



**18th World Conference on Seismic  
Isolation, Energy Dissipation,  
and Active Vibration Control of  
Structures (18WCSI)  
&  
7th International Conference on Earthquake  
Engineering and Seismology (7ICEES)**

6-10 NOVEMBER 2023  
XANADU RESORT CONVENTION CENTER  
BELEK, ANTALYA, TÜRKİYE

Conference Proceedings Printed by



[www.18wcsi-7icees.org](http://www.18wcsi-7icees.org)

7ICEES



18WCSI



DEPREM İZOLASYON DERNEĞİ  
Turkish Association for Seismic Isolation  
Organized by TASI



## Dear Colleagues,

The 18th World Conference on Seismic Isolation, Energy Dissipation, and Active Vibration Control of Structures (18WCSI) is organised by the Turkish Association for Seismic Isolation (TASI) and patronaged by Anti Seismic Systems International Society (ASSISi). The conference will be a joint conference with the 7th International Conference on Earthquake Engineering and Seismology (7ICEES). The conference will be held on 6-10 November 2023 in Antalya, Turkey with the participation of international and national academicians, experts, practising engineers, manufacturers, and people from other related fields of seismic isolation. The conference will include keynote lectures from the world's renowned experts and sessions with presentations on the most recent studies related to seismic isolation and energy dissipation devices. On behalf of the Local Organizing Committee of 18WCSI, we invite you to participate and submit related papers in this four-day international conference to discuss and evaluate the state-of-the-art advances and future perspectives in seismic isolation and energy dissipation applications worldwide. We kindly ask you to visit the official conference website ([www.18WCSI.org](http://www.18WCSI.org)) for detailed information on important deadlines, venue, and registration process. We are looking forward to hosting you in Antalya.

On behalf of the Local Organizing Committee,

Mustafa ERDİK  
Chair (18WCSI)  
Founding Honorary Member (TASI)

Bahadır ŞADAN  
Organizing Secretary (18WCSI)  
President (TASI)

## Dear Colleagues,



On behalf of the Earthquake Engineering Association of Turkey (EEAT) as the main organizer and the Department of Civil Engineering at Alanya Alaaddin Keykubat University as the local host, it is our great honour to invite you to the 7th International Conference on Earthquake Engineering and Seismology (7ICEES), which will be a joint event with the 18th World Conference on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures (18WCSI) and held together during 6-10 November 2023 at Xanadu Resort Convention Center, Belek, Antalya, Türkiye. Turkey has been subjected to devastating earthquakes in the past, and the public awareness in Turkey raised significantly after the 1999 Kocaeli earthquake. The public and private sectors took immediate actions against earthquakes. Since then, a number of earthquake awareness programs have been initiated and risk reduction methodologies have been implemented for all types of structures. In addition to structures, the implementation of proper structural or non-structural risk mitigation tools for critical infrastructure is also required for safety purposes and to reduce the insurance premiums of the facilities. This conference aims not only to bring together scientists, professionals, governmental officials, and NGOs working in the field of earthquake engineering and seismology but also to discuss the current problems in earthquake engineering-related problems. It will provide a unique opportunity for exchanging ideas and help create contacts among scientists for future bilateral and multilateral scientific cooperation nationally and internationally. We are looking forward to your participation and support of this joint conference, which will be held at Belek Antalya, Türkiye; one of the most attractive and touristic places in the world with numerous natural and historical places to visit in the turquoise blue Mediterranean region. We kindly ask you to visit the conference website <https://18wcsi-7icees.org/7icees> for detailed information.

Best Regards,

Murat Altuğ Erberlik  
President of EEAT



M. Eren Uçkan  
Head of 7ICEES Organizing Committee







## Important Dates

### 18WCSI

- 15 May 2023: Abstract Submission Deadline
- 1 January – Ongoing: Special Session Proposals
- 1 September 2023: Early Bird Registration Deadline
- 1 August 2023 Full Paper or Extended Abstract Submission Deadline

### 7ICEES

- 15 May 2023: Abstract Submission Deadline
- 1 January – Ongoing: Special Session Proposals
- 30 May 2023: Final Decisions for Abstract
- 15 June 2023: Full Paper Deadline
- 2 August 2023: Final Decisions for Full Papers
- 1 September 2023: Early Bird Registration Deadline

