



INTERNATIONAL CONGRESS ON NEW TRENDS IN MECHANICS

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TNCTAM

Turkish National Committee of
Theoretical and Applied Mechanics

24. ULUSAL MEKANİK KONGRESİ

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TUMTMK

Teorik ve Uygulamalı Mekanik
Türk Milli Komitesi

► September 02-05, 2025

► 02-05 Eylül 2025

AZERBAIJAN
STATE PEDAGOGICAL UNIVERSITY

AZERBAIJAN
DEVLET PEDAGOJİ ÜNİVERSİTESİ

Conference program – Baku time (GMT+4)

08:30 — Visit of the International Congress participants to the Heydar Aliyev Memorial in the Alley of Honor

Venue: Azerbaijan State Pedagogical University (ASPU)

Tuesday, September 2 — Main Campus, Baku

09:00–10:00 — *Registration*

10:00–11:00 — *Opening Ceremony*

11:00–11:30 — **Invited Speaker Session 1**

11:30–11:50 — *Coffee Break*

11:50–12:20 — **Invited Speaker Session 2**

12:20–13:30 — *Lunch*

13:30–14:30 — **Parallel sessions 1** (5 Halls)

14:30–14:45 — *Coffee Break*

14:45–15:15 — **Invited Speaker Session 3**

15:15–15:30 — *Coffee Break*

15:30–16:45 — **Parallel sessions 2** (5 Halls)

16:45–17:00 — *Coffee Break*

17:00–18:15 — **Parallel sessions 3** (5 Halls)

19:00 — **Gala Dinner** (Details to be announced)

Wednesday, September 3 — Main Campus, Baku

08:30–09:00 — *Registration*

09:00–10:00 — **Parallel sessions 4** (5 Halls)

10:00–10:15 — *Coffee Break*

10:15–10:45 — **Invited Speaker Session 4**

10:45–11:00 — *Coffee Break*

11:00–12:00 — **Parallel sessions 5** (4 Halls)

12:00–13:30 — *Lunch*

13:30–14:00 — **Invited Speaker Session 5**

14:00–14:15 — *Coffee Break*

14:15–14:45 — **Invited Speaker Session 6**

14:45–15:00 — *Coffee Break*

15:00–16:30 — **Parallel sessions 6** (4 Halls)

Thursday, September 4 — Guba Branch, Guba

10:00–10:30 — Meeting with the Head of Guba District executive authority

10:30–11:00 — Visit of the International Congress participants to the Heydar Aliyev Memorial in Guba city

11:00–12:00 — **Parallel sessions 7** (2 Halls)

12:00–12:30 — *Closing Meeting*

12:30–14:00 — *Lunch*

14:00 — *Social Activity* (Details to be announced)

SEPTEMBER 02, TUESDAY

08:30 Visit of the International Congress participants to the Heydar Aliyev Memorial in the Alley of Honor

09:00 – 10:00 Registration

Hall 1

10:00 –11:00 **Opening Ceremony**

Congratulatory speeches

Prof. Dr. Asaf ZAMANOV

Chairman of the Organizing Committee

Vice-rector of Azerbaijan State Pedagogical University, Azerbaijan

Prof. Dr. Mehmet H. OMURTAG

Chairman of the Organizing Committee

Head of Theoretical and Applied Mechanics Turkish National Committee

Istanbul Medipol University, Turkiye

Prof. Dr. Jafar JAFAROV

Rector of Azerbaijan State Pedagogical University, Azerbaijan

Prof. Dr. Misir MARDANOV

Director of the Institute of Mathematics and Mechanics of the National Academy of Sciences of Azerbaijan

Prof. Dr. Arif HASHIMOV

First Vice-President of the Azerbaijan National Academy of Sciences

Prof. Dr. Şenol ATAÖĞLU

Vice-rector of Istanbul Technical University, Turkiye

Invited Speaker Session 1

Hall 1

Session Chair: Prof.Dr. Mehmet H. OMURTAG

11:00 –11:30

Prof.Dr. Erdogan MADENCI

“Power of Differentiation through Integration: The Peridynamic Differential Operator”

11:30 –11:50

Coffee Break

Invited Speaker Session 2

Hall 1

Session Chair: Prof.Dr. Asaf ZAMANOV

11:50 –12:20

Prof.Dr. Endel IARVE

“Discrete Damage Modelling by Using Regularized Extended Finite Element Method”

