



# SmartLivingPlat

Plataforma Tecnológica de la Domótica  
y las Ciudades Inteligentes



## Boletín de Vigilancia Tecnológica

JULIO - AGOSTO 2024

SMART BUILDINGS  
SMART CITIES  
INDUSTRIA 4.0

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# NOTICIAS

## The AI Investment Landscape: Who's Funding the Next Wave of Innovation?

Publicada en topbots.com, 26/08/2024

Artificial Intelligence (AI) is reshaping the tech landscape, attracting a diverse array of investors eager to capitalize on its potential. In this article, we explore the key players driving investments in AI, from tech giants and venture capital funds to angel investors, and examine the companies they are betting on.

[Ver más..](#)



## TransiT decarbonisation hub secures £46m from EPSRC and industry partners

Publicada en transit.ac.uk, 12/08/2024

The TransiT Hub focused on rapidly decarbonising transport in the UK, including road, rail, air and maritime, has secured £46 million from the UK government and almost 70 partners. TransiT, a collaboration of eight universities and 67 partners jointly led by Heriot-Watt University in Edinburgh and the University of Glasgow, has secured £20 million in funding from the UKRI Engineering and Physical Sciences Research Council (EPSRC)

[Ver más..](#)



## Programming robots to complete tasks faster

Publicada en techexplorist.com, 14/08/2024

The latest study from the University of Massachusetts Amherst reveals that by programming robots to form their own teams and patiently wait for their teammates, tasks can be completed more quickly, offering potential benefits for manufacturing, agriculture, and warehouse automation. The research has been recognized as a finalist for the Best Paper Award on Multi-Robot Systems at the IEEE International Conference on Robotics and Automation 2024.

[Ver más..](#)



## Humanoid Robots on the Rise: Industry Advances, Key Players, and Adoption Timelines

Publicada en topbots.com, 13/08/2024

The robotics industry stands on the brink of a significant transformation, with many experts – including NVIDIA CEO Jensen Huang – suggesting that we might be approaching a “ChatGPT moment” for robotics.

[Ver más..](#)

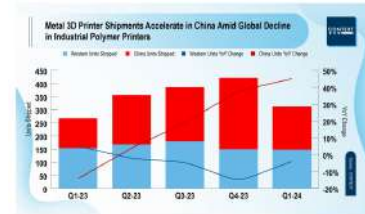


## China sees surge in metal AM machine shipments, while polymer machine sales decline

Publicada en metal-am.com, 31/07/2024

Market intelligence and analytics company Context, headquartered in London, UK, has reported that global Additive Manufacturing machine shipments started the year at similar numbers to what was seen in the end of 2023. In Q1 24, industrial metal Additive Manufacturing machine shipments increased in China, while industrial polymer shipments faced challenges in all regions.

[Ver más..](#)



## Faster Speeds and the Promise of New Use Cases is Driving 5G SA Adoption

Publicada en ookla.com, 29/07/2024

The deployment of 5G networks is progressing as demand for faster and more reliable connectivity continues to grow. The standalone (SA) deployment model marks a significant milestone in the evolution of 5G, aiming to offer lower latency, increased bandwidth, and improved reliability

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## Proyecto 5GSWARM2: revolución en la producción industrial con 5G

Publicada en redestelecom.es, 25/07/2024

Esta iniciativa, impulsada por el centro tecnológico ITI, analiza el potencial de la quinta generación de redes móviles para habilitar la fabricación en enjambre. En la actualidad, la industria está evolucionando hacia modelos de producción más flexibles y adaptativos, impulsada por un entorno cada vez más competitivo y los rápidos avances tecnológicos.

[Ver más..](#)

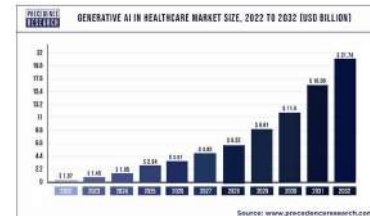


## Generative AI In Healthcare Market Size, Share, and Trends 2024 to 2034

Publicada en precedenceresearch.com, 23/07/2024

Generative AI in Healthcare Market (By Application: Clinical, System; By Function: AI-Assisted Robotic Surgery, Virtual Nursing Assistants, Aid Clinical Judgment/Diagnosis, Workflow & Administrative Tasks, Image Analysis; By End User: Hospitals & Clinics, Clinical Research, Healthcare Organizations, Diagnostic Centers, Others) - Global Industry Analysis, Size, Share, Growth, Trends, Regional Outlook, and Forecast 2023-2032

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## Wild new Wi-Fi routers turn your home network into a security radar

Publicada en newatlas.com, 05/07/2024

Wi-Fi security usually means keeping virtual intruders off your network, but a new system claims to be able to use Wi-Fi networks to detect physical intruders. Gamgee's Wi-Fi Home Alarm System can learn to recognize people and pets who belong there and alert you to strangers – or perhaps even when an elderly person takes a fall.

