Friday 27, November, UD1 Auditorium

09:00 - 09:15	**Development of a Dual-Axis Mechatronic Motion Simulator for Stationary Cycling** Marvin Fernando Nepomuceno Rojas, Ruben Posada-Gomez, Enrique Alejandro Cuellar Cortes, José Pastor Rodríguez Jarquin, Albino Martínez Sibaja and Miriam Cristina Reyes Fernandez.
09:15 - 09: 30	**LiPo battery charging system using a photovoltaic subsystem and CC-CV charge control** Luis J. Medina-Jiménez, Erick Velázquez-Lozada, Diana Castañeda-Melchor, Alba Arenas-Hernandez, Yair Lozano-Hernández and Fancisco J. Gallegos-Funes.
09:30 - 09:45	**Performance Analysis of Small Scale UAV Airfoiled Bi-loop Toroidal Propeller based on Aerodynamic Coefficients** William Chavero.
09:45 - 10:00	**Design of a Nonlinear Observer for State Estimation with Unknown Dynamics in a Magnetic Levitation System** Raul Resendiz-Ramirez, Natividad G. Soto-Aguilar, Carlos M. Montelongo-Vázquez, Itzel V. Sánchez-Lozano, Ariadna E. Ortega-Montiel, Julieta Gonzalez-Flores and Yair Lozano-Hernández.
10:00 - 10:15	**Interactive PID Tuning Platform for Line-Following Robots: Real-Time Educational Robotics with Raspberry Pi Pico** Brayyan Enrique Bonilla Carmona, Huizilopoztli Luna García, José Javier Bustos Cortes, Juan García-Virgen, Noel García-Díaz and Yesenia Areniz.
10:15 - 10:30	**Design, Structural Analysis, and Experimental Evaluation of an Articulated Structure for a Miniature Ground Robot** Oskar Nava-Fuerte, Margarita Tecpoyotl-Torres, V. Grimalsky, Sahiril-Fernanda Rodriguez-Fuentes and Jorge Varona.
10:30 - 10:45	**Real-Time Telemetry and Computational Intelligence Pipeline for Energy-Efficient Driving of an Electric Eco-Marathon Vehicle** Paulina Lilian Ruíz-Servín, José Diego González-Fernández, Aáron Flores-Mendoza and Javier Izquierdo-Reyes.
10:45 - 11:00	**Development of a Coupled Reaction-Force Series Elastic Actuator with a Four-Bar Mechanism Model and its Application in a Prosthetic Prototype** Andres Huerta
11:00 - 11:15	**Break**
11:15 - 11.30	**Multiclase Detection of Fall Armyworm Signs in Maize Using YOLO26: Training Configuration for Field Conditions** Luis Fernando Antonio de la Luz, Manuel Prisciliano Ralero de la Mora, María Salomé Alejandre Apolinar and Angel Juan Sánchez García.
11:30 - 11:45	**Hybrid CPU-GPU (1+1)-Evolution Strategy with Genetic Algorithm-Based Function Mapping for UAV Placement in Emergency Voice Communication Networks** Anabel Martínez-Vargas, Gabriela Rodríguez-Cortés and María de Los Ángeles Cosío-León.
11:45 - 12:00	**Sketch-to-image translation for lettuce plant synthesis** Oscar Nazario-Sanchez.
12:00 - 12:15	**Experimental Comparative Analysis of Rectangular and Trapezoidal Piezoelectric Transducers for Vibrational Energy Harvesting** Sahiril Fernanda Rodriguez-Fuentes, Margarita Tecpoyotl-Torres, Juan-Carlos Garcia-Catrejon, Jose-Luis Olvera-Cervantes, Pedro Vargas-Chablé and Ramon Cabello-Ruiz.

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12:15 - 12:30	**A Data-to-Text Methodology for Generating Spanish Mammography Descriptions** Víctor Hugo Morales Mendoza.
12:30 - 12:45	**Mobile robot for the separation, classification and deposition of urban waste by convolutional neural networks** María Fernanda Fuentes Paz, Fidel Santiago Hernández, Citlalli Yaretzi Pérez Kramer, Axel Balam Mendoza Sánchez, Luis Edgar Alanis Carranza, Sergio Cervantes Villa and José Alejandro Ríos Cerón.
12:45 - 13:00	**Predictive Synchronization for Holographic-Robotic Telepresence: A Deep Learning Approach to Latency-Aware Physical Coupling** Hrithik Sanyal.
13:00 - 13:15	**Nonlinear Identification of the Discharge Dynamics of an Agricultural Spraying UAV** Isay O. Huicochea-Rios, Jarniel García-Morales, Marisol Cervantes-Bobadilla, Jesus A. Vazquez Trejo, Arturo D. Espinosa Pedroza and Manuel Adam-Medina.