The aerial drone companion device operates autonomously by detecting first voice commands and orient ed image capture devices. It uses a computer located remotely to perform tasks and generate computer-b ased second voice commands. The drone also uses a remote control system, which can be programmed via a hmi button or other devices. The drone can perform missions, analyze original video footage, and co mmunicate with other devices like augmented reality and virtual reality. The drone can also be used for na vigation, accident identification, and communication. The drone can also be used for security purposes, wi th a multirotor aerial vehicle and a power supply. The drone can also be used for non-lethal deterrents.Th e drone system is configured to provide electrical energy, control, navigation information, wireless commu nication, and a deterrence effector bay. It includes a directional camera, automatic focus, and voice comm ands. The drone uses a computer program to control movement and adjust operations based on recogniz ed gestures. The drone also uses a remote control system to navigate and communicate with the pilot en dpoint. The drone also includes a camera controller and an augmented reality display to display data and position. The drone may also have a flight mechanism, a navigation transmitter, and a flight mechanism. The drone can communicate with the human operator using a smart device.The drone system includes a smart device that operates and controls the flight of an unmanned aerial vehicle via wireless communicati on. The device includes a central processing unit, touch screen, battery, volume key, and application. The drone also has a movable body, a flight controller, and a cellular communication module. The drone can operate autonomously, take land, and maintain high safety levels.The drone method controlling drones in cludes receiving sensing data, capturing specific objects, and recognizing at least one movement change. The drone can operate using natural language, request information, and spatial location parsing. It can al so extract and analyze data using various learning algorithms. The drone can also be controlled using a s mart device, which can acquire images and analyze them. The drone can also perform threat monitoring by receiving an activation command and detecting the drone’s position and actions. The drone can also p erform multiple actions, continuously analyzing the data signals and generating updated operational para meters. The drone’s control system includes flight start, reception, user, and external configuration units. The drone can also transition between states, including takeoff diagnosis.The drone system is a multifunc tional aerial vehicle that uses artificial intelligence to perform tasks without operator intervention. It compri ses multi rotor UAV aerial navigation, internal circuitry, and cameras sensors to perform multiple functions . The drone uses real-time GPS and Glonass technology to change flight paths and detect obstacles. The drone control system uses audio signals to identify the drone’s interest and position. The drone also uses a disinfection drone apparatus, which operates remotely via wireless networks. The drone also uses a dr one to land packages, perform takeoffs, and perform remote control. The drone operates by providing at l east one user and directing it to follow the selected flight path.The text describes various methods for tran sferring control of unmanned aerial vehicles (UAVs) from one computing device to another. These metho ds may include accepting drone control modules, establishing drone control, transmitting drone control, a nd transmitting control data. The system also includes a drone user machine, control machine, interfaced drone, and interfaced drone. The drone operates, receives user commands, generates drone control com mands, and communicates with the user machine. The drone also has an autonomous mode, receiving d ata from a field view camera and a controller actuator. The system also includes an alert mobile premises automation platform, autonomous navigation, remote piloting, security data collection, and security data. The drone can also detect nearby people and animals.The drone uses interactive objects to detect nearby objects, produce speech orders, warns, instructs, and responds to commands. It can also detect and ans wer questions in certain situations. The drone can also communicate with other objects, such as asking fo r directions or indicating alternative landing areas. It can also integrate with home automation systems, su ch as vehicle and home automation systems. The drone can also perform surveillance, send responses, a nd record events. The drone’s control system includes a wireless transceiver, airframe, propulsion system , navigation mechanism, processor, memory, power source, and control system. The drone can also be c ontrolled using a computer program, GPS devices, and a big data-based autonomous flight drone system. The drone control system includes a light emitter that emits light, which is then determined by the drone’s circuitry operation. The drone then determines the flight state information and determines the direction of t he light. The control system also includes smart glasses that allow the drone to view first-person views of the vehicle. The drone also receives and sends flight control instructions directly to the drone. The drone also operates by receiving request information, generating data requests, and configuring flight plans. The drone also uses a learning algorithm to extract and analyze data. The drone also has a movable body tha t can move and perform operations, including detection of intruders and determining landing positions.The

invention relates to a communication device system for unmanned aerial vehicles (UAVs), which includes a camera, controller, actuator, and autonomous mode controller. The drone is controlled using electronic devices, such as an accelerometer, to obtain movement data and send control signals. The drone also includes a security entertainment system, which includes engaging a drone base, receiving signals, and collecting data. The drone is equipped with sensor modules, mobile devices, and intelligent software for autonomous navigation and communication. The drone also includes an adjustable drone accessory, which captures images and transmits them to the drone. The drone can be controlled without line sight, and the drone can perform actions according to sensed physical manipulation.The device consists of an unmanned aerial vehicle that tracks the client and forms an audio communication link. The drone follows the client and establishes an appropriate authority. The drone's master circuit tracks location movement and allows the client to speak. The drone also includes a security drone that detects potential threats and moves the drone. The drone can control autonomous mode, follow emergency routes, and end flight without injuring personnel. The drone also has an adjustable camera that can be adjusted to determine viewing direction. The drone control system includes an onboard flight system that receives navigational data and a remote sensor that produces a pseudo GPS signal.The drone uses a remote sensor to determine its position and produces a pseudo GPS signal. This signal is fully compliant with standard navigational data and is transmitted onboard the drone. The drone also receives inertial tracking data and merges it with the GPS signal to provide a navigational data. The drone's control system includes a camera, sonar unit, wireless transponder, battery, microcontroller, and hardware. The drone can detect underwater threats and send warning signals. The drone's control system includes a drone receiver unit, which receives signals to determine kinematics and position velocity. The drone can also operate automatically, maintaining a predetermined resolution image captured by a camera.It appears that you have provided a series of text segments related to various aspects of drone technology and applications. These segments seem to describe different aspects of drone control, navigation, and applications, including autonomous flight, remote control, image capture, and more. If you have specific questions or need further information about any of these topics, please feel free to ask, and I'll be happy to provide more details or explanations.It seems like you've provided additional information related to methods and systems for controlling unmanned aerial vehicles (UAVs) or drones. These descriptions include aspects such as detecting changes in drone flight status, establishing geofences, controlling drone motion remotely, and various other functionalities.

If you have specific questions or need further details about any of these topics or if you'd like to discuss a particular aspect in more depth, please feel free to ask.It appears that you've provided various descriptions related to drones, their control systems, and their applications. These descriptions cover a wide range of functionalities and use cases for drones, from autonomous navigation to remote control, image recognition, and safety features. If you have specific questions or need more information about any of these topics or if you'd like to discuss a particular aspect in more detail, please feel free to ask. describe various methods and apparatuses related to controlling smart home devices, charging drones, interacting with pets using unmanned aerial vehicles (UAVs), security surveillance systems using micro mobile drones and IP cameras, last-mile delivery using drones, blasting avalanches, harvesting produce using drones, controlling drones for produce harvesting, vehicle illumination using drones, and methods for automatically piloting UAVs. If you have specific questions or need more detailed information about any of these topics, please feel free to ask, and I'll be happy to provide further information or clarification.

various aspects of drone technology and their applications. These descriptions cover topics such as drone control systems, autonomous flight, remote control, GPS navigation, collision prevention, and more.

If you have specific questions or need more information about any of these topics or if you'd like to discuss a particular aspect in more detail, please feel free to ask, and I'll be happy to provide further information or clarification.
It appears that you've provided descriptions of various technologies related to drones, autonomous flight, control systems, remote control, and other related topics. If you have specific questions or need more detailed information about any of these topics, please feel free to ask, and I'll be happy to provide further information or clarification.Autonomous piloting methods for rotary-wing drones with multiple rotors, involving controlling the drone's attitude and velocity to follow a selected camera movement.

UAV fleet management methods that involve monitoring power source charge levels and receiving move ment instructions from external devices to move UAVs within storage facilities.

Micro unmanned aerial vehicles (drones) controlled using sonar bubble technology for collision prevention and obstacle avoidance.

Methods for recording flight paths and controlling automatic flight in UAVs, including modes for GPS learn ing, automatic flight, and manual control.

Drone-based sports training aids that involve electrically driven drones for refining timing and accuracy in sports plays.

Methods for utilizing drones in intermittent flights, where drones receive flight mission instructions and sca n areas for landing locations.

Systems and methods for minimizing uplink and downlink interference in mobile networks connected to dr ones.

UAV systems with deterrent devices and remote communication devices for user tracking and payload del ivery.

Drone control systems and methods that involve propellers, direct current motors, and power sources for managing flight data.

Unmanned aerial vehicle systems and methods for photographing subjects using onboard camerasVoice-controlled UAV systems that allow users to control drones using voice commands, such as launching, trac king, and firing arrows.

Drone-based emergency alert systems that use drones to communicate signals and warnings to vehicles or individuals in distress.

Systems for controlling drones using gestures, both for navigation and photography.

Methods for tracking and identifying objects in the environment using drones and onboard sensors.

Drone-based surveillance and monitoring systems that involve detecting markers or objects of interest an d controlling the UAVs accordingly.

Systems and methods for controlling drones during emergencies, such as landing safely in case of GPS f ailure or navigating away from danger.

Methods for synchronizing drone flight trajectories and managing drone fleets.

Autonomous robot control systems that use drones for monitoring and communication.

Systems for controlling drones in a local network, including hierarchized management rights and data exc hange between drones and user terminals.

Techniques for simulating UAV flight operations using electronic devices and sensors.The text you provid ed appears to be a collection of sentences and phrases related to various aspects of drone technology an d applications. It discusses topics such as drone control, integration with electronic devices, remote maint enance, autonomous drone behavior, drone fleet management, and more. If you have specific questions or need information on a particular topic mentioned in this text, please feel free to ask, and I'll be happy to provide more detailed information.The provided text appears to be a collection of patent or technical desc riptions related to various drone technologies and applications. These descriptions include details about di

fferent drone configurations, capabilities, and methods for controlling and utilizing drones for various purp oses, such as capturing images, monitoring, and autonomous operation.

If you have any specific questions or need information about a particular aspect of these descriptions, ple ase feel free to ask, and I'll be happy to provide more details.Drone Delivery: The text discusses methods and systems for delivering articles via working drones without human intervention. Drones are tethered to a support drone and controlled wirelessly. The delivery process involves launching unmanned aerial copt ers for various purposes, including consumer photography and videography.

Remote Control and Gesture: The text mentions controlling drones using remote controllers and touch dis plays. There's also a reference to controlling drones through gestures via a touch display.

Privacy Features: Some drones are equipped with privacy features, including a privacy button that allows users to engage privacy mode. In privacy mode, the drone's camera is blocked to protect privacy.describe various methods and systems related to unmanned aerial vehicles (UAVs) or drones, as well as some we arable device technology. Here's a summary of the key points:

Controlling UAVs: The text discusses methods for controlling UAVs, including receiving data from UAVs, displaying UAV information, and transmitting authenticated control signals to override the UAV's remote c ontroller.

Obstacle Detection and Avoidance: Some methods involve detecting obstacles in the flight path of UAVs using depth data and determining actions for obstacle avoidance. This includes transmitting information a bout obstacles to a control terminal.

Remote Control via Touch Screen: There's mention of remote control devices with touch screens for direc ting toy remote control vehicles or airplanes.

Payload Transport: The text mentions UAVs autonomously transporting payloads to predetermined destin ations. It emphasizes the importance of accurate navigation systems and redundancy in data sources for position determination.

Security and Detection: UAVs are used in security systems to detect intruders, and there's a focus on co mmunication between the UAV and a ground control station.

Collision Avoidance: Methods and systems for collision avoidance between UAVs and piloted aircraft are described, with a focus on transmitting signals to the UAV to prevent collisions.

Maintenance of UAVs: The text mentions the maintenance of UAVs in a 5th generation network, including communication with cell towers and network entities.

Automated Landing: Systems for automated landing of UAVs are discussed, involving communication bet ween remote control devices and continuous communication during landing.

Obstacle Sensing and Navigation: UAVs are designed to autonomously detect upcoming obstacles in thei r flight path and adjust their flight plan accordingly.

Object Installation on Power Lines: Drones are used for installing objects on power lines, and there's a foc us on connection mechanisms, engagement members, and locking means to securely install objects.

Wearable Devices for Robots: The text briefly mentions wearable devices for robots without providing det ailed information. be a collection of descriptions and titles related to various aspects of unmanned aerial v ehicles (UAVs) and drone technology. It covers topics such as controlling UAVs, delivery systems, image capture and transmission, object detection and tracking, and more. These descriptions outline different m ethods, systems, and devices related to UAV technology, its applications, and control mechanisms. It also

mentions features like autonomous operation, data processing, and sensor integration in UAVs. However , it lacks specific details or context for each of these topics.The provided text is a collection of fragmented and repetitive information related to various aspects of drone technology, unmanned aerial vehicles (UAV s), control methods, and applications. It appears to describe multiple patents, inventions, and systems rel ated to drones and their functionalities. However, the text lacks a clear structure, making it challenging to provide a concise summary due to its repetitive and disconnected nature. It discusses topics like drone co ntrol, autonomous flight, object detection, voice control, and various drone-related systems and methods. be a collection of descriptions and information related to various aspects of unmanned aerial vehicles (dro nes) and related technologies. These descriptions include details about drone control methods, drone har dware and accessories, navigation systems, delivery systems, and other aspects of drone technology.

If you have any specific questions or if there's something specific you'd like to know more about from the provided text, please feel free to ask, and I'll be happy to provide more information or clarification.Target Search Mode and Scene Change: The text mentions a UAV system that can transition between different modes, such as terminal homing mode and target search mode, in response to an uplink signal. This UAV is designed to autonomously determine when a scene change is needed.

Drone Propulsion Unit: There's a description of a drone propulsion unit that includes a propeller hub with blades, an electric motor, and a control device. The propeller blades have electroluminescent diodes, and the motor has a hollow central shaft. The communication devices are integrated into the propeller, allowin g for communication.

Object Image Recognition: The text discusses a security system that uses sensors, image capture device s, and an action arm controlled by a processor to identify and respond to targets. Drones are mentioned a s a means to perform actions in response to identified targets.

Drone Fall Prevention System: This section describes a drone equipped with a fall prevention system. It h as a main body, a propulsion portion, and a rotation stabilizing portion. The controller helps stabilize the d rone's posture to prevent tumbling if the propulsion fails.

Analyzing Drone Flight Risk: The text mentions a system for analyzing the risk associated with operating drones. It involves determining the user's location, accessing geospatial and temporal data, and calculatin g the risks of operating a drone in a given area. It can generate insurance policy quotes based on these c alculations.

Monitoring Construction Site: The provided information discusses apparatus for operating a UAV at a con struction site. The apparatus helps the UAV follow a computed flight path that avoids obstacles like crane s. It uses coordinates and sensor data to ensure safe flight.Last Mile Delivery System: The text discusses a system involving drones for last-mile delivery of packages. It mentions the coordination between multipl e drones, controllers, and storage units to facilitate package delivery.

Frac Ball Dispensing System: This system utilizes aerial drones for dispensing frac balls into an open well bore. It involves a mechanism for storing and releasing frac balls using remote control.

Drone-Based Painting System: Describes a painting system that employs modified drones with paint nozz les. These drones are capable of autonomously painting surfaces without human intervention.

Dynamic Drone Navigation: The text outlines techniques for enabling drones to navigate in dynamic indoo r environments. It involves using spatial representations and sensor data to navigate safely around dynam ic objects.

Photographing with Drones: Explains a method for controlling drone photography through a mobile termin al. Users can send commands to drones to capture images using combined operation commands.

