(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :15/10/2025
(21) Application No.202511099437 A
(43) Publication Date : 05/12/2025

(54) Title of the invention : A COMPUTATIONAL SYSTEM FOR AUTOMATED DETECTION OF SOFTWARE VULNERABILITIES

(51) International classification	:G06F0021570000, G06F0011360000, G06N0020000000, G06N0005025000, G06F0021560000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	: :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The invention relates to a computational system (100) for automated detection of software vulnerabilities (101). It comprises a static analysis engine (102), dynamic runtime monitor (103), machine learning predictor (104), knowledge base (105), prioritization module (106), reporting module (107), and user interface (108). The system integrates multi-layered analysis techniques to identify known and unknown vulnerabilities, reduce false positives, prioritize remediation, and provide compliance-ready reporting. It offers an intelligent, adaptive, and scalable platform for enhancing software security in modern development environments.

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