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## Simulation using Augmented Reality and Progressive Data Fusions

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Nuclear test event data as acquired by the sensors at the terminal ends can be used to create multiple possible simulations of the event using any basic model. Alternatively, events can be created in a simulation environment generating stimuli producing data as of the recorded event. This can be done by adjusting input variables like yield, surface condition coefficients, depth variations, S-Wave attenuation and other factors. Depending upon maturity of the basic model and maximum possible correlation with the known actual parameters, process can give a fairly good simulation of the event. These parameters can thereafter be further adjusted using additional data from other sources using statistical techniques of upscaling, downscaling or interpolation as required to improve related boundary and other conditions and getting near real simulation. This iteratively improved simulation can be used to create augmented reality presenting a visual view of the actual event, impacts, surrounding physical conditions, device structure estimation and resultant geo and thermal activity for research and other purposes. The technique will also help in finding gaps in existing acquisition methods beside others. The technique can help in perfecting the estimates and detecting events in cost effective manner with increased viability and acceptance.

### Promotional text

Speaking futuristic more cost effective as well as improved simulations of the events may be required. Augmented reality can help in creating better simulations and will require additional possible data from other sources. For the same iteratively improved models are best.

**Primary author:** Mr SHAH, Syed Muhammad Ayub (National University of Sciences and Technology, Islamabad, Pakistan)

**Presenter:** Mr SHAH, Syed Muhammad Ayub (National University of Sciences and Technology, Islamabad, Pakistan)

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