

A Systematic Review of Cyber-Physical Systems for Earthquake Detection, Structural Monitoring, and Rescue Coordination

Ankur Kohli¹ and Dr. Mukesh Kumar Rana²

¹Research Scholar, Department of Computer Science

²Research Guide, Department of Computer Science

NIILM University, Kaithal, Haryana

Abstract: *Earthquakes pose severe risks to urban infrastructure and human life. Cyber-Physical Systems have emerged as promising solutions to enhance earthquake detection, structural health monitoring, and rescue coordination. This systematic review synthesizes research evidence on CPS technologies, evaluating their performance, implementation challenges, and future research directions. Three major areas earthquake detection, structural monitoring, and rescue coordination are critically analyzed.*

Keywords: Cyber-Physical Systems, Earthquake Detection, Rescue Coordination