



# SmartLivingPlat

Plataforma Tecnológica de la Domótica  
y las Ciudades Inteligentes



## Boletín de Vigilancia Tecnológica

MAYO - JUNIO 2024

SMART BUILDINGS  
SMART CITIES  
INDUSTRIA 4.0

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# NOTICIAS

## European Research Area: Commission presents joint research and innovation agenda on solar energy

Publicada en ec.europa.eu, 25/06/2024

Today, the Commission published the Staff Working Document (SWD) entitled 'Solar energy joint research and innovation agenda with Member States in the context of the European Research Area (ERA)'. To grow the solar industry in Europe and to become a major player in the clean energy transition



[Ver más..](#)

## MSA whitepaper: Energy Efficiency: Using Cloud Connectivity to Take Control of Energy Consumption

Publicada en msasafety.com, 25/06/2024

Data center energy metering is critical and building energy efficiency requires a cost-effective solution. Find out how you can easily access critical energy usage data through API or web services as part of your overall IoT based energy management infrastructure by downloading our latest white paper, Energy Efficiency: Using Cloud Connectivity to Take Control of Energy Consumption.



[Ver más..](#)

## BIM Today June 2024: The AI Issue

Publicada en pbctoday.co.uk, 15/06/2024

Welcome to the June 2024 edition of BIM Today. This issue explores how artificial intelligence is already starting to reshape the built environment and what the future will hold, from design and build to innovation, sustainability and jobs

[Ver más..](#)



## Generative AI Handbook: A Roadmap for Learning Resources

Publicada en axios.com, 5/06/2024

This document aims to serve as a handbook for learning the key concepts underlying modern artificial intelligence systems. Given the speed of recent development in AI, there really isn't a good textbook-style source for getting up-to-speed on the latest-and-greatest innovations in LLMs or other generative models

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## EU Approves Historic AI Act: Pioneering Comprehensive AI Regulation

Publicada en [vcsi.org](https://vcsi.org), 25/05/2024

EU AI Act, AI regulation, European Union, AI law, AI compliance, technology regulation, AI applications, high-risk AI, AI penalties, AI legislation, AI transparency, AI accountability, AI ethics, AI innovation.

[Ver más..](#)



## International Scientific Report on the Safety of Advanced AI

Publicada en [assets.publishing.service.gov.uk](https://assets.publishing.service.gov.uk), 24/05/2024

This is the interim publication of the first 'International Scientific Report on the Safety of Advanced AI'. A diverse group of 75 artificial intelligence (AI) experts contributed to this report, including an international Expert Advisory Panel nominated by 30 countries, the European Union (EU), and the United Nations (UN).

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## Commission compels Microsoft to provide information under the Digital Services Act on generative AI risks on Bing

Publicada en [digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu), 17/05/2024

The Commission steps up its enforcement actions against Microsoft: following an initial request for information sent on 14 March regarding specific risks stemming from Bing's generative AI features, notably "Copilot in Bing" and "Image Creator by Designer", the company now has until 27 May to provide the requested information to the Commission.

[Ver más..](#)



# EMPRESAS Y MERCADOS

## Akenza Introduces 3D Building Twins for Advanced Data Visualization

Publicada en euroclear.com, 26/06/2024

Akenza has announce the launch of its 3D floorplan component, which enables the visualization of building data into highly customizable digital twins. This new feature is set to improve how facility managers, workplace managers, and real estate owners visualize and interact with building data.



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## Announcing a new generation of data intelligence for capital markets

Publicada en smartbuildingmag.com, 26/06/2024

Mosaic Smart Data (Mosaic), the real-time capital markets data analytics company, has launched a next generation data intelligence service, Smart Markets, powered by financial markets infrastructure provider Euroclear's fixed income data including government and corporate bonds.

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## EnOcean: Efficient and cost-effective solution for the energy transition in existing buildings

Publicada en smartbuildingmag.com, 17/06/2024

The European Energy Performance of Buildings Directive (EPBD) promotes the use of renewable energies in the building sector and initiate an energy transition to strengthen climate protection.

[Ver más..](#)



## Keyper: The Robot Dog Ensuring Safety in Industrial Plants

Publicada en keybotic.com, 13/06/2024

Industrial plants are unique environments where safety and the monitoring of multiple parameters demand significant technical and human efforts. The startup Keybotic was established to revolutionise robotics in sectors such as the chemical industry, mining, energy companies, and critical infrastructure, where such solutions were long overdue.

[Ver más..](#)



## El robot dinámico SPOT, presente en el South Summit de la mano de EDP

Publicada en [elreferente.es](https://elreferente.es), 7/06/2024

La compañía energética EDP ha estado presente de forma destacada en las dos primeras jornadas del South Summit, el mayor evento de emprendimiento del sur de Europa, gracias a su robot dinámico SPOT. Este robot dinámico de la compañía Boston Dynamics podría ser el compañero perfecto para los trabajadores de EDP España en centrales hidroeléctricas.



[Ver más..](#)

## Baidu se adelanta a Tesla y lanza en China un robotaxi que cuesta menos de 30.000 euros

Publicada en [hibridosyelectricos.com](https://hibridosyelectricos.com), 18/05/2024

La conducción autónoma es el próximo gran reto de la movilidad. Las empresas pelean por marcar la diferencia. Tesla está a punto de hacer un gran anuncio, pero China se ha adelantado.