12:20–13:30

Lunch

SEPTEMBER 02, TUESDAY

Parallel Sessions 1

Hall 1 : (ICNTM25) Nonlocal and Mesh-Free Methods

Session Chair : Prof.Dr. Erdoğan Madenci, Prof.Dr. Farman Mamedov

13:30 – 13:45	H.Ç. Yılmaz, S. Kacin, E. Oterkus, S. Oterkus , Peridynamic Modelling of Quasi-Brittle Materials
13:45 – 14:00	K. Bagdiken, U. Altay, M. Dorduncu, A. Tasdemirci , Localized Plastic Deformation and Crack Propagation in Ductile Materials using Peridynamic Theory
14:00 – 14:15	R. Sasanian, O. Elcin, M. Dorduncu, H.H. Camuz, E. Madenci , Peridynamic Differential Operator-Based Modelling of Thickness-Dependent Cure Kinetics in Aerospace-Grade Prepreg Systems

Hall 2 : (ICNTM25) Fluid Mechanics

Session Chair : Prof. Dr. Surkay D. Akbarov, Assoc. Prof. Dr. Zafer Kütüğ

13:30 – 13:45	A.E. Imamaliyev, Z. Kütüğ , On the Wave Dispersion Problem Related to the Hydroelastic System Consisting of FGM Plate and Compressible Fluid Layer
13:45 – 14:00	R.S. Akbarli , Modeling Wave Dynamics in Elastic Shells Containing Two-Phase Bubbly Fluids
14:00 – 14:15	M.F. Pala , On the Method for Solving Problems of Forced Vibration of a Moving Piezoelectric Plate in Contact with a Viscous Fluid

Hall 3 : (ICNTM25) Applied Mathematics

Session Chair : Prof.Dr. Veli Gurbanov, Assoc. Prof. Dr. Mahir Mekhtiev

13:30 – 13:45	A.Sahmurova , Dynamics in Predator-Prey Systems: Integrating Immune Responses and Reaction-Diffusion
13:45 – 14:00	V. Shakhmurov , Regularity Properties of Nonlocal Wave Equations and Applications
14:00 – 14:15	N. Rasulov, U. Nadirov , Quality Management in the Machine-building Industry: Modern Approaches and Strategies for Efficiency Enhancement
14:15 – 14:30	R. Z. Humbataliyev, Y. N. Hasanov, M. M. Mamedov , Mathematical Modeling on Production Growth

Hall 4 : ONLINE (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Natiq Akhmedov, Assoc. Prof.Dr. Umit N. Aribas

13:30 – 13:45	Ş.M. Ünlü , Impact Resistance and Weight Optimization of Infill Sandwich and Honeycomb Sandwich Structures produce from PLA/LW-PLA Using Fused Deposition Modelling (FDM) Method
13:45 – 14:00	O. Ayaz, A.R. Noori, B. Sivri, B. Temel , Free Vibration Analysis of Axially FGM Axisymmetric Cylindrical Shells
14:00 – 14:15	A.P. Özer, A.R. Noori, T.A. Aslan, B. Temel , Viscoelastic Analysis of Beams with FGP Material Resting on Pasternak Foundation
14:15 – 14:30	L.T. Aktaş, M. Çevik , Impact Location Effects on Ballistic Performance of Checkerboard-Formation Ceramic Sphere Armor

Hall 5 (SALON 5): (24.UMK) Hesaplamalı ve Deneysel Mekanik

Session Chair : Prof.Dr. Latif Talybly, Prof.Dr. Babür Deliktaş

13:30 – 13:45	A.Tariq, B. Deliktaş, M.Ö. Yaylı , Sonlu Elemanlar Analizinde Malzeme Modellerinin Verimli Kalibrasyonu için Yeni Bir Makine Öğrenimi Destekli Ters Metodolojisi
13:45 – 14:00	M.Z. Karabacak, M.T. Göğüş, A. Güleç , Pet Atıklarının Sürdürülebilirlik Açısından Alternatif Kullanımının Araştırılması
14:00 – 14:15	M. Gül, R. Güçlü , Mikro Uydu Yapılarında Sanki-Statik Yüklerin Analizi ve Sinüs Patlama Testi ile Deneysel Doğrulama

14:30 – 14:45 *Coffee Break*

SEPTEMBER 02, TUESDAY

Invited Speaker Session 3

Hall 1 **Session Chair:** Prof.Dr. Endel IARVE

14:45 –15:15 **Prof.Dr. Ertugrul TACIROGLU**

"Computational Science in Service of Natural Hazards Engineering Applications, Challenges, Opportunities"

15:15 –15:30 *Coffee Break*

Parallel Sessions 2

Hall 1 : (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Mehmet H. Omurtag, Prof.Dr. Rahim Rzayev

