

SEC-2024

Organised by
NIT Tiruchirappalli



under the Aegis of
**Indian Association for
Structural Engineering (IASE)**



Indian Association for Structural Engineering



12 -14th December 2024



Department of Civil Engineering
NIT, Tiruchirappalli - 620015

Call for Papers

For more information, kindly refer to the official website



<https://sec2024.nitt.edu>



+91-94947 71420, +91-94837 42674,
+91-99620 00772



sec2024@nitt.edu



14th Structural Engineering Convention

An International Conference

Organised by

Department of Civil Engineering

National Institute of Technology, Tiruchirappalli

ABOUT THE CONVENTION SEC-2024

The 14th Structural Engineering Convention (SEC-2024) an international conference will be held at the National Institute of Technology, Tiruchirappalli (NIT-T) under the aegis of the Indian Association for Structural Engineering (IASE). It is a biennial event pioneered by the CSIR-Structural Engineering Research Centre (CSIR-SERC) Chennai and Indian Institute of Technology (IIT) Madras in 1997 and since then, it has successfully completed thirteen conventions nationwide. SEC brings together academia, industry and research laboratories and aims to provide an international platform for the dissemination of the latest research findings in the field of Structural Engineering. Even though it has been biennial since 2008, it was held consecutively in 2022 and 2023 to compensate for its suspension in 2020 due to COVID-19. IASE has decided to keep up with the tradition of holding it in the even years, and that brings us to SEC-2024.

The main objective of SEC-2024 is to promote and enable a safe and sustainable construction sector in India. The conference will feature traditional paper presentations by research scholars around the world, keynote speeches by invited speakers and several discussions addressing the state-of-the-art technologies and future challenges in Structural Engineering. The latest developments in the analysis and design of novel/traditional materials and systems will be presented, for a wide range of structural applications. We, the NIT-T fraternity, are delighted to organise SEC-2024 and cordially invite you to participate and contribute to SEC-2024.



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PAST STRUCTURAL ENGINEERING CONVENTIONS

	Organised on	Organised by
1 st	12-14 th Feb 1997	Structural Engineering Research Centre (CSIR-SERC), Chennai, Indian Institute of Technology (IIT), Madras
2 nd	5-8 th Jan 2000	Indian Institute of Technology (IIT), Bombay
3 rd	29-31 st Oct 2001	Indian Institute of Technology (IIT), Roorkee
4 th	12-14 th Dec 2003	Indian Institute of Technology (IIT), Kharagpur
5 th	14-16 th Dec 2005	Indian Institute of Science (IISC), Bangalore
6 th	18-20 th Dec 2008	Structural Engineering Research Centre (CSIR-SERC), Chennai, Indian Institute of Technology (IIT), Madras and Anna University
7 th	8-10 th Dec 2010	Annamalai University, Chidambaram, Tamil Nadu
8 th	19-21 st Dec 2012	Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat
9 th	22-24 th Dec 2014	Indian Institute of Technology (IIT), Delhi
10 th	21-23 rd Dec 2016	Structural Engineering Research Centre (CSIR-SERC), Chennai, Indian Institute of Technology (IIT), Madras
11 th	19-21 st Dec 2018	Jadavpur University, West Bengal
12 th	19-22 nd Dec 2022	Malaviya National Institute of Technology, Jaipur
13 th	7-9 th Dec 2023	Visvesvaraya National Institute of Technology, Nagpur

** In the year 2020, due to the COVID-19 pandemic the SEC was not held*

ABOUT HOST INSTITUTE

The National Institute of Technology Tiruchirappalli (NIT-T), formerly known as a Regional Engineering College (REC), was established in 1964 through a collaborative effort between the Indian and Tamil Nadu governments. Over the years, it has evolved into a Deemed University and eventually gained the status of an Institution of National Importance in 2007, showcasing its journey towards academic autonomy and excellence. The institute offers a wide array of courses, including undergraduate programs in ten branches, postgraduate courses across twenty-one disciplines in Science, Engineering, and Technology, as well as M.S. (by Research) and Ph.D. programs, NIT-T prides itself on a faculty recruitment process conducted on a national scale, ensuring a diverse and skilled teaching staff. The institute holds the 9th position in the current NIRF ranking and is the only NIT to get into the Top-10.

