



# 17SEE



BROCHURE

# 17<sup>th</sup>

## Symposium on

# EARTHQUAKE

# ENGINEERING

14<sup>th</sup> - 17<sup>th</sup> November, 2022



For more information kindly visit the conference website [www.iitr.ac.in/17see](http://www.iitr.ac.in/17see)

# 17<sup>th</sup> Symposium on Earthquake Engineering

Organized by

Department of Earthquake Engineering, IIT Roorkee (IITR) &  
Indian Society of Earthquake Technology (ISET)

## The Vision and Mission of the Symposium...

The purpose of the symposium is to exchange professional experience and recent technological advances in Earthquake Engineering and allied fields. During last few years new policies at the national level have been debated and evolved, and limitations in providing relief measures during rescue operations have been realized. Lack of proper design to cater extreme events with long return period, poor quality of construction, inadequate administrative and legislative measures, problem of up-gradation of existing building stock, absence of appropriate mechanism for dissemination of technical know-how and awareness about earthquake resistant construction have formed the agenda of these debates. Appropriate plans and measures to be adopted at different administrative, technical and scientific levels have been devised by national bodies. This Symposium will provide a platform for researchers, professionals, planners and policy makers associated with Earthquake Engineering to share their views and opinions.





14<sup>th</sup> - 17<sup>th</sup> November, 2022

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## About IIT Roorkee

Indian Institute of Technology - Roorkee is among the foremost of institutes of national importance in higher technological education and in engineering, basic and applied research. Since its establishment, the Institute has played a vital role in providing the technical manpower and know-how to the country and in pursuit of research. The Institute ranks amongst the best technological institutions in the world and has contributed to all sectors of technological development. It has also been considered a trend-setter in the area of education and research in the field of science, technology, and engineering.

The Institute had celebrated its Sesquicentennial in October 1996 and now will complete 175 years of its existence in 2022. It was converted to IIT on September 21, 2001 by an Ordinance issued by the Government of India declared it as the nation's seventh Indian Institute of Technology, an "Institution of National Importance".

The Institute offers Bachelor's Degree courses in 10 disciplines of Engineering and Architecture and Postgraduate's Degree in 55 disciplines of Engineering, Applied Science, Architecture and planning. The Institute has facility for doctoral work in all Departments and Research Centres.





14<sup>th</sup> - 17<sup>th</sup> November, 2022



## About Department of Earthquake Engineering

Prof. A. N. Khosla, Vice-chancellor of University Roorkee (1954-59), visited California Institute of Technology (Caltech, USA) in 1957 with the mission to transform the seismic resilience of our country. He persuaded Prof. G.W. Housner, President of Earthquake Engineering Research Institute (EERI) California and Prof. Donald E. Hudson professor of the California Institute of Technology Pasadena to visit University of Roorkee in 1958. The visit paved way for the organisation of the first Symposium of Earthquake Engineering on February 10-12, 1959. An optional course was also introduced in Structural Dynamics at the Post-graduate level. Amalgamation of the above event lead to the establishment of the School for Research and Training in Earthquake Engineering (SRTEE) under CSIR in 1960 with Prof. Jai Krishna as its first director from 1962-71. In 1971, University Grant Commission (UGC) took over the temporary administration of SRTEE under University of Roorkee and its emergence at Department of Earthquake Engineering (DEQ) with Prof. A.S. Arya as its first head.

The department of earthquake engineering organizes symposium on earthquake engineering (SEE) at an interval of four years. The department is proud to have hosted sixteen successful symposiums since February 1959 till the last one held in December, 2018. The resolution of these symposium became the guiding force for future course of direction in maintaining and upgrading the department, removing weaknesses & bottlenecks and bringing research studies at par with international standards.

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## Message from Head of the Department

### Dear Participants,

As Head, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, I take great pride in informing you about the 17th Edition of the Symposium on Earthquake Engineering (17SEE). The Symposium on Earthquake Engineering is a quadrennial event being held from 1959 for bringing together Engineers, Geologists, Seismologists and Scientists with the sole purpose of advancing the knowledge of Earthquake Engineering in the country. The conference also becomes the cornerstone on understanding the current status of earthquake engineering in our country. The symposium provides direction towards upgrading earthquake engineering research in the country. Incorporation of earthquake resistant design features in urban and rural dwellings, initiation in the development and revision of IS codes and exploration of disaster mitigation planning are some major achievements realized as the end results of symposiums held earlier. I on behalf of the Department, wholeheartedly invite you to be a part of this event.



