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DESIGN OF A SPACE BASED PLATFORM FOR EARTHQUAKE PREDICTION USING  
PRECURSORS INVESTIGATION

**Abstract**

This paper is about a system designed for Earthquake Prediction, to some extent, based on Atmospheric Precursors. At first, Precursors have been reviewed and most credible ones for a timely and reliable prediction were chosen. A Satellite Mission was defined and due to this, a payload with 3 sensors form a package for the satellite. System Design of the satellite is then presented and implementation feasibility has been analyzed by referring to similar components in Satellite Market and previous satellites. The End to End mission data and results details, as mentioned in this paper, shows that for a useful prediction, a space network using satellite constellation is needed. So, this study concludes to a constellation design for this goal, analyzing the effect of constellation design parameters on prediction performance.