Advertising Displays using Drones: Describes the use of drones with display screens for advertising purpo

ses. Drones can display advertising messages in predetermined areas or in response to specific events o r recognition of individuals.

Drone Navigation via Remote Control: Discusses navigation of drones based on user selections on a grap hical map interface. The drones calculate headings and receive flight control instructions to reach selecte d waypoints.

Drone-Based Fire Suppression: Introduces a fire suppression drone equipped with water jets, cameras, a nd remote control capabilities for combating fires in skyscrapers.

Drone-Based Environment Control: Describes a method for controlling the environment using a roaming e lectronic assistant. It involves establishing communication between devices in the home environment and a destination location.

Material Handling with Drones: Discusses the use of drones for material handling solutions. Drones are e quipped with propellers and dynamic a lengthy and complex text that contains information related to vario us aspects of drones, unmanned aerial vehicles (UAVs), their control, navigation, and applications. If you have specific questions or need information on a particular aspect of this text, please let me know, and I'll be happy to provide more detailed information or explanations.
long sequence of text that contains information related to various topics, including drone technology, radi o frequency identification (RFID), smoke detectors, and more. However, it's not entirely clear what specifi c information or assistance you're seeking based on this text. Could you please clarify your question or pr ovide more context so I can better assist you?UAVs with features such as voice recognition, tracking, and autonomous behavior.
Unmanned vehicles capable of operating in harsh environments and emitting disorienting mediums.
Remote control devices for operating UAVs and controlling loads carried by them.
Intelligent robot devices with communication and photographing capabilities for airport services.
Drones for road lighting and target tracking using various signals.
Methods for landing drones on moving bases and controlling their movements.
Systems for monitoring drones using image capture devices.
Depth sensors and computer vision tracking algorithms for controlling drones.
Autonomous mobile robots equipped with drive systems and sensors for behavior control.UAV Configurati ons: The text discusses configuring UAVs for performing tasks independently or in combination with other entities, using data to optimize their performance.

Drone Inspection Apparatus: An apparatus suitable for inspecting structures using drones, including mani pulator arms and localization systems.

Scalable Tubular Drone Architecture: A scalable drone design with variable numbers of arms, landing gea rs, and modules for enhanced strength.

Drones for Insurance Applications: Drones equipped with sensors for locating objects of interest and asse ssing risks in insurance applications.

Control Systems for UAVs: Various control systems and interfaces for UAVs, including target tracking mo des and autonomous emergency assistance communication.

Autonomous Mobile Robots: Autonomous robots capable of performing tasks in household, commercial, o r industrial settings, with the ability to generate maps.

Teleoperation and Wearable Sensors: Methods for remotely controlling unmanned objects using wearable sensors to track operator movements.

Automatic Tracking Camera System: A camera system controllable remotely to adjust its facing direction based on incoming flight signals.

Hover Control for UAVs: A method of controlling UAVs to hover using keyframe reference objects and flig ht velocity data.

Cleaning Wall Body: A method and system for cleaning wall surfaces.provided a lengthy text describing v arious methods, systems, and apparatus related to unmanned aerial vehicles (UAVs) and drones. These descriptions cover a wide range of topics, from controlling UAV flight paths to communication systems, te sting devices, escorting drones, and more. If you have specific questions or need information about any p articular aspect of these technologies, please feel free to ask, and I'll be happy to provide more detailed in formation or explanations.a collection of descriptions and information related to various aspects of autono mous unmanned aerial vehicles (UAVs) and related technologies. It covers topics such as controlling UA Vs using objective-based inputs, drone design, safety and security devices, safety equipment deployment , UAV landing guidance, disrupting UAV operations, capturing objects in the air using UAVs, robotic launc h and capture of UAVs, electronic fishing devices, autonomous aerial platforms with cameras, inducing au tonomous behavior in UAVs, and various other drone-related topics.a description of various patents and i nventions related to unmanned aerial vehicles (UAVs) or drones, as well as some other technologies. Eac h of these descriptions appears to be related to different aspects of UAV technology, including design imp rovements, control methods, applications, and various features.

If you have any specific questions or need more information about any of these patents or inventions, ple ase feel free to ask, and I'll be happy to provide more details or explanations.a lengthy text that includes d escriptions of various technologies and methods related to drones, aerial vehicles, surveillance systems, and more. If you have specific questions or need information about any particular aspect of this text, pleas e let me know, and I'll be happy to provide more detailed information or answer your questions a large am ount of text that appears to be related to various aspects of drone technology and unmanned aerial vehicl es (UAVs). This text contains information about drone design, features, and applications. If you have spec ific questions or if there's something specific you'd like to know or discuss related to this text, please feel f ree to ask, and I'll be happy to assist you further.a description of various technologies and methods relate d to unmanned aerial vehicles (UAVs) and other autonomous devices. These descriptions cover a wide ra nge of topics, from stability systems for tethered UAVs to drone-assisted sensor mapping and emergency response applications. If you have specific questions or need more information about any of these topics, please feel free to ask, and I'll be happy to provide further details.descriptions of various inventions and te chnologies related to unmanned aerial vehicles (UAVs), drone navigation, autonomous cleaning robots, r emote control devices, and other topics. If you have specific questions or need more information about an y of these topics, please feel free to ask, and I'll be happy to provide further details. various inventions an d technologies related to drones, unmanned aerial vehicles (UAVs), autonomous devices, telepresence ro bots, and more. If you have specific questions or need more information about any of these topics or inve ntions, please feel free to ask, and I'll be happy to provide further details. a collection of text fragments tha t discuss various topics related to technology and systems. These topics include unmanned aerial vehicle s (drones), robotic systems, autonomous vehicles, control methods, and more. If you have specific questi ons or need information about any of these topics, please feel free to ask, and I'll be happy to provide mor e details or answer your questions.a large amount of text that includes descriptions of various technologie s and systems related to autonomous vehicles, unmanned aerial vehicles (drones), remote control device s, and other topics. If you have specific questions or need information about any of these topics or technol ogies, please feel free to ask, and I'll be happy to provide more detailed information or clarification.Autono mous Cargo Delivery System: A system for autonomous cargo delivery using aerial vehicles that navigate to specified waypoints and avoid obstacles.

Remote Control Audio-Visual Function: A remote control device with sound features for easy locating and control.

Aerial Cable Inspection System: An inspection system using a UAV and sensors to inspect aerial cables s afely.

Method for Controlling UAV: A method for UAV control based on signal strength and movement paths.

Drone Navigation: A method for UAV navigation using user-selected waypoints and GPS data.

Drone Carrier Brokering: A system for brokering carrier services for drones.

Reconfigurable Battery-Operated Vehicle System: A versatile UAV system with interchangeable arms.

Surveillance and Deterrence Apparatus: An apparatus for deterring UAVs in critical infrastructure areas.

Aerial Device for Emergency Warning: An aerial device with speakers, lights, and communication for eme rgencies.

Wireless Ultrasound Probe with Voice Control: A wireless ultrasound probe controlled by voice command s.

Quad-Rotor Unmanned Helicopter: A quad-rotor UAV with precision hover capabilities.

Multifunction Firefighting and Pollination Drone: A drone equipped for firefighting and other tasks.Multifun ction Firefighting Drone: Describes a system using drones to combat fires with ultrasound and shockwave s.

Controlling Electronic Devices: Explains a system for controlling devices using voice commands via an IP camera.

Controlling Robots: Discusses a system for controlling robots in interactive arenas with user interface over lays.

Accident Fault Determination: Involves the use of UAVs for insurance-related tasks, including accident fau lt determination.

Small Flying Environment Monitor: Describes a small UAV for environmental monitoring, including gas an alysis.

Insurance Underwriting: Explains how UAVs assist in property inspections and insurance underwriting.

Drone Safety Mechanism: Discusses a mechanism to prevent drones from interfering with aircraft.

Support for Rotary Wing Drones: Details support housing for rotary-wing drones.

Airborne Drone Traffic Alerting: Discusses a system for alerting pilots to the presence of drones.

Launch Device: Explains a device for launching drones using a rail and spring mechanism.

Voice-Controlled Assistant: Describes a voice-controlled assistant with stereo sound capabilities.

Visibility-Based UAV Control: Discusses UAVs that perform actions based on visibility conditions.

Autonomous Obstacle Avoidance: Involves autonomous obstacle avoidance for small rotor UAVs.

Autonomous Vehicle for Conveyance: Describes an autonomous vehicle for docking and conveying target s based on audio commands.

Water Drone: Details a lightweight water drone for surface and underwater navigation.various drone-relat ed technologies and applications, including firefighting drones, electronic device control, robot control, acc ident fault determination, environmental monitoring, insurance underwriting, drone safety mechanisms, la

unch devices, voice-controlled assistants, UAV control techniques, radar calibration, and more. These tec hnologies cover a wide range of drone applications and functionalities.drone-related technologies and app lications, including firefighting drones, electronic device control, robot control, accident fault determination, environmental monitoring, insurance underwriting, drone safety mechanisms, launch devices, voice-contr olled assistants, UAV control techniques, radar calibration, and more. These technologies cover a wide ra nge of drone applications and functionalities.
a lengthy and diverse set of descriptions and inventions related to various technologies, including unmann ed aerial vehicles (UAVs), remote control devices, sound-producing remote controls, and more. It seems l ike you may want assistance with a specific aspect or implementation of one of these technologies, or you might have a question related to a particular topic within this context. provided descriptions of various inv entions and technologies, including voice-activated devices, autonomous base stations for unmanned veh icles, target recognition systems, camera control methods, and more. Each of these descriptions appears to be related to different inventions or technologies.

If you have specific questions or need assistance with any of these technologies or inventions, please spe cify which one you would like to discuss further or if there's a particular aspect you need help with, such a s implementation or coding. Providing more specific information will allow me to offer more targeted assist ance.The provided text discusses various methods and systems related to automated aerial system opera tions, autonomous vehicle control, drone-based tracking, device management using unmanned aerial veh icles (UAVs), industrial activities performed by drones, autonomous aerial vehicle lighting inspection, com manding mobile robots via glyphs, and security implementations for unmanned autonomous vehicles. The se methods include controlling rotor operations within an enclosed housing based on grab detection, gene rating aerodynamic forces for aerial systems, fault detection and response in device management, imagin g capabilities for robots, trajectory determination and tracking using drones, updates to devices using UA Vs, autonomous vehicle safety augmentation, and aerial inspection and replacement of lights on structure s using UAVs. Additionally, it includes methods for commanding robots based on captured glyphs, securit y measures for autonomous vehicles, and interacting with security systems using television remote contro ls. Overall, these descriptions encompass a wide array of techniques and applications for aerial and auton omous systems, including imaging, control, safety measures, and security functionalities.The collection of innovative concepts revolves around advancements in unmanned aerial vehicles (UAVs) and autonomou s devices. These include diverse applications such as aerial image capture using multiple UAVs, wrist-wo rn autonomous UAVs equipped with sophisticated sensors, remote controllers for external devices, dyna mic determination of drone destinations based on location data, emergency deployment methods for UAV s, and unmanned photographing devices establishing wireless connections for object tracking. Moreover, concepts cover aerial insect distribution vehicles, image capture technologies for autonomous robots, UA V configurations, vehicle-mounted drone containers, auxiliary controls for UAVs, video image masking for privacy, remote-controlled reconnaissance UAVs, and methods controlling autonomous devices for data r ecording and area distinction. These technologies underscore the evolution of aerial and autonomous sys tems, presenting innovative solutions for various fields and operational scenarios.The texts provided cove r a range of topics related to autonomous devices, aerial vehicles, image capture, control systems, and m ethods for managing drones and cameras. Several descriptions outline methods for controlling autonomo us devices within private areas, systems for aerial vehicles to capture images and perform surveillance, a nd innovations in drone technology, including control systems, voice recognition, and geofence reconfigur ation. Other sections detail systems for image capture devices on mobile robots, controlling cameras rem otely, and techniques for adjusting perspectives and angles in security cameras and drones. Additionally, some texts discuss voice-controlled welding systems, methods for destroying unmanned aerial vehicles, a nd monitoring cameras through telephony devices. Overall, the texts cover a broad spectrum of technolog ies and applications involving autonomous devices, aerial vehicles, image capture, and control systems.T he texts cover various aspects of unmanned aerial vehicles (UAVs) and their operations, encompassing fli ght control, safety measures, location verification, collision avoidance, authentication of voice commands, and autonomous package delivery systems. Several methods focus on enhancing flight control by determi ning the flight state of UAVs through propeller operation states, thereby improving their controllability and safety during flights. Location verification techniques for UAVs involve using satellite-based navigation sys tems, secondary factors such as beacons or visual markers, and secure fly logic to ensure compliance wit h flight plans and restricted zones. Methods for navigating UAVs involve avoiding collisions by tracking an

d assigning threat levels to aerial vehicles and determining viable avoidance trajectories.Authentication of voice commands for UAV control or room automation systems involves recording vibrations correspondin g to user speech and comparing them to recorded speech signals to authenticate the user's commands. F urthermore, there are systems allowing remote control and monitoring of drones through wireless devices or telephony, ensuring authentication and secure communication protocols.Additionally, the texts cover sy stems and methods for automated package delivery using UAVs, including docking stations, GPS navigati on, human-supervised delivery, and autonomous return-to-base capabilities. Techniques for presenting in formation using drones involve navigating drones to specific locations in the sky and emitting light signals to create images visible to user devices.Furthermore, the texts detail systems for managing drones throug h distributed registers, storing information related to drone operations and external systems, which are up dated and stored in blocks for traceability and verification purposes.They elaborate on UAV functionalities , including camera configurations enabling field-of-view adjustments and lighting arrangements that can ill uminate objects directly above the UAV. There are discussions about autonomous vehicle control system s, allowing remote control and path generation for autonomous vehicles. Some texts highlight the use of UAVs for guidance, construction site monitoring, and precise landing for traffic information collection. Addi tionally, descriptions are provided for innovative roof structures serving as "drone ports." Other topics incl ude autonomous diaphragm control, drone detection using sensory arrays, and methods for displaying inf ormation via intelligent devices. The texts also touch upon remote control for media devices and robots, al ong with audio processing techniques for enhancing voice-controlled devices. Overall, these texts span a broad spectrum, detailing UAV functionalities, applications, control mechanisms, and their integration into various technological domains.uav configured for autonomous item delivery to various destinations based on inventory information. The UAV operates autonomously, receiving data about destination locations an d retrieving inventory within a materials handling facility. It then calculates the optimal route from the facilit y to each destination, ensuring the successful delivery of items. Additionally, the system encompasses U AVs equipped to deliver items available on e-commerce shopping platforms, highlighting the versatility of t hese unmanned aerial vehicles in streamlining and enhancing delivery logistics for a range of applications .The disclosed systems and methods involve several applications of unmanned aerial vehicles (UAVs) for diverse functionalities. One focuses on the autonomous delivery of items to various destinations, utilizing inventory data to retrieve items from materials handling facilities and plan routes. Another system employ s multi-sensory arrays for detecting aerial drones, combining geo-mapped sensor data and live sensor mo nitoring to identify drone presence. Additionally, UAVs are designed with cleaning mechanisms and liquid dispensers for maintaining cleanliness, integrating waterless carwash solutions to reduce liquid capacity. These UAVs are equipped for multiple purposes, including surveillance, aerial delivery, and environmenta l monitoring. Other inventions feature remote-controlled camera systems, control methods for photographi ng devices carried by UAVs, mapping systems for autonomous flight, crash-preventing safety mechanism s, and various device-control systems based on voice commands or audio input. These technologies sho wcase the versatility and innovation in UAV functionalities and their wide-ranging applications in different f ields.of functions based on control signal received remote controller controlled control circuit based contro l signal received remote controller current state lighting device lighting effect modified method controlling r emotely piloted aircraft:present disclosure provides method controlling remotely piloted aircraft rpa compri sing controller controlling rpa perform operation rpa generating signal based output inertial measurement unit imu coupled rpa sensor module coupled rpa signal generated imu indicative at least one flight param eter rpa output imu used controller control

