

## **INFORMATION TECHNOLOGY ENABLED TOOLS FOR STRENGTHENING MULTI-HAZARD PREPAREDNESS AND EMERGENCY RESPONSE**

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### **Abstract – Practitioner talk.**

Information Technology (IT) enabled tools are being increasingly used to strengthen multi-hazard preparedness and emergency response by improved Multi-Hazard Early Warning Systems (EWS), Artificial Intelligence algorithms, Robotics, Machine Learning, Big Data Analytics, Embedded Systems, Unmanned Aerial Vehicles (UAVs)/Drones, Geo Informatics, etc. Geological disasters, Hydro meteorological disasters, Chemical, Biological, Radiological and Nuclear (CBRN) Emergencies, Transportation Accidents, Manmade disasters, Climate Change Induced Extreme Events, Mass Casualty Epidemiological Outbreaks like COVID-19 in 2020 and 2021 have seen the innovations in Information Technology enabled tools by multi-disciplinary specialists. The Practitioners Talk on IT enabled tools for strengthening Multi Hazard Preparedness and Emergency Response will curate and aggregate the information about various tools developed and implemented to address different disaster typologies. The commonalities in design thinking will be explored and brief illustrations from mega disasters will be compiled and presented with links to web portals, sources of information and links to resources for further deep dives.

**Keywords:** Information Technology, Multi-Hazard Preparedness, Disaster Risk Reduction, Climate Change and Extreme Events, Predictive Modelling, Early Warning Systems

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