[Ver más..](#)



## Towards networked Local Digital Twins in the EU

Publicada en ec.europa.eu, 4/07/2024

Programme: Digital Europe Programme (DIGITAL) Call: Cloud, data and artificial intelligence (DIGITAL-2024-CLOUD-DATA-AI-07)

[Ver más..](#)



# EMPRESAS Y MERCADOS

## Universal Robots Shows Deep Learning-Based Part Detection for Machine Tending Cobots at IMTS

Publicada en [roboticstomorrow.com](https://roboticstomorrow.com), 29/08/2024

The pioneer of collaborative robotics is set to unveil a new AI-powered machine tending solution at IMTS, enabling faster batch changeovers by eliminating the need for fixtures. Additionally, the company will showcase advanced cobot applications for welding, finishing, part feeding, and laser marking.



[Ver más..](#)

## Sapiens: Foundation for Human Vision Models

Publicada en [meta.com](https://meta.com), 28/08/2024

Meta Reality Labs present Sapiens, a family of models for four fundamental human-centric vision tasks - 2D pose estimation, body-part segmentation, depth estimation, and surface normal prediction. Our models natively support 1K high-resolution inference and are extremely easy to adapt for individual tasks by simply fine-tuning models pretrained on over 300 million in-the-wild human images.



[Ver más..](#)

## Innovative AI startup aiomatic shapes the future of predictive maintenance with strategic investment

Publicada en eitmanufacturing.eu, 28/08/2024

In the fast-paced industrial tech landscape, aiomatic is setting new standards for smarter, more efficient maintenance solutions. By harnessing AI-driven predictive analytics, the startup helps companies cut downtime and optimise operations.

[Ver más..](#)



## Swarmbotics founders grew ‘obsessed with robot swarms and now plan to bring them to the battlefield

Publicada en techcrunch.com, 19/08/2024

Few truly autonomous systems are deployed on the battlefield, but one startup is looking to change that with robotic systems that use cooperative behavior to boost troops’ intelligence and tactical advantage. Those systems are called “swarms,” and they’re basically collections of autonomous robots that can coordinate their actions.

[Ver más..](#)



## Detecting Google's Imagen 3 Deepfakes At Launch, Only on Reality Defender

Publicada en realitydefender.com, 16/08/2024

This week, Google announced the launch of Imagen 3, their latest and most advanced text-to-image AI model. This powerful new platform is now available through Google's AI services, allowing users to generate highly realistic images from text descriptions in seconds.

[Ver más..](#)



## Hexagon Launches New Digital Factory for Virtual Shop Floor Simulation

Publicada en 3dprintingindustry.com, 7/08/2024

Unveiled at the Farnborough International Air Show 2024, Digital Factory was developed by Hexagon's Manufacturing Intelligence division. It allows companies to create digital replicas of their factories, and add digital twins of machine hardware to a simulated shop floor.

[Ver más..](#)



## What is Ethereum spot ETF?

Publicada en northcrypto.com, 25/07/2024

Ethereum is the largest decentralized platform on the market based on blockchain technology. It is possible to build various decentralized applications (DApp), smart contracts and new cryptocurrencies on top of this platform. Ethereum spot ETFs offer especially investors who are used to traditional investment products an easy and accessible way to invest in this ecosystem.

[Ver más..](#)



## Microsoft collaborates with Mass General Brigham and University of Wisconsin–Madison to further advance AI foundation models for medical imaging

Publicada en news.microsoft.com, 24/07/2024

Microsoft Corp. on Wednesday announced collaborations with leading academic medical systems Mass General Brigham and the University of Wisconsin School of Medicine and Public Health along with its partnering health system, UW Health, to accelerate solving some of the biggest challenges in radiology and further advance AI in medical imaging

[Ver más..](#)



## IoT en la Politècnica de Catalunya para medir el estado del aire de sus aulas

Publicada en redetelecom.es, 15/07/2024

La Universitat Politècnica de Catalunya – BarcelonaTech (UPC) ha confiado en UnaBiz para implementar en sus aulas y salas compartidas, tecnología capaz de medir el estado del aire. Esto es posible gracias a la instalación de sensores inteligentes con capacidad de indicar los niveles de CO2, temperatura y humedad..

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## Acuerdo sobre patentes 5G entre Oppo y Ericsson

Publicada en redetelecom.es, 15/07/2024

Oppo ha firmado un acuerdo de colaboración global con Ericsson para la concesión de licencias cruzadas de patentes, la cooperación técnica, la expansión del mercado y otras actividades. Las licencias cruzadas cubrirán patentes esenciales estándar (SEP) relacionadas con las tecnologías de telefonía móvil, incluyendo la tecnología 5G.

[Ver más..](#)



## 4 formas en las que la IA puede ahorrarle dinero a su empresa en honorarios legales

Publicada en legalmente.ai, 04/07/2024

Para las empresas, las facturas legales pueden acumularse rápidamente y sin fin. Pueden ser por revisar contratos y documentos legales o simplemente por hacer preguntas legales para la debida diligencia.

