



THE 12th INTERNATIONAL CONFERENCE ON
ADVANCED CONCEPTS IN MECHANICAL ENGINEERING

ACME 2026

JUNE 4 – 5, 2026
IAȘI, ROMANIA



Organized by:



**FACULTY OF MECHANICAL ENGINEERING
“GHEORGHE ASACHI” TECHNICAL UNIVERSITY OF IASI
and
ROMANIAN ACADEMY OF TECHNICAL SCIENCES**



Under the aegis of:

ROMANIAN MINISTRY OF EDUCATION
ACADEMY OF ROMANIAN SCIENTISTS

In partnership with:

SRR - ROBOTICS SOCIETY OF ROMANIA
SRT - ROMANIAN SOCIETY OF THERMODYNAMICS
SIAR - SOCIETY OF AUTOMOTIVE ENGINEERS OF ROMANIA
AROTMM - ROMANIAN ASSOCIATION FOR MECHANISMS AND MACHINE SCIENCE
AFCR - ROMANIAN ASSOCIATION FOR REFRIGERATION AND CRYOGENICS ENGINEERS
SROMECA - ROMANIAN ASSOCIATION OF MECHATRONICS
ART - ROMANIAN TRIBOLOGY ASSOCIATION

CONFERENCE CHAIRMAN

Gelu IANUȘ "Gheorghe Asachi" Technical University of Iași, RO

ORGANIZING COMMITTEE CHAIRMEN

Ioan DOROFTEI "Gheorghe Asachi" Technical University of Iași, RO
Aristotel POPESCU "Gheorghe Asachi" Technical University of Iași, RO

SECRETARY

Carmen BUJOREANU "Gheorghe Asachi" Technical University of Iași, RO

HONORARY COMMITTEE

HONORARY PRESIDENT

Spiridon CREȚU "Gheorghe Asachi" Technical University of Iași, RO

MEMBERS

Păun ANTONESCU N.U.S.T. POLITEHNICA Bucharest, RO
Costică ATANASIU N.U.S.T. POLITEHNICA Bucharest, RO
Yvan BAUDOUIN Royal Academy Bruxelles, BE
Adrian BEJAN Duke University, NC, USA
Ioan BOSTAN Technical University of Chișinău, MD
Vasile BUMACOV State Agrarian University, MD
Anghel CHIRU "Transilvania" University of Brașov, RO
Daniel CONDURACHE "Gheorghe Asachi" Technical University of Iași, RO
Michel FEIDT University of Nancy, FR
Mihai GAFIȚANU "Gheorghe Asachi" Technical University of Iași, RO
Pedro Silva GIRAO Superior Technical Institute Lisboa, PT
David HUI University of New Orleans, LA, USA
Valeriu JINESCU Romanian Academy of Technical Sciences, RO
Sadik KAKAÇ TOBB University of Economics and Technology Ankara, TR
Dorel LEON "Gheorghe Asachi" Technical University of Iași, RO
Peter LORENZ HTW des Saarlandes, DE
Vasile NASTASESCU Military Technical Academy, Bucharest, RO
Daniel NELIAS INSA Lyon, FR
Tănase PANAIT "Dunărea de Jos" University of Galați, RO
Constantin PANA N.U.S.T. POLITEHNICA Bucharest, RO
Stoian PETRESCU N.U.S.T. POLITEHNICA Bucharest, RO
Tudor PRISECARU N.U.S.T. POLITEHNICA Bucharest, RO
Gheorghe Al. RADU Romanian Academy of Technical Sciences, RO
James WELTY Oregon State University, OR, USA

