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(51) International classification	:G06Q 50/26, G06Q 10/06, G06Q 40/08, G06N 3/08, G06N 3/04	(71) <b>Name of Applicant :</b> <b>1)NOIDA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b> Address of Applicant :19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Uttar Pradesh India
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(57) Abstract :

Disclosed herein is an asteroid detection and hazard risk analysis system (100), the system (100) comprises a user device (102) acquires near earth objects datasets from NASA near-earth object (NEO) databases, a communication network (106) establishes a communication link for data transmission, a processing unit (108) configured to process data for asteroid detection and hazard risk analysis which further comprises a data input module (110) receives data, a pre-processing module (112) cleans, filters, and normalizes data, a feature extraction module (114) extracts asteroid features from processed data, a risk analysis module (116) analyzes extracted asteroid features to to determine hazard risk levels, a classification module (118) classifies asteroids into predefined hazard risk categories, a visualizing module (120) generates visual representations of classified asteroid hazard risk levels, a report generation module (122) generates report based on the classified asteroid and hazard analysis results, an output module (128) to transmit the outputs.

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