operation rpa method controlling remotely piloted aircraft:present disclosure provides method controlling r emotely piloted aircraft rpa comprising controller controlling rpa perform operation rpa generating signal b ased output inertial measurement unit imu coupled rpa sensor module coupled rpa signal generated imu i ndicative at least one flight parameter rpa output imu used controller control operation rpa Drones have re volutionized numerous industries with their versatile applications. From their inception as remote-controlle d gadgets to becoming sophisticated aerial devices equipped with AI and advanced sensors, their evoluti on has been remarkable. Aerial photography and videography have been major beneficiaries, allowing stu nning visuals for cinematography, real estate, and landscape monitoring. However, as regulations tighten and privacy concerns rise, the ethical use of drones becomes pivotal. Industries like agriculture employ dr ones for crop monitoring, while logistics giants explore their potential for last-mile delivery. Advancements in swarm robotics enable synchronized actions among multiple drones, opening doors to efficient search-and-rescue missions or infrastructure inspection. With each innovation, whether in autonomous navigatio

n or environmental monitoring, drones continue to redefine possibilities across various domains, marking a transformative era in robotics and aerial technology.The text comprises descriptions of various innovative systems and methods related to unmanned aerial vehicles (UAVs), autonomous vehicles, collision avoidance, power line inspections, delivery systems, and traffic control, among other topics.It discusses drones equipped for traffic enforcement, autonomous vehicle control systems, collision avoidance systems for vehicles, unmanned aerial vehicle delivery systems for various destinations, autonomous forklift systems, and GPS-based navigation for vehicles. Additionally, it covers systems for inspecting power transmission lines using sensors on UAVs, remote doorbell ringers, and aerial systems for surveillance and tracking.The concepts include autonomous vehicle navigation, collision avoidance, sensor-based inspection systems for power lines, traffic control drones, and various UAV delivery and monitoring systems.
The text consists of descriptions of various inventions and systems related to unmanned aerial vehicles (UAVs), autonomous vehicles, power line inspection vehicles, flight control systems using computer vision, drone landing capabilities on uneven terrains, remote control vehicles for performing stunts, aerial vehicle exploration and mapping methods, robot cleaners with remote monitoring systems, camera assemblies for UAVs, and an intelligent noise monitoring device capable of flying and measuring noise in real time.These descriptions encompass innovations such as power line inspection drones equipped with a motivation system and inductive coil to harvest electricity, flight control using computer vision technology, autonomous helicopters with blade-end lighting devices, methods for controlling unmanned vehicles in diverse scenarios, and devices for intelligent noise monitoring through aerial means.The collection of descriptions encompasses a diverse range of inventions and systems related to unmanned aerial vehicles (UAVs), autonomous vehicles, aerial imaging, flight control systems, robotic devices, and more. Some notable innovations include an intelligent noise monitoring device capable of flying and measuring noise in real time, an autonomous takeoff and landing system for fixed-wing UAVs, methods for locating targets using autonomous aerial vehicles, and systems for controlling flight routes and capturing video using UAVs.Additionally, the texts describe advancements such as tactile feedback for autonomous drones in virtual reality environments, an autonomous aerial vehicle acting as an outdoor exercise companion, methods for installing or replacing light fixtures using drone-type devices, fishing line release equipment designed for UAVs, and systems enabling UAVs to handle goods in collaboration with autonomous vehicles.
Furthermore, the innovations cover diverse functionalities such as controlling the movement of graphics objects using remote control devices, a system for UAV-based rescue triage involving detecting individuals on the ground and providing vital health-related information.These inventions collectively showcase the expanding capabilities of aerial and ground-based autonomous systems, integrating functionalities such as monitoring, navigation, imaging, environmental sensing, and human-machine interaction in various contexts. in aerial and ground-based technologies. These developments include aerial material distribution mechanisms, such as remotely piloted aircraft designed with enclosures and control systems to distribute payloads to specific areas. Additionally, advancements in autonomous vehicle localization systems enable precise positioning by utilizing improved beacon communications, flight time, and angular information. Drone docking stations on vehicles facilitate cargo transfer with transfer and guide devices, ensuring efficient loading onto drones. Moreover, innovations encompass autonomous robots with stabilizing mechanisms and sensor-driven flight path adjustments, along with flight control systems for unmanned aerial vehicles, ensuring safety and precise mission execution. Other advancements involve remote control devices for video cameras, IoT device control methods, and systems combining ground and aerial vehicles for merchandise delivery. Innovations in medical procedures, AI-controlled robots, underwater communication methods, and scissor arm robotic systems mounted on drones exhibit remarkable progress across diverse applications within autonomous technology domains.The array of innovations described encompasses diverse technological advancements in various fields. The developments include a scissor arm unmanned robotic system designed for drones, enabling safe interaction with payloads while hovering, facilitating applications like police traffic stops. Additionally, there’s a helicopter remote control system with video capabilities, self-propelled spherical devices responding to remote controls, UAV launching from moving platforms, and advanced electronic devices employing AI for controlling functions. Moreover, there are systems for interfacing aerial deliveries and methods for load control based on unmanned aerial vehicles (UAVs). Innovations in remote-controlled audio devices, garbage collection systems for dangerous areas, amphibious drones, controllers for light sources based on sound input, and methods for underground unmanned vehicle control also showcase significant technological strides. Furthermore, there are developments in unmanned aerial vehicle navigation for insurance claim processing and configuring remote control functionality using smart

devices for various appliances. These innovations demonstrate the evolving landscape and wide-ranging applications of autonomous and remotely controlled systems across industries and use cases. It covers a range of subjects, including configuring smart devices to control appliances through code sets and universal remote control processes. There's information about unmanned aerial vehicles (UAVs), their flight states detected through wearable devices, and camera control systems for remote operation. Additionally, it details avalanche control systems using UAVs, managing network communications for autonomous vehicles, and aerial systems for detecting directions and capturing images. Other topics include identifying voice-controlled device locations, autonomous vehicle control methods, package delivery via UAVs, security data analysis, controlled events for network devices, robot control apparatus, and display devices for flight route visualization.The texts cover various technological applications and systems. One set revolves around unmanned aerial vehicles (UAVs) and their functions, including inspecting fluid transportation means, image projection mapping, flight planning, docking, and emergency voice reporting systems. There's a particular focus on UAVs distinguishing companion vehicles and landing/takeoff procedures.Additionally, there are descriptions of systems for controlling drones and smart devices within a home environment, such as controlling a crane's flight route, alert functions, and camera control. Other topics include IoT devices, remote-controlled devices, autonomous vehicle systems, and methods for initiating actions in smart homes automatically.Furthermore, several systems focus on location determination and landing/taking procedures for UAVs in different contexts, including controlled access zones and delivery areas. Lastly, there's a mention of a method to dynamically identify and control UAVs emitting instruments, emphasizing telecommunication and network-based control mechanisms.The compiled texts encapsulate a diverse array of technological innovations and systems in various domains. These encompass UAV (Unmanned Aerial Vehicle) identification and control methodologies involving telecommunication modules, command control centers, and access to aviation regulatory databases like the FAA for monitoring and identifying UAVs. Obstacle detection and surveillance systems are discussed, detailing the use of cameras, infrared sensors, and monitoring configurations for identifying flying objects and ensuring security. Additionally, there are descriptions of asset management and monitoring systems that integrate autonomous devices like drones and robotic systems for property asset tracking and management. Some texts also elaborate on ground proximity sensors for UAVs, mixed-mode driving for vehicles with autonomous capabilities, and cameras designed to adapt their functionalities based on their connections to host devices. These encompass a wide spectrum of technological advancements, from drone piloting systems and UAV safety features to advanced surveillance and asset management techniques.The compilation covers various technological systems and innovations across different fields. It includes a threshold switch system for operating movable objects like gates or garage doors, UAV (Unmanned Aerial Vehicle) systems collecting audio data, methods for controlling flight patterns of radio-controlled aircraft, programmable robotic apparatuses for construction tasks, infrared devices for controlling electronic devices, autonomous vehicle systems, lighting devices utilizing wireless communication for controlling illumination, and GPS navigation systems for unmanned vehicles with anti-jamming capabilities. Additionally, it encompasses surveillance robots with energy-absorbing frames, obstacle-climbing robots, and other aerial devices for exploration and monitoring. These diverse systems range from UAV navigation and control to robotic apparatuses for construction and monitoring devices for security vehicles.encompasses multiple descriptions of technological systems and devices, focusing on drones, voice assistants, delivery mechanisms utilizing unmanned aerial vehicles (UAVs), navigation systems, and autonomous mobile devices. It repeatedly elaborates on concepts such as camera-equipped drones capturing images, systems for security vehicles and package delivery via drones, backup navigation systems for UAVs, and methods for controlling and guiding these aerial vehicles. The descriptions highlight functionalities like dynamic masking of video images, remote control systems, multi-functional robots, energy source guidance, and secure access protocols. Despite some repetition, the content details various aspects of these advanced technologies, emphasizing their roles in surveillance, navigation, security, and autonomous operation, albeit with slight variations in each instance.various technological innovations and systems, including drones with different functionalities, wireless remote control devices, speaker systems with beam steering capabilities, safety systems for UAVs, methods for autonomous navigation of mobile robots, and advanced equipment for unmanned vehicles. These systems have diverse applications such as inspecting surfaces, ensuring safe flights, assisting in emergencies, controlling electronic devices, and enhancing remote control for autonomous vehicles. Some innovations focus on aerial vehicle safety, obstacle avoidance, and remote-controlled operations in emergency situations, while others emphasize remote control capabilities and methods to limit drone access to restricted areas using beacon signals and access p

arameters. These inventions aim to improve the functionality, safety, and control of various electronic and autonomous devices, spanning from drones to robotic systems, enabling efficient and safe operations acr oss different scenarios.The technological advancements presented encompass diverse fields. Firstly, a s mart trashcan system integrates a control system and speaker to wirelessly communicate with smart devi ces for audio playback when within a specified range. Secondly, innovations in aircraft imaging systems in clude image stabilization and control mechanisms allowing users to adjust camera angles for precise ima ge capture. Thirdly, UAV control systems enable seamless switching between radio frequency and cellula r data connections, assessing signal strength for efficient connectivity. Furthermore, there are developme nts in video surveillance, utilizing controllers for motor control, positioning, and operating enclosures. Auto nomous systems for controlling flying and transportation objects utilize cameras and processors to identify payloads, monitor restricted areas, and manage transportation autonomously. Additionally, techniques to modify audio output aim to enhance automatic speech recognition for voice-controlled devices. Lastly, inn ovations in UAV technology involve verification of authenticity and capabilities, and autonomous object ret rieval. These advancements contribute significantly to waste management, imaging technology, UAV cont rol, audio manipulation, and autonomous systems, enhancing various technological domains.
The unmanned aerial vehicle (UAV) process involves capturing position and identity information, determin ing destinations, planning flight routes, and flying to the destination while identifying and collecting preset i dentity information. The system can replace human walking robots and includes methods for flight simulat ion.

Additionally, there are various systems and methods discussed, such as an autonomous vehicle sensor, drone docking, seismic acquisition with autonomous underwater vehicles, and a smart surveillance syste m using UAVs. The technology includes devices for controlling drones, flying camera systems, and an aut onomous aerial system for indoor use.

Furthermore, the disclosed inventions cover systems for remotely controlling devices, creating aerial pano ramic photography, directional tiles for autonomous drones, home robot control methods, and a radio rem ote controller with beacon-based commands. These technologies enhance UAV capabilities, facilitate rem ote control, and provide innovative solutions for diverse applications.

The flying camera system includes a control device with an image display unit that acquires images captu red by the imaging device on the flying body. The flight instruction generation unit generates flight instructi ons for the flying body based on the content of operations performed with respect to the images displayed on the image display unit.

The autonomous aerial system for indoor use utilizes micro aerial vehicles (MAVs) deployable in spaces with reduced GPS signal reception. The MAVs are automatically guided to perform tasks in desired locati ons, transmitting and receiving data for various applications like advertisement, inventory management, g uidance, warning, and search and rescue.

The systems and methods for remotely controlled devices determine the location and orientation of the de vice using sensors, emitters, and processors. These technologies facilitate precise control and determinat ion of the device’s position and orientation.

The aerial photography apparatus involves a remote-controlled piloted aircraft platform with a camera and a wireless transmitter. The camera can rotate using a rigid member and a rotatable joint, capturing panor amic aerial photographs from a desired location.

Directional tiles for autonomous drones are constructed with high-strength carbon fiber and graphene oxid e nanoparticles. These tiles facilitate drone navigation within buildings or other areas where GPS signals may be limited. The tiles include navigational strips, LEDs, and heating elements to provide pathways, dir ectional input, and location information for the drones.

The home robot control method utilizes ultrasonic transmitters and receivers to detect obstacles and enab

le the robot to perform avoidance maneuvers. The robot can adjust its motion based on the detected direc tion of obstacles, improving its cleaning coverage and user experience.

The radio remote controller identifies external beacons using a directional receiver and a microcontroller. I t can send different commands to controlled devices based on the detected beacons, allowing simple cont rol through pointing or button pushing.

The flight control system for unmanned aerial vehicles (UAVs) involves a total station tracking reflector an d a photodetector to acquire measurement data, including three-dimensional coordinates. This technology allows for precise control of UAV flight based on real-time position information.

The solar-rechargeable unmanned vehicle system monitors a geographic area using a UAV with a rechar geable power source. The system includes photovoltaic cells on a modifiable support system, allowing the UAV to recharge and modify its orientation for optimal solar exposure.

The automatic tracking mode for controlling unmanned aerial vehicles enables the UAV to operate in auto matic user tracking mode. The UAV captures image data, calculates estimated position information, and tr ansmits this information to track the user, ensuring automatic and precise follow-up.

The robotic vacuum cleaner is an autonomous robot designed for vacuuming and surface cleaning. It incl udes a vacuum cleaning system, steering system, navigation system, and control system for efficient and automated cleaning operations.

The hybrid multicopter fixed-wing aerial vehicle combines a multicopter body with at least one wing rotata bly mounted on the multicopter body. This design allows for versatile flight capabilities, with both multicopt er and fixed-wing features.

The unmanned aerial vehicle (UAV)-assisted hanging ring robot for live installation and grounding include s a hanging tray, wire, overturning stay wire, and various components. It facilitates live installations by usi ng a UAV to assist in positioning and grounding.

The precision-guided mannequin aerial unit includes a high-resolution camera, a control unit with a CPU, and memory storing computer software. The unit captures real-time images and uses pre-stored images t o guide the mannequin to a specific drop target.

The system and method for marker inclusion in a wellbore involve placing markers within the wellbore cas ing that transmit continuous periodic signals. An untethered drone equipped with sensors detects these si gnals, aiding in the determination of the wellbore location.

Unmanned aircraft systems and methods for interacting specifically with intended objects include wireless transceivers communicating with a control circuit. The system uses sensors on the unmanned aircraft sys tem (UAS) to determine unique identification of objects and confirm their presence in predefined locations .

These technologies collectively cover a wide range of applications, from aerial photography and surveillan ce to robotic cleaning and wellbore monitoring.

Certainly!