SCIENTIFIC COMMITTEE

Stelian ALACI	“Ștefan cel Mare” University of Suceava, RO
Cătălin ALEXANDRU	“Transilvania” University of Brașov, RO
Nicușor AMARIEI	“Gheorghe Asachi” Technical University of Iași, RO
Valentin Gheorghe APOSTOL	N.U.S.T. POLITEHNICA Bucharest, RO
Virgil ATANASIU	“Gheorghe Asachi” Technical University of Iasi, RO
Mihai AVRAM	N.U.S.T. POLITEHNICA Bucharest, RO
Mugur Ciprian BĂLAN	Technical University of Cluj-Napoca, RO
Dan-Teodor BĂLĂNESCU	“Gheorghe Asachi” Technical University of Iași, RO
Florin BĂLTĂREȚU	Technical University of Civil Engineering Bucharest, RO
Paul BÂRSĂNESCU	“Gheorghe Asachi” Technical University of Iași, RO
Karsten BERNIS	Technical University of Kaiserslautern, DE
Luminița BIBIRE	“Vasile Alecsandri” University of Bacău, RO
Marin BICĂ	University of Craiova, RO
Sorin Ștefan BIRIȘ	N.U.S.T. POLITEHNICA Bucharest, RO
Elidia Beatriz BLÁZQUEZ PARRA	University of Málaga, PT
Benyebka BOU-SAID	INSA Lyon, FR
Florin BREABAN	University d’Artois, FR
Cornel BRIȘAN	Technical University of Cluj-Napoca, RO
Carmen BUJOREANU	“Gheorghe Asachi” Technical University of Iași, RO
Salvadore Mugurel BURCIU	“Dunărea de Jos” University of Galați, RO
Nicolae BURNETE	Technical University of Cluj-Napoca, RO
Walter CALLES	HTW des Saarlandes, DE
Marco CECCARELLI	University of Cassino and South Latium, IT
Traian CICONE	N.U.S.T. POLITEHNICA Bucharest, RO
Constantin CIOCĂNEL	Northern Arizona University, USA
Adrian CLENCI	N.U.S.T. POLITEHNICA Bucharest – Pitești branch, RO
Monica COSTEA	N.U.S.T. POLITEHNICA Bucharest, RO
Luciana CRISTEA	“Transilvania” University of Brașov, RO
Bertrand DANO	University of Miami, FL, USA
Lorena DELEANU	“Dunărea de Jos” University of Galați, RO
Alexandru DOBROVICESCU	N.U.S.T. POLITEHNICA of Bucharest, RO
Valeriu DOLGA	Politehnica University Timișoara, RO
Ioan DOROFTEI	“Gheorghe Asachi” Technical University of Iași, RO
Radu DROSESCU	“Gheorghe Asachi” Technical University of Iași, RO
Liviu DRUGHEAN	Technical University of Civil Engineering Bucharest, RO
Valeriu DULGHERU	Technical University of Chișinău, MD
Gheorghe DUMITRAȘCU	“Gheorghe Asachi” Technical University of Iași, RO
Ilie DUMITRU	University of Craiova, RO
Dan ELIEZER	Ben-Gurion University of the Negev, IL
Jean-Christophe FAUROUX	IFMA, Clermont-Ferrand, FR
Cătălin FETECĂU	“Dunărea de Jos” University of Galați, RO
Romeo GLOVNEA	University of Sussex, UK
Viorel GOANȚĂ	“Gheorghe Asachi” Technical University of Iași, RO
Anton HADĂR	N.U.S.T. POLITEHNICA Bucharest, RO
Abel HERNANDEZ-GUERRERO	University of Guanajuato, MX
Vlad-Mario HOMUTESCU	“Gheorghe Asachi” Technical University of Iași, RO
Bogdan HORBANIUC	“Gheorghe Asachi” Technical University of Iași, RO
Luc HOUPERT	Timken Europe, Colmar, FR
Evangelos HRISTOFOROU	National Technical University of Athens, GR
Gabriela HUMINIC	“Transilvania” University of Brașov, RO
Ion V. ION	“Dunărea de Jos” University of Galați, RO
Romeo IONESCU	“Ștefan cel Mare” University of Suceava, RO
Daniel IOSZA	N.U.S.T. POLITEHNICA Bucharest, RO
Nicolae ISPAS	“Transilvania” University of Brașov, RO
Koonlaya KANOKJARUVIJIT	Naresuan University, Phitsanulok, T
Sotirios KARELLAS	National Technical University of Athens, GR
Andres KECSKEMETHY	Universität Duisburg-Essen, DE

