

The 4th Conference on Mechanisms, Transmissions and Applications
July 3-5, Trabzon, Turkey

Day #1 - Monday, July 3

09:00 - 10:00	Registration
10:00 - 10:30	Opening Ceremony
10:30 - 11:00	Keynote #1 Morphing Wings and Control Surfaces: A New Approach in Aircraft Design - <i>Yavuz Yaman</i>
11:00 - 11:15	Coffee Break
	Mechanism Design I (Chair: Victor Petuya)
	3R1H Pseudo-Rigid-Body Model for Compliant Mechanisms with Inflection - <i>Yue-Qing Yu, Shun-Kun Zhu</i>
	Guiding Linkages With Remote Centre of Rotation for Thermal Cutting Processes - <i>Carsten Teichgräber, Jörg Müglitz, Maik Berger</i>
11:15 - 12:55	Structural Synthesis of 2R1T Type Mechanisms for Minimally Invasive Surgery Applications - <i>Abdullah Yaşır, Gökhan Kiper</i>
	A Spatial Four-bar Linkage RSPS for Ball-bar to Test R-pair - <i>Delun Wang, Zhi Wang, Xiaopeng Li, Huimin Dong, Shudong Yu</i>
	Improving the Kinematics of Motion Curves for Cam Mechanisms Using NURBS - <i>Thi Thanh Nga Nguyen, Stefan Kurtenbach, Mathias Hüsing, Burkhard Corves</i>
12:55 - 14:00	Lunch Break
	Control Applications (Chair: Takaaki Oiwa)
	Design of Artificial Neural Network Predictor for Trajectory Planning of an Experimental 6 DOF Robot Manipulator - <i>Şahin Yıldırım, Burak Ulu</i>
14:00 - 15:40	Dual-loop Motion Control for Geometric Errors and Joint Clearances Compensation of a Planar 2PRP-PPR Manipulator - <i>Santhakumar Mohan, Jayant Kumar Mohanta, Mathias Hüsing, Burkhard Corves</i>
	Fault-Tolerance Experiments with a Kinematically Redundant Holonomic Mobile Robot - <i>Can Dede, Osman Nuri Şahin, Onur Çelik</i>
	The Effects of Admittance Term on Back-drivability - <i>Oğulcan Işıtman, Orhan Ayit, Can Dede</i>
	Design and Proposed Model Reference Trajectory - <i>Şahin Yıldırım, Kirakoya Abdoulaye Ben-</i>
15:40 - 16:00	Coffee Break
16:00 - 17:00	TCLMC Meeting

Day #2 - Tuesday, July 4

09:00 - 09:30	Keynote #2 Railway Vehicle Model Developed by ASELSAN - <i>Murat Gültekin</i>
09:30 - 09:40	Coffee Break
	Dynamics of Machinery (Chair: Dominico Mundo)
	The Edge of Chaos in Kinematics and Dynamics of Mechanism - <i>Zhaohui Liu, Jin Xie, Yong Chen</i>
09:40 - 10:40	Dynamics of Orthogonal Mechanism of Vibrating Table in View of Friction - <i>Zharilkassin Iskakov, Kuatbay Bissembayev, Nutpulla Jamalov</i>
	Design of Neural Network Predictor for Vibration Analysis of a Drill Column Machine During Drilling Plastic Work-Pieces - <i>Şahin Yıldırım, Emir Esim</i>
10:40 - 10:55	Coffee Break
	Mechanical Transmissions (Chair: Guiseppe Quaglia)
	Free Vibration and Sensitivity Analysis of RV Reducer - <i>Yuhu Yang, Chuan Chen</i>
	Sensation. Existence of a Gear Variator is Proved - <i>Konstantin Ivanov</i>
10:55 - 12:35	Parameterized Substructure Model of PGT for Finite Element Contact Analysis - <i>Huimin Dong, Chu Zhang, Zhang Jili, Delun Wang</i>
	On the Impact of Transmission Error on the Dynamic Behavior of Geared-Linkages - <i>Domenico Mundo, Shadi Shweiki, Piervincenzo Catera</i>
	Effect of the Coil Shape on Magnetic Field of an Electromagnet for Contactless Power Transmission to Microrobots - <i>Nail Akçura, Abdulkareem Alasli, Levent Çetin</i>
12:35 - 13:35	Lunch Break
13:35 - 14:05	Keynote #3 Development of an Industrial Gripper with High Centering Precision - <i>Erwin-Christian Lovasz</i>
14:05 - 14:15	Coffee Break
	Parallel Manipulators (Chair: Özgün Selvi)
	Kinematic Design of a Tripod Parallel Mechanism for Robotic Legs - <i>Matteo Russo, Marco Ceccarelli</i>
14:15 - 15:35	5 DoF Haptic Exoskeleton for Space Telerobotics - Shoulder Module - <i>Dan Teodor Margineanu, Erwin-Christian Lovasz, Gruescu Corina, Valentin Ciupe, Santra Tatar</i>
	Parallel Manipulators: Practical Applications and Kinematic Design Criteria Towards the Modular Reconfigurable Robots - <i>Alfonso Hernández Frías, Mónica Urizar, Erik Macho, Victor Petuya</i>
	Two-degree-of-freedom spacial parallel manipulator for laser interferometry-based tracker - <i>Bariş Çelik, Takaaki Oiwa, Kenji Terabayashi, Junichi Aasama</i>
15:35 - 15:50	Coffee Break
	Mechanism Design II (Chair: Delun Wang)
15:50 - 16:50	Designing Human Powered Balers For Straw Bale Construction in Developing Countries: The Case of Haiti - <i>Carlo Ferraresi, Walter Franco, Giuseppe Quaglia</i>
	Leg Mechanisms Motion Characteristics - <i>Adriana Comanescu</i>
	Design and Dimensional Optimization of a Novel Walking Mechanism with Firefly Algorithm - <i>Özgün Selvi, Samet Yavuz</i>
16:50 - 17:00	Closing Ceremony
19:00 - 21:00	Conference Dinner

Day #3 - Wednesday, July 5

Social Program