## Conference Overview

<b>Monday 06.11.2023</b> (09:00 – 17:00) (17:00 – 18:00)	Registration Icebreaker
<b>Tuesday 07.11.2023</b> (09:30–18:30)	Registration, Opening speeches(WCSI-ICEES), Technical programme(WCSI-ICEES)
<b>Wednesday 08.11.2023</b> (09:30–18:30)	Technical programme (WCSI-ICEES)
<b>Thursday 09.11.2023</b> (09:30–18:30)	Technical programme(WCSI-ICEES) ASSISI General Assembly Meeting (WCSI) EEAT Board Meeting (ICEES)
<b>Friday 10.11.2023</b> (09:30–12:30)	Technical programme (WCSI-ICEES), Closing Ceremony

## Facts

Dates : 6–10 November 2023

Venue : XANADU RESORT CONVENTION CENTER

Location : Antalya, Türkiye

Expected : attendance 500+

Exhibition : space 400 m<sup>2</sup>

Expected : exhibitors 50

## 18WCSI

- Seismic isolator and energy dissipating device design
- Seismic isolator and energy dissipating device testing
- Design of buildings with seismic isolation and/or energy dissipation devices
- Design of bridges with seismic isolation and/or energy dissipation devices
- Design of industrial and power-plant structures with seismic isolation and/or energy dissipation devices
- Retrofitting of existing structures and cultural heritage with seismic isolation and/or energy dissipation devices
- Codes, regulations, and guidelines on the design of structures with seismic isolation and/or energy dissipation devices
- Structural health monitoring of structures with seismic isolation and/or energy dissipation devices

## 7ICEES

- Physics of Earthquakes and Seismic Sources
- Seismotectonics and Paleoseismology
- Secondary Hazards Caused by Earthquakes
- Seismic Networks
- Engineering Seismology and Strong Ground Motion
- Machine Learning in Seismology and Earthquake Engineering
- Geotechnical Earthquake Engineering
- Site Characterization, Site Effects and Microzonation Studies
- Tsunami : Hazard/Risk Assessment and Early Warning
- Seismic Analysis and Design of Structures
- Seismic Evaluation and Rehabilitation of Structures
- Performance Based Design and Analysis of Structures
- Seismic Safety of Historical Structures
- Seismic Design Codes
- Seismic Testing Procedures
- Infrastructure
- Structural Health Monitoring
- Seismic Performance of Nonstructural Components
- Seismic Resilience
- Disaster Management and Risk Mitigation
- Lessons Learned from Recent Earthquakes
- Economical and Social Impacts of Earthquakes
- Urban Planning in Earthquake Prone Regions
- Earthquakes and Architecture



## Call for abstract

As the Organizing Committee of the 18WCSI-7ICEES, we would like to announce that the abstract submission has started. The important dates for abstract submissions are;

Abstract submission deadline May 15, 2023

Final Decisions for Abstracts May 30, 2023

The abstract submission process is explained on the conference website.  
[www.18wcsi-7icees.org](http://www.18wcsi-7icees.org)



The proceedings of the 18WCSI-7ICEES will be published under Springer as a special eBook, which is indexed in Web of Science



## Special Sessions (Tentative)

### 7ICEES

- ✓ Kahramanmaraş Earthquakes,
- ✓ Simulated ground motions,
- ✓ Site characterization,
- ✓ Energy-based earthquake engineering research,
- ✓ Earthquake safety of industrial structures,
- ✓ Developments in insurance and Reinsurance against multiple hazards,
- ✓ Nuclear facilities,
- ✓ Storage tanks, lifelines, and coastal and offshore transmission pipelines.

### 18WCSI

- ✓ Observed behavior of seismic isolated structures during earthquakes,
- ✓ Non-structural (Architectural, MEP, equipment etc.) considerations in seismic isolated buildings,
- ✓ Retrofitting applications using seismic dampers.

The list of special sessions will be finalized upon receipt of all proposals, and the details will be announced.

## REGISTRATION AND ACCOMMODATION

Master and Ph.D. students under 35 years old, please send an e-mail to [info@18wcsi-7icees.org](mailto:info@18wcsi-7icees.org) for registration.

Registration and Accommodation Fees (for 4 nights)	Between 01.01.2023- 1.9.2023	After 1.9.2023
Double room (for per-participant)	600 €	800 €
Single room	750 €	950 €
Double room (for accompanying person)	300 €	400 €

### Registration fees include

- ✓ 4 night accommodation in all-inclusive hotel
- ✓ Conference registration
- ✓ Coffee breaks
- ✓ Transfers from the airport to the hotel and back (with shuttle)

Please register for the conference at your earliest since we have limited places at the venue hotel. In the case your submitted abstract is not accepted by the technical committee, your registration fee will be fully refunded.

