First Circular

II CONGRESS OF GEOSPATIAL SCIENCES AND DISASTER RISKS

July 3 to 7, 2023

Havana Convention Center

Cuba

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The Institute of Geophysics and Astronomy of the Environment Agency, Ministry of Science, Technology and Environment of the Republic of Cuba, along with other entities and organizations, is pleased to convene researchers, authorities, educators, specialists, managers, businessmen, professionals, producers and other people around the world who work for the sustainability of our planet, to participate in the **II Congress of Geospatial Sciences and Disaster Risks** within the framework of the **XIV International Convention on Environment and Development** that will take place from July 3 to 7, 2023 at the Havana Convention Center and within the virtual environment. In this edition, you are able to participate simultaneously both face-to-face and virtual modalities.

Objective:

Favor the exchange of current experiences and knowledge to promote debate on new research, tools, methodologies for the study and application of astronomy, space and terrestrial geophysics, environmental geology and disaster risk reduction.

THEMES:

1. **RISK STUDIES OF HYDROMETEOROLOGICAL ORIGIN:**

Approaches, indicators, methodologies and new technologies for the studies of:

- Floods due to sea penetration
- Flooding due to heavy rains
- Strong winds damages
- Severe drought
- Fires in rural areas
- Damages by atmospheric electrical discharges

2. **RISKS STUDIES OF GEOLOGICAL AND GEOPHYSICAL ORIGIN**

- Landslides
- Earthquakes
- Sinking in karst soils
- Tsunamis
- Volcanism

3. **RISK STUDIES OF HEALTH ORIGIN**

- Hazards, vulnerabilities and risks in epiphytic, epizootics and epidemics
- Climate change and transboundary diseases in plants, animals and humans
- Integrated approach for one single health: animal-plant-human
- Incidence of hazards of natural and technological origin on health

4. RISKS STUDIES OF TECHNOLOGICAL ORIGIN

- Accidents involving dangerous chemical substances
- Catastrophic accidents involving means of transport
- Building collapses
- Impacts of the events of natural origin in technological accidents
- Risks in telecommunications and positioning systems due to the influence of the ionosphere and the magnetosphere
- Protection systems against atmospheric electric discharges in industrial and service facilities

5. CLIMATE RISK STUDIES AND NATURAL AND ENGINEERING SOLUTIONS FOR ADAPTATION

- Climate risk scenarios
- Natural and engineering solutions for disaster risk reduction and climate change adaptation
- Coastal Resilience through Ecosystem-Based Adaptation (EbA) and Community-Based Adaptation (CbA)
- Climate change adaptation plans

6. SPACE CLIMATE AND ITS IMPACTS ON EARTH

- Solar activity
- Near and deep space observations
- Space debris
- Space geodesy
- Magneto-ionospheric storms
- Geomagnetism
- High atmosphere
- Space climate impacts on telecommunications and health
- Meteors and near-Earth objects

7. SOCIAL DIMENSION AND INFO-COMMUNICATION STRATEGIES IN GEOSPATIAL SCIENCES AND DISASTER RISK WITH AN INCLUSIVE APPROACH

- Social aspects of the risk: perception, communication, public awareness and education. Social construction of the risk
- Social vulnerability. Indicators
- Education, communication, capacity building and the role of social actors
- Gender approach in disaster risk reduction and climate change adaptation
- The psychology of disasters. Ecophobias, demophobias and other phobias associated with disaster risks and climate change
- Tools and practices of the Social Sciences for disaster risk reduction and climate change adaptation. Environmental and social safeguards

8. RISK MANAGEMENT IMPLEMENTATION AT LOCAL LEVEL

- Early Warning Systems
- Local development for disaster risk reduction and coping with climate change
- Food security and sovereignty
- Assessment of environmental impacts and damages in disaster situations
- Making communities the protagonists for disaster risk reduction and resilience to climate change

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