The Institution stands as a testament to cultural diversity, with students hailing from various states contributing to its vibrant community. Sprawling across an extensive 800 acres campus, the institute is well-equipped with modern facilities housed in the Octagon, including a CAD/CAM Lab, a robust Local Area Network(LAN), high-speed internet, and seminar/conference amenities managed by the Computer Support Group (CSG). Beyond academics, NIT-T emphasizes extracurricular growth, offering opportunities for NCC, NSS, IEEE student chapters, social clubs, and sports activities, nurturing well-rounded student experiences. Its alumni network boasts individuals excelling across diverse fields in leading organisations globally.



ABOUT DEPARTMENT OF CIVIL ENGINEERING

Established in the year 1964 along with the inception of the Institute, the Department of Civil Engineering is one of the earliest in the campus. The Department offers several degree programmes including a four-year B.Tech in Civil Engineering and a two-year M.Tech under various specializations, viz., Transportation, Structural, Environmental, Geotechnical Engineering, and L&T-sponsored Construction Technology and Management. Some of the best students in the country are inducted into these programmes through competitive examinations (JEE and GATE). They continue to excel in their career by following the highly curated academic curriculum and numerous technical and non-technical student clubs in the civil engineering department. Full-time PhD, funded by the Ministry of Education(MoE), PhD (part-time), and MS (by research) are also offered here.

The department has the largest faculty strength proportion in the Institute, who are dynamic and highly motivated towards teaching and research. They specialise in diverse research areas and handle various research projects funded by the Government of India agencies and consultancy projects. The journal publications are closer to 100/year. The department is recognized as a Nodal Centre by the State Technical Agency(STA) for PMGSY works. The department obtained Centre of Excellence in Transportation Engineering (CETransE) from MHRD, Government of India (2.5 crores). The department has organized many national and internal conferences, notably the First International (Indo-US) workshop on “Forensic Engineering” in December 2010.



CONVENTION THEMES

- **Artificial Intelligence (AI) and Machine Learning (ML) in Structural Engineering**
- **Blast, Fire, Impact and Safety Engineering**
- **Bridge Engineering**
- **Composites and Construction**
- **Computational Mechanics / Numerical Modelling and Simulation**
- **Concrete Structures**
- **Corrosion studies on RC/Precast structures**
- **Coastal, Offshore and Ship Structures**
- **Disaster Mitigation and Management**
- **Earthquake Engineering /Structural Dynamics/ Response Control**
- **Glass and Facade Structures**
- **Fibre and Textile Reinforced Concrete Structures**
- **Life-cycle Assessment (LCA) of Structures**
- **Masonry & Heritage Structures**
- **New Technologies in Structural Design and Construction**
- **Precast and Prestressed Concrete Structures**
- **Probabilistic and Stochastic Modelling of Structural Behaviour**
- **Soil-Structure Interaction/ Machine Foundation**
- **3D Printed Concrete Structures**
- **Smart Materials and Structures**
- **Steel and Steel-Concrete Composite Structures**
- **Structural Fire Engineering**
- **Structural Stability and Health Monitoring**
- **Structural Safety,Risk and Reliability Analysis**
- **Sustainable Materials for Construction**
- **Cold Formed/ Thin-walled Structures**
- **Underground Structures**
- **Wind Engineering**
- **Water and Liquid Retaining Structures**

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Dean (Academic), NIT Tiruchirappalli

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12.	Dr Dipti Ranjan Sahoo	E.C. Member	Professor, IIT Delhi
13.	Dr Maloy Kumar Singha	E.C. Member	Professor, IIT Delhi