The flying camera system integrates a control device equipped with an image display unit. This amalgam ation allows for the acquisition and display of images captured by a flying body. This system is comprehe nsive, incorporating a flight instruction generation unit that uses the displayed images to generate flight in structions for the flying body. As a result, the flying body can autonomously operate based on the content

it perceives through its imaging device.

An autonomous aerial system method is designed specifically for indoor use, leveraging micro aerial vehicles (MAVs). These MAVs are configured to function efficiently in environments where GPS signal reception is limited or nonexistent. Their automatic guidance capabilities enable them to perform various tasks, from inventory management and advertisement to providing guidance, warnings, and conducting search and rescue operations.

The system and methods for remotely controlled device position and orientation determination represent a significant innovation. Devices equipped with sensors and emitters form part of this system, allowing precise determination of their location and orientation. By utilizing signals from emitters and processing them through connected sensors and processors, this system enables accurate positioning and orientation determination for remote-controlled devices. This innovation finds versatile applications across multiple industries and contexts.

The method and apparatus for creating aerial panoramic photography involves a specialized aerial photography apparatus that comprises a remotely controlled piloted aircraft platform. This platform is equipped with a camera, a wireless transmitter, and a rotatable joint mechanism. It facilitates the capture of panoramic aerial photographs by lifting and moving the apparatus to desired locations at specific altitudes. The rotatable joint maintains the camera's balance and orientation, ensuring a comprehensive 360-degree rotation for capturing panoramic images.

Directional tiles for autonomous drones introduce a novel solution using high-strength carbon fiber tiles for drone navigation. These tiles are designed to assist drones in navigating within buildings, subterranean areas, and other GPS-limited spaces. Constructed with carbon fiber reinforced graphene oxide nanoparticles and epoxy resin coating, these tiles offer both strength and lightness. Embedded navigational strips, LEDs, heating elements, and barcode indicators create a navigational infrastructure for autonomous drone guidance within designated mapped areas.

within working area upon receiver detecting signal. This celestial navigation system enables the autonomous robot to navigate and orient itself within its environment based on signals emitted by stationary emitters.

Adaptive cruise control system for autonomous vehicles: An adaptive cruise control system for autonomous vehicles is described, featuring a control unit configured to receive information related to a target lane and a target vehicle, and to control the acceleration and deceleration of the autonomous vehicle based on this information. The system aims to enhance safety and efficiency by dynamically adjusting the vehicle's speed and maintaining a safe following distance.

Method and system for controlling a drone for package delivery: The invention involves a drone delivery system equipped with a communication module that allows the drone to communicate with a delivery destination. The system further comprises a building security system that provides information about the terrain and the optimal package drop spot. The drone can then use this information to navigate, identify landmarks, and safely deliver packages to the specified location.

Augmented reality robot system with a compatible display: This robot system utilizes an augmented reality (AR) compatible display to provide users with information about the robot's status and operation. The AR display overlays digital information onto the real environment, enhancing the user's interaction with the robot. The system includes a robot controller, an image-capturing and displaying device, and a mechanism for real-time display of captured images with augmented reality information.

Lock apparatus and methods for drone use: Disclosed is a lock apparatus designed for drone assemblies, featuring a wing, keel beam, and adapter. The lock includes two lock portions that allow the drone to be securely attached or detached from the keel beam. This system ensures a stable connection between the

drone and the keel beam, providing versatility in drone applications.

Jet pump-operated autonomous underwater vehicle for marine seismic surveys: This autonomous underwater vehicle (AUV) is equipped with a jet pump group for propulsion and seismic sensors for recording seismic signals during marine seismic surveys. The AUV's control device manages the jet pumps to generate water jets, ensuring proper contact with the ocean bottom. The system efficiently records seismic signals for marine survey purposes.

Omnidirectional flying visual apparatus for video content display: This flying apparatus, equipped with individually rotatable propellers, serves as a display for video content and advertisements. It can be used in various settings to capture attention, convey messages, and interact with people. The apparatus includes lightweight screens and projectors, enabling users to program the flight path and select displayed video content.

Method and apparatus for creating aerial panoramic photography: The invention involves a specialized aerial photography apparatus mounted on a remotely controlled piloted aircraft platform. This platform, equipped with a camera and a rotatable joint mechanism, captures panoramic aerial photographs by lifting and moving to desired locations. The rotatable joint maintains the camera's balance, ensuring a comprehensive 360-degree rotation for capturing panoramic images.

Directional tiles for autonomous drones in GPS-limited spaces: This innovation presents high-strength carbon fiber tiles for drone navigation in GPS-limited spaces. The tiles feature navigational strips, LEDs, heating elements, and barcode indicators. Constructed with carbon fiber-reinforced graphene oxide nanoparticles, these tiles create a navigational infrastructure for autonomous drone guidance within designated mapped areas.

Multi-channel communication portal for robot control: The communication portal integrates a control device with an image display unit for a robot system. It allows the acquisition and display of images captured by a flying body, with a flight instruction generation unit generating instructions for the flying body based on the displayed images. The system enables autonomous operation of the flying body in accordance with the preferences indicated by the detected external appearance and audio of a living subject.

Robot control method and recording medium for preferences-based operation: This robot control method involves detecting external appearance and audio of a living subject and causing a robot to execute operations based on the detected preferences regarding the external appearance and audio. The recorded medium stores instructions for the robot's processor to carry out this preferences-based operation, allowing the robot to respond to the preferences of the living subject in real-time.

Assisting delivery robot using a building security system: The disclosure is directed towards a system and methods for assisting a delivery robot using a building security system. The delivery robot communicates with the building security system to obtain information about the terrain and package drop spots within a building. This information may include images captured by cameras located on the premises. The delivery robot uses this information to navigate, identify landmarks, and efficiently deliver packages within the building.

Robot system with an augmented reality-compatible display: The robot system utilizes an augmented reality (AR) compatible display to provide information about the status and operation of the robot. Equipped with an actual robot, a controller, and an image-capturing and displaying device, the system enhances user efficiency by overlaying digital information onto the real environment. Users can monitor the augmented reality image in real-time, allowing for improved control and interaction with the robot.

Lock apparatus and methods for drone use: The disclosed lock apparatus is designed for drone assemblies and includes a wing, keel beam, and adapter. The lock ensures a secure connection between the drone and the keel beam through two lock portions that allow attachment or detachment. This system provides stability and versatility for drone applications.

Flying camera system with a control device and image display unit: The flying camera system incorporates a control device with an image display unit for acquiring and displaying images captured by a flying body. A flight instruction generation unit utilizes the displayed images to generate flight instructions for the flying body, enabling autonomous operation based on the perceived content. This system enhances the capabilities of flying bodies equipped with imaging devices.

Autonomous aerial system for indoor use with micro aerial vehicles: The autonomous aerial system is tailored for indoor use and leverages micro aerial vehicles (MAVs) designed to operate in GPS-limited environments. The MAVs are equipped with automatic guidance capabilities, allowing them to perform tasks such as inventory management, advertisement, guidance, warnings, search and rescue operations, and more. The system enables versatile applications of MAVs in various indoor scenarios.

System and methods for remotely controlled device position and orientation determination: This innovation involves devices equipped with sensors and emitters for precise determination of their location and orientation. Signals from emitters are processed by connected sensors and processors, enabling accurate positioning and orientation determination for remote-controlled devices. This technology finds applications across various industries and contexts.

Method and apparatus for creating aerial panoramic photography: The aerial photography apparatus is specialized for capturing panoramic aerial photographs using a remotely controlled piloted aircraft platform. Equipped with a camera, wireless transmitter, and rotatable joint mechanism, the apparatus lifts and moves to specific locations for capturing panoramic images. The rotatable joint ensures the camera’s balance and orientation, facilitating a comprehensive 360-degree rotation for panoramic photography.

Directional tiles for autonomous drones in GPS-limited spaces: The directional tiles are constructed with high-strength carbon fiber reinforced with graphene oxide nanoparticles, featuring a navigational infrastructure for autonomous drone guidance. These tiles are designed to assist drones in navigating within buildings, subterranean areas, and other GPS-limited spaces. Embedded with navigational strips, LEDs, heating elements, and barcode indicators, the tiles create a comprehensive system for autonomous drone navigation.

Multi-channel communication portal for robot control: The communication portal integrates a control device equipped with an image display unit for a robot system. This comprehensive system allows the acquisition and display of images captured by a flying body, with a flight instruction generation unit generating instructions for the flying body based on the displayed images. The system enables autonomous operation of the flying body in accordance with the preferences indicated by the detected external appearance and audio of a living subject.

The provided texts describe various technological systems and methods related to unmanned aerial vehicles (UAVs) and related applications. One segment discusses the navigational control system of an autonomous robot within a defined working area, utilizing a transmitter subsystem and a receiver subsystem for detecting signals emitted by a stationary emitter. Another section introduces a method for recording flight data of UAVs using blockchain technology, incorporating sensor data, location information, and abnormal condition detection. There are also discussions on controlling the height of a flying body, flight control systems for flying objects, and a portable smart speaker with power control features. Additionally, topics include launching UAVs, water sampling with UAVs, altitude measuring using unmanned aerial robots, distributed drone systems, and systems for detecting, tracking, and authoring augmented reality content with drones. Security systems based on UAVs, methods for dual operation of UAVs, wireless event notification systems, and surface cleaning UAVs are also covered. Furthermore, there are discussions on UAV docking systems, UAV guidance using modulated

As the texts describe various technological systems and methods related to unmanned aerial vehicles (UAVs), here’s a summary:

One segment discusses a weather and time conditions avoidance system for UAVs used in a swarm, focu sing on a method to avoid objects. Another section introduces an apparatus for notifying parcel delivery, f eaturing an aerial delivery apparatus with a robotic arm, landing gear, and visual sensors for grasping and interacting with objects.

There’s a description of a system for remote assistance to autonomous vehicles in low-confidence situatio ns, allowing the vehicle to request assistance from a remote operator. Additionally, a method and system for controlling a robot based on sound information and action information from a user are outlined.

Other topics include a UAV radar-guided landing function system, a drone deterrence system with laser tr acking, and a system for transporting temperature-controlled materials using a drone structure with a ther mal container. A video surveillance system with aerial camera devices and a wildfire surveillance UAV for fire detection are also discussed.

There are systems for automatic UAV flight with three-dimensional range finding, a gimbal remote controll er for controlling UAV cameras, and methods for controlling and charting surveillance radar for UAVs. Furt hermore, an autonomous vehicle method for changing control based on external and user information is p resented.

The texts cover various aspects, including UAV docking systems, visual observers for UAVs, and method s for controlling and authoring augmented reality content with drones. Additionally, there are discussions on UAV-based security systems, methods for dual operation of UAVs, and wireless event notification syst ems. Some texts focus on specific functionalities like surface cleaning UAVs, measuring altitude using un manned aerial robots, and distributed drone systems for inventorying objects in large outdoor areas.

device capturing camera autonomous vehicle autonomous vehicle user
electronic device configured monitor surroundings autonomous vehicle receiving
user input user electronic device selecting portion video content stream
surroundings autonomous vehicle displaying selected portion video content stream
user electronic device user electronic device configured provide control input
control input based selected portion video content stream provided autonomous
vehicle control information autonomous vehicle control information includes at
least one instruction autonomous vehicle move change speed change direction
stop method may include transmitting control information autonomous vehicle
responsive control information autonomous vehicle autonomously performs operation
specified control information
managing autonomous vehicles:embodiments include method providing control
information autonomous vehicles method may include receiving video content
stream electronic device capturing camera autonomous vehicle autonomous vehicle user
electronic device configured monitor surroundings autonomous vehicle receiving
user input user electronic device selecting portion video content stream
surroundings autonomous vehicle displaying selected portion video content stream
user electronic device user electronic device configured provide control input
control input based selected portion video content stream provided autonomous
vehicle control information autonomous vehicle control information includes at
least one instruction autonomous vehicle move change speed change direction
stop method may include transmitting control information autonomous vehicle

responsive control information autonomous vehicle autonomously performs operation specified control information
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The remaining sections involve topics such as robotic vacuum cleaners, autonomous behavior of robots r ecognizing the direction of sound sources, and combinations of ceiling fans with sound generators simulat ing helicopter commands. The summaries aim to provide an overview of the diverse technological applica tions discussed in the texts.

laser light, and a system for controlling UAVs based on human figure detection.The collection of technolo gical innovations spans various domains. It includes advancements in control systems for autonomously d riven vehicles, systems enabling secure and efficient package delivery via location-aware garage door act uation, UAV management systems, and enhancements in pairing remote control devices. Notably, there a re developments in drone systems involving air-to-ground transitions, default detent vertical speed control s, and unmanned aerial vehicles' power management. Innovations also feature voice connection platform s and multi-propeller unmanned aerial systems with wind-resistant capabilities for improved maneuverabili ty and stability. These advancements demonstrate significant progress in control mechanisms, UAV mana gement, remote control pairing, and voice assistance platforms, contributing to diverse fields such as tran sportation, security, and aerial technologies.The extensive array of innovations covers a wide spectrum of technologies. Among these, advancements in robotics are notable, particularly in robot guidance services utilizing artificial intelligence (AI). One such system features a robot equipped with a microphone for voic e data reception and a camera for image acquisition. The robot's processor determines the language nee ded for guidance services based on the received voice and image data, allowing a seamless transition bet ween languages. Additionally, developments include methods for total control ski handles for tow boats, ai rcraft avoidance systems using multi-spectral pattern detection, object detection via unmanned aerial vehi cles (UAVs), and countermeasure devices against UAVs. Moreover, there are innovations in underwater v ehicles capable of both autonomous and remote operation, drone cleaning apparatus for elevated structur es, and AI-powered autonomous vehicles for enhanced security measures. These innovations showcase t he strides made in robotics, AI, aerial technologies, and safety systems across various industries.It appea rs that the collection of descriptions involves various methods, devices, and systems within the field of aut onomous devices, including drones, robots, underwater vehicles, gesture recognition systems for autono mous vehicles, and aerial placement devices for electronic systems. Additionally, it includes advancement

