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(54) Title of the invention : INNOVATIONS IN ONLINE TRANSACTION AND FRAUD DETECTION USING BACKLOGGING ON ECOMMERCE

(51) International classification :G06Q0020400000, G06Q0030000000, G06K0009620000, G06N0005000000, G06Q0030060000 (86) International Application No :NA Filing Date :NA (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	(71)**Name of Applicant :** **1)GIRIJA C** Address of Applicant :UNIVERSITY OF CALICUT, Tirur - Calicut Rd, Thenhipalam, Kerala 673635. ----------- ----------- **2)Dr. R. RADHA** **3)M. REVATHI** **4)RAJESWARAN R** **5)SESHAM YELLAPPA** **6)R RAJA** **7)Dr. K. SRINIVAS** **8)MAHINDRA SITARAM KORADE** **Name of Applicant : NA** **Address of Applicant : NA** (72)**Name of Inventor :** **1)GIRIJA C** Address of Applicant :UNIVERSITY OF CALICUT, Tirur - Calicut Rd, Thenhipalam, Kerala 673635. ----------- ----------- **2)Dr. R. RADHA** Address of Applicant :KARPAGAM COLLEGE OF ENGINEERING, Myleripalayam Village, Othakalmandapam Post, Coimbatore – 641032, Tamilnadu ----------- ----------- **3)M. REVATHI** Address of Applicant :St. Joseph's Institute of Technology, OMR, Chennai 600119 ----------- ----------- **4)RAJESWARAN R** Address of Applicant :St.Martin's Engineering College, Sy. No.98 & 100, Dhulapally Road, Dhulapally, Near Kompally, Medchal–Malkajgiri district Secunderabad-500 100, Telangana, India. ----------- ----------- **5)SESHAM YELLAPPA** Address of Applicant :St.Martin's Engineering College, Sy. No.98 & 100, Dhulapally Road, Dhulapally, Near Kompally, Medchal–Malkajgiri district Secunderabad-500 100, Telangana, India. ----------- ----------- **6)R RAJA,** Address of Applicant :St.Martin's Engineering College, Sy. No.98 & 100, Dhulapally Road, Dhulapally, Near Kompally, Medchal–Malkajgiri district Secunderabad-500 100, Telangana, India. ----------- ----------- **7)Dr. K. SRINIVAS** Address of Applicant :St.Martin's Engineering College, Sy. No.98 & 100, Dhulapally Road, Dhulapally, Near Kompally, Medchal–Malkajgiri district Secunderabad-500 100, Telangana, India. ----------- ----------- **8)MAHINDRA SITARAM KORADE** Address of Applicant :Shri Shiv Chhatrapati college junnar, Bodkenagar Junnar, Imam Raza Nagar, Junnar, Maharashtra 410502 ----------- -----------

(57) Abstract :
Fraud is one of the major moral issues in the credit card industry. Credit card fraud detection is presently the most frequently occurring problem in the present world. This is due to rise both online transactions and e-commerce platforms. The fundamental points are, right off the bat, to distinguish the distinctive kinds of Credit card smart, and, furthermore, to survey elective strategies that have been utilized in fraud recognition. It is critical that credit card companies are able to recognize fraudulent credit card transactions so that customers are not charged for items that they did not purchase. Crédit card fraud generally happens when the card was stolen for any of the unauthorized purposes or even when the fraudster uses the credit card information for his use. To detect the fraudulent activities the credit card fraud detection system was introduced. This invention aims to focus on machine learning algorithms. The algorithms used are Random Forest algorithm, Local Outlier Factor, K nearest neighbor means and decision tree. The datasets contain exchanges made by charge cards in September 2013 by European cardholders. This dataset presents exchanges that happened in two days, where we have 492 frauds out of 284,807 exchanges. The results of the two algorithms are based on accuracy, precision, recall and F1 score. The algorithms are compared and the algorithm that has the greatest accuracy, precision, recall and F1 score is considered as the best algorithm that is used to detect the fraud.

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