[Ver más..](#)



# PATENTES

## Open-Vocabulary Robotic Control Using Multi-Modal Language Models

Publicada en Patentscope, 29/08/2024

Solicitante: GOOGLE LLC [US]

Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for controlling an agent interacting with an environment. In one aspect, a method comprises: receiving an observation image of an environment

[Ver más..](#)

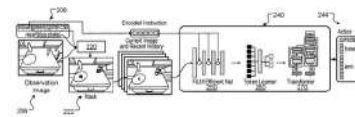


FIG. 2

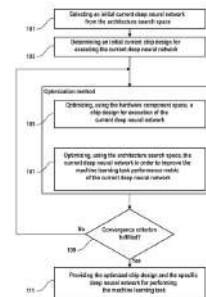
## Co-Design Of A Model And Chip For Deep Learning Background

Publicada en Espacenet, 29/08/2024

Solicitante: IBM [US]

A method, computer program product, and system to generate a processor design via a deep neural network is provided. A processor selects an architecture search space and a hardware components space. A processor selects an initial deep neural network from the architecture search space

[Ver más..](#)





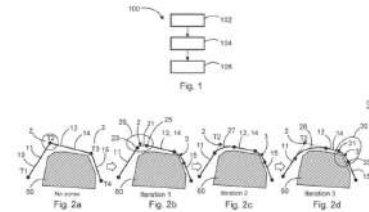
## Method For Optimizing A Geometric Path For A Robot Device Around An Obstacle

Publicada en Espacenet, 29/08/2024

Solicitante: ABB SCHWEIZ AG [CH]

The present invention relates to a method (100) for optimizing a geometric path (10) for a robot device around an obstacle (60), comprising the following steps: - Providing (102) the geometric path (10) for the robot device, wherein the geometric path (10) comprises at least one target position point (2) for the robot device that is defined as an intersection of a first segment (11) and a second segment

[Ver más..](#)



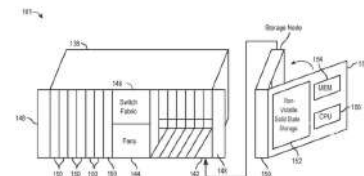
## Analyzing Logs for Root Causes of Errors in a Cloud Environment

Publicada en Patentscope, 22/08/2024

Solicitante: PURE STORAGE INC [US]

An example method for analyzing logs for root causes of errors in a cloud environment comprises: detecting an error in a component deployed within a cloud environment; providing, based on the detecting the error, log data associated with the component to a root cause analysis machine learning model

[Ver más..](#)



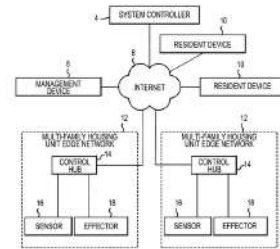
# Multi-Unit Automation and Control System

Publicada en Espacenet, 22/08/2024

Solicitante: SMARTRENT TECH INC [US]

A system is provided for multi-unit automation and access control for multi-family housing. Individual housing units have an associated control hub in communication with a remotely disposed system controller.

[Ver más..](#)



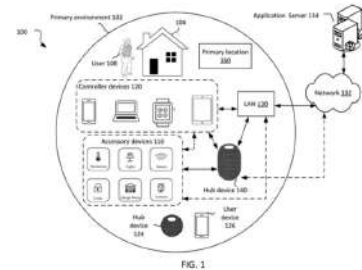
# Technologies For Stable Home Location

Publicada en Espacenet, 15/08/2024

Solicitante: APPLE INC [US]

The present application relates to devices and components, including apparatus, systems, and techniques updating the home location of a home automation system. The user device is associated with a home automation system that is configured at a home or office.

[Ver más..](#)



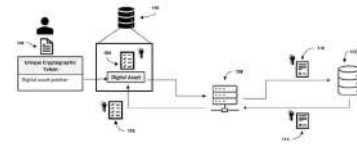
## Systems And Methods For Modifying Cryptographic Token Related Data

Publicada en Patentscope, 15/08/2024

Solicitante: CAPITAL ONE SERVICES LLC [US]

Systems and methods for modifying cryptographic token related data. In some aspects, the system accesses a unique cryptographic token associated with a user. The token is associated with a digital asset and is encrypted using a public key for the user.

[Ver más..](#)



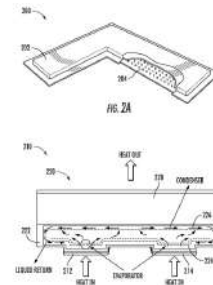
## Artificial-Intelligence-Based Manufacturing

Publicada en Espacenet, 8/08/2024

Solicitante: NVIDIA CORP [US]

Methods are described herein for artificial-intelligence-based manufacturing. The present invention may include performing an initial step in a series of steps to achieve a target value of an attribute, where the series of steps is for manufacturing an object, and, after performing the initial step, measuring an actual value of the attribute achieved by the initial step

[Ver más..](#)



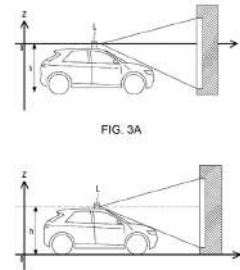
## Method Of Building A Lidar Semantic Segmentation Model Through Two-Step Domain Adaptation And Lidar-Based Object Perception Apparatus Using The Same

Publicada en Espacenet, 8/08/2024

Solicitante: HYUNDAI MOTOR CO LTD [KR]; KIA CORP [KR]

A LiDAR semantic segmentation method and a LiDAR-based object perception apparatus. According to an embodiment of the present disclosure, a method for constructing a LiDAR semantic segmentation model through two-step domain adaptation includes converting a first LiDAR data set of a first domain to obtain a second LiDAR data set of a second domain.

