

African Capacity Building Workshop on Space Weather and Ionospheric Research

Description:

Space Weather denotes “the conditions on the Sun and in the solar wind, magnetosphere, ionosphere, and thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems and can endanger human life or health”.

Space Weather-related physical phenomena, such as solar flares, coronal mass ejections and geomagnetic storms, can have detrimental effects on modern technological infrastructures. Indeed, the effects of the ionosphere (particularly during severe Space Weather events) remain one of the main factors that affect the precision and the reliability of many Global Navigation Satellite Systems (GNSS). Yet, these effects are more variable and highly unpredictable over the low latitude ionospheric regions, where most of the Developing Countries are situated and where limited efforts have been devoted to study the near Earth ionized medium. The NORISK project, a collaboration between INGV and Italian Space Agency, is contributing to fill this gap with the deployments of a new ionospheric observatory in Malindi, Kenya and with the organization of capacity building activities. This workshop aims to enhance capacity building in GNSS and HF technology for Space Weather monitoring over the African region.

THE WORKSHOP WILL INCLUDE LECTURES AND HANDS-ON SESSIONS ON THE FOLLOWING TOPICS:

- Space Weather and Sun-Earth coupling
- Global Navigation Satellite Systems
- HF signal propagation generalities
- Ionospheric measurements
- Ionospheric monitoring and modelling
- Space Weather: impact, prediction and forecasting
- GNSS data analysis (including data from low-cost instruments)

Working groups to increase the students’ networking capabilities are also planned.



22 - 31 October 2024



Trieste, Italy



**Deadline:
7 June 2024**

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FURTHER INFORMATION:

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Female scientists are encouraged to apply.

GRANTS:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