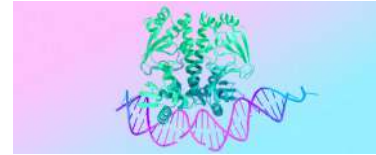


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## AlphaFold 3 predicts the structure and interactions of all of life's molecules

Publicada en [blog.google](https://blog.google), 8/05/2024

Introducing AlphaFold 3, a new AI model developed by Google DeepMind and Isomorphic Labs. By accurately predicting the structure of proteins, DNA, RNA, ligands and more, and how they interact, we hope it will transform our understanding of the biological world and drug discovery.



[Ver más..](#)

## Resideo Technologies Strikes \$1.4 Billion Cash Deal to Buy Snap One

Publicada en [msn.com](https://msn.com), 1/05/2024

Resideo Technologies (REZI) on Monday agreed to acquire smart-living products company Snap One (SNPO) in a deal worth \$1.4 billion, including debt. The home safety and security products maker will pay \$10.75 per share in cash for Snap One.

[Ver más..](#)

# PATENTES

## Decentralized Incentive System For Validating Transactions To Blockchain Miners

Publicada en Espacenet, 20/06/2024

Solicitante: PAYPAL INC [US]

Methods and systems that may incentivize miners to mine transactions are provided. A verification system may broadcast a transaction request, that includes an on-chain transaction to be mined on a block of the blockchain network.

[Ver más..](#)

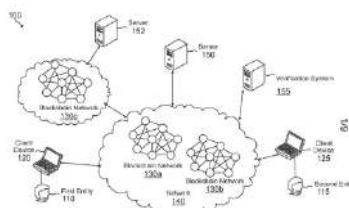


FIG. 1

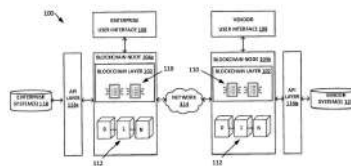
## Utilizing Blockchain Technology To Automate Service Invoice Processing

Publicada en Espacenet, 6/06/2024

Solicitante: SAUDI ARABIAN OIL CO [SA]

Various embodiments described herein are related to blockchain-based solutions to certifying the status of contracted services via one or more smart contracts. For example, one or more embodiments regard a method that comprises defining a service catalog based on a service contract between a plurality of entities.

[Ver más..](#)



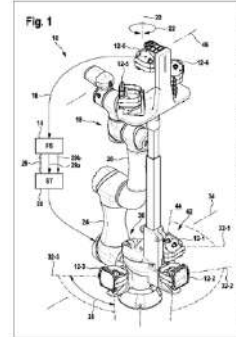
## Safety Device For Securing A Hazard Zone Of A Machine Which Operates Automatically, In Particular A Robot

Publicada en Espacenet, 6/06/2024

Solicitante: PILZ GMBH & CO KG [DE]

A safety device for securing a hazard zone of a machine which operates automatically, in particular a robot (18), has multiple sensors which are mechanically coupled to the machine during machine operation so that the sensors corotate with the machine or with a machine body part in a current direction of rotation

[Ver más..](#)



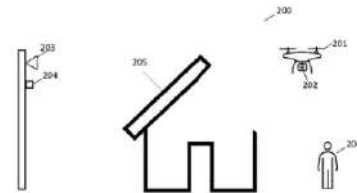
## Detecting an Object in a Space

Publicada en Espacenet, 6/06/2024

Solicitante: I R KINETICS LTD [GB]

A computer implemented method of detecting a first object in a space (500) comprises: i) receiving data about one or more detections made by at least one narrow-band infrared sensor of infrared radiation in the narrow-band coming from a first marker placed at a first point on the first object

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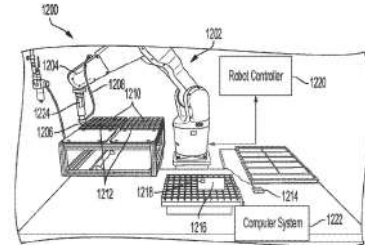
# Robotic Automation Testing Apparatus And Method For Testing Biometric Sensors With Synthetic Fingerprints

Publicada en Espacenet, 23/05/2024

Solicitante: VISA INT SERVICE ASS [US]

A robotic apparatus, system, and method for testing a biometric sensor using synthetic fingers. The robotic system includes a robot and a biometric scanner. The robot includes a robotic arm having an end effector configured to select a synthetic finger assembly.

[Ver más..](#)



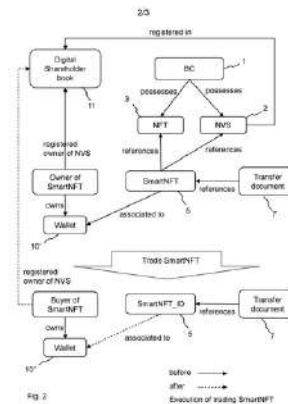
# A System And Method For Creating, Trading, And Splitting Smartnfts

Publicada en Espacenet, 23/05/2024

Solicitante: CRYPTOQORN AG [CH]

A computer-implemented method to create a SmartNFT for building and bootstrapping a company owning a set of non-fungible tokens (NFT) associated with a digital or physical asset and a set of non-votable shares (NVS) from the company, the method comprising the steps: on a computing system

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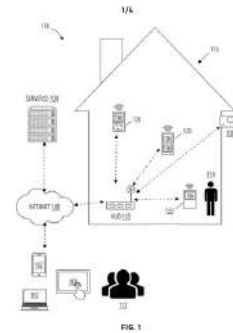
## Adaptive Sensing Smart Home System And Method

Publicada en Espacenet, 21/05/2024

Solicitante: SWIDGET CORP [CA]

Described are various embodiments of an adaptive smart home sensing system and method. In some embodiments, the system comprises one or more internet of things (IoT) devices, each IoT device configured to provide one or more smart home functions and comprising at least one sensor or switch.

