



**ISMSD**  
International Society of Mechanical  
System Dynamics

2025

# SECOND CALL

**The 3rd International Conference  
on Mechanical System Dynamics**

◆◆◆ ICMSD2025, Sept. 23-27, 2025 ◆◆◆  
Babeş-Bolyai University, Cluj-Napoca, Romania





UNIVERSITATEA BABEȘ-BOLYAI  
BABEȘ-BOLYAI TUDOMÁNYEGYETEM  
BABEȘ-BOLYAI UNIVERSITAT  
BABEȘ-BOLYAI UNIVERSITY  
TRADITIO ET EXCELLENTIA



2025

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## The 3rd International Conference on Mechanical System Dynamics

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Mechanical systems are essential to modern science and technology, driving progress across global economies and enhancing everyday life. The efficiency, reliability, and advancement of these systems are rooted in the field of mechanical system dynamics—a foundational discipline that enables innovations in complex mechanical design and functionality.

During Sept. 23-27, 2025, the 3rd International Conference on Mechanical System Dynamics (ICMSD2025) will be hosted by Babeș-Bolyai University in Cluj-Napoca Romania. Centered on the theme “Advances in Mechanical System Dynamics Research Driving Industrial Development,” the conference will feature twenty topic areas that foster research in dynamic modeling of complex structures, multidisciplinary integration, and advanced industrial applications.

ICMSD2025 will bring together over ten renowned experts for plenary speeches and more than twenty sessions of oral and poster presentations, creating an invaluable platform for academic exchange and collaboration at the forefront of mechanical system dynamics.





## Plenary Speakers



**Prof. Asoke Nandi**

Brunel University London  
Fellow of Royal Academy of Engineering of UK



**Prof. Chuanzeng Zhang**

University of Siegen  
Member of the European Academy of Sciences



**Prof. Dumitru I. Caruntu**

University of Texas-Rio Grande Valley  
ASME Fellow



**Prof. Marco Amabili**

Westlake University  
Fellow of the Royal Society of Canada



**Prof. Marian Wiercigroch**

University of Aberdeen  
Fellow of the Royal Society of Edinburgh



**Prof. Peter Eberhard**

University of Stuttgart  
Former president of International Association for Multibody System Dynamic



**Prof. Ruqiang Yan**

Xi'an Jiaotong University  
IEEE Fellow, ASME Fellow



**Prof. Wenhe Liao**

Nanjing University of Science and Technology  
Standing Council Member of Chinese Society of Astronautics



**Prof. Xiaoting Rui**

Nanjing University of Science and Technology  
Member of Chinese Academy of Science



**Prof. Zhenghong Zhu**

York University  
Fellow of Canadian Academy of Engineering



**Fifteen world-renowned scientists will be invited to make plenary speeches**

## Topics of Interest

(including but not limited to)

- Multibody system and mechanism dynamics
- Vibration and control
- Nonlinear dynamics
- Analytical mechanics
- Stochastics and uncertainty modeling
- Multibody system transfer matrix method (Rui method) and its application
- Tribology and contact mechanics
- Fluid -solid coupled systems
- Robotic system dynamics
- Dynamics in manufacturing systems
- Spacecraft dynamics
- Vehicle dynamics
- Biomechanics and bionics
- System modelling and identification
- Artificial intelligence and mechanical system dynamics
- Advanced signal processing for experimental mechanics
- Artificial intelligence for multibody system dynamics
- Sensitivity analysis and optimization
- Mechanical system dynamics for ocean engineering
- Aerospace mechanical system dynamics

You are cordially invited to share your latest research in ABSTRACT or FULL-LENGTH PAPER on any topics. After peer-reviewed, the full-paper proceedings will be published by Springer as part of the Lecture Notes in Mechanical Engineering and indexed in EI Compendex and Scopus. Please visit our website (<https://www.icmsd-conference.com/>) to submit your abstract or full-length paper or download templates and instructions. All submissions need to be written in English.

High quality submissions will be honored and rewarded, and recommended to be published in the International Journal of Mechanical System Dynamics (IJMSD ranks Q1 in the Engineering, Mechanical and Mechanics categories) and other publications.



