(12) PATENT APPLICATION PUBLICATION | (21) Application No.202511100230 A

(19) INDIA

(22) Date of filing of Application :16/10/2025 | (43) Publication Date : 05/12/2025

(54) Title of the invention : A COMPUTER-BASED TOOL FOR PREDICTING STOCK MARKET VOLATILITY

(51) International classification	:G06Q0040040000, G06Q0040060000, G06N0005045000, G06N0020000000, G06Q0040120000	(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 (72)**Name of Inventor :** **1)Dr. TRIPTI SHARMA** **2)Dr. VINEET KUMAR**
(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	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The invention provides a computer-based tool (100) for predicting stock market volatility, comprising interconnected modules including Data Acquisition (101), Preprocessing (102), Feature Extraction (103), Hybrid Modeling (104), Risk Quantification (105), Interpretability (106), Visualization (107), and Model Adaptation (108). The tool integrates econometric and machine learning methods, processes structured and unstructured data, and offers explainable, real-time volatility forecasts. It enables risk-aware decision-making for investors and institutions, ensuring adaptability across market conditions and enhancing transparency, scalability, and user confidence.

No. of Pages : 14 No. of Claims : 6