[Ver más..](#)



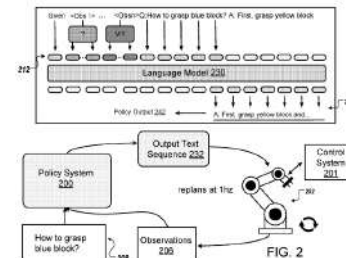
## Controlling Robots Using Multi-Modal Language Models

Publicada en Espacenet, 8/08/2024

Solicitante: GOOGLE LLC [US]

Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for controlling an agent interacting with an environment. In one aspect, a method comprises: receiving one or more observations of an environment; receiving an input text sequence that describes a task to be performed by a robot in the environment; generating an encoded representation of the input text sequence in an embedding space.

[Ver más..](#)



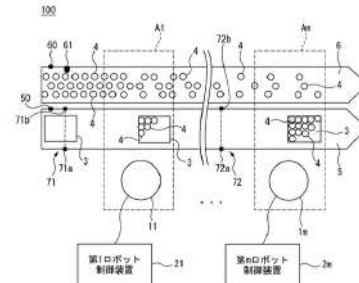
## Robot Control Device, Robot System, And Robot Control Program

Publicada en Espacenet, 8/08/2024

Solicitante: FANUC CORP [JP]

Provided is a robot control device that can accurately recognize the positions of containers and pack articles into the containers with high precision. The robot control device comprises a storage unit and a queue management unit and controls an optional robot in a system that uses a plurality of robots to pack a plurality of articles into containers to be transported.

[Ver más..](#)



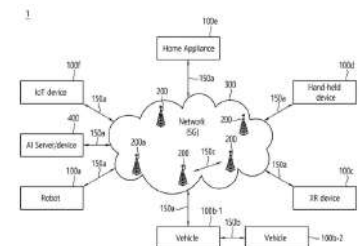
## Method And Apparatus For Supporting AI And ML Operation In A Wireless Communication System

Publicada en Espacenet, 2/08/2024

Solicitante: LG ELECTRONICS INC [KR]

A method and apparatus for supporting AI and ML operation in a wireless communication system is provided. A wireless device detects a failure in an operation with a network; and transmits a message including (i) information on the failure, and (ii) information on a predicted information related to the failure, wherein the predicted information is derived by an Artificial Intelligence (AI) and/or Machine Learning (ML) model of the wireless device.

[Ver más..](#)



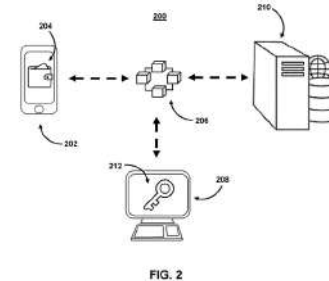
## Systems And Methods For Predicting Cryptographic Asset Distributions

Publicada en Patentscope, 01/08/2024

Solicitante: COINBASE INC [US]

Methods and systems are described herein for predicting cryptographic asset distributions for a future period of time using artificial intelligence and/or machine learning (AI/ML) models.

[Ver más..](#)



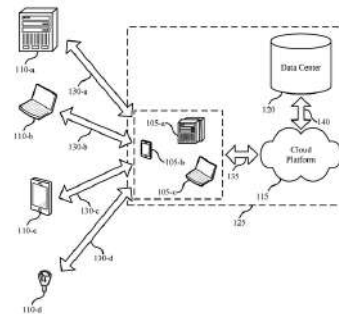
## Ranking And Marking Messages In A Group-Based Communication System Using Machine Learning Techniques

Publicada en Espacenet, 1/08/2024

Solicitante: SALESFORCE INC [US]

Methods, systems, apparatuses, devices, and computer program products are described. In a group-based communication system, a user may save posts for later (e.g., to reply to a message at a later time, to complete a task associated with a message at a later time). The system may use a machine learning model to determine to automatically mark a post for later for a user

[Ver más..](#)





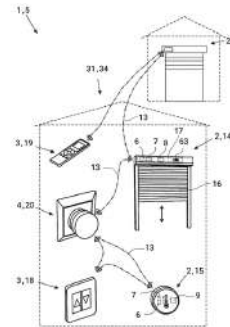
## Method For Operating A Home Automation Assembly

Publicada en Espacenet, 24/07/2024

Solicitante: DELTA DORE RADEMACHER GMBH [DE]

Die Erfindung betrifft ein Verfahren zum Betreiben einer Heimautomatisierungsanordnung (1) mit einer ersten Einheit (2) und einer zweiten Einheit (3), wobei die erste Einheit (2) und die zweite Einheit (3) miteinander gepaart sind und/oder demselben Heimautomatisierungsnetzwerk

[Ver más..](#)



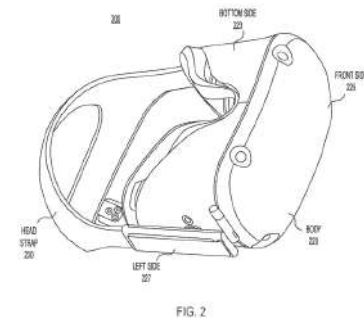
## Supplementing User Perception And Experience With Augmented Reality (AR), Artificial Intelligence (AI), And Machine-Learning (ML) Techniques Utilizing An Artificial Intelligence (AI) Agent