[Ver más..](#)



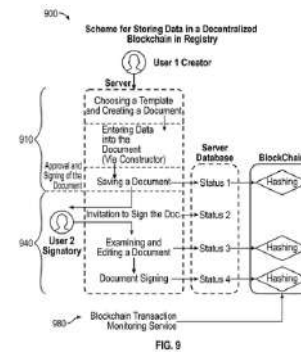
## Integrated System and Method for Smart Contract Creation, Asset Registration, and Blockchain Integration with Consensus Order and Wallet Transactions

Publicada en Espacenet, 16/05/2024

Solicitante: EVRICA TECH INC [US]

Disclosed embodiments integrate jurisdictionally compliant smart contract formation, the fusion of automated transactions with professional services interfaces, and the ability to handle the complexities of modern commerce within a decentralized framework.

[Ver más..](#)





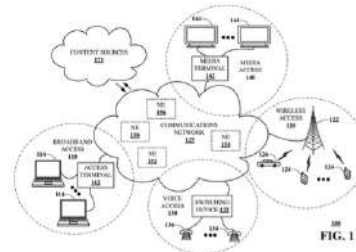
## Method And Apparatus To Provide Communication And Transport For A Robot Of A Smart Community

Publicada en Espacenet, 16/05/2024

Solicitante: AT & T IP I LP [US]

Aspects of the subject disclosure may include, for example, a method in which a processing system automatically downloads a software application and a routing map to a robot of a smart home (SH) in a smart community (SC); the application facilitates communication between the robot and a smart home controller (SHC) of the SH, and the routing map facilitates determining by the robot of a route

[Ver más..](#)



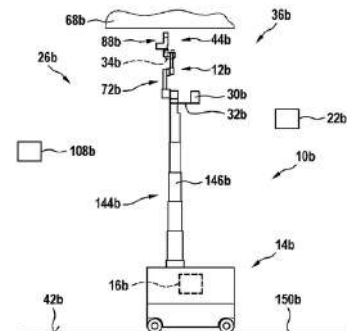
## Autonomous Or Manual Work Device, System, And Method For At Least Partly Automatically Machining An Object

Publicada en Espacenet, 16/05/2024

Solicitante: BOSCH GMBH ROBERT [DE]

The invention relates to an autonomous or manual work device (10b), in particular a robot, comprising a machining unit (12d), in particular a drilling unit, comprising a movement unit (14b) for moving the machining unit (12b) and comprising a control unit (16b) for at least actuating the machining unit

[Ver más..](#)



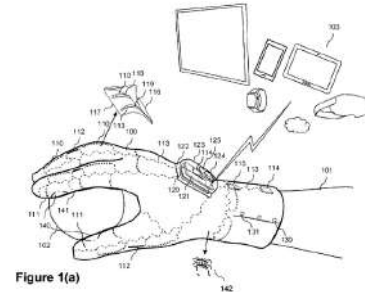
## Stretchable Textile Sensor Wearable Device For Tracking One Or More Body Metrics

Publicada en Espacenet, 10/05/2024

Solicitante: TEXAVIE TECH INC [CA]

This invention relates to smart textile wearable device with embedded yarn sensors and a computing device comprising a processor and a computer readable medium having encoded thereon a machine learning program that gathers sensor data from the wearable device and generates health parameter output data or real time or long-term feedback to a user

[Ver más..](#)



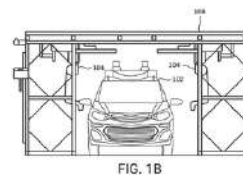
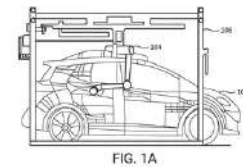
## Robotic Arm In-Vehicle Object Detection

Publicada en Espacenet, 10/05/2024

Solicitante: GM CRUISE HOLDINGS LLC [US]

The disclosed technology provides solutions for facilitating automated cleaning of an autonomous vehicle (AV) and in particular, for identifying objects and maintenance areas within an AV cabin.