## Important Dates

(Romania Time, GMT/UTC + 2)

Dec.1, 2024 - Apr. 30, 2025	Abstract submission
Before May 30, 2025	Abstract acceptance notification sent
Dec.1, 2024 - Jun. 15, 2025	Full-length paper submission
Before Jul. 31, 2025	Full-length paper acceptance notification sent
Apr. 30, 2025- Jul. 31, 2025	Invitation letter and VISA assistance sent
Jun. 1, 2025- Aug. 15, 2025	Early-bird registration (Online)
Aug. 16, 2025 – Sept. 23, 2025	Regular registration (Online)
Sept. 23, 2025	In-person registration
Sept. 23, 2025 - Sept. 27, 2025	Conference Date

## Organizer



International Society of  
Mechanical System Dynamics



Babeş-Bolyai University

## Co-Organizers



Romanian Academy

## Chairman of the ICMSD



**Prof. Xiaoting Rui**

Nanjing University of Science & Technology

Member of Chinese Academy of Science  
President of International Society of Mechanical System Dynamics  
Editor-in-Chief of International Journal of Mechanical System Dynamics

## Local Chairman of the 3rd ICMSD



**Prof. Gilbert-Rainer Gillich**

Babeş-Bolyai University, Romania,  
Dean of the Faculty of Engineering  
Member of Technical Sciences Academy of Romania

Nanjing University of Science and Technology

Babeş-Bolyai University

Aarhus University

Beijing Institute of Technology

Harbin Institute of Technology

Lappeenranta University of Technology

McGill University

Nanjing University of Aeronautics and Astronautics

Nanyang Technological University

Northwestern Polytechnical University

Peking University

Polytechnic University of Milan

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Swansea University

The Hong Kong University of Science and Technology

The State University of New York (Korea)

Tsinghua University

University of Aberdeen

University of Siegen



Technical Sciences Academy  
of Romania  
(Inviting in Progress)

## Co-Hosts

National Key Laboratory of Complex Multibody System Dynamics

Nanjing University of Science and Technology

(Inviting in Progress)



## Standing Steering Committee

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Nanjing University of Science & Technology

Member of Chinese Academy of Science  
President of International Society of Mechanical System Dynamics

Editor-in-Chief of International Journal of Mechanical System Dynamics

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(Inviting in Progress)

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Assoc. Prof. Xuping Zhang	Aarhus University	Denmark

## Mini-symposia

If you are interested in chairing a mini-symposia, please contact the conference local organizing committee.



## Local Organizing Committee

### • Chairman

**Prof. Gilbert-Rainer Gillich**

Babeş-Bolyai University

### • Vice-Chairmen

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**Prof. Liviu Marsavina**

Politehnica University of Timișoara

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Assoc. Prof. Ziyao Ma, Nanjing University of Science and Technology


Mr. Hang Zhang, Nanjing University of Science and Technology

## Sponsors

Advanced Science Center for Complex Equipment  
System Dynamics, China  
(Inviting in Progress)

## Relevant Information

 Venue & Hotels: Cluj-Napoca Hotels

 Accommodations in Cluj-Napoca include:

- Hampton by Hilton
- Hotel Beyfin
- Hotel Victoria
- Courtyard Cluj-Napoca Downtown
- Retro Hostel
- Ramada by Windham
- Hotel Meridian
- Hotel Confort
- Double Tree by Hilton
- Grand Hotel Italia
- Hotel Napoca
- Hotel Belvedere
- Radisson Blue

During the conference, the committee will arrange dining for participants, and local transportation from the airport to the hotel and vice versa for overseas participants, but the accommodation needs to be arranged by the participants themselves. Please book the hotel in advance.

If you need assistance with your Hotel Reservation, please contact us.



