Scientific Committee Office
Ref: ICASST/2026/OF/048
Date: November 05th, 2026

Venue: Mexico City (CIC-IPN, Zacatenco Campus)
Dates: November 23-27, 2026
5th Anniversary Edition

CONFERENCE PROGRAM
Version 1.0

Activities					
TIME	**23-Nov**	**24-Nov**	**25-Nov**	**26-Nov**	**27-Nov**
09:00 - 09:20	RG	RG	RG	RG	RG
09:20 - 09:40	OC				
09:40 - 10:00					
10:00 - 10:20	KS1	KS4	KS7	WM1	Cultural Day
10:20 - 10:40					
10:40 - 11:00					
11:00 - 11:20	TS01	TS07	TS13	WS1 / CU1	
11:20 - 11:40	TS02	TS08	TS14		
11:40 - 12:00	TS03	TS09	TS15		
12:00 - 12:20	CB	CB	CB		
12:20 - 12:40	IT1	IT2	IT3		
12:40 - 13:00					
13:00 - 13:20	KS2	KS5	KS8		
13:20 - 13:40					
13:40 - 14:00					
14:00 - 14:20	LB	LB	LB	LB	
14:20 - 14:40					
14:40 - 15:00					
15:00 - 15:20	KS3	KS6	KS9	WS1 / CU1	
15:20 - 15:40					
15:40 - 16:00					
16:00 - 16:20	CB	CB	CB	WS1 / WS2	
16:20 - 16:40	TS04	TS10	TS16		
16:40 - 17:00	TS05	TS11	TS17		
17:00 - 17:20	TS06	TS12	TS18		
17:20 - 17:40			CC		
17:40 - 18:00					

Nomenclature	
WS	Workshop
RG	Register
KS	Keynote Speaker
CB	Coffee Break
LB	Lunch Break
TS	Talk Session
RT	Round Table
SM	Social Meeting
OC	Open Ceremony
CC	Closing Ceremony
GO	Great Opening

Topical Sessions
Space Communications
Aerospace mechanics and propulsion
Control Theory for Space Applications
Artificial Intelligence and Algorithms in Aerospace Science and Technology
Space Instrumentation and Electronics

KEYNOTE SPEAKERS

KS1.- *Dr. Marco Antonio Moreno Ibarra*
"SECIHTI's perspectives on space development"
Director General de Desarrollo, Transferencia de Tecnología e Innovación de la Secretaría de Ciencia, Humanidades, Tecnología e Innovación (SECIHTI)
México

KS2.- *Dra. Martha Cecilia Galaz Larios*
"From the laboratory to space: ground stations for receiving LEO satellites"
Coordinadora de la Red de Expertos en Telecomunicaciones del IPN
Escuela Superior de Ingeniería Mecánica y Eléctrica Unidad Zacatenco, Instituto Politécnico Nacional
México

KS3.- *Jesús Miguel Sarmiento Montesinos*
"Sovereignty and Coordination in Low Earth Orbit: The IARU Model as a Multilateral Governance Success for Amateur Satellite Services"

Director of Área C, Region 2 (R2), International Amateur Radio Union (IARU)
President of the Mexican Federation of Radio Amateurs
México.

KS4.- *Dra. Tania Villa Trápala*
"Space radiocommunications: developments in the regulatory framework"
Commissioner
Comisión Reguladora de Telecomunicaciones (CRT)
México

KS5.- *Dr. Gustavo Alonso Cabrera Rodríguez*
"The Mexican Space Industry and the New Space Economy"
Director General de Seguimiento de Acciones de Desarrollo Sostenible y
Responsable del Sector de la Industria Aeronáutica y Espacial de la Secretaria de Economía
México

KS6.- *TBD*

KS7.- *Mtro. Enrique Pacheco Cabrera*
"The MXÁO-1 as an opportunity for innovation in the new space economy"
MXÁO-1 Satellite Manager
Macrolab / Cluster Universitario de Alto Nivel de AO
México

KS8.- *Dr. Victor Hugo Ponce Ponce*
"Novel Integrated Circuit Architectures for Energy-Efficient Edge AI"
Head of Laboratorio de Microtecnología y Sistemas Embebidos
Centro de Investigación en Computación, Instituto Politécnico Nacional
México