PLENARY SPEAKERS



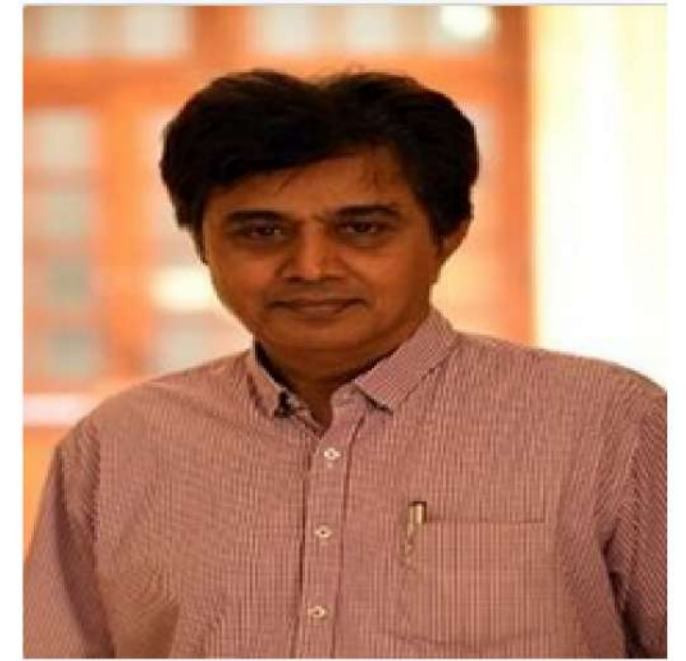
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Professor Emeritus,
IIT-Bombay,
India



Dr J N Reddy
Professor,
Texas A&M University,
United States



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Professor,
Rice University,
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Professor,
IISc Bangalore,
India



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Dr Arjit Sinha
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Oregon State University,
United States

SPONSORSHIP DETAILS

Sponsorship	Sponsorship Amount (INR)	Free Delegates	Stall in Exhibition (sq.ft.)	Backdrop Banner	Presentation Slot	Advertisement Souvenir
Platinum	15,00,000/-	15	400	Yes	Yes	Full Page
Diamond	10,00,000/-	10	250	Yes	Yes	Full Page
Gold	7,50,000/-	7	200	Yes	Yes	Full Page
Silver	5,00,000/-	5	150	Yes	No	Half Page
Bronze	3,00,000/-	3	100	Yes	No	Half Page
Support	1,00,000/-	2	No	Yes	No	Quarter Page
Well Wisher	50,000/-	1	No	No	No	Quarter Page

Note to the Sponsors

- Sponsorship may be made directly to the NITT via RTGS/NEFT/Cheque/Demand Draft.
- No Provisions are made in SBI i-collect.
- For Further information, please contact sec2024@nitt.edu

IMPORTANT DATES

- Abstract Submission** : Extended upto 25th April 2024
- Acceptance of Abstract** : 15th May 2024
- Extended Abstract Submission** : 16th May 2024 to 2nd July 2024
- Full Length Manuscript Submission** : 16th May 2024 to 2nd July 2024
- Acceptance of Full Length Manuscript** : 5th August 2024
- Acceptance of Extended Abstract** : 15th August 2024
- Early Bird Registration** : 31st August 2024 to 30th September 2024

• *Kindly refer to the website for latest updates*

Publication of Manuscript



- *The selected high quality research papers from the conference will be published in Scopus indexed Springer Proceedings. Springer will also conduct a peer review on quality of the accepted papers for the possible publication in the Springer Proceedings.*
- *Extended Abstract (2 pages) of all the papers presented in the conference will be published as Conference Proceedings with ISBN number.*

For Submission of Abstract, Extended Abstract and Full-Length Manuscript

Kindly refer to the guidelines given in the Conference website

<https://sec2024.nitt.edu>

BEST PAPER AWARD

BEST PAPER will be selected among the presented papers and will be awarded. The Decision of the Organising Committee will be final in this regard.

REGISTRATION

Sl. No	Particulars of Delegates	Early Bird Registration 31 st Aug 2024 to 30 th Sept 2024 (INR)	Registration Fee 1 st Oct 2024 to 30 th Nov 2024 (INR)
1	IASE Members	7,500/-	9,000/-
2	Non- IASE Members	8,000/-	10,000/-
3	SAARC Country	7,500/-	9,000/-
4	Other (Non- SAARC Country)	35,000/-	45,000/-
5	Student (SAARC Country)	5,000/-	6,500/-
6	Student (Non- SAARC Country)	18,000/-	25,000/-
7	Spouse, Accompanying Person (SAARC Country)	3,500/-	4,500/-
8	Spouse, Accompanying Person (Non- SAARC Country)	18,000/-	25,000/-
9	Student Attendees (Special Kit)	3,000/-	3,500/-

Registration Fee includes:

1. Conference Kit
2. Food and Snacks
3. Only One Paper Presentation is Allowed Under One Student Registration.
4. Maximum Two Paper Presentations are allowed under one full Delegate Registration.