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- 15:30 – 15:45 **V. Biscotti, M. Esposito, M. Gherlone**, Optimal Strain Sensor Layouts for Shape Sensing of Thin-Walled Structures using the Single Sensor Based Inverse Finite Element Method
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- 15:45 – 16:00 **O. Colak**, Cooperative Viscoplasticity Theory Based on Overstress for Bridging Experimental Insight and Design Needs
-
- 16:00 – 16:15 **E. Koc, E. Kahraman, U.N. Aribas, M. Ermis, M.H. Omurtag**, Moderately Large Deflection Analysis of Sandwich Elliptical Arcs via Mixed Finite Element Method
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- 16:15 – 16:30 **M. Ermis, U.N. Aribas, N. Eratli, M.H. Omurtag**, Beating Response of FG-GPLRC Planar Curved Beams with Temperature-Dependent Material Properties under Harmonic Loading via Mixed FEM
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- 16:30 – 16:45 **Y. Bab, M. Dorduncu, A. Kutlu, B. Markert**, Static Analysis of Laminated Composite Plates Using PDDO and HSDT
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Hall 2 : (ICNTM25) Applied Mathematics I

Session Chair : Prof.Dr. Nazmiye Yahnioğlu, Prof.Dr. Yashar Mehraliyev

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- 15:30 – 15:45 **M. Mekhtiev, S. Akbarova**, Asymptotic Solution of the Problem of the Theory of Elasticity for a Transverse-Isotropic Cylinder with a Closed Side Surface
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- 15:45 – 16:00 **N. Akhmedov, S. Hasanova**, Analysis of Homogeneous Solutions to the Torsion Problem for a Radially Inhomogeneous Cylinder
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- 16:00 – 16:15 **T. Gasymov, B. Akhmadli**, On the Strong Solvability of a Nonlocal Boundary Value Problem for the Laplace Equation in Weighted Grand Lebesgue Spaces in Rectangle
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- 16:15 – 16:30 **Y.M. Sevdimaliyev, Y.T. Mehraliyev, A.F. Huseynova**, A Nonlinear Inverse Boundary Value Problem of Simultaneous Determination of the Right-Hand Side and the Coefficient in a Sixth-Order Boussinesq Equation
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Hall 3 : (ICNTM25) Mechanics of Structures and Materials

Session Chair : Prof.Dr. Asaf Zamanov, Assoc. Prof.Dr. Vefa Okumuş

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- 15:30 – 15:45 **M.N. Alhasan, M.T. Göğüş**, Improving Seismic Resilience through Enhanced Buckling Restrained Bracing Systems
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- 15:45 – 16:00 **A.Solak, M. Kamanlı, A. Ünal, S. Cengiz**, Numerical Investigation of the Effect of Axial Load on Torsion in Reinforced Concrete Columns
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- 16:00 – 16:15 **V. Okumuş**, Seismic Response of Unreinforced Masonry Buildings under Vertical Ground Motion: A Macroelement Approach
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- 16:15 – 16:30 **T. İnal, İ.E. Şahin**, Creep Prediction of a Gas Turbine NGV with Finite Element Analysis and Experimental Assessment
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- 16:30 – 16:45 **A.Z. Kayar, Y. Irmak, D. Yavaş, D. Çöker**, Experimental Investigation of Interfacial Fracture and Sliding of 3D-printed Bi-material Interfaces
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SEPTEMBER 02, TUESDAY

Hall 4 : **ONLINE (ICNTM25) Applied Mathematics II**

Session Chair : Prof. Dr. Veli Shakhmurov, Assoc. Prof. Dr. Fatih Aylikci

15:30 – 15:45	E.G. Çelik, N. Antar , Solitary Wave Dynamics in a (1+1)D Fractional Cubic-Quintic NLS Equation with Self-Steepening
15:45 – 16:00	M. Turgut, İ. Bakırtaş , Influence of a Double-Well Potential on Solitons in the Pure Quintic NLS Equation with Fourth-Order Diffraction
16:00 – 16:15	I.Hasanov , Calculation of Dynamic Loads in Sealing Assemblies
16:15 – 16:30	A.Okan, M. Şahin , Fully-Coupled k - ω -SST Turbulence Model Implementation for Nonlinear Newton Method in Unstructured Vertex-Based HEMLAB Algorithm
16:30 – 16:45	A.Imanov, I. Khalilov , Design of stator profiles of vane pumps based on curvature