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# Venue

18WCSI-7ICEES will be held at the Xanadu Resort Hotel Belek, awarded "the 2011 Thomas Cook Award for Excellence" and "2015 TUI Mystery Check". Ideally located in the Belek Tourism Center on the Mediterranean Coast, this five-star Hotel offers a "High Class - All Inclusive" resort experience for the holiday of a lifetime. You will enjoy traces of the Ancient Romans among the pillared walkways, ancient-style pools, and theatre which is the center of the Entertainment activities. The Resort offers MICE facilities on 2,500 m<sup>2</sup> and creates a brand new center of attraction with its new Kids World on 5.500 m<sup>2</sup> for 1 to 16 years old kids, babies, and teens.



The Xanadu Resort Hotel features the Kubla Khan conference hall which at 1125 m<sup>2</sup>, makes it one of the largest conference facilities in Belek region. The Ballroom is an ideal venue for large gatherings, having the advantages of a high ceiling and column-free space along with an 700 m<sup>2</sup> foyer. Groups of up to 1500 meet comfortably in the main conference hall.





# About Antalya

Antalya, the Turkish Riviera is the most stunning part of Türkiye's Mediterranean coast, a thriving modern city, with a historic heart in the centre of Kaleiçi within the old city walls. This area has seen something of a renaissance in recent years, with many of the wooden Ottoman mansions being restored and turned into boutique hotels. No cars are allowed in the narrow streets of the old town so it is a good place to soak up the atmosphere around the charming harbour. The symbol of Antalya is the fluted minaret or Yivli Minare built by the Seljuks in the 13th century. There are plenty of interesting pieces in the Archaeological Museum, from the Palaeolithic Age right through to Ottoman times.

Antalya has a backdrop of stunning mountain scenery, and the city is set high on cliffs, with many of its grandest hotels overlooking the sea on the outskirts of the town. The beach area of Lara, approximately 12 km to the east, is home to the best beach in the area, known for its golden sand, which is rapidly becoming a resort in its own right. To the west, the long pebble beach of Konyaaltı is also popular. Heading up into the mountains, you can make the most of the beautiful scenery by visiting the spectacular Düden or Kurşunlu waterfall. At Saklıkent, just 50 km away from the city centre, you can even ski, where they usually have snow on the slopes until early April.

## The most popular Museums and Historic Sites of Antalya Region:



**The Museum of Antalya:** Founded in 1922 by Süleyman Fikri Erten and housed first in the Alaaddin Mosque in the old city and then in the Yivli Minaret, the museum was later moved to its current location. This museum which started in its new building in 1972 is considered one of the most important museums in Türkiye for its contents, works from Hellenistic, Roman, Byzantine and Turkish periods. The museum consists of 12 display halls, gardens and open galleries. In these halls the history of Antalya is given in a chronological and instructive fashion starting with the first humans and continuing without interruption to the modern era. There is also a new section called "Children's Museum" which intends to interest children in museums. It also serves as a nursery for the children so that the parents can enjoy their visits to the museum.

# Aspendos:

Just 50 km east of Antalya, Aspendos was an important centre of trade during Roman times. Today, the most impressive aspect of Aspendos is her stunning theatre, which was built in approx. 162 AD. It seats 15,000 and has been beautifully preserved. Each year it hosts the Aspendos Opera and Ballet Festival which takes place in June and July and gives you the opportunity to see performances of classics in a magnificent setting. The aqueduct, which supplied water to the city is also still relatively intact and is an impressive sight.



# Phaselis:

The three harbours of this Lycian port city were once a major commercial centre. In the shelter of Mount Tahtalı, it is a popular stopping off point for yachts, and its clear waters and sandy beaches are popular with sun-seekers. The remains are mostly Roman and include a theatre, baths, aqueducts, Hadrian's Gate, an agora and an acropolis.





# Perge:

Just 18 kms from Antalya, Perge was an important city in Pamphylia and was visited by St.Paul during his missionary journeys. Today, the city gate flanked by lofty towers, theatre and baths are of interest.



## Antalya Aquarium:

As one of the biggest aquarium complexes of the world, Antalya Aquarium offers inspiration, entertainment and education all at once. After touring the 40 thematic aquariums, you will come across the biggest tunnel aquarium of the world with a length of 131 meters and a width of 3 meters. Located in the heart of Antalya, just 70 meters away from Konyaaltı Beach, Antalya Aquarium is the most vibrant center of attraction in the city.





# SUPPORTERS

## MAIN SUPPORTERS



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