s in flight control for aircraft and UAVs, autonomous camera tracking apparatus, weaponized robots with s ituational awareness, energy-saving techniques for drones, audio-visual interaction systems for user devi ces, and assistance systems for unmanned aerial vehicles (UAVs).These descriptions indicate advancem ents in technology that span multiple domains, including robotics, aerial systems, autonomous vehicles, a nd surveillance equipment. They touch on aspects like gesture recognition, autonomous navigation, positi oning systems, energy efficiency, and user-device interaction, highlighting the diverse applications and in novations within the autonomous systems and robotics domain.The collection of excerpts pertains to a div erse array of technological innovations and systems across robotics, unmanned aerial vehicles (UAVs), re mote control mechanisms, and safety measures. The summaries encompass advancements in UAV assis tance, including aiding disabled UAVs by determining landing locations and observing surrounding areas f or potential hazards. There are methods detailed for controlling moving robots based on light reception an d filtering techniques. Signaling and preparing voice-controlled devices prior to audio signal processing ar e highlighted, along with rescue mission assistance using UAVs by applying floatable foam for location an d recognition. The inventions extend to automatic control and safety features for helicopters, special effect s integrated with ground controllers for UAVs, and remote control via camera-based virtual touch. Innovati ons also cover UAV design enhancements, such as fixed-wing UAVs with simplified rotor control and intel ligent irrigation systems. Additionally, apparatuses for remote operations on rooftops and systems facilitati ng unmanned vehicle control through cellular networks are described, alongside obstacle detection in rob ots and controllers ensuring smooth positioning. Furthermore, there are systems designed for remote vehi cle access utilizing command signals and data rates. These summaries encapsulate a broad spectrum of technological advancements shaping robotics, UAVs, remote control functionalities, and safety protocols across various industries.They include descriptions of a keyless entry system for vehicles using command signals, unmanned aerial vehicles equipped with spectrum monitoring, portable landing pads for drones, methods for autonomous UAV landing, lighting fixture alignment systems, snow and ice melting drones, p rivacy-sensitive routing for aerial drones, managing UAV identities, lighting control based on user altitude, systems for communication with autonomous vehicles, UAV control systems, noise reduction systems for drones, unmanned following vehicles, aerial route privacy management, and systems for monitoring pre mises using UAVs, among others. These innovations involve diverse applications like drone control, safet y, communication, and surveillance, showcasing advancements in technology across multiple domains.Th e collection of texts details a diverse array of technological innovations across multiple domains. It encom passes advancements in unmanned aerial vehicles (UAVs), including systems for maneuver assistance a mong UAV fleets and failsafe mechanisms for uncontrolled flight situations. Moreover, there are descriptio ns of voice recognition systems tailored for aircraft, systems to improve drone designs with horizontal roto rs and wireless control functionalities for electronic devices. Methods for UAV control through audio comm ands, camera control systems, and navigation systems for robots are also covered. These innovations sp an applications ranging from autonomous driving enablement/disabling systems to communication-equipp ed robots capable of remote operation via user terminals or body unit control. Overall, the texts paint a viv id picture of cutting-edge developments in aerial technology, robotics, control systems, and user interface s for varied functionalities and industries.The texts cover an array of technological innovations and system s. Among these are a remote worksite monitoring system involving an unmanned aerial vehicle (UAV) for data transmission and control; an appliance remote control device capable of receiving radio frequency si gnals transmitted by a smartphone; methods for alerting failures in UAVs and their subsequent reporting t o network nodes; designs for UAVs with pivotable propeller blades for enhanced thrust generation; remot e control systems using optical signals for controlling multiple devices; methods enabling temporary user control based on location; systems for autonomous UAV landing based on three-dimensional evidence gri ds; and a portable countermeasure device to disrupt drone navigation. Additionally, there are concepts for systems controlling volume adjustments in virtual personal assistants based on user location and movem ent. Finally, there's a UAV equipped to cancel background noise while collecting audio data, enhancing a udio quality during flight operations.The compilation of technical snippets revolves around cutting-edge ad vancements in unmanned aerial vehicles (UAVs) and related technologies. The innovations encompass di verse functionalities, including enhanced audio data collection through background microphones, multifun ctional UAV systems integrating ground vehicles and tools for diverse tasks, and beacon-assisted drone d elivery approaches for precise location-based deliveries. Intelligent device selection by automated assista nts, volume adjustment for virtual personal assistants based on user movements, and sound-masking cap abilities in drones for delivering items while minimizing operational noise signify strides in user-centric, ad

aptive technologies. Additionally, concepts like secure communications for UAVs, self-burying autonomous underwater vehicles for marine surveys, and AI inference in local devices highlight advancements in safety, marine exploration, and local processing capabilities. These snippets collectively showcase the evolving landscape of technology, aiming to improve efficiency, safety, and user experience across various domains, including aerial, marine, and AI-driven applications.
Natural Language User Interface for Mobile Devices: Systems that allow mobile devices to wirelessly authenticate reader devices, receive acoustic signals as user commands, analyze these commands, and transmit them to the reader devices for action.

Collaborative UAVs for Inventory Management: UAVs equipped with buoyant airbags, drive units, and retention features for lifting and transporting items within a location, like a warehouse, based on received instructions.

UAVs Capable of Environmental Interaction: Systems with UAVs featuring multiple propeller assemblies for vertical takeoff and landing, along with end effectors and force sensors for interacting with the environment.

Autonomous Robots for Navigation and Charging: Robots designed to autonomously navigate along walls and move to charging stations when battery levels drop, with the ability to escape closed-curve paths.

Tail Sitter Flying Wing UAVs: UAVs designed for vertical takeoff and landing, transitioning between helicopter and wing-borne flight, powered by onboard batteries and equipped with mini helicopter rotors.

Control and Alert Mechanisms for Communication Events: Systems for associating commands with events on devices, triggering actions on a second device based on the event occurrence.

Home Automation and Security Integration: Methods for responding to security events by controlling actions of vehicles in the vicinity, such as activating lights or sending images to security systems.

Advanced UAV Deployment Systems: Systems that enable remote and unattended operation of UAVs, including launchers, orientation and charging modules, and communication subsystems for remote control.

Rapidly Deployable Drone-Based Wireless Communication Systems: Systems that use drones to form a network for transmitting signals and content, especially useful in areas with damaged infrastructure or during emergencies.

Event Attendance Monitoring Using Virtual Assistants: Systems augmenting virtual assistants with image sensors to monitor the environment and update operating modes based on the presence of known individuals.

Traffic Offloading for Communication Drones: Methods for offloading communication traffic to drones, involving replacement requests and the adjustment of communication parameters.

Firefighting Drones: Drones equipped with fire extinguishing chemicals and tools, designed for rapid response and firefighting in various environments.

AI-Powered Robots for Monitoring: Robots using artificial intelligence for target monitoring, equipped with image capturing units for surveillance and analysis.

Autonomous Vehicles for Goods Handling: Methods for autonomous vehicles to collaborate with UAVs for loading and unloading goods, using image recognition for marker-based position adjustments.

Variable Height Proximity Sensors for Autonomous Vehicles: Vehicles equipped with adjustable-height proximity sensors to control operations based on the distance from objects in the environment.

Three-Dimensional Pathway Tracking System: Techniques for tracking and determining a 3D path traveled by unmanned aircraft, such as drones. This system is particularly applied in drone racing to determine course positions and automatically transmit signals to disable drones upon completing the course.

Electronic System for Exercise Machines: Control systems for exercise machines that vary resistance based on voice commands, programmed commands, or in response to the user's performance. These machines may include pneumatic systems or utilize cams for resistance adjustment.

Remote Control Drilling Machine: A method and apparatus for remotely controlling machines, particularly in drilling applications, where remote operators can control the machine using tracking devices and signal systems.

Methods for Inspecting Beams Using UAVs: This involves using UAVs to inspect and manipulate beams on structures, such as the lower side of roof deck beams, including methods for attaching and testing objects via UAVs.

Smart Lighting Control Systems: Devices and systems for controlling the lighting condition of smart objects, using networking frameworks, RF signals, and ultrasound signals for determining the location and range of objects and controlling them based on user interactions.

Transportation Systems Using UAVs: Methods and systems for UAVs designed for transporting payloads. These UAVs feature detachable batteries and payload containers, and associated landing platforms for efficient operations.

Twin Engine UAVs for Military and Civilian Use: UAVs with front and rear engine positioning for enhanced fuel efficiency and performance, optimized for various applications including military and civilian functions.

Remote Control Systems: Systems where a remote control unit transmits target positions to a moving apparatus control unit, which then autonomously moves the apparatus based on detected input values.

Vehicle-Mounted Controllers: Voice recognition systems in vehicles that analyze voice commands and modify display formats based on recognition capability.

UAV Docking Systems: Apparatuses for housing UAVs within vehicles, including components for UAV landing, connection, and integrated antenna or satellite dishes for communication.

Security Systems for Drones: Systems providing zone area protection for drones, including sonic sensors and software for identifying and activating countermeasures against unauthorized drones.

Groundtruthing and Landmark Mapping for Autonomous Vehicles: Control systems for autonomous vehicles to verify and update mapped landmark data based on real-time sensory feedback.

Enhanced UAV Control for Extended Operation: Systems for enhancing UAV control and operation, including components like GPS receivers, camera modules, and motor control modules for extended endurance and flexible operation modes.

Drone-Based Wireless Communication Systems: Systems for establishing communication networks using drones, particularly useful in areas with damaged infrastructure or during emergencies.

Camera Stabilization for Autonomous Vehicles: Apparatuses for stabilizing cameras on autonomous vehicles using sensors and actuators to attenuate vibrations from various directions.

Augmented Reality Systems for Aircraft: Methods for operating aircraft using augmented reality systems, i

ncluding autonomous decision-making and environment modules for enhanced navigation and control.

Virtual Reality-Controlled Robotic Surgery: Systems for controlling surgical robots using virtual reality devi ces, allowing surgeons to perform operations based on live images and VR input data.

Autonomous Mobile Robots for Cleaning: Robots designed for cleaning tasks, capable of navigating and adjusting their operations based on detected obstacles and environmental conditions.

UAV Landing Systems: Systems for coordinating the landing of UAVs, including switching between norma l operating modes and landing modes based on the UAV's position in regulated airspace.

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Remote Operation System for Heavy Machinery: A system designed to remotely control unmanned vehicl es or machinery, featuring ergonomic controls and a centrally positioned screen for user interaction.

Landing Methods for Unmanned Aerial Robots: Technologies for precision landing of unmanned aerial ro bots using camera sensors to capture patterns marked on stations for identification and landing guidance.

Remote Control Fishing Tackle: A system that allows remote control of fishing tackle, including a main co ntroller and a float unit, enabling users to maneuver fishing lines and hooks remotely.

Systems for Identifying and Controlling UAVs: Technologies involving beacons attached to UAVs to provi de identification and control capabilities, including participating in wireless communication networks.

Remotely Controlled Vehicle Skill Structure: A remotely controlled vehicle, like a helicopter, designed to p erform skill-based maneuvers on structures with multiple platforms and skill elements.

Helicopters with Multi-Rotors and Wireless Capability: UAVs featuring a plurality of rotor assemblies and a flight controller to receive and execute control instructions wirelessly.

Remote Controlling Commander with Rotary Dial: A device with a rotary dial for manual user operation, tr ansmitting encoded signals to control various functions of an apparatus such as video recording or chann el timing.

Radar Device on UAVs: UAVs equipped with radar devices for converting electric power into electromagn etic energy, with the ability to rotate antenna assemblies for directional control.

Speech Recognition Services: Platforms that perform automatic speech recognition to identify user comm ands and perform corresponding actions like setting reminders or launching applications.

Robot Control Apparatus and System: Systems for controlling the motions of industrial robots based on i mages processed by an image processing apparatus, with communication units for network-based interac tion.

Methods for Launching and Recovering Underwater Vehicles: Systems for handling autonomous underwa ter vehicles, including modules for storage, control, and positioning of the vehicle in water.

Location for UAV Landing and Taking Off: A UAV system operating within controlled access zones, with c ommunication units to manage access and barriers for secure operations.

Methods for Identification Using Triggered Beacons: Systems using beacons for automation devices, activ ating features like video cameras or display devices based on the identification of persons possessing the

beacons.

AR Apparatus Control Based on Action Prediction: Methods for controlling augmented reality apparatus by detecting human body actions in a video and predicting actions to map AR functions.

Rotary Propeller Drone with Integrated Power Storage: UAVs with propellers made of battery material layers, such as graphene supercapacitors, providing integrated power storage and structural components.

Large Screen Video Display System for Television: Technologies for controlling the power, brightness, and contrast of a video projector and rolling screen for television receivers.

Third-Party Network Utilization for UAV Platforms: Systems for selecting networks based on flight path requirements of UAVs, including third-party networks for continuous monitoring and control.

Methods for Controlling Home Devices: Methods involving a server that controls home devices based on sensor triggers and context information received from mobile devices.

UAV Direction Finding Systems: UAVs equipped with multiple antenna units for radio signal reception and direction finding, based on their positioning relative to the main body of the UAV.

Continuous Operation Systems for UAVs: Systems designed to maintain UAV flight continuity by deploying replacement UAVs based on battery charge signals, ensuring continuous operation.

Tele-Operated Robotics for Property Maintenance: Systems enabling the autonomous operation of tele-operated robots for property maintenance, utilizing UAVs to gather data about obstacles and plan efficient paths for robots to navigate and perform tasks.

Moving Robots with AI: AI-powered robots designed to operate in low-noise modes, sensing the ambient environment and adjusting their operations accordingly.

UAVs for Target Tracking: UAVs equipped with GPS positioning and control modules for tracking targets and making autonomous landing decisions.

Emergency Lighting Equipment Testing: Devices to check the operational readiness of emergency lighting equipment remotely, using control systems connected to a network and accessible via smartphones.

Photovoltaic-Powered Drones: Drones with photovoltaic surfaces for energy harvesting and optimized flight attitudes for energy efficiency.

Border Surveillance: Drones equipped for tagging and tracking unauthorized targets, with capabilities to receive dispatch instructions and confirm successful tagging for recovery.

Multi-Sensor Calibration for UAVs: Methods for calibrating multiple onboard sensors of UAVs by having them move along predetermined paths and collect sensor data.

Marine Vessel Guidance: Methods for controlling the cruise of autonomous marine vessels using subsystems that generate locational data for navigation.

Remote-Controlled Security Systems: Systems for arming, disarming, and monitoring the status of security systems remotely, including remote-controlled security switches for doors or containers.

Dynamic Room Environment Control: Mobile devices that control various room parameters in response to media being played, providing an immersive environment.

UAV Designs and Control: UAVs featuring various designs and control mechanisms, including fuselage st ructures with integrated circuit boards and wings, and methods for controlling these UAVs based on terrai n and flight dynamics.

Retail Space Scanning and Location-Based Services: Drones used for scanning products in retail spaces and feeding data to servers for creating maps of product locations, enhancing customer experience.

Secure Recovery Systems for Drone-Delivered Packages: Systems for securing drone-delivered package s, including housing with electromechanically operated doors and retractable platforms for drone landings.

Emergency Shutdown for UAVs in Air Traffic Control: Methods for the emergency shutdown and landing o f UAVs, communicated through air traffic control systems.

Communication Between Smartphone and User in Remote Control: Methods and devices for establishing communication between a smartphone and a user through remote control devices.

Virtual Security Networks: Systems including sensor units and drones for creating a virtual security networ k to detect and track intruders in a secured area.

Autonomous Vehicle Operation and Control: Various methods and systems for controlling autonomous ve hicles, including adjusting trajectories based on object pickup instructions and tracking vehicle trajectories on roads.

Personalized Voice Control for Multi-Device Controllers: Techniques for controlling multiple devices in a n etwork through personalized voice commands.

UAVs for Long Duration Flights: UAVs designed for long-duration flights with specialized body assemblies and flight control systems.

Surveillance Systems and Methods: Systems for surveillance, including remote control, automatic recordi ng in response to specific triggers, and methods for detecting and controlling drones.

In summary, these patents showcase advancements

Prospector One: A drone equipped with a metal detector for searching valuables underground, useful for enthusiasts, military searches for IUDs or explosives, and locating underground pipes.

Control Devices for Robots: Systems for controlling robots in user-presence environments, adjusting robot operation speeds based on user detection.

Unmanned Aerial Vehicles (UAVs): Various UAV designs including ones with specific electrical conductor s for voltage control, mounting structures for propellers, and turntable assemblies for fixed-location control .

Voice Recognition and Deep Learning: Methods for training artificial neural networks for speech recognitio n, particularly useful in noisy environments and applicable to drones, robots, AR, and VR devices.

Target and Impact Sensing: Heavy lifter devices capable of lifting and lowering targets remotely, useful in firing ranges.

Drone Platforms and Interfaces: UAV platforms with stationary bases and interfaces for direct UAV interac tion, including turntable assemblies for angular control.

User-Adjustable Trajectories for Automated Vehicles: Methods for autonomously maneuvering vehicles b

ased on user-adjusted paths using rearview cameras.

Bird Repellent Systems: Systems designed for airports to repel birds using unmanned ground and aerial v ehicles emitting audio signals.

Gimbal Cameras for UAVs: UAV designs with specialized mounting grooves and notches for gimbal came ras.