Hall 5 (SALON 5): **(24.UMK) Yapı Mekaniği**

Session Chair : Prof.Dr. Mustafa Özakça, Prof. Dr. İlham Pirmamedov

15:30 – 15:45	N. Kütük, M. Özakça, E.E. Karataş , Farklı Boşluklara Sahip Çift Doğrultulu Betonarme Döşemelerin Yük Taşıma Kapasitesi
15:45 – 16:00	Ö.F. Sancak, M.Z. Özyurt , Betonda Pet İkamesinin ve FRP Sargının Mekanik Özelliklere Etkisi
16:00 – 16:15	A.Polat, B. Deliktaş, M. Yazıcı, M.Ö. Yaylı , Kaynak Hattı ve Fiber Yöneliminin Fiber Takviyeli Termoplastik Kompozitlerin Mekanik Davranışına Etkilerinin İncelenmesi
16:15 – 16:30	B. Oğuz, M.S. Döndüren, M.G.O. Al-Hagri, A. Nakipoğlu , Köprülerde Makro Modelleme Yöntemi ile Dinamik Parametrelerin Belirlenmesi
16:30 – 16:45	N.A. Mominzai, M.S. Döndüren, A. Nakipoğlu, M.G. Al-Hagri, B. Oğuz , Donatılı Bir Yığma Yapıda Oluşan Dinamik Parametrelerin Deneysel Olarak Belirlenmesi

16:45 – 17:00 *Coffee Break*

Parallel Sessions 3

Hall 1 : **(ICNTM25) Fluid Mechanics**

Session Chair : Prof.Dr. Gelani Panahov, Prof.Dr. Can F. Delale

17:00 – 17:15	C.F. Delale, S. Pasinlioglu , A Bubble Dynamics Based Hydrodynamic Cavitation Model and its Application to Cavitating Nozzle Flows
17:15 – 17:30	H.U. Naseer, D. Izbassarov, M. Muradoglu , Heat Transfer in a Turbulent Bubbly Channel Flow with Soluble Surfactant Contamination
17:30 – 17:45	A.A. Cinar, B. Sukuroglu, A.G. Gungor , Lattice Boltzmann Simulation of Flow in a Coaxial Combustor Using Immersed Boundary Method

Hall 2 : **HYBRID (ICNTM25) Applied Mathematics and Mechanics**

Session Chair : Prof.Dr. Isa Khalilov , Prof.Dr. Farman Mamedov

17:00 – 17:15	H. Sadeghian, A. Assadollahi, M. R. Ayatollahi , Effects of Ambient Temperature on the Mechanical Properties and Fracture Behaviors of Material Extrusion Components
17:15 – 17:30	V.A. Magerramov , Equation of Dynamics of the Scanning Drive of an Infrared Telescope
17:30 – 17:45	A.Soloviev, M. Germanchuk, O. Abraha , Inverse Problem of Determining Surface Damage of Extended Structures (Online)
17:45 – 18:00	M.A. Isah, D. Kaya, A. Yokus , Generalized Solitary Wave Solutions of Boussinesq-Type Equations: Analytical and Physical Insights via the ϕ^6 - Model Expansion Method (Online)
18:00 – 18:15	S. E. Cankaya, A. Hayir , Scattering and Propagation of SH Waves in a Plate with a Circular Inclusion (Online)

SEPTEMBER 02, TUESDAY

Hall 3 : HYBRID (ICNTM25) Mechanics of Structures and Materials I

Session Chair : Prof.Dr. Latif Talybly, Prof.Dr. Mehmet Kamanlı

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- 17:00 – 17:15 **S.H.Haqbin, E. Teomete**, Strain Sensitivity of 13mm-Steel Fiber Reinforced Smart Polymer Composite under Cyclic Tension Test (**Online**)
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- 17:15 – 17:30 **B. Kimee, S. K m rc , U. Kimee**, Investigation of Crack Propagation in Masonry Structures by Experimental and Numerical Methods
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- 17:30 – 17:45 **N. K t k, M.  zaka, E.E. Karataş**, Investigation of the Punching Behavior of Reinforced Concrete Biaxial Hollow Core Slabs
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Hall 4 : ONLINE (ICNTM25) Mechanics of Structures and Materials II

Session Chair : Prof.Dr. Ozgen Colak, Prof. Dr. Natiq Akhmedov

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- 17:00 – 17:15 **V. Buryachenko**, Local and Nonlocal Computational Analytical Micromechanics of Heterogeneous Materials
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- 17:15 – 17:30 **M. S. Tamtekin, O. Colak, O. Bakbak, B. E. Birkan**, Tensile Behavior of Functionalized Graphene - Epoxy Nanocomposites
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- 17:30 – 17:45 **M. Alhasan, V. Kahya, K. Hacıefendioėlu**, Time-Series Causal Inference for Engineering Structures Using High-Speed Vision Data
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- 17:45 – 18:00 **R. Alizade, K. Huseynzade**, Structural and Constructional Synthesis of New Manipulators with General Constraint Two.
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Hall 5 (SALON 5): (24.UMK) Katı Cisim Mekaniėi