## Registration Fee

Ticket Type	Early-Bird Registration (Before Aug 15, 2025)	Regular Registration (After Aug 15, 2025 & On-site)
Author Registration (ISMSD members*)	LEI 1940 / USD 430 / EUR 390	LEI 2400 / USD 530 / EUR 480
Author Registration (non-ISMSD members*)	LEI 2150 / USD 470 / EUR 430	LEI 2650 / USD 580 / EUR 530
Student Registration	LEI 1440 / USD 320 / EUR 290	LEI 1940 / USD 430 / EUR 390
Accompany Person (Family member only)	-	LEI 750 / USD 166 / EUR 150

Full refund for cancellation before Jun. 23, 2025.

50% refund for cancellation before and including Jul. 23, 2025.

No refund for cancellation after Jul. 24, 2025.

\* Membership is free of charge. Please apply on conference website ([www.icmsd-conference.com](http://www.icmsd-conference.com)).

## Contact

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## How to reach Cluj-Napoca

✈ **By plane:** There are direct flights connecting Cluj-Napoca with Abu Dhabi, Alicante, Barcelona, Bari, Basel, Bergamo, Bologna, Budapest, Brussels Charleroi, Catania-Sicilia, Dortmund, Dublin, Eindhoven, Frankfurt Hahn, Istanbul, Leeds, Lisbon, London Luton, London Stansted, Lyon, Madrid, Malaga, Malmo, Memingen, Munich, Napoli, Nisa, Nurnberg, Paris Beauvais, Rome, Stuttgart, Valencia, Venice, Vienna, Warsaw, Zaragoza, and Zurich.  
(Cluj-Napoca International Airport )

Airlines with service to Cluj-Napoca include: WizzAir, Lufthansa, Air Dolomiti, Tarom, Ryanair, Turkish Airlines, Polish Airlines LOT, Hi Sky, AeroExpress Regional, Swiss, Air Baltic.

🚆 **By train:** Cluj-Napoca is about 9 hours from Bucuresti (Bucharest), and 11 hours from Budapest, Hungary.

🚗 **By car:** If you travel from Western Europe, take motorway M1 from Wien to Budapest, then European Route E60 for Budapest → Szolnok → Puspokladany → Artand / Bors (border crossing) → Oradea → Cluj-Napoca.



– Appendix –

## **Introduction of the ISMSD**

The International Society of Mechanical System Dynamics (ISMSD) is an international, academic, and non-profit social organization. The society focuses on the scientific and technological aspects of object motion and interaction throughout the entire lifecycle of mechanical systems, including their design, manufacturing, testing, evaluation, and usage. The ISMSD was jointly initiated by 100+ founding members from 35 countries across six continents, including Prof. Xiaoting Rui, Member of the Chinese Academy of Sciences; Prof. Marco Amabili, Fellow of the Royal Society of Canada; Prof. Chuanzeng Zhang, Member of the Academia Europaea; Prof. Ross McAree, Fellow of the Australian Academy of Technological Sciences and Engineering; Prof. Wanlin Guo, Member of the Chinese Academy of Sciences; Prof. Marian Wiercigroch, Fellow of the Royal Society of Edinburgh; Prof. Zhenghong Zhu, Member of the Canadian Academy of Engineering; Prof. Santosh Kapuria, Fellow of the Indian Academy of Sciences. Among the co-initiators are 22 Members of National Academy of Sci./Eng, 15 Presidents of International Organizations, and 45 Editors-in-Chief of International Journals from 78 organizations, and 10 Fortune 500 Companies.

Website: [www.ismsd.com](http://www.ismsd.com)

## **Introduction of the 1st ICMSD**

The 1st International Conference of Mechanical System Dynamics (ICMSD2021+1) was successfully held in August, 2022, in Nanjing, China, by the Nanjing University of Science & Technology, Chinese Society of Theoretical and Applied Mechanics, the International Association of Applied Mechanics, John Wiley & Sons Inc., Chinese Society of Launch Dynamics (planned) and International Journal of Mechanical System Dynamics. We welcomed 2000+ participants from 20+ countries and regions, including 50+ world-leading scientists, with 400+ accepted submissions and 200+ speeches. 11 Plenary/Keynote Speeches were presented by 11 experts from 6 countries, including 9 members of National Academy of Science/Engineering.