Dirk LEFEBER	Vrije Universiteit Brussel, BE
Erwin LOVASZ	Politehnica University Timișoara, RO
Jose MACHADO	University of Minho, Guimaraes, PT
Liviu MARȘAVINA	Politehnica University Timișoara, RO
Silviu Dan MÂNDRU	Technical University of Cluj-Napoca, RO
Gheorghe MANOLACHE	"Gheorghe Asachi" Technical University of Iași, RO
Grigore MARIAN	State Agrarian University, MD
Vistrian MĂTIEȘ	Technical University of Cluj-Napoca, RO
Fabio MIANI	University of Udine, IT
Alexandra MICHAILIDOU	Aristotle University of Thessaloniki, GR
Liviu MIHON	Politehnica University Timișoara
Minu MITREA	Military Technical Academy, Bucharest, RO
Emilia-Cerna MLADIN	N.U.S.T. POLITEHNICA Bucharest, RO
Costel MOCANU	"Dunărea de Jos" University of Galați, RO
Corneliu MUNTEANU	"Gheorghe Asachi" Technical University of Iași, RO
Ilie MUSCĂ	"Ștefan cel Mare" University of Suceava, RO
Mircea NĂSTĂSOIU	"Transilvania" University of Brașov, RO
Valentin NEDEFF	"Vasile Alecsandri" University of Bacău, RO
Dumitru NEDELCU	"Gheorghe Asachi" Technical University of Iași, RO
Viorel NICOLAE	N.U.S.T. POLITEHNICA Bucharest – Pitești branch, RO
Vincenzo NIGRELLI	University of Palermo, IT
Constantin NIȚU	N.U.S.T. POLITEHNICA Bucharest, RO
Dumitru OLARU	"Gheorghe Asachi" Technical University of Iași, RO
Dan OPRUȚA	Technical University of Cluj-Napoca, RO
Viorel PALEU	"Gheorghe Asachi" Technical University of Iași, RO
Constantin PANA	N.U.S.T. POLITEHNICA Bucharest, RO
Carmen Ema PANAITE	"Gheorghe Asachi" Technical University of Iași, RO
Konstantinos PAPAKOSTAS	Aristotle University of Thessaloniki, GR
Mircea PASCOVICI	N.U.S.T. POLITEHNICA Bucharest, RO
Liliana Doina PÎSLĂ	Technical University of Cluj-Napoca, RO
Dumitru POP	Technical University of Cluj-Napoca, RO
Lucian Horațiu POP	N.U.S.T. POLITEHNICA Bucharest, RO
Viorel POPA	"Dunărea de Jos" University of Galați, RO
Aristotel POPESCU	"Gheorghe Asachi" Technical University of Iași, RO
Ion PREDA	"Transilvania" University of Brașov, RO
Gheorghe PRISĂCARU	"Gheorghe Asachi" Technical University of Iași, RO
Giuseppe QUAGLIA	Politecnico di Torino, IT
Edward RAKOȘI	"Gheorghe Asachi" Technical University of Iași, RO
Eugen Victor Cristian RUSU	"Dunărea de Jos" University of Galați, RO
Adrian SACHELARIE	"Gheorghe Asachi" Technical University of Iași, RO
Filipe SILVA	University of Minho, Guimaraes, PT
Camelia STANCIU	N.U.S.T. POLITEHNICA Bucharest, RO
Domnica-Mariana STANCIU	"Transilvania" University of Brașov, RO
Ionel STAREȚU	"Transilvania" University of Brașov, RO
Romeo Florin SUSAN-RESIGA	Politehnica University Timișoara, RO
Alexandru ȘERBAN	N.U.S.T. POLITEHNICA Bucharest, RO
Adrian ȘOICA	"Transilvania" University of Brașov, RO
Ștefan TABACU	N.U.S.T. POLITEHNICA Bucharest – Pitești branch, RO
Daniela TARNIȚĂ	University of Craiova, RO
Leonid TARTAKOVSKY	Tehnonion Israel Institute of Technology, IL
Ana-Maria TRUNFIO-SFARGHIU	INSA Lyon, FR
Andrei TUDOR	N.U.S.T. POLITEHNICA of Bucharest, RO
Krisztina UZUNEANU	"Dunărea de Jos" University of Galați, RO
Ondřej VACULÍN	Technische Hochschule Ingolstadt, DE
Ion VIȘA	"Transilvania" University of Brașov, RO
Christos VLACHOKOSTAS	Aristotle University of Thessaloniki, GR
Gheorghe VOICU	N.U.S.T. POLITEHNICA Bucharest, RO
Teresa ZIELIŃSKA	Warsaw University of Technology, PL