Session Chair : Prof. Dr. Abdullah Avey, Prof.Dr. Ertugrul Taciroglu

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- 17:00 – 17:15 **M. Aydogdu**, T rkiye Adresli 2015-2025 Yılları Aralıėındaki SCI İndeksli Mekanik Alanındaki Yayınlar ve bu Yayınların D nyadaki Durumu
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- 17:15 – 17:30 **E. Kahraman, E. Koc, U.N. Aribas, M. Ermis, M.H. Omurtag**, Sandvi S per-eliptik Kirişlerin Nispeten B y k Yer Deėiştirmelerinin Karışık Sonlu Elemanlarla Analizi
-
- 17:30 – 17:45 **M. Arda**, Eksenel Derecelendirilmiş Nano ubukların Dinamik Analizinde Kullanılan Yaklaşık  z m Y ntemlerinin Performans Analizi
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- 17:45 – 18:00 **B. G r, M.  zaka**, Doėrusal Olmayan Kompozit Kirişlerin Sıcaklık Deėişimine Baėlı Olarak İncelenmesi
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Gala Dinner

SEPTEMBER 03, WEDNESDAY

08:30 – 09:00 *Registration*

Parallel Sessions 4

Hall 1 : (ICNTM25) Mechanics of Structures and Materials

Session Chair : Prof.Dr. B. Erdem Alaca, Prof.Dr. Farman Mamedov

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- 09:00 – 09:15 **S. Z. Pakzad, A.L. Gesing, U. Schmid, M. Schneider, B.E. Alaca**, Resonance Behavior of Silicon Nanowires: Insights into Native Oxide Effects
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- 09:15 – 09:30 **G.Baygeldi, P.S. Gürel, T.I. Özcan, D. Çöker**, Experimental Investigation of Frictional Sliding Instability
-
- 09:30 – 09:45 **E.T. Bagirov, A.D. Zamanov**, Dynamics of Oscillating Moving Load Acting Interior of the Hollow Cylinder Surrounded with Inhomogeneously Prestressed Elastic Medium
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- 09:45 – 10:00 **İ.F. Saruhan, K. Kaya**, Low-Velocity Impact Behavior of Auxetic-Corrugated Hybrid Sandwich Composites
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Hall 2 : (ICNTM25) Mechanics of Interaction and Wave Propagation

Session Chair : Prof.Dr. Asaf Zamanov, Prof.Dr. Metin Aydoğdu

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- 09:00 – 09:15 **L. Chen, W. Chen**, Contact Analysis of Finite-Sized, Functionally Graded Material Specimens
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- 09:15 – 09:30 **M. Gül, E. Ekici, A. Tatar**, Investigation of the Effects of Contact Pressure in Thermal Interface Materials Used at Equipment - Structure Interfaces in Satellite Systems on Thermal Performance and Vibration Characteristics
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- 09:30 – 09:45 **B. Yalvaç, E. Tüfekçi**, Lagrangian-Based Dynamic Analysis of a Moving 8×8 Heavy-Duty Vehicle Subjected to Dynamic Unbalance and Road Excitations
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Hall 3 : (ICNTM25) Solid Mechanics

Session Chair : Prof.Dr. Nazmiye Yahnioğlu, Assoc. Prof.Dr. Mahir Mekhtiev

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- 09:00 – 09:15 **L. Talybly**, On the Development of a Theory for the Long-Term Strength of Bodies with Hereditary Properties Under Arbitrary Loading
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- 09:15 – 09:30 **S. Gholibeygi, H. Ergün, B. Ayhan**, Impact of Strut Tapering and Unit Cell Modifications on the Effective Properties of Octet Truss Unit Cell
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- 09:30 – 09:45 **I.Khalilov, S. Kerimov, F. Mammedov, S. Ismayilova**, Synthesis of a Planar Mechanism with an Output Link Moving At A Constant Velocity
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- 09:45 – 10:00 **Ü.G. Bilekli, A. Eren, G. Sarı**, Investigation of the Effect of Distance Between Holes on Drop Atomization on the Surface of a Perforated Plate Under High-Frequency Vibration
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Hall 4 : **ONLINE** (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Natiq Akhmedov, Prof.Dr. Mehmet Dördüncü

