(19) INDIA

(22) Date of filing of Application :24/06/2023

(43) Publication Date: 01/09/2023

(54) Title of the invention: Harnessing AI and Data Mining for a Robust E-commerce Fraud Detection Model

:G06Q0020400000, G06N00200000000, (51) International G06Q0030060000, G06Q0030000000, classification

G06N0020200000

(86) International ·PCT// Application No :01/01/1900 Filing Date

(87) International : NA Publication No (61) Patent of Addition to :NA Application Number :NA Filing Date

(62) Divisional to :NA Application Number :NA Filing Date

(71)Name of Applicant:

1)Shanker Chandre

Address of Applicant :Assistant Professor, Department of Computer Science & Artificial Intelligence, SR University, Warangal ------

2)Dr.M.Rajyalaxmi

3)Dr.Kafil

4)T. Guru Priva

5)Dr. C. Rameshkumar

6)Dhinesh.J

7)Dr.Gokulakrishnan S

8)Maria Sahaya Diran D

Name of Applicant: NA

Address of Applicant : NA (72)Name of Inventor:

1)Shanker Chandre

Address of Applicant : Assistant Professor, Department of Computer Science &

Artificial Intelligence, SR University, Warangal -----

2)Dr.M.Rajyalaxmi

Address of Applicant :Assistant Professor / MBA, School of Business, S R

University, Warangal -----

3)Dr.Kafil

Address of Applicant : Assistant Professor / MBA, School of Business, S R

University, Warangal -----

4)T. Guru Priya

Address of Applicant : Assistant Professor / ECE, Periyar Maniammai Institute of

Science and Technology, PMIST, Vallam, Thanjavur -----

5)Dr. C. Rameshkumar

Address of Applicant :Associate Professor / Physics, Sathyabama Institute of Science & Technology, Rajiv Gandhi Salai, Jeppiaar Nagar, Chennai -----

6)Dhinesh.J

Address of Applicant: Teacher, Department of Commerce, Servite CBSE School,

Tuticorin -

7)Dr.Gokulakrishnan S

Address of Applicant : Assistant Professor, School of Computer Science and Engineering and Information Science, Presidency University, Bangalore -----

8)Maria Sahaya Diran D

Address of Applicant :Research Scholar, Department of Commerce, St. Mary's

College Autonomous, Tuticorin -----

(57) Abstract:

The proposed invention presents a computer-implemented method for e-commerce fraud detection by leveraging data mining, machine learning, and artificial intelligence techniques. Transactional data from an e-commerce platform is analyzed in real-time, identifying patterns indicative of fraudulent activities. Machine learning algorithms classify transactions as legitimate or suspicious, continuously updating a fraud detection model. Real-time alerts are generated for potentially fraudulent transactions, enabling timely intervention. The model adapts to evolving fraud patterns through artificial intelligence algorithms, incorporating historical data for improved accuracy. Advanced anomaly detection techniques and integration with existing fraud prevention systems enhance overall fraud prevention capabilities. The invention offers statistical analysis and reports on detected fraudulent activities, facilitating further investigation and prevention measures.

No. of Pages: 16 No. of Claims: 10