[Ver más..](#)



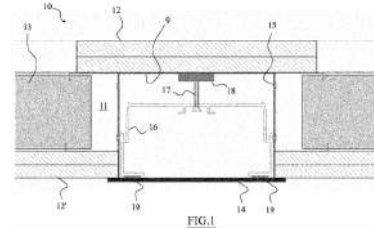
## Housing Kit For Home Automation Devices And Integrated Home Automation Device

Publicada en Espacenet, 8/05/2024

Solicitante: MICRODEVICE S R L [IT]

The invention concerns a housing kit for home automation devices, wherein the aforesaid kit is configured to be mounted and installed inside a hollow space (11) formed inside a wall of a building room or space, wherein the aforesaid kit comprises at least one plate (9) at least partially made of magnetic or ferromagnetic material

[Ver más..](#)



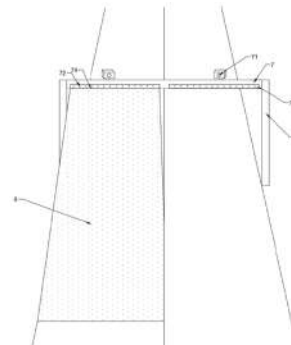
## Street lamp device for smart city and control system

Publicada en Espacenet, 3/05/2024

Solicitante: HANGZHOU WUXIAN ENV DESIGN ENGINEERING CO LTD

The invention relates to the field of smart cities, and discloses a street lamp device for smart cities and a control system, and the street lamp device has the following characteristics: 1, through the arrangement of a plurality of illumination groups, fog is irradiated by a laser generation part, and a Tyndall effect is generated in the fog through laser, so that a bright light path is formed in the air

[Ver más..](#)



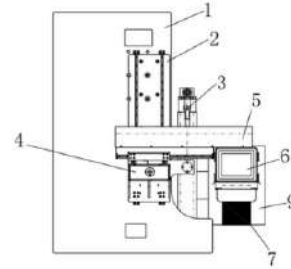
## Online defect detection 3D intelligent camera automation device

Publicada en Espacenet, 3/05/2024

Solicitante: TECHMACH CORP

The invention provides an on-line defect detection 3D intelligent camera automation device, and relates to the field of defect detection in the tire industry forming process, the on-line defect detection 3D intelligent camera automation device comprises a fixed back plate, the fixed back plate is provided with a position adjusting assembly, and the position adjusting assembly is connected with a 3D intelligent camera.

[Ver más..](#)



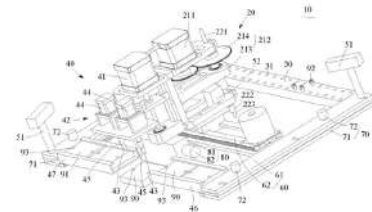
## Full-automatic intelligent maintenance robot

Publicada en Espacenet, 3/05/2024

Solicitante: SHENZHEN YAHAM OPTOELECTRONICS CO LTD

The invention relates to the technical field of intelligent maintenance robots, in particular to a full-automatic intelligent maintenance robot. In the process of maintaining the LED display screen, the maintenance robot detects the LED display screen through the visual module, and then the position of the damaged to-be-maintained part is determined.

[Ver más..](#)



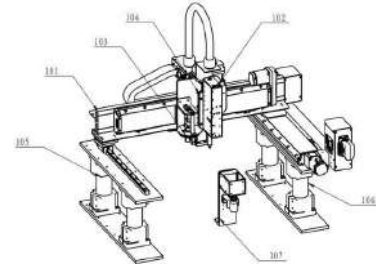
## Module robot with high-precision force control servo hand riveter and control method

Publicada en Espacenet, 3/05/2024

Solicitante: HANGZHOU XINKONG INTELLIGENT TECH CO LTD

The invention discloses a module robot with a high-precision force control servo hand riveter and a control method of the module robot. According to the automatic riveting machine, stress pre-tightening and tensile strength monitoring can be conducted on each rivet needing to be riveted

[Ver más..](#)



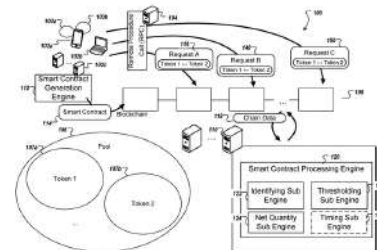
## Automated Market Maker (AMM) Smart Contracts

Publicada en Espacenet, 2/05/2024

Solicitante: FALKENSTEIN ERIC [US]

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for AMM smart contracts. One of the methods includes providing a smart contract on a decentralized blockchain network; receiving, in a first account maintained within the smart contract for a liquidity provider (LP) entity

[Ver más..](#)



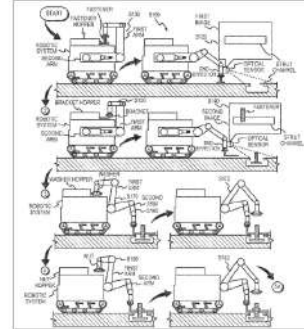
# System And Method For Automatically Mounting Brackets Within A Building Site

Publicada en Espacenet, 2/05/2024

Solicitante: RAISE ROBOTICS INC [US]

A method for installing brackets includes: triggering a robotic arm to retrieve a fastener; and scanning a first image captured by a camera defining a view of a location of a bracket for features of a strut channel. The method also includes, in response to detecting features of the strut channel: maneuvering the end effector to locate the fastener over the strut channel based on the strut channel pose

[Ver más..](#)



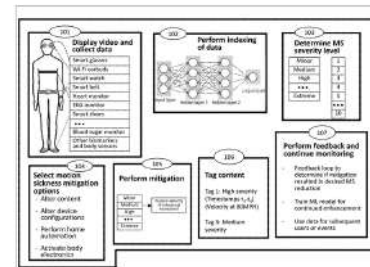
# Methods For Cybersickness Mitigation In Virtual Reality Experiences