Registration Fee Payment

Registration Fee can be made through the following steps to pay through SBI i-collect

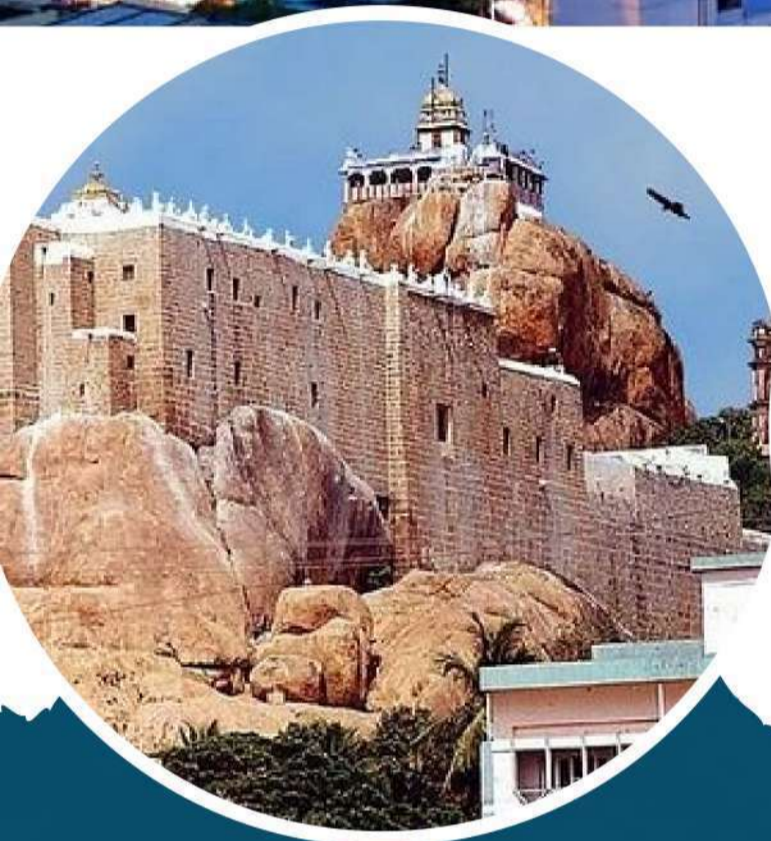
Payment option will be made available from 30th August 2024

Payment Gateway

1. Go to <https://www.onlinesbi.sbi/sbicollect/>
2. Under “ Select Category” select “ Educational Institution” and the new page <http://www.onlinesbi.sbi/sbicollect/payment/listinstitution.html>
3. In the ‘ filter by state’ drop down menu, select ‘Tamil Nadu’ and type ‘NIT TRICHY’ in the ‘ search for education institutions’ search box.
4. Select “ **CONFERENCE AND WORKSHOP NIT TRICHY**”
5. In the next screen payment category, select (Scroll down) -> **CIV SEC 2024**

In & Around Tiruchirappalli City

Places to Explore in Tiruchirappalli



ROCKFORT TEMPLE



KALLANAI DAM



SRI RANGANATHASWAMY TEMPLE



St. JOSEPH'S CHURCH

Places nearby Tiruchirappalli



BRIHADEESWARA TEMPLE,
TANJAVUR (60 km)



MEENAKSHI AMMAN TEMPLE,
MADURAI (130 km)



DHANUSHKODI,
RAMESHWARAM (250 km)



Dr.A.P.J.ABDUL KALAM MEMORIAL
RAMESHWARAM (225 km)



AUROVILLE,
PUDUCHERRY (210 km)





NIT Tiruchirappalli Welcomes you



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Department of Civil Engineering
National Institute of Technology, Tiruchirappalli
Tanjore Main Road, National Highway 67, Tiruchirappalli, Tamil Nadu- 620015

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