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Chapter 3

Deterministic Seismic Hazard Assessment for Major District Headquarters of Chhattisgarh State (India)

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Abstract

Deterministic Seismic Hazard Analysis (DSHA) has been carried out for major district headquarters of Chhattisgarh (India). The seismic hazard has estimated in terms of peak ground acceleration (PGA) and calculated the highest possible PGA for each district headquarter at bedrock level. All the faults around these district headquarters of having length equal or more than 25 km & past tremors are identify, noticeable and the minimum map distance were measured. For hazard computation, the seismic hazard controlling parameters like b values and utmost magnitude for seismic sources were estimated for district headquarters. An empirical ground motion attenuation relations (GMARs) developed by Iyengar & Raghukanth (2004) has been used to compute the maximum horizontal ground accelerations for district headquarters of Chhattisgarh.

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