Publicada en Espacenet, 18/07/2024

Solicitante: META PLATFORMS INC [US]

According to examples, a system for supplementing user perception and experience via augmented reality (AR), artificial intelligence (AI), and machine-learning (ML) techniques is described. The system may include a processor and a memory storing instructions. The processor, when executing the instructions, may cause the system to receive data associated with at least one of a location, context, or setting

[Ver más..](#)





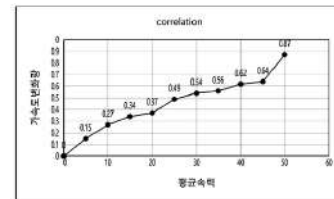
## Road Condition Analysis Method And Apparatus

Publicada en Espacenet, 11/07/2024

Solicitante: LG ELECTRONICS INC [KR]

Disclosed are a road condition analysis method and apparatus. A mobility according to at least one embodiment of various embodiments of the present disclosure comprises: a sensor device; a memory storing a trained artificial intelligence model; and a processor

[Ver más..](#)



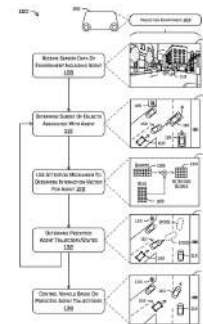
## Trajectory Prediction For Autonomous Vehicles Using Attention Mechanism

Publicada en Espacenet, 4/07/2024

Solicitante: ZOOX INC [US]

Techniques are discussed herein for using a machine learning attention mechanism to predict movements, states, and/or trajectories of agents in various environments. In various examples, a prediction component of an autonomous vehicle may analyze sensor data to determine, for individual agents in the environment

[Ver más..](#)



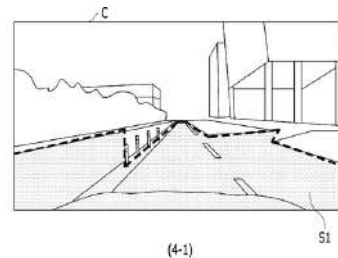
## Method For Measuring Distance To Object And Robot For Implementing Same

Publicada en Espacenet, 4/07/2024

Solicitante: LG ELECTRONICS INC [KR]

The present invention relates to a method for measuring a distance to an object, that can accurately measure a separation distance or depth to a relatively distant object or obstacle even by means of a low-cost depth sensor with a relatively narrow depth measurement range, and to a robot that can implement same.

[Ver más..](#)



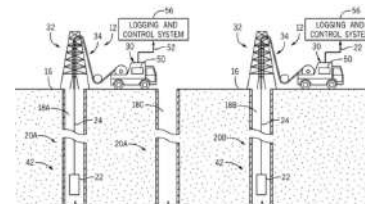
## Systems And Methods For Digital Gamma-Ray Log Generation Using Physics Informed Machine Learning

Publicada en Espacenet, 4/07/2024

Solicitante: SCHLUMBERGER TECHNOLOGY CORP [US]

Systems and methods for generating digital gamma-ray logs for target wells based on combined physics and machine learning model using real-time information (e.g., drilling parameters, survey data, gamma-ray logs, and so forth) obtained from offset wells analogous to the subject well in terms of gamma-ray readings.

[Ver más..](#)



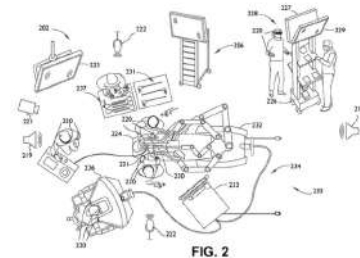
## Surgical Computing System With Support For Interrelated Machine Learning Models

Publicada en Espacenet, 4/07/2024

Solicitante: CILAG GMBH INT [CH]

Systems, methods, and instrumentalities are disclosed for using interrelated machine learning (ML) models (e.g., algorithms). The interrelated ML models may act collectively to perform complimentary portions of a surgical analysis. The ML models may be used at various locations. For example, ML models may be implemented in a facility network, a cloud network, an edge network, and/or the like.

[Ver más..](#)



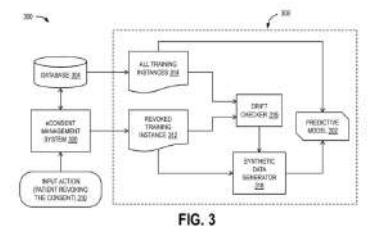
## Systems And Methods For Consent Revocation And Training Of Machine Learning Models

Publicada en Espacenet, 31/07/2024

Solicitante: KONINKLIJKE PHILIPS NV [NL]

The present disclosure relates to methods and systems for training machine learning models in a data environment where the training data is subject to deletion and/or quarantine. In particular applications, the training data may include medical information for which an individual may revoke consent to use and/or access at any time. As described herein

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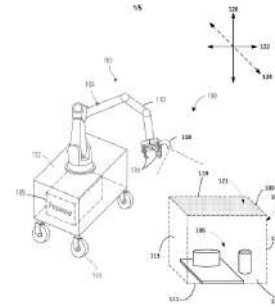
## Scale Aware Neural Network For Robotic Grasping

Publicada en Espacenet, 29/08/2024

Solicitante: SIEMENS AG [DE]; SIEMENS CORP [US]

It is recognized herein that current approaches to training deep neural networks to perform grasp computations lack capabilities and efficiencies related to determining grasps for diverse objects at different scales with different gripper configurations, among other shortcomings.

