

m-Science Systems for Engaging Broader Community to the Needs of Nuclear Test Monitoring and Verification

The CTBT serves humanity in both ways through promoting nuclear non-proliferation and disarmament as well as saving lives. Although its central mission is to detecting nuclear explosions, the huge data also provides tsunami warning and better understanding the nature. We propose here to introduce m-Science systems as such, comprising three main subjects of sensing, computing and dissemination of CTBT's scientific knowledge by the use of mobile devices. The usage of m-Science systems promote preparatory remote sensing, data collection, environmental monitoring which raises scientific awareness and promote education for all regarding CTBT's activities. In this paper, we propose how m-Science systems can be integrated with CTBT's IMS. In this way both party gets benefits, CTBT can disseminate its activities engaging broader community for public awareness and local users acting as sensor provides data to CTBT's national data centre. The resultant data analysis increases CTBT's credibility of monitoring and verification, ratification, exchanging knowledge and sharing advances in monitoring and verification technologies with its stakeholders. Local citizen gets CTBT's warning earlier about disaster. Integrating m-Science system to CTBT's activities can be a promising way to increase the better environment for humanity. Finally, we discuss the implications of the findings for research and practice

Primary author: HOSSAIN, Md. Dulal (Bangladesh Atomic Energy Commission)

Presenter: HOSSAIN, Md. Dulal (Bangladesh Atomic Energy Commission)

Track Classification: 5. Monitoring for Nuclear Explosions in a Global Context