

Application of Information Technologies for Detecting, Analyzing & Determining the Atmospheric Dynamics

The unprecedented growth in the information technologies has opened the gates to explore the atmosphere, in a greater depth, for detecting, locating and determining the spatial or temporal pattern of any natural or anthropogenic change occurring in its layers. The Infrasound technologies, in the recent years, have been exponentially evolved to a much broader discipline encompassing multidimensional domains such as geology, climatology, geo-informatics engineering, wireless communication and remote sensing technologies. These technologies can be used for continuous observations of the sub layers of atmosphere particularly stratosphere and mesosphere, to analyze any climatological change caused by any natural or man-made processes. Systematic assessment of low-frequency infrasound signals and utilization of satellite imageries play a pivotal role to investigate the dynamics of middle atmosphere. These information, if aptly used, can help in multi hazard, vulnerability and risk assessment of hydro-meteorological and climate change induced hazards and help to develop a continuous monitoring of atmospheric processes

Primary author: SHAH, Syed Muhammad Tayyab (National Disaster Management Authority, Prime Minister's Office)

Presenter: SHAH, Syed Muhammad Tayyab (National Disaster Management Authority, Prime Minister's Office)

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