(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :25/04/2024

(21) Application No.202441032716 A
(43) Publication Date : 03/05/2024

(54) Title of the invention : MITIGATING ATM PIN THEFT THROUGH CYBERSECURITY MEASURES

(51) International classification :G07F0007100000, G07F0019000000, H04L0009320000, G06Q0020400000, G06F0021310000
(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)Mr. Vijayakumar B
Address of Applicant :Head of the Department, Department of Physics, SNS College of Engineering, Coimbatore – 641 107, Tamil Nadu, India ---------- ----------
2)Mr. Abesh P B
3)Ms. Manjari M
4)Mr. Rohith B
5)Mr. Ajay Kumar E
6)Ms. Harsha Varthini M
7)Ms. Sathiyashree V
8)Mr. Lokeshwaran K
9)Ms. Durga S
10)Mr. Swaroop S
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Mr. Vijayakumar B
Address of Applicant :Head of the Department, Department of Physics, SNS College of Engineering, Coimbatore – 641 107, Tamil Nadu, India ---------- ----------
2)Mr. Abesh P B
Address of Applicant :Student, BE. CSE (Internet of Things and Cybersecurity including Blockchain Technology), SNS college of engineering, Coimbatore, Tamil Nadu, India ---------- ----------
3)Ms. Manjari M
Address of Applicant :Student, BE. CSE(Internet of Things and Cybersecurity including Blockchain Technology), SNS College of Engineering, Coimbatore, Tamil Nadu, India ---------- ----------
4)Mr. Rohith B
Address of Applicant :Student, BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------
5)Mr. Ajay Kumar E
Address of Applicant :Student, BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------
6)Ms. Harsha Varthini M
Address of Applicant :Student, BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------
7)Ms. Sathiyashree V
Address of Applicant :Student , BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------
8)Mr. Lokeshwaran K
Address of Applicant :Student , BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------
9)Ms. Durga S
Address of Applicant :Student , BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India. ---------- ----------
10)Mr. Swaroop S
Address of Applicant :Student , BE. CSE(Internet of Things and Cybersecurity Including Blockchain Technology), SNS College of Engineering, Coimbatore. Tamil Nadu, India ---------- ----------

(57) Abstract :
Mitigating ATM PIN Theft Through Cybersecurity Measures takes a novel approach to improving ATM transaction security by tackling vulnerabilities associated with PIN theft. The project intends to combat observational assaults on personal identification numbers (PINs) by using a web-based application built with a C#.NET interface and a SQL Server backend. Traditional PIN entry techniques, with their short length and simple ten-digit keypad, are vulnerable to shoulder surfing and recording attacks, which jeopardise PIN confidentiality. To address this, the project implements RGB PIN input techniques, which assign unique colour combinations to each keypad digit using the RGB model. This strategy not only improves security but also makes PIN entry easier for consumers. Additionally, colour buttons adjacent to the keypad allow for direct color-based PIN input, further deterring observational attacks. By boosting user inputs and using color-based authentication, the technique dramatically improves PIN security, making it difficult for attackers to guess or intercept PINs. The method is also designed to survive camera-based recording assaults over numerous sessions, ensuring PIN digit confidentiality. The project's cybersecurity measures aim to improve ATM transaction security and increase trust in electronic financial systems.

No. of Pages : 15 No. of Claims : 7

CONTINUED TO PART- 3