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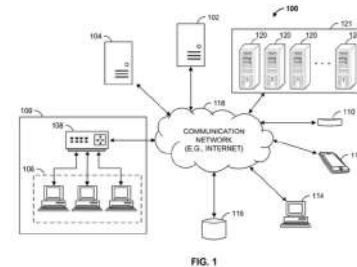
## System And Method For Generating A Multi-Task Machine Learning Model

Publicada en Patentscope, 01/08/2024

Solicitante: WALMART APOLLO LLC [US]

Systems and methods for generating a machine learning model to support multiple tasks for semantic retrieval, embedding and classification are disclosed. In some embodiments, a disclosed method includes: obtaining a training data set generated based on search related data and item related data associated with a website

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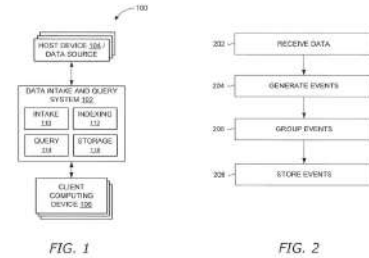
# Systems and methods for retraining machine-learning models to perform alert grouping

Publicada en Patentscope, 20/08/2024

Solicitante: SPLUNK INC [US]

A computerized method is disclosed for retraining machine learning models based on user feedback. The method includes receiving user feedback indicating a change is to be made to an assignment of one or more alerts

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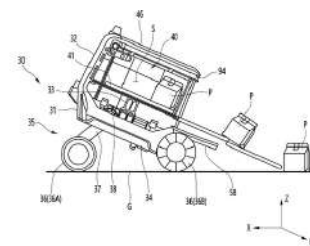
## Robot

Publicada en Patentscope, 18/07/2024

Solicitante: LG ELECTRONICS INC [KR]

A robot comprising: a driving module; a cargo part disposed on the driving module and having a space in which an article is accommodated; a hatch opening and closing the space; links connected to the hatch; and driving mechanisms moving the links, wherein the hatch may include a plurality of hatch plates which unfold in multiple stages.

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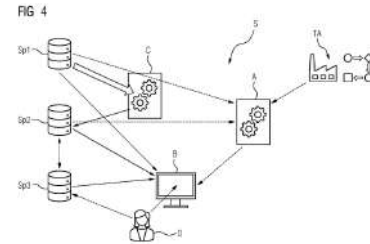
# Method And System For Optimizing A Production Process In A Technical Installation

Publicada a Patentscope, 28/08/2024

Titular: SIEMENS AG [DE]

Die Erfindung betrifft ein Verfahren und ein entsprechend ausgestaltetes System zur Optimierung eines Produktionsprozesses in einer technischen Anlage, in welcher ein verfahrenstechnischer Prozess mit mindestens einem Prozessschritt abläuft, wobei eine Vielzahl von Datensätzen von Durchläufen eines Prozessschritts mit Werten von Prozessvariablen zeitabhängig erfasst und in einem

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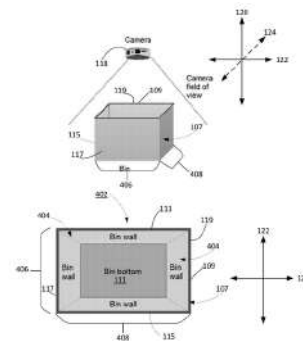
# Adaptive Region Of Interest (Roi) For Vision Guided Robotic Bin Picking

Publicada en Espacenet, 1/08/2024

Solicitante: SIEMENS AG [DE]

An autonomous system can include a depth camera configured to capture a depth image of a bin that contains a plurality of objects from a first direction, so as to define a captured image. Based on the bottom end of the bin and the captured image, the system can generate a cropped region

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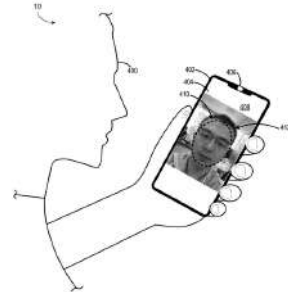
# Machine Learning Diffusion Model With Image Encoder Trained For Synthetic Image Generation

Publicada en Patentscope, 22/08/2024

Solicitante: LEMON INC [KY]

The present disclosure provides systems and methods for generating a synthesized image of a user with a trained machine learning diffusion model. In one example, a computing system includes one or more processors configured to execute instructions stored in memory

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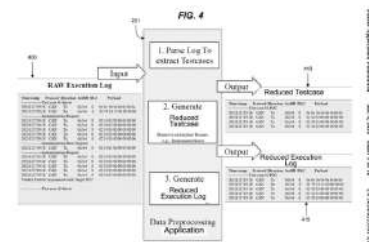
# Automatically Classifying And Scoring Of Network Vulnerabilities