#### **Prof. Manish Shrikhande**

Head of the Department,  
Department of Earthquake Engineering,  
Indian Institute of Technology Roorkee;  
Email: [manish.shrikhande@eq.iitr.ac.in](mailto:manish.shrikhande@eq.iitr.ac.in)



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About

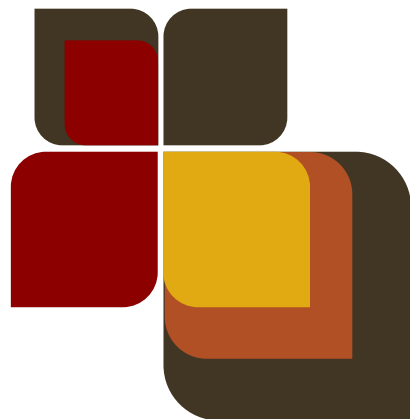
Indian Society of Earthquake Technology  
(ISET)

**Dear Participants,**

The Indian Society of Earthquake Technology (ISET) came into being in November 1962 with Late Prof. Jai Krishna as the founding President and was registered in December 1964 under Society's Registration Act 1961.

The Society started publishing a periodical entitled 'Bulletin of the Indian Society of Earthquake Technology' from 1964. This Bulletin continued as a half-yearly publication till 1966 and started a quarterly publication in 1967. The name of Bulletin has been changed to "ISET JOURNAL OF EARTHQUAKE TECHNOLOGY" from March, 1998. In addition the Society also publishes a quarterly News Letter. It has also published a number of books that further its aims and objectives. In particular, the Society has published a Catalogue of Earthquakes in India and its Neighbourhood and reprinted a "Manual of Earthquake Resistant Non-Engineered Construction" with permission from International Association for Earthquake Engineering (IAEE).

The Indian Society of Earthquake Technology holds an Annual Lecture along with AGM every year which is delivered by an eminent Engineer/Scientist in the field of Earthquake Technology. This lecture is subsequently published in the ISET Journal of Earthquake Technology for wider dissemination.



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**All topics related to Earthquake Engineering and Earthquake Disaster Mitigation are invited.**

**Following is a list of themes:**

1. Engineering Seismology and Seismotectonics
2. Experience Derived from Recent Earthquakes and Tsunamis
3. Earthquake studies using GIS/GPS/SAR/Remote Sensing
4. Earthquake Hazard Assessment
5. Seismic Instrumentation
6. Strong Ground Motion, Site Characterization and its Effects
7. Dynamic Properties of Soils and Ground Response
8. Liquefaction and Seismic Ground Improvement
9. Seismic Safety of Foundations and Machine Foundations
10. Seismic Soil Structure Interaction
11. Slope Stability under Seismic Conditions and Design of Embankments
12. Earth Pressure and Retaining Walls under Seismic Conditions
13. Seismic Safety of underground and Buried Structures and Pipelines
14. Special Materials, Structures and Systems
15. Earthquake Response Analysis, Design and Construction
16. Codal Provisions on Earthquake Resistant Design



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17. Seismic Vulnerability, Risk and Resilience Assessment
18. Structural Response Control
19. Seismic Testing of Structures and Equipment
20. Seismic Evaluation and Retrofitting of Structures
21. Seismic Safety of non-structural Components, Equipment and Services in Buildings.
22. Seismic Safety of Industrial Structures and Thermal and Nuclear Power Stations.
23. Seismic Safety of Bridges and Dams.
24. Seismic Safety of Historical structures and Monuments
25. Seismic Safety of Offshore and Onshore Structures, including Effects of Tsunami.
26. Damage Detection and System Identification
27. Life Line and Urban Systems
28. Microzonation and Urban Planning
29. Earthquake Disaster Mitigation and Management
30. Human Response and Socio-Economic issues
31. Post-earthquake Rehabilitation
32. Earthquake Engineering Education
33. Public Awareness, Participation and Enforcement of Building Safety Laws
34. Earthquake Prediction and Early warning System

Themes

# 17<sup>th</sup> Symposium on Earthquake Engineering

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Organizing Committee Members



