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# An Intelligent Disaster Management System: Integrating Technology for Effective Response and Recovery

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## Abstract

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### Abstract:

This proposed Disaster Management System (DMS) is an advanced application aimed to improve disaster preparedness, response, and recovery efforts through real-time data integration, predictive analytics, and efficient communication. It leverages Artificial Intelligence to predict disasters like earthquakes and floods, providing early alerts and resource management to minimize impact. Key features include role-based access, geolocation tracking, incident reporting, and multilingual support. DMS facilitates coordination between government agencies, NGOs, and volunteers, ensuring rapid response and effective resource allocation. With future integration of IoT and blockchain technologies, the system aims to enhance transparency, optimize resource distribution, and support international disaster management efforts. By integrating real-time data, predictive analytics, and communication tools, this system supports efficient coordination during emergencies.

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### I. Introduction

Disaster Management System (DMS), this web application is designed to streamline and enhance the way governments, organizations, and communities recover from disasters. DMS aims to bridge the gap between early warning, effective response, and coordinated relief efforts by integrating cutting-edge technologies like AI, GIS, and data analytics.

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