Publicada en Espacenet, 04/07/2024

Solicitante: BOSCH GMBH ROBERT [DE]

A system includes a first electronic device having a display and an electronic processor configured to: determine an execution log including fuzzed data, extract text information from the execution log, generate an input vector from the extracted text information

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# PUBLICACIONES CIENTÍFICAS

## GenAI-powered Multi-Agent Paradigm for Smart Urban Mobility: Opportunities and Challenges for Integrating Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) with Intelligent Transportation Systems

Publicada en arxiv.org, 31/08/2024

Leveraging recent advances in generative AI, multi-agent systems are increasingly being developed to enhance the functionality and efficiency of smart city applications. This paper explores the transformative potential of large language models (LLMs) and emerging Retrieval-Augmented Generation (RAG) technologies in Intelligent Transportation Systems (ITS), paving the way for innovative solutions to address critical challenges in urban mobility.

[Ver más..](#)



Figure 1: An LLM-powered Multi-agent System for Intelligent Transportation and Smart Mobility

## Foreseeing the Impact of the Proposed AI Act on the Sustainability and Safety of Critical Infrastructures

Publicada en arxiv.org, 30/08/2024

The AI Act has been recently proposed by the European Commission to regulate the use of AI in the EU, especially on high-risk applications, i.e. systems intended to be used as safety components in the management and operation of road traffic and the supply of water, gas, heating and electricity.

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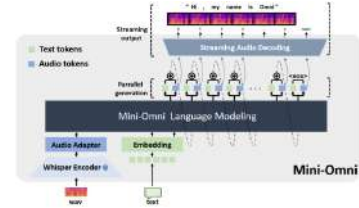


## Mini-Omni: Language Models Can Hear, Talk While Thinking in Streaming

Publicada en arxiv.org, 30/08/2024

Recent advances in language models have achieved significant progress. GPT-4o, as a new milestone, has enabled real-time conversations with humans, demonstrating near-human natural fluency. Such human-computer interaction necessitates models with the capability to perform reasoning directly with the audio modality and generate output in streaming

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## Overcoming the Barriers of Using Linked Open Data in Smart City Applications

Publicada en arxiv.org, 26/08/2024

We study the benefits and challenges of using Linked Open Data in smart city applications and propose a set of open source, highly scalable tools within the case of a public-rental bicycle system, which can act as a reference guide for other smart city applications.

[Ver más..](#)



Figure 2. Provider and consumer bicycles rental service architecture

## Smart Home Cyber Insurance Pricing

Publicada en arxiv.org, 24/08/2024

Our homes are increasingly employing various kinds of Internet of Things (IoT) devices, leading to the notion of smart homes. While this trend brings convenience to our daily life, it also introduces cyber risks.

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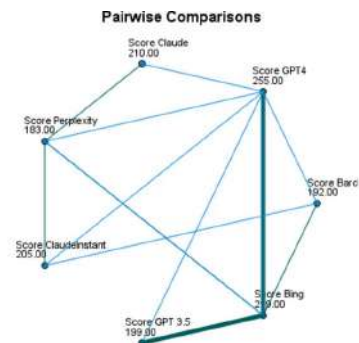


## AI chatbots show promise but limitations on UK medical exam questions: a comparative performance study

Publicada en nature.com, 14/08/2024

Large language models (LLMs) like ChatGPT have potential applications in medical education such as helping students study for their licensing exams by discussing unclear questions with them. However, they require evaluation on these complex tasks. The purpose of this study was to evaluate how well publicly accessible LLMs performed on simulated UK medical board exam questions.

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## Crowdsense Roadside Parking Spaces with Dynamic Gap Reduction Algorithm

Publicada en arxiv.org, 10/08/2024

In the context of smart city development, mobile sensing emerges as a cost-effective alternative to fixed sensing for on-street parking detection. However, its practicality is often challenged by the inherent accuracy limitations arising from detection intervals.

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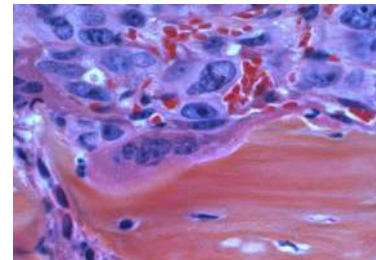
Fig. 1. Working scenario of public sensing and data sensing techniques in monitoring parking status.

## Ethics and responsibility in biohybrid robotics research

Publicada en pnas.org, 23/07/2024

The industrial revolution of the 19th century marked the onset of an era of machines and robots that transformed societies. Since the beginning of the 21st century, a new generation of robots envisions similar societal transformation. These robots are biohybrid: part living and part engineered. They may self-assemble and emerge from complex interactions between living cells.

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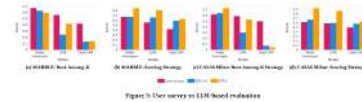


## Using Large Language Models to Compare Explainable Models for Smart Home Human Activity Recognition

Publicada en arxiv.org, 24/07/2024

Recognizing daily activities with unobtrusive sensors in smart environments enables various healthcare applications. Monitoring how subjects perform activities at home and their changes over time can reveal early symptoms of health issues, such as cognitive decline. Most approaches in this field use deep learning models, which are often seen as black boxes mapping sensor data to activities.