## **Patron**

**Prof. K. K. Pant**  
*(Director, IIT Roorkee)*



## **Chairman**

**Prof. Manish Shrikhande**  
*(Head, Dept. of Earthquake Engg., IITR)*



## **Co-Chairman**

**Prof. Pankaj Agrawal**  
*(Dept. of Earthquake Engg., IITR)*



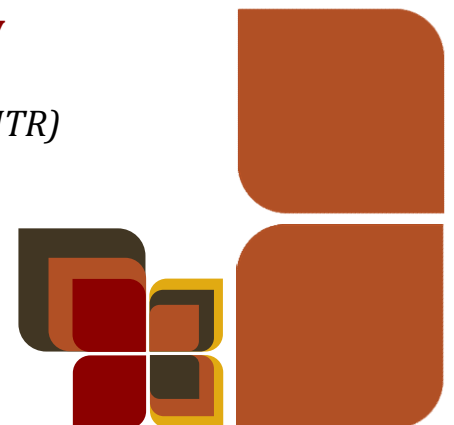
## **President, ISET**

**Prof. T. G. Sitharaman**  
*(Director, IIT Guwahati)*



## **Organising Secretary**

**Prof. P. C. Ashwin Kumar**  
*(Dept. of Earthquake Engg., IITR)*

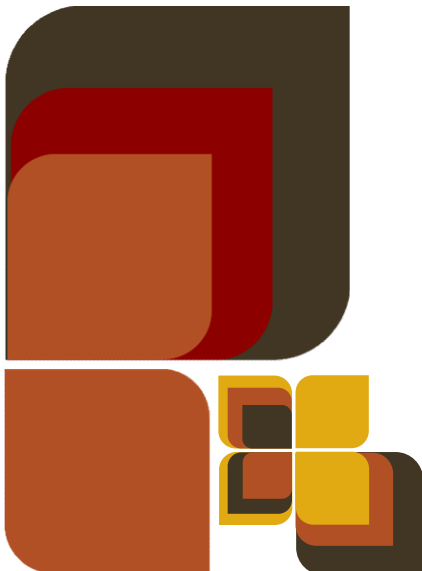




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# Organizing Committee Members

- Prof. M. L. Sharma** (EQD, IITR)  
**Prof. Yogendra Singh** (EQD, IITR)  
**Prof. B. K. Maheshwari** (EQD, IITR)  
**Prof. P. K. S. Chauhan** (CBRI Roorkee)  
**Prof. Ajay Chourasia** (CBRI Roorkee)  
**Prof. J. D. Das** (EQD, IITR)  
**Prof. R. N. Dubey** (EQD, IITR)  
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**Prof. S. K. Singh** (CBRI Roorkee)  
**Prof. Saurabh Shiradhonkar** (EQD, IITR)  
**Prof. Ritesh Kumar** (EQD, IITR)  
**Prof. Sohom Ray** (EQD, IITR)  
**Prof. Varun K. Singla** (EQD, IITR)



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## Sponsorships

In order to make the Symposium a success, Institutions and Organizations are requested to co-sponsor the Symposium. The details of Sponsorship fees is as under:

Type of Sponsorship	Fees *
Platinum Sponsor	₹ 5.00 Lakhs (06 free delegates)
Diamond Sponsor	₹ 3.00 Lakhs (05 free delegates)
Gold Sponsor	₹ 2.00 Lakhs (04 free delegates)
Silver Sponsor	₹ 1.00 Lakhs (03 free delegates)
Exhibitor/Supporter	₹ 0.50 Lakhs (02 free delegates)

\* Excluding GST

The name of sponsors will be prominently acknowledged and displayed at this conference website and at the venue of the symposium.

Sponsorships



*For any queries related to sponsorship, feel free to contact:*

**Team 17SEE**

 [17see@iitr.ac.in](mailto:17see@iitr.ac.in)



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## Important Dates

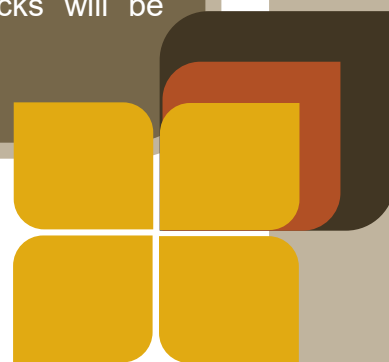
Activity	Time
Last Date for Abstract Submission	March 15 <sup>th</sup> , 2022
Abstract Acceptance	March 31 <sup>st</sup> , 2022
Last Date for Full Paper Submission	July 31 <sup>st</sup> , 2022
Full Paper Acceptance	August 31 <sup>st</sup> , 2022
Re-submission with Modification	September 30 <sup>th</sup> , 2022

## Publication



**SPRINGER NATURE**

Select papers from the symposium will be published by Springer as a proceedings book volume. Springer will conduct quality checks on the accepted papers and only papers that pass these checks will be published.