Publicada en Espacenet, 02/05/2024

Solicitante: ROVI GUIDES INC [US]

Systems and methods for mitigating cybersickness that is caused due to display of content, such as a 360° video or a virtual reality experience, are disclosed. The methods measure biometrics of a user to determine a cybersickness score. The score is associated with a cybersickness severity level. A determination is made whether the user's cybersickness severity level exceeds a threshold

[Ver más..](#)



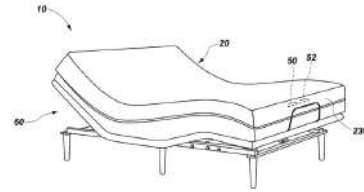
## Systems And Methods For Updating Smart Bed Remote Control

Publicada en Patentscope, 02/05/2024

Solicitante: Purple Innovation, LLC

A remote control system for a smart bed includes a remote control and a smart phone. The smart bed includes a mattress and a control unit that controls operation of one or more functions of the mattress.

[Ver más..](#)



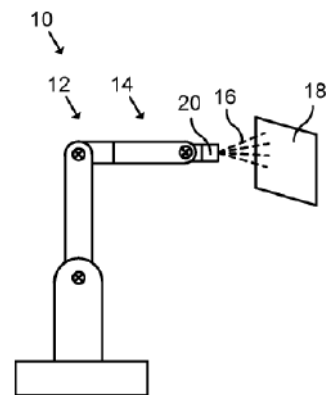
## Method Of Handling Gear Pump, Control System, Coating Apparatus And Robot System

Publicada en Patentscope, 02/05/2024

Solicitante: ABB Schweiz AG

A method of handling a gear pump, the gear pump including a driving gear wheel having a plurality of driving teeth and a driven gear wheel having a plurality of driven teeth meshing with the driving teeth, the method including controlling...

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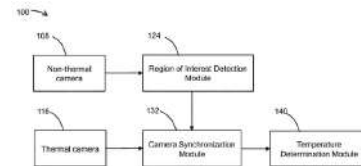
## System And Method For Thermal Screening

Publicada en Patentscope, 02/05/2024

Solicitante: C2RO Cloud Robotics Inc.

A method for performing thermal screening is described. The method includes capturing at least one non-thermal image of a scene having a person; capturing at least one thermal image of the scene having the person; determining a region of interest

[Ver más..](#)



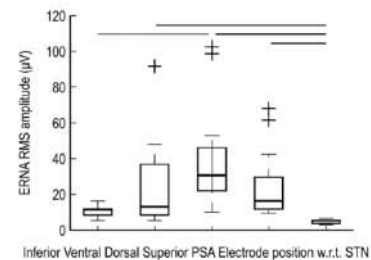
## Systems And Methods For Monitoring Neural Activity

Publicada a Patentscope, 2/05/2024

Titular: DEEP BRAIN STIMULATION TECHNOLOGIES PTY LTD

A method of monitoring neural activity responsive to a stimulus in a brain, the method comprising: applying the stimulus to one or more of at least one electrode implanted in a target neural structure of the brain; detecting a resonant response

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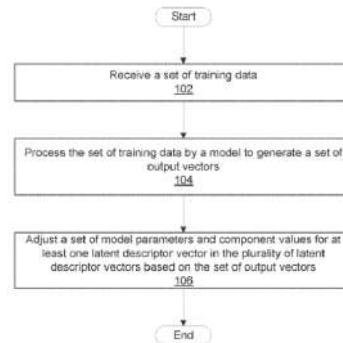
## Machine Learning Technique For Automatic Modeling Of Multiple-Valued Outputs

Publicada en Patentscope, 2/05/2024

Solicitante: NVIDIA Corporation

A method and system are disclosed for training a model that implements a machine-learning algorithm. The technique utilizes latent descriptor vectors to change a multiple-valued output problem into a single-valued output problem and includes the steps of receiving a set of training data, processing, by a model

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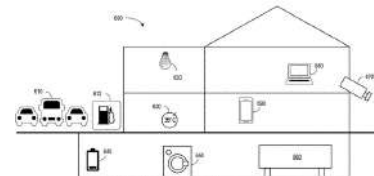
## Built-In Cloud Analytics Support For Smart Home

Publicada en Espacenet, 2/05/2024

Solicitante: SAP SE [DE]

A smart home hub may receive sensor information from a plurality of smart home objects (e.g., a washing machine, an electricity meter, etc.). The smart home hub may also generate smart home events based on the received sensor information. The sensor information may be received via a plurality of different communication protocols.