KS9.- *Dr. Julio Alberto Mendoza Mendoza*
"Book presentation: Robotic vehicles design, Springer"
Resarcher
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas and Centro de Innovación y Desarrollo Tecnológico en Cómputo, Instituto Politécnico Nacional
Mexico

INVITED TALK SESSIONS

IT1.- *"Spectral Graph Theory for LEO Satellite Communication Networks"*
Sebastián Rivera Santa Cruz
Centro de Investigación en Computación, Instituto Politécnico Nacional
Mexico

IT2.- *"Two Parameters Are Enough: Recalibrating SGP4 Orbit Forecasts with Precise Ephemerides and PSO"*
Abraham de Jesús Pablo-Sotelo
Unidad Profesional Interdisciplinaria de Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional
Mexico

IT3.- *"Development of aerospace human capital, starting from middle school"*
Marcos Nuñez George
SEEC Crew Educator, Space Center Houston
Director de la Academia Aeroespacial de México
Club de Astromonía Técnica 23 Ixtulco
Mexico

TALK SESSIONS

TS1.- *"LoRaWAN-based logical layer for mobile earth stations' retransmission of lasercom payload and RF telemetry satellite data"*
A. Ruán Aldana, U. Arredondo-Vilchis
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional
QualtrixXM
Mexico

TS2.- *"Satellite Link Systems for High-Risk Areas Affected by Infrastructure Disruptions"*
Francisco Mayrén Yépez, Francisco Rangel
Escuela Superior de Ingeniería Mecánica y Eléctrica Unidad Zacatenco, Instituto Politécnico Nacional
Mexico

TS3.- *"Development of a computational tool for adaptive channel codding applied to nanosatellites"*
Paloma Alonso Gutiérrez
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional.
Mexico

TS4.- *"Ground-based RF performance characterization of CubeSat APRS payloads for emergency communication applications"*

Jonald Ray M. Tadena, Mark Angelo Purio, Marloun P. Sejera, Frank Fitzgerald Batin, Izrael Zenar Bautista
School of Electrical, Electronics, and Computer Engineering, Mapúa University
Space Technologies & Applications Research Laboratory, Adamson University
Electronics Engineering Department, Adamson University
Philippine Space Agency
Philippines

TS5.- *"Design and preliminary verification of an ESP32-based VHF APRS store-and-forward payload for CubeSat emergency communications"*

Frank Fitzgerald Batin, Mark Angelo Purio, Dexter James Cuaresma, Evelyn Q. Raguindin, Joan D. Sta. Ana
Space Technologies & Applications Research Laboratory, Adamson University
Machine Intelligence on Emerging Research for Vision & Automation, Adamson University
Electronics Engineering Department, Adamson University
Computer Engineering Department, Adamson University
Philippines

TS6.- *"Field performance characterization of an ESP32-DRA818V VHF telemetry link for ground sensor terminals in disaster monitoring"*

Dexter James Cuaresma, Mark Angelo Purio, Frank Fitzgerald Batin
Space Technologies & Applications Research Laboratory, Adamson University
Machine Ingelligence on Emerging Research fro Vision & Automation, Adamson University
Electronics Engineering Department, Adamson University
Computer Engineering Department, Adamson University
Philippines

TS7.- *"Design of a multi-protocol, multi-channel communications module compatible with the bus of the 1U CubeSat nanosatellite from the BIRDS-X platform"*

Lizzette Santos Ruiz, Lesly Esperanza Ramírez García
Escuela Superior de Ingeniería Mecánica y Eléctrica Unidad Zacatenco, Instituto Politécnico Nacional Mexico

TS8.- *"Comparative Analysis of Source Coding Techniques for Satellite Communication Systems"*

Sebastián Rivera Santa Cruz, Gabriela Aurora Yañez Casas, Jorge Javier Hernández Gómez, Omar Noé Trujillo Martínez
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional

Mexico

TS9.- *"TUFMax, The Ultimate Fetcher for Maxwell's parameters in surface-to-GEO atmosphere: A python integration"*
Carlos Alberto López Balcázar, J. J. Hernández-Gómez, M. C. Galaz-Lários, M. A. Balcázar Vilchis, T. López Alzate
Instituto Politécnico Nacional, Escuela Superior de Ingeniería Mecánica y Eléctrica Unidad Zacatenco
Mexico