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## Registration

The registration fee of the delegates includes registration and conference kit, as well as morning and afternoon refreshments, lunch and Gala dinner. The fee structure is given below:

<b>Delegate Category</b>	<b>Early Bird*</b> (on or before October 31, 2022)	<b>Normal Registration</b> (upto November 13, 2022)	<b>Late Registration</b> (after November 13, 2022)
<i>Full Delegate from SAARC Nations</i>	₹ 10000.00	₹ 12000.00	₹ 14000.00
<i>ISET Life Members/ Fellows</i>	₹ 9000.00	₹ 11000.00	₹ 13000.00
<i>Students/ Research Scholars/ Spouses</i>	₹ 4000.00	₹ 5000.00	₹ 6000.00
<i>Foreign Delegates</i>	US\$ 300.00	US\$ 350.00	US\$ 350.00



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**Prof. Adrian Rodriguez-Marek**

The Charles Edward Via, Blacksburg, VA 24061, USA



**Prof. Akanshu Sharma**

Purdue University, West Lafayette, Indiana, USA



**Prof. Amit H. Varma**

Bowen Laboratory of Large-Scale CE Research, Purdue University, USA



**Prof. Ananth Ramaswamy**

Indian Institute of Science, Bangalore(IISc), India



**Prof. Andreas Stavridis**

University at Buffalo, New York, United States



**Prof. B. V. S. Viswanadham**

Indian Institute of Technology, Bombay(IITB), India



**Prof. D. N. Singh**

Indian Institute of Technology, Bombay(IITB), India



**Prof. Dimitrios Lignos**

School of Architecture, Civil and Environmental Engineering (ENAC), EPFL, Switzerland



**Prof. Dipti Ranjan Sahoo**

Indian Institute of Technology, Delhi(IITD), India



**Dr. Dominik Lang**

Norwegian Geotechnical Institute, Norway



**Prof. Heiner Igel**

Department of Earth and Environmental Sciences, Ludwig-Maximilians-University



**Prof. Humberto Varum**

Faculty of Engineering of the University of Porto Portugal

Keynote Speakers

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**Prof. Jidong Zhao**

The Hong Kong University of Sc. and Tech.,  
Hong Kong



**Prof. Jyant Kumar**

Indian Institute of Science, Bangalore(IISc),  
India



**Dr. Kalachand Sain**

Wadia Institute of Himalayan Geology  
India



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**Dr. O.P.Mishra**

National Centre for Seismology  
Ministry of Earth Sciences, India



**Dr. Rajinder K. Bhasin**

Rock Engineering, Norwegian Geotechnical  
Institute,  
Norway



**Prof. Ravi Sinha**

Indian Institute of Technology, Bombay(IITB),  
India



**Prof. S.K. Singh**

Universidad Nacional Autónoma de México,  
México



**Dr. S.L. Kapil**

NHPC, Faridabad  
India



**Prof. Scott J. Brandenberg**

UCLA & Chair, Earthquake Engg. and  
Soil Dynamics Technical Committee

Keynote Speakers





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**Dr. Shailesh Kr. Agrawal**  
BMTPC  
India



**Dr. Summer Chopra**  
Institute of Seismological Research  
Govt. of Gujarat, India



**Prof. Surendra Nadh Somala**  
Indian Institute of Technology Hyderabad,  
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**Prof. Svetlana Brzev**  
The University of British Columbia,  
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**Dr. V.M.Tiwari**  
National Geophysical Research Institute,  
Hyderabad,  
India



**Prof. Yih-Min Wu**  
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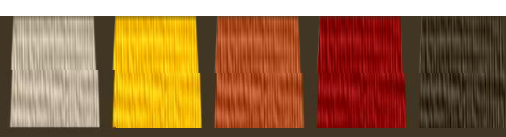
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Politecnico di Torino,  
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