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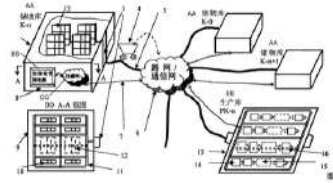
## Smart Warehousing Chain Optimization System

Publicada en Patentscope, 02/05/2024

Solicitante: MENG, Weiping

A warehousing chain optimization system. A method thereof comprises the steps: creating a storage bin database for each warehouse (1); obtaining storage and transportation mode information (2); deciding the layout of a storage bin area (3); optimization and coordination of access

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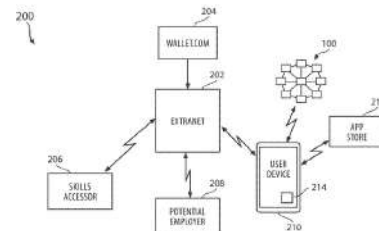
## A System And Method Of Providing A Blockchain-Based Curriculum Vitae

Publicada en Espacenet, 02/05/2024

Solicitante: C SQUARED VENTURES LTD [GB]

Technologies for systems, methods and computer-readable storage media for providing a smart curriculum vitae in a blockchain wallet. The method includes providing a blockchain-based wallet to a user device, the blockchain-based wallet being associated with a user and being associated with a blockchain network

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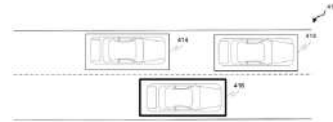
## Follow Mode In Autonomous Driving System

Publicada en Patentscope, 02/05/2024

Solicitante: GM GLOBAL TECHNOLOGY OPERATIONS LLC

A driver assistance system in a host vehicle is provided. The driver assistance system is configured to: track a plurality of obstacles in front of the host vehicle; receive host vehicle driver selection of a follow operating mode for the driver

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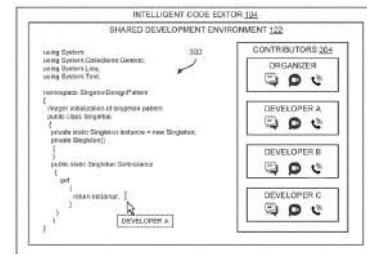
## Intelligent Code Editor

Publicada en Patentscope, 02/05/2024

Solicitante: INTERNATIONAL BUSINESS MACHINES CORPORATION

Described are techniques for an intelligent code editor that intelligently provides software development suggestions based on the coding techniques of a software developer. The techniques include analyzing source code samples associated with a software developer to determine coding techniques utilized by

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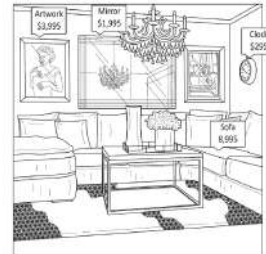
# Systems/Methods For Identifying Products Within Audio-Visual Content And Enabling Seamless Purchasing Of Such Identified Products By Viewers/Users Of The Audio-Visual Content

Publicada en Patentscope, 2/05/2024

Solicitante: HOUSE OF SKYE LTD

An automated system/method for identifying and enabling viewer selection/purchase of products or services associated with digital content presented on a display device. Products within the digital content are identified and existing product placement data is ascertained. For products that

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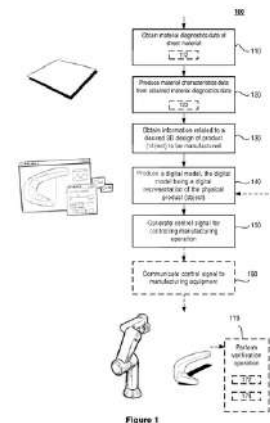
# Methods For Controlling A Manufacturing Operation, Automated Manufacturing Methods And Corresponding Data Processing Apparatuses

Publicada en Espacenet, 1/05/2024

Solicitante: STILRIDE AB [SE]

The present disclosure relates among other things to a computer-implemented method of controlling a manufacturing operation. Material diagnostic data relating to a two-dimensional sheet material is obtained (110). Furthermore, the obtained material diagnostic data is analyzed, or otherwise evaluated, to produce (120) material characteristics data.

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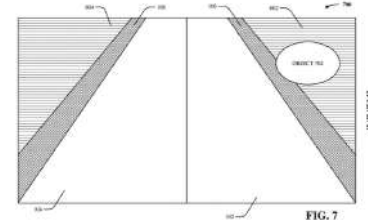
# Peer-To-Peer Vehicular Provision Of Artificially Intelligent Traffic Analysis

Publicada en Espacenet, 01/05/2024

Solicitante: VOLVO CAR CORP [SE]

Systems/techniques that facilitate peer-to-peer vehicular provision of artificially intelligent traffic analysis are provided. In various embodiments, a system can be onboard a first vehicle. In various aspects, the system can capture, via one or more cameras, one or more microphones, or one or more other sensors

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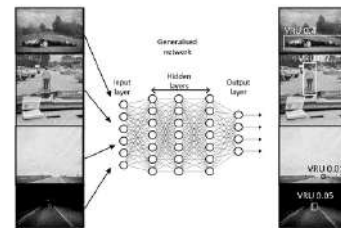
# Situation Specific Perception Capability For Autonomous And Semi-Autonomous Vehicles

Publicada en Espacenet, 01/05/2024

Solicitante: ZENSEACT AB [SE]

A computer-implemented method and related aspects for providing environment perception for a vehicle having an Automated Driving System (ADS) are disclosed. The ADS comprises a generalized perception network and a plurality of specific perception networks, where each specific perception network comprises a specifically trained machine-learning algorithm that is trained with data associated with a specific traffic situation

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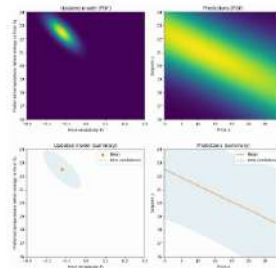
# PUBLICACIONES CIENTÍFICAS

## A qualitative field study on explainable AI for lay users subjected to AI cyberattacks

Publicada en arxiv.org, 21/06/2024

In this paper we present results from a qualitative field study on explainable AI (XAI) for lay users ( $n = 18$ ) who were subjected to AI cyberattacks. The study was based on a custom-built smart heating application called Squid and was conducted over seven weeks in early 2023.

