

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511100039 A

(19) INDIA

(22) Date of filing of Application :16/10/2025

(43) Publication Date : 05/12/2025

(54) Title of the invention : AN AI-BASED PLATFORM FOR DETECTING ONLINE CHILD EXPLOITATION ACTIVITIES

(51) International classification	:G06F0021620000, G06N0020000000, G08G0001017000, G06Q0050260000, H04L0009400000	(71) Name of Applicant : 1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
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(86) International Application No	:	
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention discloses an AI-based platform (100) for detecting online child exploitation activities. It integrates data sources (101), on-device pre-processors (102), multimodal detection engines (103), a federated learning aggregator (104), an explainable AI fusion module (105), an evidence store (106), and a secure reporting system (107). The invention provides privacy-preserving, explainable, and scalable detection of grooming, abusive content, and exploitative behavior. It ensures forensic integrity through secure evidence management while enabling standardized reporting for child protection agencies and law enforcement. The system balances detection accuracy with privacy, compliance, and scalability.

No. of Pages : 15 No. of Claims : 6