format for the manuscript is available at the conference webpage. The venue of the congress is Guru Nanak Dev Engineering College Campus, Ludhiana (Punjab), INDIA.

Conference-1: Architecture and Civil Engineering

- Advanced Hazardous Substance Control
- Appropriate Use of Waste Materials in infrastructure projects
- Architecture: Health and well-being
- Bio - and Environmental Geomechanics
- Biological treatment and Energy production
- Coal combustion residual landfills
- Construction and demolition waste landfills
- Construction and Environmental Issues
- Durability and Survivability under Extreme Conditions
- Design of new materials for sustainability
- Eco-efficient and Ultra-high Performance Cementitious Materials
- Embedded Structural and Foundation Systems
- Environmental Geomechanics
- Environmental sustainability aspects of ground improvement and Geosynthetics
- Geohazards mitigation
- Geosynthetics and their Appropriate Use with respect to Waste
- Geotechnical reuse of solid waste
- Green and Sustainable Environmental Management
- Integrated Water Technology
- Leachate Collection and Management
- Lessons from the field and case studies
- Mechanics for Concrete Structures built using waste products
- Membrane Bioreactors and Water Treatment
- Mine waste rock piles and dumps
- New materials, materials impact, and sustainability
- Remediation of contaminated sites
- Social Sustainability and Architecture
- Urban sustainability and Infrastructure Development
- Waste Characterization and Management
- Waste Mechanics and Engineered Landfill
- Low cost Water / Waste Water Treatment processes

Conference-2: Electronic and Electrical Engineering

- Carbon credits and their relevance
- Design of Efficient Antenna
- Embedded Systems
- Energy conservation, management & Audit
- Energy efficient lights, motors, appliances
- Environmental friendly generation, transmission and distribution of power
- Evolution of sustainable electronics
- Heating and cooling systems
- Microcontrollers, Microprocessors for efficient devices
- Optical & wireless communications
- Power System deregulation
- Renewable electricity sources such as wind and solar power
- Sustainable power generation and renewable energy technologies
- Systems for integrating renewable power into the grid; hybrid and electric vehicles
- VLSI design for sustainable electronic architecture

Conference-3: Computing Research for Sustainability

- Applied artificial intelligence
- Augmented/ Virtual Reality
- Big data analytics
- Bioinformatics and Biomedical Engineering
- Cloud computing
- Data Science for social benefit
- Digital image processing
- Digital Science and Cybercrime
- Human - computer Interaction
- IT-enabled computer applications
- Machine learning and applications
- Natural language Processing
- Sentiment analysis
- Soft Computing and its Engineering Applications
- System and software engineering in practice
- Agents and multi-agent systems
- Computer vision
- Internet of things
- Network and communications
- Geographical Information System (GIS)

Conference-4: Production & Mechanical Engineering

- Energy conservation and low-carbon manufacturing
- Engineering design for sustainable development
- Engineering education for sustainable development
- Environmental management and ISO standards
- Legislation, Education and Corporate Social Factors
- Life-cycle engineering
- New materials, materials impact, and sustainability
- Novel organisational structures and systems to support industrial sustainability
- Producer responsibility and ecologically aware legislations
- Product versus service paradigms
- Promoting sustainable use and consumption models
- Sustainable business models
- Sustainable material development and process engineering
- Sustainable supply chain management
- Sustainable technology innovation to support resource efficiency
- Technologies, Processes and Resources
- Waste minimisation, remanufacturing, reuse and recycling technologies

Sponsorship and Exhibition

The focal point of the Congress is to bring different people and technologies together at a common platform. Therefore, equipment/instruments manufacturers, building materials manufacturers, contractors, consultants, are invited to sponsor the event and take the opportunity to exhibit and network with the delegates. Sponsors will gain exposure from a range of promotional benefits including free trade fair space, free delegates and promotion on the Congress website, brochure and programme. Sponsors company profile will also be printed in the Programme given to all the delegates during the congress. An enclosed space of approximately 3 m x 3 m with a table, a chair and power connection shall be made available at a tariff of Rs 25,000/- and if some sponsorer wants to make a presentation to the audience, it will be Rs 50,000/-.

About the College

Guru Nanak Dev Engineering College is an **autonomous college** of UGC. It was established in 1956 by the Nankana Sahib Education Trust, founded in memory of the most sacred temple of Nankana Sahib, the birth place of Guru Nanak Dev Ji with an aim of '*Removal of Economic Backwardness through Technology*'. To fulfil this commitment, a unique admission criterion was adopted by the trust by reserving 70% seats for students from the rural areas. At present, 07 UG and 13 PG courses are being offered in engineering. The college also offers MBA and MCA courses at the PG level. The college is funded under the TEQIP-II and TEQIP-III and has been declared **QIP centre** for Ph.D. by AICTE in Civil Engineering, Mechanical Engineering and Electrical Engineering from the session 2011-2012.

Conference Advisory Committee

(Names are in Alphabetical order)

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Call-for-Papers

Prospective authors are invited to submit the full length papers (MS word file), relevant to the themes of the conference, online through email.

sdei.congress@gmail.com

The paper(s) must reach the conference secretariat by the due date (**May 15, 2020**). All papers will be examined through Turnitin or iThenticate to detect potential plagiarism issues. The format of the paper is available at the conference webpage:

<https://conferencegndec.wordpress.com/>

Registration Fees

The authors of the accepted paper have to register for the congress by September 5, 2020. The fee structure is shown below:

Academician	Rs 5,000/-
Delegates from Industry	Rs 10,000/-
Research scholars/ Students	Rs 2,500/-
Foreign delegates/ authors	\$ 250/-

The fee can be paid by the way of a Bank Draft payable at Ludhiana, in favour of Principal Guru Nanak Dev Engineering College Ludhiana. It includes lunch, tea / coffee, refreshments, conference dinner and a soft copy of the conference proceeding.

Address for correspondence

For sending copy of the registration form, and full length paper:

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Website: www.gndec.ac.in
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Who Should Participate

- Professional s, Design Engineers and Architects
- Contracting Engineers
- Research Funding and Professional Bodies
- Local and Regional Authorities
- Academicians, Researchers and Students

Accommodation

Limited accommodation is available in the College Guest House. A list of hotels in the city offering discounted Conference rates will be provided on the Conference website shortly. Please note that the accommodation is not included in the Conference fee and the delegates are responsible for their own accommodation.

Travelling to Ludhiana

Ludhiana is an industrial hub of Punjab, well known for the cycle and hosiery industry. It is well connected to the rest of India by Rail, Air and Road. The local climate during the month of September will be pleasant with temperature ranging from 25°C to 35°C.

Nearest Railway Station: Ludhiana Junction.

Nearest Airports: Ludhiana; Chandigarh; Amritsar

Important Trains Halting at Ludhiana:

Shatabdi Express; Shalimar Express; Malwa Express; Amritsar Golden Temple Express; Pachim Express; Jhelam Express; New Delhi-Amritsar Express; Sachkhand Express; Dadar-Amritsar Express; Tata Hatia-Jammu Tawi Express, Vande-Bharat Express

For sponsorship information, please contact:

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