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- 09:00 – 09:15 **M. Eker, S. Oterkus, E. Oterkus**, Bond-Based Peridynamic Investigation of Crack Propagation in a Functionally Graded Plate
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- 09:15 – 09:30 **Ö. Vardar, Z. Kütüğü**, Static Analysis of Composite Plates Having Periodic Curvatures in Material Using Navier Method
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- 09:30 – 09:45 **H. Gülşen, U. Çalışkan, M.K. Apalak**, Hybrid Dispersion-Assisted Fabrication Route for Graphene/Epoxy Nanocomposites: Effect of Particle Size and Volume Fraction
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- 09:45 – 10:00 **H.K. Ali, A.A.G.A.Altemen, N. Tayşi, M.T. Göğüş, M. Özakça**, Investigation of Alkaline Activator Ratio Impact on the Flexural Strength of Geopolymer Concrete under Ambient Curing Regime
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SEPTEMBER 03, WEDNESDAY

Hall 5 (SALON 5): HYBRID (24.UMK) Yapı Mekaniği

Session Chair : Prof.Dr.Hakan Erdem, Prof.Dr.Yusif Sevdimaliyev

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- 09:00 – 09:15 **H. Erdem**, Yangına Maruz Kalan Betonarme Kolonların Dayanımı Üzerinde Yangın Etkime Yüzeylerinin Etkisi
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- 09:15 – 09:30 **Y.E. Kebeli, Y. Şahin, H. Çetin, E. Aydın, Ş. Şirin**, Harmonik Yer Hareketi Etkisindeki Farklı Geometrik Parametrelere Sahip TLCD Modellerin Deneysel Olarak İncelenmesi (**Online**)
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- 09:30 – 09:45 **E. Kepekçi, A. Ergüt**, 2007 Türk Deprem Yönetmeliği'ne Göre Tasarlanan Yapının 2018 Türkiye Bina Deprem Yönetmeliği'ne Göre Performans Analizi (**Online**)
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- 09:45 – 10:00 **S. Yelken, M. Özakça, N. Şarлак**, Bloklar Halinde Bulunan Yüksek Katlı Binaların Aerodinamiğinin Nümerik Analizi
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10:00 – 10:15 *Coffee Break*

Invited Speaker Session 4

Hall 1 **Session Chair:** Prof.Dr. Erdoğan MADENCİ

10:15 – 10:45 **Prof.Dr. Timon RABCZUK**

“Beyond residuals: Energy based solutions of PDEs using Scientific Machine Learning”

10:45 – 11:00 *Coffee Break*

Parallel Sessions 5

Hall 1 : (ICNTM25) Mechanics of Wave Propagation and Stability

Session Chair : Prof.Dr. Abdullah Avey, Prof.Dr. Natiq Akhmedov

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- 11:00 – 11:15 **F.E. Veliyev, N. Yahnioğlu**, On the 3D Stability Loss of a Transversely-Isotropic Eccentric Hollow Cylinder
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- 11:15 – 11:30 **F. Aylikci, U.B. Yesil, N. Yahnioğlu**, An Analytical Solution to the Problem of Chinese Lantern Type Stability Loss of a PZT Hollow Cylinder under Axial Pressure
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- 11:30 – 11:45 **M. Negin, S.D. Akbarov**, Generalized Rayleigh Wave Propagation in an Elastic Plate Coupled with a Fluid Layer and Elastic Substrate
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- 11:45 – 12:00 **S.D. Akbarov, S.S. Farajova, Y.M. Sevdimaliyev**, On the Dispersion of the Longitudinal Waves Propagating in the Eccentric Hollow Cylinder
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Hall 2 : (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Ekrem Tüfekçi, Prof.Dr. Timon Rabczuk

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- 11:00 – 11:15 **M. Cebeci, S.E. Toktas, S. Dag**, Mechanical Modeling of Symmetric Thin Films Bonded to Multilayer Structures
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- 11:15 – 11:30 **T. Aksencer, M. Aydogdu**, Axial Vibration of A Rotating Nanotube Using Nonlocal Elasticity Theory
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- 11:30 – 11:45 **M. Akpınar, B. Uzun, M.Ö. Yaylı**, Nonlocal Vibration of Rotationally Restrained Bi-Directional Functionally Graded Nanobeam under Axial Compression
-
- 11:45 – 12:00 **D. Kaniğ, Y. Bab, A. Kutlu**, Static Analysis of Functionally Graded Materials on Elastic Foundations via Mixed FEM and HSDT
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Hall 3 : (ICNTM25) Mechanics of Structures and Materials

Session Chair : Prof.Dr. İlham Pirmamedov, Assoc. Prof.Dr. Tural Naghiyev

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- 11:00 – 11:15 **T. Naghiyev**, DSC/TG Study of Neutron Irradiated Nano Si₃N₄ Particles at Low and High Temperatures
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- 11:15 – 11:30 **H. Pekel**, Natural Frequencies of Non-Uniform FGM Timoshenko Beams with Porous Structure
-
- 11:30 – 11:45 **O. Plekhov, A. Izumova, M. Bartolomei, A. Vshivkov, E. Gachegova, R. Sabirov**, Prediction and Control of Fatigue Crack Propagation in Metals
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SEPTEMBER 03, WEDNESDAY