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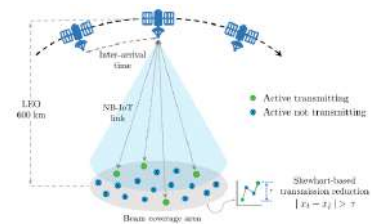


## Efficient Transmission Scheme for LEO Satellite-Based NB-IoT: A Data-Driven Perspective

Publicada en arxiv.org, 20/06/2024

This study analyses the medium access control (MAC) layer aspects of a low-Earth-orbit (LEO) satellite-based Internet of Things (IoT) network. A transmission scheme based on change detection is proposed to accommodate more users within the network and improve energy efficiency.

[Ver más..](#)

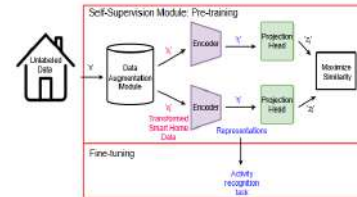


## Maintenance Required: Updating and Extending Bootstrapped Human Activity Recognition Systems for Smart Homes

Publicada en arxiv.org, 20/06/2024

Developing human activity recognition (HAR) systems for smart homes is not straightforward due to varied layouts of the homes and their personalized settings, as well as idiosyncratic behaviors of residents. As such, off-the-shelf HAR systems are effective in limited capacity for an individual home, and HAR systems often need to be derived “from scratch”

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## Make Your Home Safe: Time-aware Unsupervised User Behavior Anomaly Detection in Smart Homes via Loss-guided Mask

Publicada en arxiv.org, 18/06/2024

Smart homes, powered by the Internet of Things, offer great convenience but also pose security concerns due to abnormal behaviors, such as improper operations of users and potential attacks from malicious attackers. Several behavior modeling methods have been proposed to identify abnormal behaviors and mitigate potential risks.

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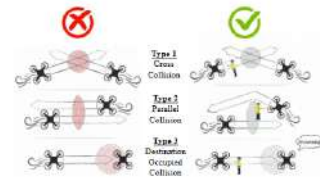


## M-SET: Multi-Drone Swarm Intelligence Experimentation with Collision Avoidance Realism

Publicada en arxiv.org, 16/06/2024

Distributed sensing by cooperative drone swarms is crucial for several Smart City applications, such as traffic monitoring and disaster response. Using an indoor lab with inexpensive drones, a testbed supports complex and ambitious studies on these systems while maintaining low cost, rigor, and external validity.

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## A Survey on Intelligent Internet of Things: Applications, Security, Privacy, and Future Directions

Publicada en arxiv.org, 9/06/2024

The rapid advances in the Internet of Things (IoT) have promoted a revolution in communication technology and offered various customer services. Artificial intelligence (AI) techniques have been exploited to facilitate IoT operations and maximize their potential in modern application scenarios.

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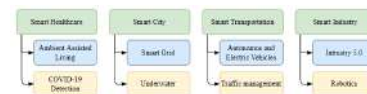


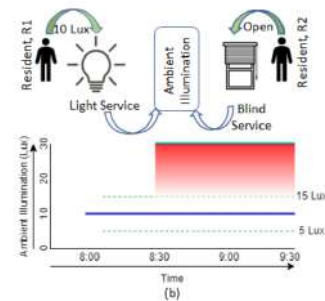
Fig. 3: IoT application domains.

# Impact Conflict Detection of IoT Services in Multi-resident Smart Homes

Publicada en arxiv.org, 1/06/2024

We propose a novel impact conflict detection framework for IoT services in multi-resident smart homes. The proposed impact assessment model is developed based on the integral of a signal deviation strategy. We mine the residents' previous service usage records to design a robust preference estimation model. We design an impact conflict detection approach using temporal proximity and preferential proximity techniques.

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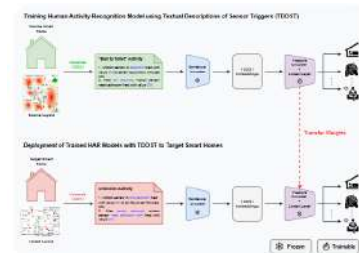


# Layout Agnostic Human Activity Recognition in Smart Homes through Textual Descriptions Of Sensor Triggers (TDOST)

Publicada en arxiv.org, 24/05/2024

Human activity recognition (HAR) using ambient sensors in smart homes has numerous applications for human healthcare and wellness. However, building general-purpose HAR models that can be deployed to new smart home environments requires a significant amount of annotated sensor data and training overhead.

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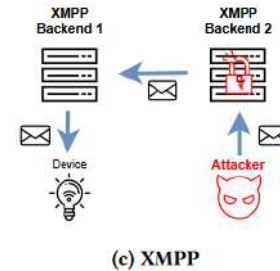


# Large-Scale Security Analysis of Real-World Backend Deployments Speaking IoT-Focused Protocols

Publicada en arxiv.org, 15/05/2024

Internet-of-Things devices, ranging from smart home assistants to health devices, are pervasive: Forecasts estimate their number to reach 29 billion by 2030. Understanding the security of their machine-to-machine communication is crucial. Prior work focused on identifying devices' vulnerabilities or proposed protocol-specific solutions.