ORGANIZING COMMITTEE

Chairmen	Ioan DOROFTEI	ioan.doroftei@academic.tuiasi.ro
	Aristotel POPESCU	aristotel.popescu@academic.tuiasi.ro
Secretary	Carmen BUJOREANU	carmen.bujoreanu@academic.tuiasi.ro
Section 1	Marcelin BENCHEA	marcelin.benchea@academic.tuiasi.ro
	Ana TUFESCU	ana.tufescu@academic.tuiasi.ro
Section 2	Corneliu MUNTEANU	corneliu.munteanu@academic.tuiasi.ro
	Bogdan ISTRATE	bogdan.istrate@academic.tuiasi.ro
Section 3	Ciprian STAMATE	vasile-ciprian.stamate@academic.tuiasi.ro
	Vlad CÂRLESCU	vlad.carlescu@academic.tuiasi.ro
Section 4	Eugen MERTICARU	eugen.merticaru@academic.tuiasi.ro
	Cristina CAZACU	cristina-magda.cazacu@academic.tuiasi.ro
Section 5	Viorel GOANTA	viorel.goanta@academic.tuiasi.ro
	Ciprian MORĂRAȘ	ciprian-ionut.moraras@academic.tuiasi.ro
Section 6	Andrei DONTU	andrei-ionut.dontu@academic.tuiasi.ro
	Tudor ULIAN	tudor-marian.ulian@academic.tuiasi.ro
Section 7	Mario HOMUTESCU	vlad-mario.homutescu@academic.tuiasi.ro
	Marius ATANASIU	marius-vasile.atanasiu@academic.tuiasi.ro
Section 8	Alina DUMITRAȘCU	alina-corina.dumitrascu@academic.tuiasi.ro
	Ana – Georgiana LUPU	ana-georgiana.lupu@academic.tuiasi.ro

TOPICS:

- Section 1 Machine Design. Tribology
- Section 2 Materials and Surface Engineering
- Section 3 Mechatronics. CAD. Mechanical Vibrations
- Section 4 Theory of Mechanisms and Machinery. Robotics
- Section 5 Mechanics of Deformable Bodies
- Section 6 Automotives. Engine and Transmission. Road Safety
- Section 7 Applied Thermodynamics, Heat Transfer, and Renewable Energy. Thermal Systems
- Section 8 Technologies in Agriculture and Food Processing

HISTORY AND AIM:

Faculty of Mechanical Engineering from “Gheorghe Asachi” Technical University of Iași organizes the International Conference on **Advanced Concepts in Mechanical Engineering** on a biennial basis. In 2026 we proudly celebrate the 12th edition of the most significant conference hosted by our faculty.

The aim of **ACME** is to outline the image of future mechanical systems, to initiate research in new areas bordering various research fields and to promote innovation in all its forms. The event will provide a forum for interaction between researchers and professionals from academia and industry, while promoting interaction between scientists and engineers. The conference will comprise technical and social programs. The technical program will include plenary and regular oral or poster presentations.

The papers presented at the 6th and 9th editions (ACME2014 and ACME2020) were indexed in Scopus and the 7th and 8th editions (ACME2016 and ACME2018) were indexed in both Web of Science (WOS) and Scopus. Selected papers presented at the 11th edition (ACME2024) have been published in: Environmental Engineering and Management Journal, indexed in WOS (2023 IF = 0.9); International Journal of Modern Manufacturing Technologies, indexed in Scopus; Buletinul Institutului Politehnic Iasi, indexed in other international data bases.

DEADLINES:

- Full paper submission: March 15th, 2026
- Provisional accept notification: April 15th, 2026
- Final paper submission: April 30th, 2026
- Final accept notification: May 10th, 2026

REGISTRATION

Early Registration (before May 20th, 2026)

Authors and members of sponsoring institutions	250 €
Others	300 €
Students/PhD students	150 €

Regular Registration

Authors and members of sponsoring institutions	300 €
Others	350 €
Students/PhD students	150 €

The fees include the lunches, ACME 2026 program, ACME 2026 conference proceedings, a trip to Cricova wineries, gala dinner and one night accommodation to Chateau Vartely, Republic of Moldova.

GENERAL INFORMATION:

- The conference will take place in two stages: the first day at the “Gheorghe Asachi” Technical University in Iasi; the second day, visit and lunch at the Cricova wineries, a conference session, gala dinner and one night accommodation to Chateau Vartely, Republic of Moldova. Participants from outside the EU are asked to check the entry requirements for the Republic of Moldova;
- The corresponding author must submit the full paper on the conference website page, to the link <https://meteor.springer.com/ACME2026>;
- The official language of the conference is English;
- Each paper will be reviewed and the papers selected by the Scientific Committee will be published by Springer in the series “Mechanisms and Machine Science”, indexed in several data bases, including WOS and Scopus, and monitored by all major abstract media;
- All submitted papers must be strictly prepared following the publication guidelines;
- For detailed up-to-date information, please visit the ACME 2026 conference website.

More information on the conference WEB page: <http://www.mec.tuiasi.ro/acme2026>