Hall 5 (SALON 5): ONLINE (24.UMK) Katı Cisim Mekaniği

Session Chair : Prof.Dr. Latif Talybly, Prof.Dr. M. Sami Döndüren

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| 11:00 – 11:15 | S. Şimşek, V. Kahya, Tabakalı Kompozit Kirişlerde Altın Orana Dayalı Yeni Bir Karşıt Öğretme-Öğrenme Stratejisi ile Hasar Tespiti |
| 11:15 – 11:30 | M. F. Şimşek, Z. Kütüğü, A. Erdölen, Yerel Eğriliğe Sahip Tabakalı Kompozit Dikdörtgen Plakların Navier Yöntemi ile Statik Analizi |
| 11:30 – 11:45 | A.P. Özer, A.R. Noori, T.A. Aslan, B. Temel, Winkler Tipi Elastik Zemine Oturan Sandviç Kirişlerin İmpulsif Yükler Altında Viskoelastik Analizi |
| 11:45 – 12:00 | B. Sivri, A.R. Noori, O. Ayaz, B. Temel, Dönel Simetrik Silindirik Kabukların Eksenel Yük Altında Burkulması |

12:00–13:30 *Lunch*

Invited Speaker Session 5

Hall 1 **Session Chair:** Prof.Dr. Asaf ZAMANOV

13:30 –14:00 **Prof.Dr. Farman MAMEDOV**
“To the Flow of Immiscible Viscous Fluids in the Vertical Pipe”

14:00 –14:15 *Coffee Break*

Invited Speaker Session 6

Hall 1 **Session Chair:** Prof.Dr. Abdullah AVEY

14:15 –14:45 **Prof.Dr. Surkay D. AKBAROV**
“Dynamics of Bi-Material Hollow Cylinders with Inhomogeneous Initial (Residual) Stresses”

14:45 –15:00 *Coffee Break*

Parallel Sessions 6

Hall 1 : HYBRID (ICNTM25) Solid Mechanics

Session Chair : Prof.Dr. Farman Mamedov, Prof.Dr. Nazmiye Yahnioğlu

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| 15:00 – 15:15 | A.D. Zamanov, S.A. Piriye, Investigation of the Long-Term Strength of a Hollow Cylindrical Shaft Made from Isotropic Material Used for Torsion |
| 15:15 – 15:30 | A.Avey, H. Dilmaç, S. Yüce, K. Ertunç, S. Efendiyeva, Buckling Analysis of Clamped Cylindrical Shells Composed of Exponentially Graded Materials Resting on a Pasternak Elastic Foundation (Online) |
| 15:30 – 15:45 | H. Koç, Buckling Solutions of the Euler-Bernoulli Nanobeam Model: Doublet Mechanics and Non-Classical Boundary Conditions |
| 15:45 – 16:00 | T. Shamiyev, On the Stability of a Rectangular Plate During Compression Taking into Account Different Modulus |

Hall 2 : (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Ozgen Colak, Assoc. Prof.Dr. Tabriz Shamiyev

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| 15:00 – 15:15 | A.Polat, A. Tariq, B. Deliktaş, M. Yazıcı, M.Ö. Yaylı, Machine Learning-Assisted Homogenization Approach for Predicting the Elastoplastic Behavior of Short Fiber-Reinforced Composites |
| 15:15 – 15:30 | R.A. Iskanderov, A.I. Hasanov, Functional for the Study of the Stress-Strain State (VAT) of Thin Shells Under Neutron Irradiation |
| 15:30 – 15:45 | R.A. Iskanderov, I. Pirmamedov, D. Kaklar, Geometric Nonlinear Vibrations of a Functionally Graded Cylindrical Shell Reinforced by Ribs in Contact with a Viscous Liquid |
| 15:45 – 16:00 | Z. Y. Yao, W. Z. Zhang, Y. L. Hu, Meso-scale Strength Prediction of Short-Fiber Composites via Micro-CT based Reconstruction and State-based Peridynamics |