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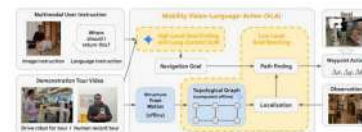


## Mobility VLA: Multimodal Instruction Navigation with Long-Context VLMs and Topological Graphs

Publicada en arxiv.org, 12/07/2024

An elusive goal in navigation research is to build an intelligent agent that can understand multimodal instructions including natural language and image, and perform useful navigation. To achieve this, we study a widely useful category of navigation tasks we call Multimodal Instruction Navigation with demonstration Tours (MINT), in which the environment prior is provided through a previously recorded demonstration video

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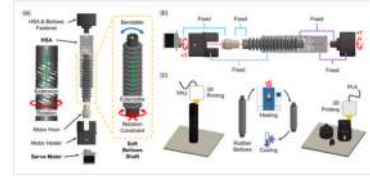


## A Flexible, Architected Soft Robotic Actuator for Motorized Extensional Motion

Publicada en onlinelibrary.wiley.com, 8/07/2024

To advance the design space of electrically-driven soft actuators, a flexible, architected soft robotic actuator is presented for motor-driven extensional motion. The actuator comprises a 3D printed, cylindrical handed shearing auxetic (HSA) structure and a deformable, internal rubber bellows shaft.

[Ver más..](#)

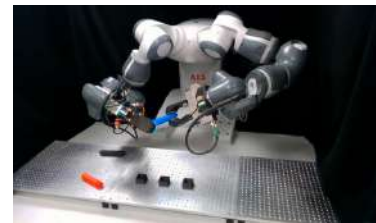


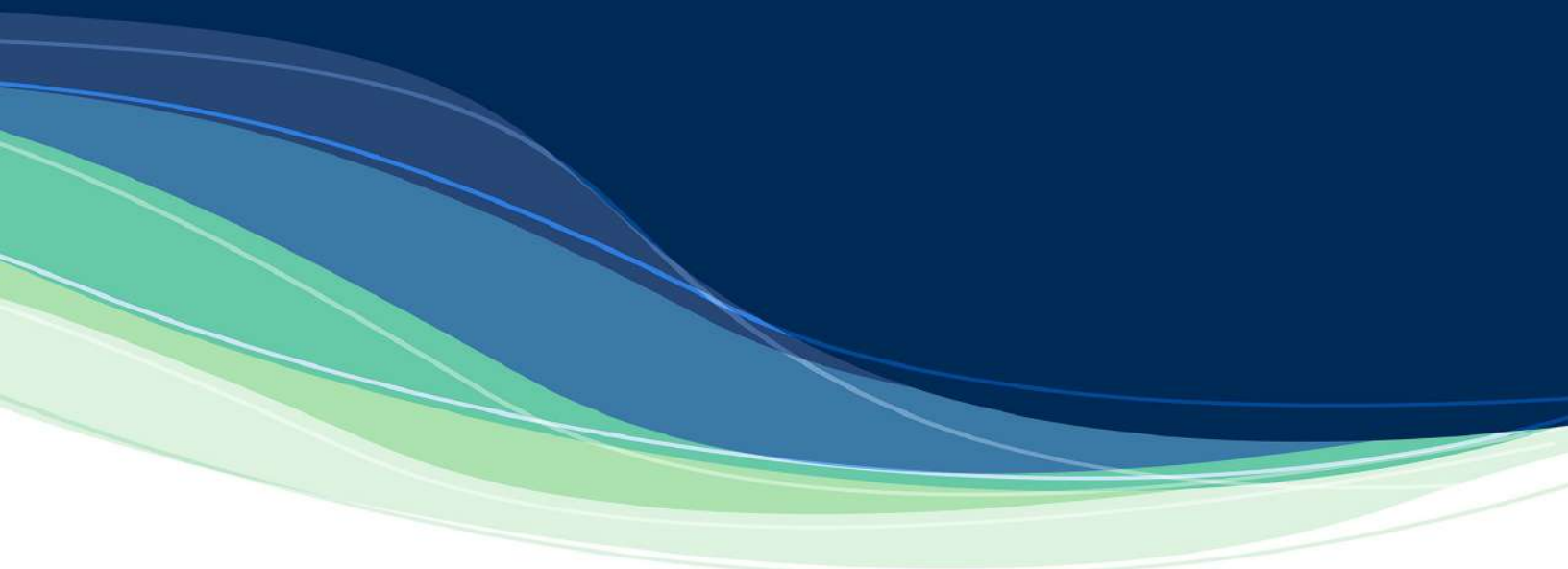
## SimPLE, a visuotactile method learned in simulation to precisely pick, localize, regrasp, and place objects

Publicada en science.org, 1/07/2024

In robotic manipulation, there is often a trade-off between high accuracy for a repetitive motion and reliability in an unstructured environment. To teach a robot to move objects into an organized arrangement, Bauza et al. have developed a framework called SimPLE

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**SmartLivingPlat**

Plataforma Tecnológica de la Domótica  
y las Ciudades Inteligentes