



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

Patent Search

Invention Title	NEIGHBOURHOOD DELIVERY AUTONOMOUS ROBOT
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341062149
Application Filing Date	15/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRONICS
Classification (IPC)	G05D0001020000, G07F0017120000, H04L0051230000, A47G0029140000, G01S0007481000

Inventor

Name	Address	Country	Nationality
Thottempudi Pardhu	Department of ECE,BVRIT HYDERABAD College of Engineering for Women, Bachupally, 8-5/4, Nizampet Rd, Hyderabad, Telangana 500090	India	India

Applicant

Name	Address	Country	Nationality
Thottempudi Pardhu	Department of ECE,BVRIT HYDERABAD College of Engineering for Women, Bachupally, 8-5/4, Nizampet Rd, Hyderabad, Telangana 500090	India	India
BVRIT HYDERABAD College of Engineering For Women	Plot No-8-5/4, Rajiv Gandhi Nagar Bachupally ,Hyderabad, 500090,	India	India

Abstract:

The "CommuneCarrierBot: Neighbourhood Delivery Autonomous Robot (NDAR)" offers a self-operating solution for last-mile deliveries in gated communities and residential societies. Equipped with a robust chassis featuring wheels or tracks, the robot integrates a range of sensors — from LiDAR to ultrasonic sensors and cameras. Furthermore, it boasts a sophisticated authentication system harnessing facial recognition or OTP technology. In practice, the robot receives dispatch directives from delivery firms or e-retailers, charts its course to the specified location, validate the recipient through its authentication system, and ensures a secure package handover. Following successful delivery, the CommuneCarrierBot sends out acknowledgment notifications and deftly manages scenarios where deliveries aren't feasible. This innovative robot introduces a touchless, secure, and streamlined approach to resolving last-mile delivery conundrums, elevating user satisfaction, and redefining the residential delivery landscape.

Complete Specification

Description:FIELD OF THE INVENTION This invention generally relates to delivery services, specifically to an autonomous robotic system for secure, efficient, and contactless deliveries within residential communities or gated societies.

BACKGROUND OF THE INVENTION

The last-mile delivery, the final step in a package's journey from a distribution hub to the recipient's doorstep, is one of the delivery system's most pivotal yet intricate stages. This intricacy is birthed from many factors, including varied consumer locations, stringent delivery timelines, and the imperative for safe package transit. Historically, this segment of the logistics sequence has grappled with concerns related to cost, speed, and efficacy. The online shopping and e-commerce surge has only escalated consumer anticipations for swifter, more dependable, and streamlined home deliveries. Mainly in residential complexes and gated communities, last-mile delivery faces hurdles like traffic bottlenecks, delivery setbacks, parcel misplacements, and security apprehensions. Conventional delivery tactics, which rely heavily on human couriers, are witnessing mounting challenges. These range from parcel theft and missed deliveries due to the recipient's unavailability to the heightened risks of disease transmission in a world recovering from a pandemic. Past endeavors to tackle these challenges birthed innovations like secured locker systems. While providing a level of security, these systems still necessitate recipients to venture out, undermining the essence of contact-free delivery. Drone delivery, another proposition, offers the allure of sidestepping traffic and ensuring swift deliveries. Yet, drones grapple with limitations such as limited cargo capacity, restricted flight distance, dependency on weather conditions, and safety apprehensions in bustling urban settings.

[View Application Status](#)



