



# A STUDY ON EVALUATION OF AN ACCELERATION RESPONSE SPECTRUM AT LOCAL GOVERNMENT SITES USING PEAK ACCELERATION RATIO AND PREDOMINANT PERIOD OF SPECTRUM FOR CRUSTAL EARTHQUAKE

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**ABSTRACT:** In this study, we propose a method of evaluation of an acceleration response spectrum at local government sites which lose seismic waveform records in case of crustal earthquakes. The proposed formula considers the relation between the predominant period of spectrum and the natural period of structure as a parameter in addition to  $A_0/A$  (a ratio of effective acceleration to PGA) used in the past studies. The result of analysis shows the proposed method can evaluate not only the peak value but also the shape of response spectrum.

**Key Words:** Peak Acceleration Ratio, Predominant Period, Acceleration Response Spectrum, Local Government Sites, Crustal Earthquake