Website: [www.icmscd-conference.com/2021+1/](http://www.icmscd-conference.com/2021+1/)



## **Introduction of the 2nd ICMSD**

The 2nd International Conference on Mechanical System Dynamics (ICMSD2023) was hosted by Peking University, in Beijing, China, Sept. 1-5, 2023. More than 1000 experts, scholars and engineers, including 37 members of national academies of science/engineering, 18 Editors-in-Chief of international journals and 7 presidents/chairmen of international academic associations from 204 universities/institutes in 23 countries gathered together to promote "Technology Innovations by Understanding Mechanical Dynamics". We accepted 620 peer-reviewed submissions, and organized 378 oral presentations and 242 poster presentations including 11 Plenary/Keynote Speeches.

Website: [www.icmsd-conference.com/2023/](http://www.icmsd-conference.com/2023/)

## **Introduction of the IJMSD**

The International Journal of Mechanical System Dynamics (IJMSD), published by Wiley, is a peer-reviewed and open-access journal that aims to systematically reveal the vital effect of mechanical system dynamics on the whole lifecycle of modern industrial equipment. Especially, it focuses on the science and technology about laws of motion and interaction of objects concerned in the simulation design, manufacturing, testing, evaluation, and utilization of various complex equipment. IJMSD publishes Research Articles, Reviews, News, Short Communications, and Editorials based on both fundamental and applied research concerning the dynamics of all kinds of mechanical systems. The journal emphasizes the "system" point of view and system-level tools for understanding the dynamics. The systems concerned include not only various machinery and structures of different scales, but also integrated mechanical systems with multi-physics / multi-disciplinary nature.

The editorial board of IJMSD consists of 69 internationally renowned experts from 18 countries, including 21 members of the National Academy of Science or Engineering, 20 Editors-in-Chief of other international journals, and 17 presidents of academic societies. The Editor-in-Chief is Prof. Xiaoting Rui, member of the Chinese Academy of Sciences, President of the International Society of Mechanical System Dynamics (ISMSD). The three Co-Editors-in-Chief are: Prof. Marco Amabili, Foreign Member of Academia Europaea and Member of the European Academy of Sciences, from Westlake University, Canada; Prof. Peter Eberhard, former Treasurer of the International Union of Theoretical and Applied Mechanics (IUTAM) and former Chairman of the International Association on Multibody System Dynamics (IMSD) from the University of Stuttgart, Germany; and Prof. Yonggang Huang, Member of the National Academy of Engineering, USA and Member of the National Academy of Sciences, USA, from Northwestern University, USA.

IJMSD is now indexed by Emerging Sources Citation Index (ESCI), Web of Science (WoS), Ei Compendex, SCOPUS, INSPEC (IET), DOAJ, etc. The journal ranks in the Q1 quartile in the Engineering, Mechanical and Mechanics categories (Journal Citation Reports 2024, Clarivate). Additionally, article Publication Charges (APCs) are currently waived in 2024.

Website: [www.onlinelibrary.wiley.com/journal/27671402](http://www.onlinelibrary.wiley.com/journal/27671402)





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## Introduction of the Babeș-Bolyai University

Babeș-Bolyai University (BBU) with its main campus in Cluj-Napoca and 10 extensions throughout the country is the largest and, with its three official languages, Romanian, Hungarian, and German, the most comprehensive higher education institution in Romania. It has the longest academic tradition in the country, with a history that goes as far back as 1581. BBU has been ranked the best Romanian university according to the University Metaranking for the past seven years. For several years, BBU has occupied the first position in Romania in numerous global university rankings by subject domains, being consistently ranked among the top 5% of the best universities in the world with an advanced academic infrastructure and recently, following the international QS Stars audit, BBU was confirmed as the first “world-class” university in Romania. As Engineering is placed among the priority sectors within our complex academic profile, Babeș-Bolyai University welcomes the opportunity to participate in organizing the 3rd International Conference on Mechanical System Dynamics (ICMSD).

Website: [www.ubbcluj.ro/en](http://www.ubbcluj.ro/en)