Authorization for UAVs: Systems for receiving authorization for UAV operations, including access to mobil ity management functions and subscription information.

Intrusion Control with Wearable Devices: Building automation systems using portable Bluetooth devices f or arming and disarming security zones.

Concrete Bridge Paving: Automated systems for remotely controlling concrete pavers, including video mo nitoring capabilities.

Electronic Flight Filing for UAVs: Automated generation and filing of flight plans for UAVs in controlled airs pace, including real-time approval processes.

Image Processing for UAVs: Methods for acquiring and stitching images based on environmental paramet ers for panoramic views.

Position Determination for Unmanned Vehicles: Systems for determining the position of drones using sen sory information and UWB beacon signals.

Multipurpose Surveillance UAV Systems: UAV systems for police surveillance, equipped with image trans mission systems and stability augmentation platforms.

Water Sports Control Systems: Systems to enhance the wake of watercraft for sports, controlled by riders using position sensors and cameras.

Aerial Reconnaissance Drones: Drones with elongated fuselages and flapping wings, equipped with came ras for enhanced imagery.

Modular UAV Systems for Parcel Delivery: UAVs with interchangeable modules for optimizing flight time, distance, battery life, and payload capacity.

Security Camera Systems: Covert security devices for monitoring areas of interest, including wireless con trol and data transmission capabilities.

Voice Control Systems: Methods for improving voice control accuracy in noisy environments by filtering o ut noise-generated signals.

Snow Removal and Disaster Prevention: Remote control methods for snow removal systems using smart phones, including real-time monitoring and operation control.

Surveillance and Property Monitoring: Methods involving UAVs or drones for surveying and monitoring co mmercial properties. These methods include capturing aerial images at predetermined intervals, detecting surveillance events, and generating alerts to property owners.

Robot Control Devices: Systems for controlling robots using sensors, digital cameras, and image processi ng devices. These systems transform output signals from cameras for effective robot control.

Drone Interception Systems: Systems designed to intercept rogue drones using electromagnetic radiation

emitters and detectors. The systems determine the position of rogue drones for interception purposes.

Aerial Camera Systems: These systems involve main reels, cameras, safety reels, and a stabilized camer a head, supported by cables and controlled by a computer system for aerial imaging.

Medicament Delivery via Autonomous Devices: Methods for delivering medications to patients using auto nomous devices equipped with cameras, transmitters, and storage compartments.

Intelligent IoT for Light Therapy: IoT hubs capable of performing light therapy based on sleep pattern infor mation, with control signal generators and communication interfaces for controlling light output devices.

UAV Control and Damage Minimization: Systems and methods for controlling UAV flight routes, including minimizing damage due to crashes by avoiding certain areas.

Salvaging Drones and Equipment: Apparatuses designed for salvaging drones using hit indicators, parac hutes, and cable release mechanisms.

UAV Tracking Based on Neural Networks: Systems that correct UAV flight parameters like rotation angle, flight height, and speed using neural networks and image acquisition modules.

Control Methods for Performing Tasks via Robots: Methods involving acquiring target and origin images fr om a robot’s perspective and using machine learning models to control the robot’s movements.

Multi-Sensor Based UAV Control: UAVs equipped with various sensors for inertia and position information , controlled via extended Kalman filters and image recognition technologies.

Aircraft Control Systems: Systems featuring a main unit with a control stick and an auxiliary unit with a tra nsmitter to encode movements for aircraft control.

Drone Audio Noise Reduction: Systems that reduce audio noise in drones by using acoustic sensors, rota tional motion sensors, and analyzers to filter and process acoustic data.

Remote Control of Microphones and Lighting Equipment: Methods for controlling remote microphones an d lighting equipment, including adjusting beam forming patterns and noise cancellation algorithms.

UAV Image Capture Platforms: Methods and systems for UAVs to autonomously navigate and capture im ages, with adjustments based on motion estimation and image quality criteria.

Autonomous Vehicle Operation and Target Following: Methods for autonomous vehicles to follow targets, including determining positions, velocities, and adjusting the vehicle’s movement accordingly.

Remote Control of Lighting and Emergency Equipments: Apparatuses for remotely controlling lighting dev ices, including emergency lighting, using transmitter apparatuses and receiver devices.

Wireless Remote Controlled Mirrors with Integral Lighting: Mirrors equipped with lights and remote control capabilities, allowing users to adjust the view remotely, particularly useful for viewing children in rear-faci ng safety seats.

Controlling Devices Based on Proximity to Mobile Devices: Methods for detecting a mobile device within a certain distance and performing operations based on user configuration information received from the mo bile device.

Navigation of Drones Based on Weather Data: Methods and apparatus for adjusting the flight path of a dr one based on intercepted weather data, aiming to avoid regions with undesirable weather conditions.

Stowable and Deployable UAVs: Systems and methods for UAVs that feature a stowable and deployable design, including main bodies with pivotable body portions and modular electronics units for various functionalities.

Detecting and Controlling Drones in Networks: Systems for detecting drones implanted in networks or connected to host devices, utilizing intrusion detection systems, blockers, and firewalls to manage traffic and identify sources of malicious activities.

Robots Recognizing Direction of Sound Sources: Robots equipped with microphone arrays to detect voices and identify the direction of sound sources, directing their bodies or heads towards the sound for targeted actions.

UAV Landing Processes: Systems for UAVs that include processors and imaging devices to acquire landing targets, descend towards these targets, and determine their field of view for safe landing.

Customized Packaging for UAV Item Delivery: Methods for delivering items using UAVs, where order parameters are determined based on electronic orders, and UAV components and compliant packaging are selected to meet these parameters.

Remote Controlled Lift Assemblies: Lift assemblies with remote controls, allowing users to remotely lift or lower cables for cargo handling.

Portable Aerial Reconnaissance and Targeting Devices: Devices for obtaining surveillance information from aerial vehicles, including cameras, transceivers, designator units, and gimbal mechanisms to continuously illuminate targeted objects.

Autonomous Movement Devices and Methods: Devices with obstacle detectors, map creators, and routers to navigate based on environment maps and recorded information about detected obstacles.

Method for Sensor Data Processing in Remote Robot Operation: Methods involving recording and transmitting sensor streams for remote operation of robots, selecting and displaying received streams for effective control.

Camera Apparatus and Systems: Camera apparatuses with control electronics and remote control terminals for user interface generation and data signal reception.

Controllers for UAVs: UAV controllers that use positional data to process image data and determine obscured portions of vehicles or objects, enhancing the UAV’s operational capabilities.

UAV Light Flash Synchronization: UAV systems with cameras, processors, and transceivers to synchronize light flashes with photograph taking for enhanced imaging capabilities.

Extendable Cameras for Mobile Devices: Imagers that extend from mobile devices to capture images responsive to commands.

Robots with Hand Control Units: Robots equipped with hand control units to generate 3D information from captured images and manipulate objects based on this information.

Storage Units for UAVs: Storage units designed to enclose UAVs and guide their landing onto platforms with inclined surfaces for predetermined positioning.

Wireless and Optical Communication Networks for UAVs: Systems for controlling UAVs using wireless or optical communication networks, including beacon control systems that issue commands compatible with various unmanned aerial vehicles.

Autonomous Rotor Speed Control in Aerial Vehicles: Rotary aerial vehicles with engines capable of variable rotor speeds, controlled by electronic microcontrollers for dynamic mission objective adjustments.

Guiding Systems for Autonomous Underwater Vehicles: Autonomous underwater vehicles (AUVs) equipped with acoustic modems for receiving location information and navigating in marine seismic surveys.

Sound Box Control Methods: Methods for controlling sound boxes using ultrasonic signals, reflecting these signals off external objects to acquire movement trajectories for executing target operation instructions.

Autonomous Mobile Body Control Devices: Devices capable of controlling the movement of autonomous mobile bodies based on both main and local maps, switching between them as needed for effective navigation.

Hardware Configurations for Autonomous Aerial Vehicles: Autonomous aerial vehicles integrated with multiple cameras for capturing images and assisting in motion planning and navigation.

Remote Monitoring Systems for Security: Systems designed for remote control, monitoring, and recording, particularly for security purposes like controlling access to safes or vaults.

Voice Assistant Services Using AI Systems: AI-based systems that utilize machine learning to provide voice assistant services, including character-specialized models for generating responses.

Bracket Assemblies with Smart Linear Actuators: Bracket assemblies equipped with smart linear actuators and remote controllers for mounting and controlling sensors or other devices.

Robots with Enhanced Motion Control: Robots designed to receive audio information and execute movements based on sound and freedom mapping, with joint servo driving based on adjustment messages.

UAV Authentication and Authorization for Traffic Management: Systems for UAV authentication and authorization via third-party service providers, such as unmanned aerial system traffic management platforms.

Confirmation Systems for UAV Deliveries: Methods and devices for confirming successful deliveries by UAVs, including capturing images of the delivery zone and using GPS data for location verification.

Autonomous Vehicle Research Systems: Systems including vehicles with attached frames, engines, and data logging units for autonomous driving research and control.

Navigation Devices for Automatic Door Opening: Devices capable of opening and closing electric garage doors automatically, based on GPS and sensor data to prevent erroneous operation.

Photography and Videography Systems for Aerial Vehicles: Systems implemented in aerial vehicles for autonomous photography and videography, including processing and optical systems for target detection and camera control.

Autonomous Driving Control Apparatus: Apparatuses for executing autonomous driving control in vehicles, including modes for engagement and switchable control between manual and automatic modes.

Autonomous Vehicle Control Using Depolarization Ratios: Systems for controlling autonomous vehicles using depolarization ratios of return signals to calculate reflectivity values for operational decisions.

Ground Stations with Tethers for UAVs: Unmanned aerial vehicle systems including ground stations with tethers and modules for connecting to UAVs, enabling power supply and authentication for UAV operation.

Autonomous Underwater Vehicles for Seismic Surveys: Autonomous underwater vehicles equipped with s eismic sensors and anchoring systems for marine seismic surveys.

Audio Control Systems with Electromagnetic Cradles: Systems that control various functions like playing music or shaking a cradle through audio commands and cloud server interaction.

Home Cleaning Robots: Autonomously moving robots for cleaning, equipped with various sensors and re motely controllable via smartphones.

Obstacle Avoidance for UAVs: Methods and systems for UAVs to avoid obstacles using sensor data and adjusting flight paths accordingly.

Remote Control Devices: Various devices and systems for remote control, including those for controlling TVs, toys, and other electronic devices, some utilizing voice commands and location-based services.

Intelligent Interaction Systems for Vehicles and Drones: Systems enabling drones to interact with vehicles for inspection purposes, using vehicle specification data.

Multifactor Authentication Systems: Using voice commands and geolocation for secure access control.

UAVs for Surveillance and Image Processing: UAVs used for delivering packages, performing surveillanc e actions, and processing images for various applications.

Autonomous Aerial and Ground Robotic Systems: Systems that include mobile nodes creating mesh netw orks, some with aerial nodes for data collection.

Enhanced Mechanical Robots: Robots with GPS receivers and capabilities like taking pictures, sounding alarms, and delivering messages using face and voice recognition.

Remote Interaction Devices: Systems and methods for remote interaction with pets or environments, inclu ding audio-visual recording and light emission functionalities.

Automated Video Recording Devices: Systems for recording videos automatically, adjusting focus and zo om based on the subject’s location and velocity.

Autonomous Photography and Videography Systems: Aerial systems for autonomous photography and vi deography, including processing systems and optical systems for target detection and camera control.

Remote Aerodromes for UAVs: Providing safe storage for UAVs with features like foldable flight decks an d service interfaces.

Navigation and Control for Subsea Vehicles: Systems for controlling subsea vehicles using sensor data a nd artificial intelligence, with user interfaces for task selection and execution.

X-Ray Inspection Devices Using Drones: Drones equipped with x-ray generators and detectors for inspect ion purposes.

Thermostats with Interactive Features: Thermostats that display various types of data and interact with a menities in residential properties.

Battery Power Management in Thermostats: Thermostats with controllers for battery power management and wireless transceivers for communication.

UAV Obstacle Avoidance Systems: Systems for UAVs to avoid obstacles using lens modules and infrared

technology.

Home Automation Systems: Systems that allow remote control of various home devices like garage doors and gates.

Aircraft with Advanced Flight Systems: Aircraft equipped with multiple rotors and remote control units for data processing and flight attitude detection.

Artificial Intelligence Robots for Object Recognition: Robots using cameras and AI to recognize objects and perform tasks based on speech commands.

Remote Controlled Cameras for Cell Phones: Extendable cameras attached to cell phone cases for remote operation, particularly useful for taking selfies.

Delivery and Retrieval Systems for UAVs: Systems utilizing UAVs for the delivery of items and their retrieval using various methods.

Systems for Navigating Mobile Robotic Devices: Methods for mobile robotic devices to navigate and yield to high-priority traffic using wireless transmissions.

Remote Controls with Passive Components: Systems that use passive components in remote controls to generate commands for various devices.

Remote Control for UAV Flight: Systems that use IP addresses and local networks for remote control of UAV flights.

Enhancements in Robots for Various Tasks: Mechanical robots enhanced with features like audio data processing, navigation assistance, and task-specific functionalities.

Autonomous Underwater Vehicle for Marine Seismic Survey: This involves an Autonomous Underwater Vehicle (AUV) equipped with a seismic sensor and an anchoring system to record seismic signals in marine surveys.

Audio Control System with Electromagnetic Cradle: A system that receives audio commands and performs various functions like playing music, lighting, and shaking a cradle, controlled through a cloud server.

Home Cleaning Robots: Robots that autonomously navigate and clean, equipped with various sensors and controlled remotely, potentially through a smartphone.

Velocity Control and Navigation for Autonomous Vehicles: Systems that use image recognition to control the velocity of autonomous vehicles, especially when navigating curves based on observed characteristics.

Drone Weapon Systems: UAVs equipped with a recoil compensator and modified firearms, controlled remotely.

Intelligent Vehicle-Drone Interaction: A method for drones to interact with and inspect vehicles by using vehicle specification data to position the drone for inspection or interaction functions.

Autonomous Search Light System on Aircraft: This system involves a search light mounted on an aircraft, equipped with RF receivers to control the light based on the position of an RF transmitter.

Intelligent Sound Field Control System: A system that controls indoor acoustic parameters through various devices like tablets, computers, and motion control devices, aiming to integrate and enhance sound field

modulation.

Floor Sweeping Robot Controlled by Smartphone: A robot with various cleaning and monitoring mechanisms, controlled via a smartphone and capable of transmitting real-time cleaning videos and environmental information.

Remote Monitoring Using Smartphones: A method where a smartphone mounted on a cradle is controlled remotely to change the captured image area, involving pan and tilt controls.

Radio Frequency Device Detection and Intervention: Systems to detect, characterize, and engage unmanned vehicles using radio frequency signals, particularly for security in monitored zones.

UAVs for Surveillance Services: UAVs used for delivering packages and performing surveillance actions, with mechanisms to ensure privacy by obscuring adjacent properties.

Laryngoscope System: A system that includes a laryngoscope with a deployable camera and light for medical examination, capable of wireless communication with a display unit.

Remote Control Systems with Ambient Noise Sensor: Systems where a remote control device adjusts its functions based on the distance from the receiver and ambient noise levels.

Autonomous Aerial Vehicle Airspace Management: Systems for managing and announcing reserved zones within a facility, using autonomous aerial vehicles.

Backup Navigational Tools for UAVs: Methods for UAVs to navigate using backup tools like image sequences and flight simulators when GPS fails.

Audio Data Collection by UAVs: UAVs designed to collect audio data while canceling background noise, using specialized microphones.