SEPTEMBER 03, WEDNESDAY

Hall 3 : ONLINE (ICNTM25) Mechanics of Structures and Materials

Session Chair : Assoc. Prof.Dr. Merve Ermis, Dr. Kadir Kaya

15:00 – 15:15	M.Ş. Özyurt, F. Türk, E. Yıldız, Ü.S. Keskin , Mineralogical and Chemical Characterization of Mortars from Early 20th Century Structures
15:15 – 15:30	G. Iskenderoglu, S. Coombes, R. Nicks, G. Jolly , Dynamics of Neural Networks with Time Delays
15:30 – 15:45	S.Y. Kumcu, M. Uçar, M. Büyükyıldız , Hydraulic Properties of Sarı Guzel Dam Spillway Numerical Modeling with Flow 3D
15:45 – 16:00	S.Y. Kumcu, M. Göğüş, M. Büyükyıldız , Temporal Scour Variation for Different Discharges at Bridge Abutments
16:00 – 16:15	S. Çayan, B.B. Özhan, M. Sezer , Bending Analysis of a Nonlocal Euler-Bernoulli Beam
16:15 – 16:30	S. Akhtar, M.R. Sunny , Tailoring of Elastic Wave Propagation in One-Dimensional Periodic Tensegrity Architecture

Hall 5 (SALON 5): ONLINE (24.UMK) Yapı Mekaniği

Session Chair : Prof. Dr. Nildem Tayşi, Assoc. Prof. Dr. Sahib Piriye

15:00 – 15:15	F. Sunca , Deprem Yer Hareketi Süresinin Taban Yalıtımlı Betonarme Binaların Sismik Davranışına Etkisinin İncelenmesi
15:15 – 15:30	M.C. Aydemir, E. Damcı , Dirsek Geometrisinin Ayarlı Sıvı Kolon Sönümleyicilerin Sönüm Parametresi Üzerindeki Etkilerinin Teorik ve Deneysel İncelemesi
15:30 – 15:45	Ç. Şekerci, E. Damcı , Çarpışma Kuvvetinin Farklı Çarpışma Modelleri ile İncelenmesi
15:45 – 16:00	F.B. Akkoyun, O. Hansu, N. Tayşi , 3D Beton Baskıda Silis Dumanı ve Uçucu Kül İkamesinin Dayanım ve Baskı Parametreleri Açısından Karşılaştırılması
16:00 – 16:15	Y.E. Toğar, H. Özer , Yüksek Hızlı Balistik Çarpma Etkisinde Olan Tabakalı Kompozitlerde Kullanılan Yapıştırıcıların Darbe Dayanımına Etkisinin Nümerik Olarak İncelenmesi ve Bulanık Mantık Yöntemiyle Tahminlenmesi
16:15 – 16:30	B.B. Özhan , Eksenel Hareketli Kirişte Birleşik Parametrik Titreşimler

SEPTEMBER 04, THURSDAY

Parallel Sessions 7

Hall 1 : (ICNTM25) Applied Mechanics

Session Chair : Prof.Dr. Asaf Zamanov, Prof.Dr. Abdullah Avey

11:00 – 11:15	L. Gan, Z. Zhong , Accurate Forecast of the Long-Term Failure Behavior Based on Machine Learning and Physical Knowledge
11:15 – 11:30	T. Vergül, A.Avey , Nonlinear Vibration Behavior of Multilayered Exponentially Graded Isotropic Cylindrical Shells on Nonlinear Elastic Foundations
11:30 – 11:45	G. Gaygusuzoglu, A. Ozmutlu, M.R. Celik , Analysis of Weakly Nonlinear Wave Propagation in Nanorods Utilizing Nonlocal Strain Gradient Theory
11:45 – 12:00	L. He , Equivalent in-Plane Micropolar Elastic Constants of Hexachiral Honeycombs
12:00 – 12:15	F. Salimnezhad, M. Muradoglu , Interface-Resolved Simulations of Droplet Evaporation in Convective Flows

Hall 2 (SALON 2): HYBRID (24.UMK) Uygulamalı Mekanik

Session Chair : Prof.Dr. Nazmiye Yahnioğlu, Prof.Dr. Nihal Eratlı

11:00 – 11:15	F. Aylıkçı, Ü.B. Yeşil, N. Yahnioğlu , Eksenel Basınç Altında PZT Silindirin Çin Feneri Tipi Stabilité Kaybının Legendre Serileri Yardımıyla Çözümü
11:15 – 11:30	Z.E. Küzeci , Viskoz Akışkan İle Etkileşimdeki Sandviç Plakanın Zorlanmış Titreşimi (Online)
11:30 – 11:45	H. Pekel , Euler–Bernoulli Kirişlerinin Burkulma Davranışının Tespitinde Yaklaşık Bir Çözüm Yöntemi
11:45 – 12:00	M. Akpınar, B. Uzun, M.Ö. Yaylı , Eksenel Basınç Yüküne Maruz ve Dönel Yaylar ile Mesnetlenmiş Perfore Kirişlerin Titreşimi

12:00 – 12:30 Closing Meeting

12:30 – 14:00 *Lunch*

Social Activity