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# Improving the Real-Data Driven Network Evaluation Model for Digital Twin Networks

Publicada en arxiv.org, 14/05/2024

With the emergence and proliferation of new forms of large-scale services such as smart homes, virtual reality/augmented reality, the increasingly complex networks are raising concerns about significant operational costs. As a result, the need for network management automation is emphasized, and Digital Twin Networks (DTN) technology is expected to become the foundation technology for autonomous networks.

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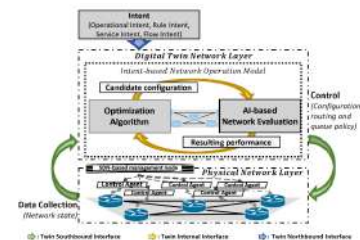


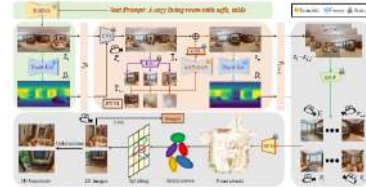
Fig. 1. Example of the optimization scenario in DTN.

# FastScene: Text-Driven Fast 3D Indoor Scene Generation via Panoramic Gaussian Splatting

Publicada en arxiv.org, 9/05/2024

Text-driven 3D indoor scene generation holds broad applications, ranging from gaming and smart homes to AR/VR applications. Fast and high-fidelity scene generation is paramount for ensuring user-friendly experiences. However, existing methods are characterized by lengthy generation processes or necessitate the intricate manual specification of motion parameters, which introduces inconvenience for users.

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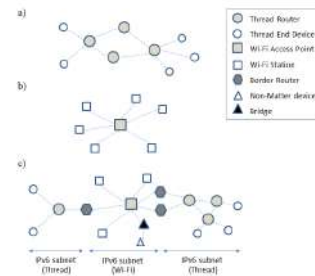


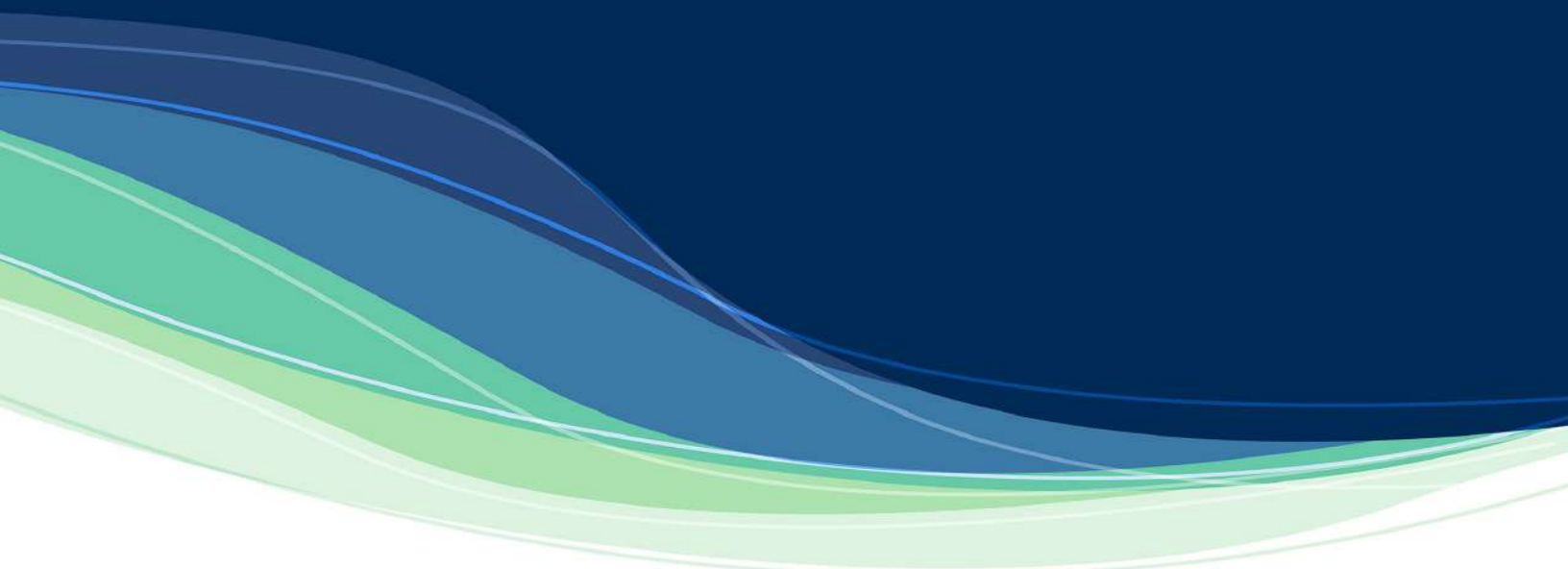
# Matter: IoT Interoperability for Smart Homes

Publicada en arxiv.org, 2/05/2024

The smart home is a major Internet of Things (IoT) application domain with tremendous market expectations. However, communication solutions for smart home devices have exhibited a lack of interoperability, especially, but not only, at the highest layers of the protocol stack.

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