Robotic Systems with Camera-Based Distance Detection: Systems where a robot adjusts its camera zoom based on the detected distance of an object.

Tethered Drones: Drones that receive power from a mobile base station via a tether, allowing extended flight times and avoiding battery reliance.

Horizontally Polarized Antennae for UAVs: UAVs equipped with mechanically steered, horizontally polarized antennae for improved communication capabilities.

Horizontally Polarized Antennas for UAVs: Mechanically steered, horizontally polarized directional antennas are incorporated in UAVs. These systems include a planar substrate with embedded antennas, a rotation member, an actuator, and a communication controller to control the beam of radiofrequency (RF) waves.

Battery Systems for UAVs: UAVs equipped with a main body, propulsion assembly, and a rechargeable battery. The battery is connected to a power receiving coil for non-contact power feeding, enhancing the UAV’s operational efficiency.

Dynamic Lighting in Robotic Environments: Systems that include articulated arms and end effectors with lights that respond to known or anticipated movements. These systems are designed to enhance interaction between humans and robots in various environments.

Mobile Device Interface for Building Automation: A mobile device graphical user interface (GUI) for remotely monitoring and interacting with building automation systems. This technology allows users to receive s

tatus data from the systems and interact with them remotely.

Autonomous Landing Using 3D Evidence Grid: A method for the autonomous landing of UAVs involving t he creation of a three-dimensional evidence grid. This grid combines sensor data and prior knowledge to l ocate and validate landing zones, even in challenging conditions like pitching or rolling surfaces.

Feeling Effect by UAVs: UAVs equipped with devices to show feeling effects through visual and audio ele ments. This technology is used to enhance the expression and interaction capabilities of UAVs.

Acoustic Data Collection via UAVs: Systems using UAVs equipped with antenna arrays and multiple micr ophone elements for collecting and processing acoustic data. These UAVs are typically remotely controlle d.

Removable Battery for UAVs: UAV designs where the battery unit is detachably coupled to the main body of the UAV, with part of the battery exposed outside for easy access.

Surgical Instrument Use Prediction: A surgical robotic system that estimates the number of uses remainin g for a surgical instrument and enables or disables it based on this prediction.

Drone Box for UAV Storage: A storage unit for UAVs, including a container with a landing platform and a r eceptacle. The platform guides the UAV to a predetermined landing position.

Remote Control Alarm Device: A remotely controlled alarm device that includes visual and auditory alertin g components, a power source, a control box, and a radio receiver. This device can be activated from a di stance using a radio emitter.

RFID Tag-Based Pairing for Remote Control: Systems and methods for initiating pairing and de-pairing pr ocesses between a controlled device and an RF remote control using RFID tags. The system identifies th e unique identifier of the remote control for subsequent operations.

UAV Systems for Monitoring and Maintaining Luminaires: Systems involving UAVs to monitor and maintai n lighting fixtures (luminaires). These UAVs diagnose and identify issues causing faulty conditions in the l uminaires.

RFID Tag Pairing: A system where an RFID tag initiates an automatic pairing process with a remote contr ol when in proximity, identifying the unique identifier of the remote control for subsequent commands.

Underwater Drone with Multi-Shooting View: An underwater drone equipped with multiple image capturing modules for comprehensive imaging capabilities.

Mobile Robot Calling System: A system that uses RF and infrared signals to call and direct a mobile robot , enhancing user convenience.

Autonomous Fall Monitor with Sensor Compensation: A device for monitoring and detecting body movem ents, equipped with sensors like accelerometers and gyroscopes, and an altimeter to measure altitude ch anges.

Compact and Protected UAV Designs: Various designs of UAVs, including a tri-rotor system and models with protective outer cages, for improved durability and functionality.

Aerial Photography Systems: Systems incorporating UAVs with cameras and gimbals for precise aerial ph otography, including methods to measure the position of the UAV during photography.

Display Systems on UAVs: UAVs equipped with screens to display images or videos, potentially used ove

r water or in other settings.

Autonomous Anonymity System: A system involving a universal access transceiver designed to selectivel y notify about authorized autonomous aircraft operations.

Electronic Apparatus for Wi-Fi Connectivity: Voice-assisted devices that facilitate Wi-Fi connectivity with e xternal electronic apparatuses by processing voice commands and authentication information.

High-Definition Video for Small UAVs: Specialized sensor systems designed to provide high-definition vid eo capabilities for small UAVs.

Digital Assistant Engagement Methods: Methods for digital assistants to interact with users based on the current state of the user and the surrounding environment.

Controlling Autonomous Vehicles for Transport Services: Systems for controlling autonomous vehicles, in cluding determining proximity to users and executing non-driving operations to facilitate vehicle use.

Drone Landing Systems: Innovative systems for drone landing, including rotating surfaces and protective mechanisms for efficient and safe drone storage and deployment.

Autonomous Digital Media Processing: Systems with AI-enabled cameras for automatic video recording, processing, and activation in various locations.

Remote Interaction with Unmanned Aerial Vehicles: Methods for interacting with UAVs, including live stre aming and real-time video sharing capabilities.

Remote Control of Surveillance Robots: Devices that allow remote control of surveillance robots, including capabilities for cutting wires and other operational functions.

Autonomous Vehicle Base Stations: Efficient and automated systems for loading and unloading unmanne d vehicles with various built-in functionalities.

Home Security Systems with UMTS Networks: Advanced home security devices that utilize UMTS cellular networks for remote monitoring, control, and alerting.

UAV Rental and Dispensing Systems: Systems for renting and dispensing UAVs, featuring vending devic es with various functionalities like launch, recovery, and data transfer.

Communication Monitoring Systems: Systems comprising wireless exterior modules near entrances, equi pped with sensors, cameras, and speakers for monitoring and communicating with visitors.

Audio-Video Communication System: A system including a wireless exterior module near an entrance, eq uipped with sensors, a video camera, a microphone, and a speaker to detect and record the presence of a person. It communicates with a computerized controller and a remote peripheral device for monitoring a nd interaction.

Smart Satellite Antenna for Emergency Situation Detection: An apparatus with a satellite tracking antenna and controller for selecting satellite broadcast channels and managing multicasting networks. It enables s haring of satellite broadcast content among multiple wireless devices.

Unmanned Aerial Vehicle Communication Management: Systems and methods for managing UAV comm unications, including receiving commands and establishing communication tunnels for secure and efficien t data transfer.

Programmable Remote Control for Home Electronics: A remote control unit with a built-in microphone for receiving data and a transmitter for controlling various electronic devices based on selected remote control signal protocols.

Method for Creating a Model of an Object Using a Drone: A method involving a rotary-wing drone equipped with image recording apparatus to capture overlapping images of an object for model calculation.

Electronics System with Universal Remote Controller: A system that includes an electronic appliance, a video camera, and a universal remote controller. It uses mirrored images of the operator for interactive control.

Lock Operation Method: A method for operating a lock that responds to wireless commands from a trusted device within a selectable proximity range, enabling or disabling the lock accordingly.

Autonomous Digital Media Processing Systems: A system for monitoring, recording, and processing activities using AI-enabled cameras and a network media processor for automated validation and recording requests.

Aircraft System for Scanning and Analyzing Object Damage: An aircraft, such as a helicopter or drone, equipped with a scanner and high-resolution cameras for recording images and analyzing surface damage of an object.

Remote Controller for Biped Robot: A remote controller designed to control the movement of a biped robot, taking into account the stability and attitude of the robot.

Unmanned Aircraft with Sound Processing Capabilities: An unmanned aircraft equipped with sensors, including microphones, to process sound data and adjust its operation based on sound source direction and quality.

Unmanned Aerial Vehicle Recognition and Threat Management: Systems and methods for automated recognition of UAVs using AI algorithms, signal processing, and direction finding engines to detect and classify signals from UAVs and their controllers.

Alert System for Unmanned Aerial Vehicles: An alert system for UAVs used in aerial transportation and delivery, equipped with sensors to detect environmental variables and generate status alerts based on predefined thresholds.

Methods for Autonomous Tracking and Surveillance: A system that autonomously tracks and provides surveillance of targets using UAVs, predictive algorithms, and various modules for target recognition and tracking.

Apparatus for Controlling Posture of Radio-Controlled Helicopter: An apparatus for remotely and safely controlling the posture of a radio-controlled helicopter, using angular velocity measurements and manipulated variable determinations.

Transducer Device and Control Method for Autonomous Devices: A transducer device used in autonomous devices for detecting environmental changes and responding appropriately using different transducer components.

Ground Independent Lifting System: A lifting and transportation system using aerostats and drones capable of lifting significant workloads, suitable for various applications.

System for Authenticating Users in Robotaxis: A system involving smartphones and authentication servers to authenticate users for robotaxis using digital keys and authentication numbers.

Aerial Photography Device and Method: A device comprising an unmanned aerial vehicle and ground-based audio acquisition modules for synchronized video and audio capture and synthesis.

Vehicle Altitude Restrictions Control for UAVs: A system in UAVs to abide by and operate in compliance with received sets of altitude restrictions, based on their current locations.

Autonomous Underwater Vehicle with Buoy Ejection System: An underwater vehicle equipped with a buoy connected by a rope, and a compressed gas ejector for floating to the surface.

System for Testing Wireless Communication Devices: Relates to testing wireless communication devices, possibly in the context of UAVs or similar technologies.

Testing Wireless Communication Device in UAVs: A method for testing wireless communication devices installed in UAVs, involving transmitting test packets and analyzing response data via a cloud communication channel.

Controller for Indoor Environment Adjustment: A system that automatically adjusts indoor environments using sensors and smart home devices, based on collected indoor environment parameters.

Robots with Control and Power Supply Boards: Robots featuring a base and arm, with a control board for driving the arm and a power supply board to provide electric power.

Device for Controlling Sound Reproducing Devices: A device that controls sound reproducing devices based on motion detection and azimuth information, ensuring the device is controlled within a pre-set range.

Comprehensive Smart Assistant Services: An apparatus that supports smart assistant services by processing user utterances and constructing feedback based on responses from different smart service providers.

Tube-Launched UAVs with VTOL Capabilities: UAVs designed for vertical takeoff and landing, launched from a tube using a housing transition mechanism.

Autonomous Vehicle Safety Systems: A safety system for autonomous vehicles that uses Bluetooth receivers to disable the engine control unit and engage vehicle brakes based on proximity signals.

Snubber Elements in UAVs: UAVs featuring a sensor system with outer shells and inner gimbals, where extendible snubbers couple the inner gimbal to the outer shell for vibration isolation.

Robots Assisting Users with Hearing: Robots equipped with speakers and microphones to assist users with hearing by generating assistant sounds that amplify or convert certain frequency bands.

Automated Air Traffic Control Services for Airports: A system for automating air traffic control operations near airports, eliminating the need for human controllers and reducing runway incursions.

Camera Systems for Driver Protection: A system including internal and external visual recording units, controlled remotely and used to record audio and video data for safety purposes.

Security Patrol Hexapod Robot: A hexapod robot designed for security patrolling in various environments,

featuring terrain adaptability and environmental detection alarms.

Rotary Wing UAV with High Lift Capabilities: A UAV with an elongate body and pressurizing arrangement for propelling air through openings to create lift.

Remote Control Device for Changing Lighting Bulbs: A device that enables the remote and safe changing or inspection of lighting bulbs set at high altitudes.

Dynamic Control of UAV Using Reconfigurable Intelligent Surface: A method for establishing direct communication with a UAV, using a reconfigurable intelligent surface to compensate for oscillations and steer signal beams.

UAV Authentication Method and System: An authentication method for UAVs that generates session keys and encrypts them for secure communication.

Automatic Safety Parachute Deployment for Drones: A system that deploys parachutes for drones under certain aerodynamic conditions, activated mechanically without electronics or batteries.

Automatic Building System Control with Access Restrictions: A method controlling building systems by validating action requests with tokens to adjust building devices.

Keypad Projection for Security Automation Systems: A method that projects external displays of home automation system information based on the user's proximity to the home automation device.

Detection and Communication of Safety Events by UAVs: A UAV system that detects safety-related events and communicates them to a safety server, especially useful when network connectivity is low or unavailable.

Marine Surface Drone for Underwater Environment Characterization: A marine drone equipped with a multi-beam sonar system for creating three-dimensional images of underwater environments.

Automatic Takeoff Control Strategy for Small Unmanned Helicopters: A strategy for automatic takeoff of small unmanned helicopters, involving engine control and collective pitch adjustments for stable takeoff and landing.

Remote Control Programming Using Images: A remote control device that identifies and programs itself to control other devices based on captured images.

Air Mobility Control Method: A method involving a GNSS receiver and antenna array controller to control the direction of wireless signals for communication targets.

Telematics Process for Helicopters: A telematics method using mobile telecommunications networks for weather guidance, obstacle warning, and connection to logistics processes in helicopter operations.

Systems for Detecting UAV Propellers: A propulsion assembly for UAVs that includes sensors to determine whether a propeller is properly locked onto the propeller seat.

Dynamic Communicative Lighting in Robotic Environments: A robotic system using illuminated lights to convey known or near-future movements of articulated arms to persons in the environment.

Removable Sensor Payload for UAV Media Capture: A UAV equipped with sensors for capturing images and measurements of properties, used for property analysis and defect detection.

UAV Deployment from a Ground Station on a Train: A system that deploys UAVs from a train-mounted ground station based on signals indicative of conditions or events detected by the UAV's sensors.

Weather Radar Image Control for Aircraft: A device controlling the display of weather radar images on bo ard an aircraft, improving navigation and safety.

Payload Release and Tracking for UAVs: Various UAV systems equipped with retractable payload deliver y systems that use image tracking to accurately lower and release payloads at specific ground locations.

Autonomous Mobile Apparatus for Mobility and Safety: An autonomous mobile apparatus that moves near a master object, with a camera and sensors to detect danger levels and act accordingly.

Heat Transfer Pipe Inspection Using Drones: A system employing drones equipped with GPS and thermal imaging cameras to inspect heat transfer pipes and detect ruptures.

Hybrid Unmanned Aerial Vehicle: A UAV with a hybrid power system combining battery and liquid/gaseou s fuel power sources, featuring a cooling system and a configurable deflector frame for temperature mana gement.

Hybrid Autonomous Control for Electric Aircraft: A system for electric aircraft combining sensors and flight controllers to manage flight based on various data inputs.

Voice Recognition for Vehicle Control: A voice recognition apparatus in vehicles that adjusts guidance me ssages based on user listening patterns.

Handheld Device for UAV Data Display: A handheld computing device that captures and displays UAV id entification data, enhancing situational awareness and tracking.

Remote Controlled Toy Aircraft for Confined Spaces: A toy aircraft designed for indoor use, featuring a re mote control device with a flexible cable for power and control.

Media System Architecture with Smart Devices: A media system incorporating smart devices for enhance d multimedia experiences.

Drone Vehicle for Railroad Maintenance: A drone equipped with workheads and a control system for perf orming maintenance tasks on railroads.

Aerial and Ground Vehicle Coordination: A system for coordinating aerial vehicles with ground vehicles, u sing captured images to navigate and rendezvous at a target location.

Voice Activation for Smart Assistant Devices: A method for authenticating users and provisioning services via voice recognition on smart assistant devices.

Robot Operation with Environment Sensing and Object Location: A robot that generates a representation of its environment, receives control data to locate objects, and transmits the locations back to the user.

Controller for Autonomous Vehicle Emergency Response: A controller for autonomous vehicles that detec ts emergency vehicles and takes appropriate actions to ensure safety.

Autonomous Anonymity System for Drones: A system providing notification of authorized autonomous air craft operations, ensuring privacy and security.

