E-JUST

الجامعة المصرية اليابانية للعلوم والتكنولوجيا
EGYPT-JAPAN UNIVERSITY OF SCIENCE AND TECHNOLOGY
エジプト日本科学技術大学

Space Weather Activities in Egypt

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جامعة بحثية مصرية ... ذات شراكة يابانية
EGYPTIAN RESEARCH-ORIENTED UNIVERSITY
WITH JAPANESE PARTNERSHIP

Deployment of New Equipment

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Fluxgate Magnetometer and Telluric System

Date: October 12, 2021

Specifications:

Geomagnetic field Components: X, Y, Z

Resolution: Sub-nanotesla range

Accuracy: < 1 nT.

Sampling frequency: > 1 Hz

Data Logger: 24 Bit resolution

***Telluric field recorder**: 16 Bit Min. resolution 5 micro volt*

Telluric sampling freq.: 1 Hz

Maximum Field: 1.25 Volts

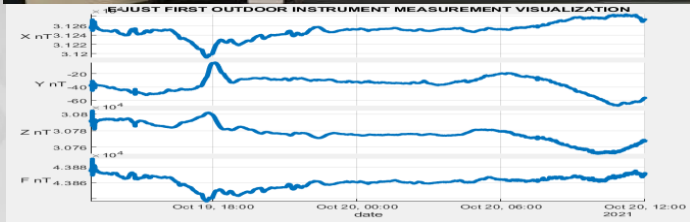
Non polarizable electrodes: 4X Cu-CuSo4

Solar System:

Power Source: 200 Watt solar panel

Solar Charger: 10 Amper with voltage regulator

Batteries: 2 X 100 AH Varta or equivalent



Deployment of New Equipment

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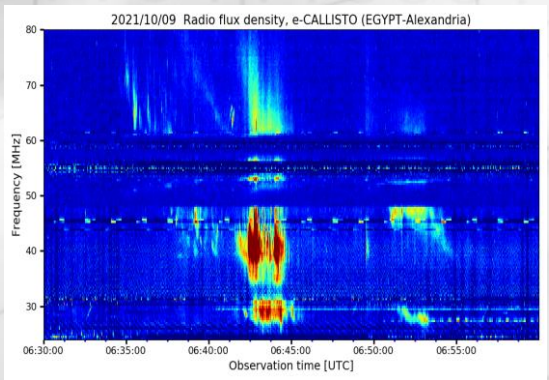
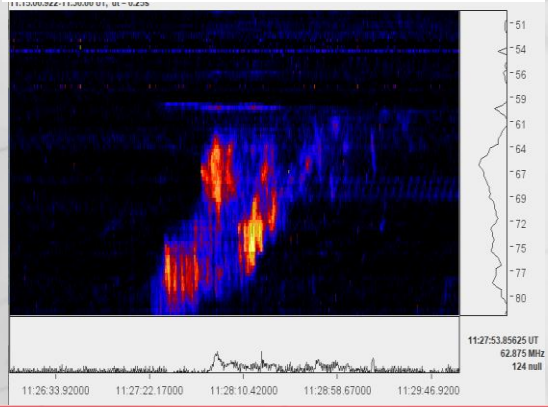
CALLISTO Solar Radio Spectrometer





Date: August 15, 2021

Specifications:

Frequency Agile Radio Spectrometers, heterodyne up-converter 10-90 MHz (5-108 MHz), shifting to 135-215 MHz (130-233 MHz) native frequency range, LWA-SYS Includes 1 each LWA-FEE, LWA-ANT, LWA-STK, LWAPC-Q LWA

Deployment of New Equipment

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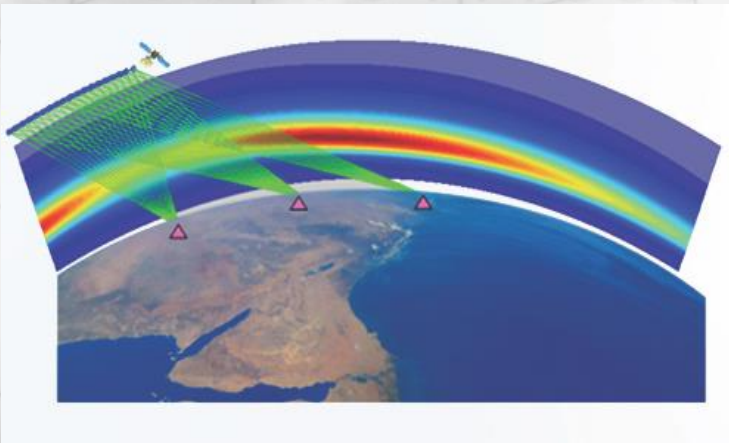
GNSS TEC/Scintillation Monitoring Unit



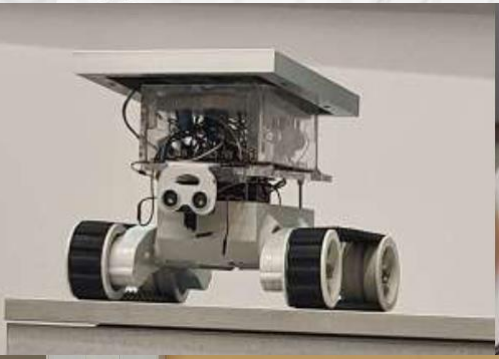
Specifications:

Very low noise GNSS carrier phase measurements with <1 mm precision in a 1 Hz bandwidth, GNSS chipset provide 672 channels

SATELLITE TRACKING - *GPS: L1C, L1 C/A, L2E (L2P), L2C, L5 -GLONASS: L1 C/A2 and unencrypted P code, L2 C/A L3 CDMA - Galileo: E1, E5A, E5B and E5AltBOC, E6 - BeiDou: B1, B2, B3, B1C, B2A - QZSS: L1 C/A, L1C, L1S, L2C, L5, LEX/L63 - IRNSS: L5, S-Band - SBAS: L1 C/A (EGNOS/MSAS GAGAN/SDCM), L1 C/A and L5 (WAAS) - L-Band: Trimble RTX™*

Maximum Data Logging Rate 100 Hz

Capacity Building



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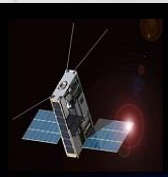

EgSA
وكالة الفضاء المصرية
Egyptian Space Agency

Summer School on CubeSat Mission: From Design to Operation

at E-JUST campus, Alexandria, Egypt

25 Sep. to 10 Oct. 2021

CubeSats are miniature satellites that have been used exclusively in low Earth orbit for applications such as remote sensing or communications, and are now being used for interplanetary missions as well. The Egyptian Space Agency experts and E-JUST staff decided to spread of their experience of Cubesats design, operation and effects of space environment on satellite components to the students through the proposed summer school.

Objective:

We are trying to help students gain the experience to build their own miniature satellites, which are traditionally expensive to build and launch.

Topics:

Introduction to Satellite Systems - Satellite Missions- Communication Subsystem - Satellite Telemetry - Onboard Computer Subsystem - Payload Subsystem - Satellite Structure - Satellite Power Subsystem - Flight Control Center - Space Environment -Satellite Orbits - Ground Stations - Satellite Thermal Control

Who Can Apply:

Early researchers, undergraduate students and any related space science and engineering majors can apply.

Registration

https://ejust.edu.eg/event/summer-school-on-cubesat-mission-from-design-to-operation/

www.ejust.edu.eg