TS10.- *"Coupled Modelling of a Four-Reaction-Wheel CubeSat Attitude-Control System for Low-Earth-Orbit Applications"*
Leonardo Hernández-Carbajal, Jesús Sotelo, Jorge Hernandez, Gabriela Aurora Yañez Casas,
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional
Mexico

TS11.- *"Attitude control for the de-tumbling phase of a magnetically actuated 3U CubeSat"*
Kevin Missael Espinoza Solis, Rogelio Lara Olvera,
Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas, Instituto Politécnico Nacional.
Mexico

TS12.- *"Cryogenic system for the characterization of electronic devices for space applications"*
Aurea Patricia Medrano Montalvo, Daniel Ferrusca Rodriguez, Roberto Murphy-Arteaga
Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE)
Mexico

TS13.- *"Conceptual design and resource modeling of a 100,000-person self-sustaining lunar mega-base"*
Zihao Yang,
Harbin Engineering University
China

TS14.- *"An AI assistant for teaching L0 signals from Sentinel-1 SAR satellites"*
J. P. Bracamontes-Del Toro, R. Enríquez-Caldera, J. Guichard, and A.Cambambia-Perdomo
Instituto Nacional de Astrofísica Óptica y Electrónica
Centro Regional de Enseñanza de Ciencia y Tecnología del Espacio para América Latina y el Caribe (CRECTEALC) Campus México
Mexico

TS15.- *"Solving Kepler's Equation via Physics-Informed Neural Networks: Precision and Analysis of Secular*

Perturbations"
Roberto Flavio Arguelles
Instituto Tecnológico de Tijuana, Departamento de Ciencias Básicas
Mexico

TS16.- *"Fuel-bounded LMI station-keeping with hysteretic dead-zone for an Earth–Moon L4 orbiter"*
Cesar Solis, Jorge Morales, Carlos Montelongo
Escuela Superior de Ingeniería Mecánica y Eléctrica (ESIME Zacatenco), Instituto Politécnico Nacional
Mexico

TS17.- *"Design of a Low Cost Pitch Canard Controlled Active Stability System"*
Angel Vazquez
School of Engineering, National Autonomous University of Mexico
Mexico

TS18.- *"FEA-Based Mass Optimization and Structural Revalidation of a BIRDS-4-Derived 1U CubeSat Frame"*
Elijah D. Bugay, Mark Angelo Purio, Sean Derick Medrano, Rholdan Jhay U. Salvia, Lester Alfred Olasiman
Mechanical Engineering Department, Adamson University
Additive Manufacturing Center for Industrial Ceramics, Adamson University Space Technologies & Applications Research Laboratory, Adamson University
Electronics Engineering Department, Adamson University
Philipines

WORK MEETINGS

WM1.- *"Creating Market Access: Connecting Research, Industry and International Cooperation in the Aerospace Ecosystem"*
M. C. Jesús Sansón Figueroa
President of the Aerospace Commission of CANACINTRA
Coordinator of the Work Meeting
Cámara Nacional de la Industria de Transformación (CANACINTRA)
Mexico.

"North American Supply Chains and National Security in the Aerospace Sector"
Mtro. Ángel David Fonseca Corral
Coordinator of Advisors to the USMCA Commission, Senate of the Republic
Coordinator of the Economic Policy Network
Senate of the Republic

Mexico.

COURSES

CU1. "Central Forces and Planetary Motion"

Lecturer: Dr. Jesús Alberto Martínez Castro
Format: Face-to-face
Focus: Theoretical
Level: Undergraduate students
Category: Aerospace mechanics and propulsion

WORKSHOPS

WS1. "Implementation of rover-type mobile robotic platforms"

Lecturers: Dr. Juán Humberto Sossa Azuela,
Dr. José Alejandro Aguirre Anaya
Format: Face-to-face
Focus: Theoretical-Practical
Level: Undergraduate students
Category: Space Instrumentation and Electronics

WS2. "Earth Observation Satellite Constellation"

Lecturer: Dr. Héctor Simón Vargas Martínez
Format: Face-to-face
Focus: Theoretical-practical
Level: Undergraduate students
Category: Aerospace mechanics and propulsion

* Courses and workshops are free of fee. Limited seats are available.
* Participants are given with certificates of each taken course/workshop, only if they assist to 90% of the sessions of each course/workshop.

Organising Committee
International Conference on AeroSpace Science and Technology (ICASST) 2026

C.C. File.