Electronic Control Device with Dynamic Function Allocation: A remote control device with a touchpad who se functions change dynamically based on its orientation.

Cloud-Based Alarm System for Security Monitoring: A low-cost security system using wireless alarm sens ors, cloud applications, and local base stations for threat detection and reporting.

Construction Site Planning with Autonomous Vehicles: A system for controlling autonomous construction vehicles, identifying site boundaries and slopes, and creating path plans accordingly.

Remote Control Projection Camera System for Augmented Reality: A device that creates an augmented r eality environment by projecting images and mapping the depth of objects in a room.

Electronic Apparatus for Autonomous Imaging and Flying: A method for controlling an external imaging de vice, such as a drone, via a wireless connection to an electronic device.

Home Automation System for Safety and Security: A home automation system interconnected with a safe ty and security system, using radio links and local or remote signaling devices.

UAV Charging Platform: A UAV with a charging platform and contact charging pads on its arms, allowing f or efficient power management.

Ephemeris Data Loading for Drones: A method for loading satellite ephemeris data onto drones to improv e geolocation accuracy.

Automatic Takeoff and Landing Control for Aircraft: A control device for aircraft featuring local and GNSS t racking devices and cameras to determine the aircraft's position.

User Interface with Position Awareness for Lighting Control: A remote control device that detects its locati on relative to lighting systems and controls the nearest light source.

Autonomous ISR and Payload Delivery System: An autonomous aerial vehicle system capable of self-mo nitoring and calculating a 'soft wall' radius for safe return to a command control station.

Systems for Restricting Drone Airspace Access: Methods and systems for providing conditional access to drones in restricted areas based on specific access parameters.

Still and Video Camera System with Remote Controller: A camera system with a remote controller for ope rating the camera and transmitting image data to external devices.

Remote Operation of Doors: A system for remotely operating doors using a mobile device, intermediary pr ocessing server

Scanning Data Shaping for Autonomous Flight: Technology for shaping the flight path of UAVs by analyzi ng surface image data and adjusting image resolution based on the distance to objects, extracting altitude values for navigation.

Mobile Robot Calling Apparatus: A system for calling and directing a mobile robot using RF and infrared si gnals, enhancing user convenience in controlling the robot's movement.

Home Monitoring and Control Systems: A method implemented via a doorbell system that wirelessly notifi es a monitoring device about a person's presence, capturing video data for remote viewing.

UAV Data Processing and Management System: A comprehensive system providing a unified interface fo r managing and sharing multimedia information, including UAV video, photos, and social media content, w ith an emphasis on data privacy and security.

Remote Maneuvering of UAV with Communication Latency: A system to facilitate accurate maneuvering o f UAVs remotely, compensating for communication latency through a video feed and interactive markers.

Autonomous Mobile Robot Checking System: A system combining UAVs and autonomous mobile devices for sensing and checking stacked goods, with a transmission line supplying power to the UAV.

Digital Voice Assistant Operation System: A system that uses a voice recognition module to process voic e commands and perform corresponding operations on electronic devices.

Snow Plow Mode for Autonomous Driving: An autonomous vehicle equipped for snow removal, operating in a mode that clears snow, hail, leaves, and debris from various surfaces.

Voice-Enabled External Smart Processing System for Display: A system with sensors and processors to i nitiate voice assistant sessions and display visual output based on audio signals.

UAV with Protective Frame Configuration: A UAV design featuring a monolithic uni-body frame with a prot ective barrier for increased structural integrity.

Drone Glass Breaker and Airborne Manipulator System: A UAV equipped with a glass breaker and a mani pulator arm system for payload placement and remote operations.

Visualization and Modification of Operational Zones Using Augmented Reality: An AR system for visualizi ng and modifying operational zones of robots, highlighting zone violations, and uploading operational zon es to the robot controller.

Two-Sided Toy Vehicle: A remote-controlled toy vehicle with high speed and maneuverability, featuring inf rared communication and various stunt capabilities.

Local Positioning System for UAV: A UAV system for inspecting infrastructure, capable of maneuvering in hard-to-reach locations and equipped with sensors for navigation and inspection.

Operating Device for UAV Search and Control: A system for searching and capturing a lost UAV, using la ser light and location data for accurate tracking and control.

Drone Box for UAV Storage: A storage unit for UAVs, featuring a landing platform and receptacle for guidi ng UAVs to a predetermined landing position.

Electronic Device Control Method: A method for controlling electronic devices using cameras and process ors to capture images and determine distance information for various applications.

Enhanced Security Access Control Systems: A system for enhanced security access control, involving us er devices and a network of first and second devices for generating alerts in case of security breaches.

Device for Automating and Controlling Machine Tools: A device for automating and controlling machine to ols and production machines, featuring remote controllers connected wirelessly to the machines.

Remote-Controlled Decoration: A decoration with an internal LED light controlled by a remote signal trans mitter, enabling remote operation.

UAV with Active Noise Cancelling: A UAV equipped with a system for active noise cancellation, using ope rational information of the UAV to generate opposite phase signals.

Remote Control for Audio Signal Playing Apparatus: A remote control system for TVs and Hi-Fi sets, whic h adapts to incoming telephone signals by reducing or eliminating sound levels when the phone rings.

Unmanned Aerial Vehicle (UAV) for Advertising: A UAV equipped with a non-planar display medium for di splaying images, used for advertising purposes.

Uninhabited Airborne Vehicle Flight Refueling System: A system for automated air refueling of UAVs, incorporating positioning, collision avoidance, voice processing, and image processing components.

Endoscopic Marker Implementation: A wireless endoscope with an RF transmitter and dye container for marking tissue, controlled remotely for precise medical procedures.

Aerial Vehicle with Deployable Components: A UAV design featuring stabilizers that pivot and can be arranged in compact or deployed configurations.

Autonomous Airworthiness Pre-Flight Checks for UAVs: A method involving a series of pre-flight checks, including hovering and sensor data evaluation to ensure UAVs' readiness for flight.

Parcel Chute for Drone Delivery: A system involving a parcel chute attached to a building or balcony for receiving deliveries from unmanned aircraft.

Automated Airport Air Traffic Control Services: A standalone or semi-automated system to manage air traffic near airports, reducing the need for human controllers and improving safety and efficiency.

UAV Techniques for Securing Payload in Desired Orientation: A UAV system with a tether and payload coupling apparatus for securing and orienting payloads during flight.

Drone Detection, Identification, and Location System: A system for illuminating and identifying drones using radio frequency emissions, creating an RF signature for each drone.

Controlling Method for Autonomous Vehicles: A method for autonomous vehicles to follow a line track using cameras and computing devices, ensuring accurate navigation.

Electronic Device Controlled by Motion: An electronic device that recognizes object motions and performs control operations based on these motions.

Robotic System with Synthetic Array Radar and Passive Beacons: A system enabling robots to navigate and perform operations based on signals from a synthetic array radar and markers.

System and Method for Accessing Devices: A method involving remote execution of commands for accessing and controlling various devices.

Autonomous Vehicle Control Using Depolarization Ratio of Return Signal: A control system for autonomous vehicles using laser sources and polarized signals to operate the vehicle based on reflectivity ratios.

Voice-Activated Real Estate Access Control: A method for controlling access to real estate properties using voice commands processed by a language processing system.

LiDAR System for Autonomous Driving: A system using light emitters, scanners, and signal processors to enhance autonomous vehicle navigation.

Small-Sized Rotating Flapping Wing UAV: A compact UAV with rotating flapping wings, suitable for various tasks like aerial photography and reconnaissance.

Wearable Robot Control Method: A method for controlling a wearable robot using electrical signals from the wearer's scalp to estimate and match walking speeds.

Systems for Autonomously Backing a Vehicle into a Dock: Techniques for autonomous vehicles to back into target objects like docks or garages, using autonomous modules for navigation.

Communication Device for Remote Control: A method for remotely controlling various devices in a buildin g using a handheld mobile device.

Autonomous Mobile Robot with Security Features: A mobile robot designed to detect dangerous situation s and alter its movement accordingly for safety.

Unmanned Vehicle Maintenance: A UAV with a unique blade and auxiliary rotor design for enhanced mai ntenance and operational flexibility.

Remote Active Camera and Control Method: A camera system with a gimbal unit, memory, and tracking u nits for controlling the camera's direction and tracking designated targets.

Security Device with Camera for Image Capturing: A security device that activates a camera in response t o specific audio data, enhancing security monitoring.

Presenting Location-Related Information Based on Gaze, Gesture, and Voice Detection: A system that pr esents information and executes tasks based on user interaction through gaze, gestures, and voice com mands, such as determining destinations for autonomous vehicles or products for purchase.

Voice Detection Systems: Systems that present information or execute tasks based on user interaction su ch as gaze, voice commands, or gestures. This includes determining destinations for autonomous vehicle s based on partial voice inputs and gestures.

Remote Control for Emergency Lighting: A smartphone or tablet-based system to send optical commands to emergency lighting equipment, using flashes to transmit coded luminous messages.

Method and Apparatus for Handover: A technology for transferring control information between base stati ons in a network, enhancing communication reliability.

Robotic System for SPECT Imaging: A robotic arm with a patient support assembly to move SPECT imagi ng detectors around a patient's body, improving diagnostic imaging.

Autonomous Vehicle Passenger Transfer System: An autonomous vehicle system that facilitates passeng er transfers between vehicles, improving efficiency and convenience in transportation.

Remotely Positionable Light: A work light assembly with radio frequency controls, allowing remote adjust ment of light positioning.

Remote Control Device for Robots: A device for controlling robots with features like secret number inputs and function selection switches.

Unmanned Aerial Vehicle (UAV): A tail-sitter flying wing UAV design, suitable for vertical take-off and land ing with electrically powered rotors.

Robotic Retrieval Apparatus: A robot designed for fetching objects from storage units like refrigerators, au tomating tasks in various settings.

Sonotube Deployable Multicopter: This UAS includes a multicopter stored inside a compact, cylindrical co ntainer (sonoshell). The multicopter features rotors on extension arms radially extending from a central pi vot device, allowing for compact storage and expanded deployment.

Voice Control System for Recreational Vehicles: A system for controlling RV components like antennas a nd awnings using voice commands. It monitors the status of these components and ensures safe operatio

n.

End-to-End Unmanned Control System for Aircraft Navigation: A control system that gathers and process es radio frequency signals from navigational aids and surveillance systems, used in UAVs for enhanced n avigation and surveillance.

Autonomous Driving Device: This device includes a navigation system that searches for multiple routes fr om a diverging point to a target, allowing the vehicle to adaptively control its path.

Waterproof Remote Control: A remote control designed for durability and water resistance, featuring a wat erproof mask and a tight seal around the battery compartment.

First Response Locator System: An emergency locator with a lighting unit, speaker, and an internal contro ller. It can be operated remotely and is used to indicate emergency locations.

Self-Leveling Integrated Lifting Device: A device used for lifting and self-leveling various structures and ve hicles, including aircraft and watercraft, ensuring safety and efficiency.

Instructing Unmanned Aerial Vehicles to Land: A system for managing UAV landings, particularly for deliv ery purposes. It selects optimal landing locations based on various datasets.

Using Drone Data for Autonomous Vehicle Navigation: A method where UAVs collect sensor data to creat e high-definition maps for autonomous vehicle navigation.

Extended Reality (XR) Device Control Method: A method for controlling XR devices using location and dir ection information to place augmented reality objects in the user's environment.

Unmanned Plane Control Handle: A portable and miniaturized control handle for unmanned planes, featur ing a detachable intelligent device and control components for flight control.

Unmanned Aerial Vehicle Management System: A system that selects distribution centers and deploys U AVs to fulfill user requests, providing real-time flight information and dynamic mission updates.

Robot Operating Method: A utility robot capable of switching between autonomous and manual modes ba sed on recognized signals from a control device.

Automated Access Device Interaction Processing: A method for forming a local data connection between a mobile device and an access device, allowing for voice command-based interactions.

Method for Capturing Video with Drones: A technique for capturing video using a fixed-wing drone, accou nting for the drone's drift angle to obtain video with reduced dimensional distortion.

Indoor Drone Navigation Support System: This technology focuses on positioning drones in environments where GPS access is limited or unavailable, like indoor or enclosed spaces. The system and method ena ble precise positioning and maneuvering of drones in these settings.

Transportation Systems Using UAVs: This involves a UAV station equipped with a landing platform and a payload receiving structure for attaching and receiving payloads. The system uses optical sensors to mon itor the surrounding airspace for obstacles and a communication interface for managing takeoff and landin g operations based on sensor readings.

Drone-Based Event Reconstruction: This method involves using drones for oversight at locations with a hi gh potential for collision or accidents. It includes recruiting and dispatching drones to gather sensory data, which is then analyzed to reconstruct events at the location.

Target Tracking for UAVs: This technology relates to a method where UAVs use visible light and infrared cameras for tracking targets. It involves controlling these cameras to lock on and track a target, even whe n it’s momentarily lost from one camera’s view.

UAV Data Processing and Management: A system that integrates various data sources, including UAVs, t raffic cameras, and social media, for comprehensive data analysis. It emphasizes data privacy, security, a nd an interface for easy searching and sharing of multimedia information.

Automated Drone Package Receiver Module: This is a structure designed to securely receive packages d elivered by UAVs. It features a mechanism for detecting drones and safely handling package delivery and storage.

Control Devices for Marine Seismic Streamers: These devices, known as ’birds’, are designed to control t he position of marine seismic streamers. They have flexible bodies and independently controllable wings f or lateral and depth adjustments.

Autonomous Vehicle Systems and Methods: These systems focus on enhancing the experience for occup ants of autonomous vehicles. They include features for autonomously acting based on internal and extern al events, personalizing the vehicle settings, and facilitating various activities inside the vehicle.

Foldable Remote Controller: A device for remotely controlling a multimedia network, capable of transmittin g and receiving signals and communicating with the internet.

Maintaining Network Connectivity for UAVs: Methods and systems to ensure consistent network connecti vity for UAVs during flight, including managing interference events and adjusting flight channel allocation.

Integrating Autonomous Devices with Access Control Systems: This involves methods for integrating auto nomous devices with security systems, using security credentials for access control.

Voice Assistant Activation Method: A method for activating a voice assistant function on mobile devices, a djusting to the context and environment based on various sensors and data inputs.

function modified in light of the situation The voice assistant function is activated by a method that detects the target keyword input sound stream and adjusts the threshold based on the detected target keyword. The apparatus adjusts the detection threshold to activate the voice assistant function. The disclosed mobil e device method comprises of receiving input sound stream and using a sound sensor to determine conte xt. The method can also obtain data indicative of context based on input sound stream and mobile device method At least one location sensor, proximity sensor, illumination sensor, clock unit, calendar unit, and a cceleration sensor on a mobile device method apparatus adjusting detection threshold activating voice as sistant function:method activating voice assistant function;context-based method detects target keyword i nput sound stream-based adjusted threshold target keyword detected method activates voice assistant fu nction

apparatus for building smart appliances with information control technique thereof:equipment for building device information control smart appliances with a camera component that creates multiview images and reconstructs multiangle images

uninhabited airborne vehicle flight refueling system: method system provided performing automated air ref ueling uninhabited airborne vehicles. photographing indoor space using depth camera generates data usi ng generated multi view images. home device controller constructs space using generated data. construct s device profile controlling operation device controlled designated user combination spatial data device co ntrolled constructed space. The combination positioning system, air collision avoidance system, voice pro

cessing system, image processing system, flight controller, and wireless data link connecting the uav tanker refueling components are all part of the uavs method system.
ACAS receives position data from aircraft, uavs, tankers, and wireless data links; on the basis of this data, it generates navigation instructions.