

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

---

---

निर्गमन सं. 42/2024  
ISSUE NO. 42/2024

शुक्रवार  
FRIDAY

दिनांक: 18/10/2024  
DATE: 18/10/2024

---

---

पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : SMART CART SYSTEM WITH INTEGRATED WEIGHT SENSORS AND AUTOMATED CHECKOUT FOR ENHANCED RETAIL EFFICIENCY AND FRAUD PREVENTION

(51) International classification :G07G0001000000, G06Q0020200000, G01G0019414000, G06Q0010087000, G06Q0030060100

(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)CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

Name of Applicant : NA  
 Address of Applicant : NA

(72)Name of Inventor :  
**1)B. VENKATESHWAR RAO**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**2)B. AKHILA**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**3)B BALAKRISHNA**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**4)R. SATHIYAKALA**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**5)B. SURESH RAM**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**6)M.SHRIYA**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**7)K.UNNATHI**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad -----

**8)MEER SAMEER**  
 Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad -----

(57) Abstract :  
 SMART CART SYSTEM WITH INTEGRATED WEIGHT SENSORS AND AUTOMATED CHECKOUT FOR ENHANCED RETAIL EFFICIENCY AND FRAUD PREVENTION ABSTRACT The invention relates to a Smart Cart System designed to automate the checkout process and enhance fraud prevention in retail environments. The system integrates weight sensors, a barcode scanner, and a data processing unit to monitor items placed in the cart in real time. The weight sensors detect the weight of each item, which is compared against predefined values stored in a database to ensure accuracy and prevent tampering. A display unit shows item details, a running total, and applicable discounts or promotions. The system allows customers to complete purchases directly from the cart, bypassing traditional checkout counters, thereby reducing wait times and enhancing the shopping experience. The cart is equipped with wireless communication for connecting to cloud-based databases, providing real-time data for pricing and inventory. This automated solution increases retail efficiency, minimizes human error, and safeguards against theft, ensuring improved operational effectiveness and customer satisfaction.

No. of Pages : 13 No. of Claims : 10