

Preliminary programme

INTERNATIONAL WORKSHOP

1st IoST Workshop: Building bridges for a global network

Place: Av. Beauchef 851, Santiago, Región Metropolitana, Chile Sala B06 (Hybrid)

Date: 4 and 5 April 2024 (9:45 - 16:30)

PROGRAMME DAY 1

4 April 2024

9:30 – 9:45	Participants registration		
9:45 – 10:00	Welcome words	PhD Marcos Diaz	Space and Planetary Exploration Laboratory
Panel 1			
10:00 – 10:20	Incorporation of Internet of Space Things (IoST) into the development of the national satellite system (SNSAT)	Colonel (I) Hernan Tello Sepulveda	Chilean Air Force
10:20 - 10:40	Status of the activities in Chile related to Internet of Space Things (IoST)	PhD Marcos Díaz	Space and Planetary Exploration Laboratory
10:40– 11:00	TBD	TBD	ArkEdgeSpace
11:00 – 11:40	Break		
Panel 2			
11:40 – 12:00	Channel Modeling in IoT Deployments Supported by LEO Nanosatellites	Dr. César Azurdia	Department of Electrical Engineering of the University of Chile
12:00 – 12:20	Satellite positioning using IoT signals	PhD (c) Rodrigo Muñoz	Space and Planetary Exploration Laboratory
12:20 – 12:50	Group discussion activity (PhD Marcos Diaz & PhD Sofía Verman)		

	Panel 3		
14:00– 14:20	Impact of space weather effects on IoST performance	PhD Juan Carlos Valdés	Space and Planetary Exploration Laboratory
14:20 - 14:40	Improving the initial calibration of attitude estimation for an IoT CubeSat	PhD (c) Elías Obreque	Space and Planetary Exploration Laboratory
14:40 – 15:00	Reprogramming capabilities of a IoST CubeSat	PhD Matías Vidal	Space and Planetary Exploration Laboratory
15:00- 15:20	Using novel manufacturing technologies for CubeSat antennas: preliminary results	PhD Francisco Pizarro	Pontifical Catholic University of Valparaíso
15:20 – 15:40	TBD	TBD	Federico Santa María Technical University
15:40 – 16:00	Coffee		
16:00 – 16:30	Group discussion activity (PhD Marcos Diaz & PhD Sofía Vargas)		

PROGRAMME DAY 2
FRIDAY, APRIL 5TH

9:30 – 9:45	Participants registration		
9:45 – 10:00	Welcome message	University authority	FCFM- U.de Chile
	Panel 1		
10:00 – 10:20	Zero digital GAP: what we are missing and how satellite technologies can help	Claudio Araya San Martín (Subsecretario)	Subsecretaría de Telecomunicaciones
10:20 - 10:40	LoraWAN Use Cases and Deployment Experiences in Chile	Tzu-Chiang Shen	BlueShadows
	Opportunities using narrow		

11:00 – 11:40	Break		
PANEL 2			
11:40 – 12:00	IoST activities and its use to probe the Ionosphere	PhD Marcos Diaz Quezada	Space and Planetary Exploration Laboratory
12:00 – 12:20	Network of satellites	TBD	German Aerospace Center
12:20 – 12:50	Group discussion activity (Dr. Marcos Diaz & Dr. Sofia Vargas)		
12:50 – 14:00	Lunch		
	PANEL 3		
14:00– 14:20	Low-cost MicroPropulsion System and its opportunities in CubeSat for fine attitude correction	Patricio Jara	Space and Planetary Exploration Laboratory
14:20 - 14:40	Plasma Thruster for CubeSats	Leopoldo Soto	Comisión Chilena de Energía Nuclear
14:40 – 15:00	Challenges and restrictions in propulsion systems to correct the orbital altitude of IoT CubeSats	Janis Licuime Rivera	Space and Planetary Exploration Laboratory
15:00- 15:20	Attitude Determination and sSystem Control Methods for IoT Cubesat	Felipe Díaz	Space and Planetary Exploration Laboratory
15:20 – 15:40	Attitude determination systems for IoT nanosatellites	PhD Samuel Gutierrez	Space and Planetary Exploration Laboratory
15:40 – 16:00	Coffee		
16:00 – 16:30	Group discussion activity (PhD Marcos Diaz & PhD Sofia Vargas)		