



SmartLiving Plat

Plataforma Tecnológica de la Domótica
y las Ciudades Inteligentes

Boletín de Vigilancia Tecnológica

Noviembre - Diciembre 2022

SMART BUILDINGS
SMART CITIES
INDUSTRIA 4.0

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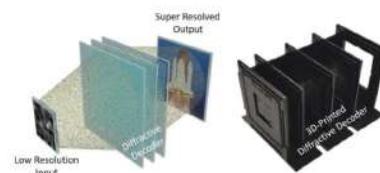
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NOTICIAS

AI-designed structured material creates super-resolution images using a low-resolution display

Publicada en <https://techxplore.com>, 05/12/2022.

One of the promising technologies being developed for next-generation augmented/virtual reality (AR/VR) systems is holographic image displays that use coherent light illumination to emulate the 3D optical waves representing, for example, the objects within a scene. These holographic image displays can potentially simplify the optical setup of a wearable display, leading to compact and lightweight form factors.



ver más...

TDC NET powers a world-beating network through managed services and AI

Publicada en <https://futurenetworkworld.net>, 02/12/2022.

Michael Fränkle, Executive Vice President and CTO, TDC NET, talks to Contributing Editor, Annie Turner, as part of the Ericsson Data Driven Transformation series. In October 2021, TDC NET outperformed operators around the world by delivering the best mobile experience in the world, based on Tutela's Excellent Consistent Quality metric which rates networks on overall mobile experience. In our second data-driven blog post we explore how data-driven operations played a key role in helping TDC NET achieve its highest-ever network performance. We spoke to Michael Fränkle, Executive Vice President and CTO, TDC NET, about TDC NET's operational and business changes, and ambitious plans for the future.

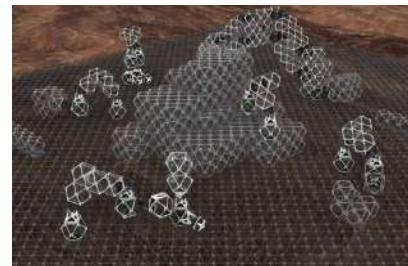


ver más...

MIT researchers build swarms of assembling robots

Publicada en <https://www.therobotreport.com>, 29/11/2022.

Researchers at the Massachusetts Institute of Technology (MIT) Center for Bits and Atoms (CBA) have created assembling robots that are made up of the same components they use to build structures, and that can move independently in large numbers to make those structures. The latest research, published in *Nature Communications Engineering*, brings the researchers closer to creating a fully autonomous, self-replicating robot assembly system capable of assembling larger structures and planning its construction sequence.



[ver más...](#)

Don't Forget The 2-Wheel Electric Revolution In Southeast Asia

Publicada en <https://cleantechnica.com>, 26/11/2022.

The summit season has kicked off big time in Southeast Asia, and green vehicles are in the spotlight. Local police are even riding electric motorcycles to escort delegates. You probably saw it on the news. "Many companies are realising that electric two-wheelers will be first taken up in this part of the world," Vivek Lath, a partner at McKinsey, said in an interview in Singapore on Friday. "It's a segment that's going to accelerate much faster."

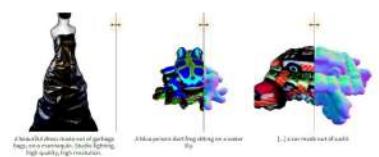


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What Nvidia's New Text-To-3D Means For Engineering & Product Design

Publicada en <https://www.forbes.com>, 24/11/2022.

Generative AI is evolving at an exhilarating pace. The latest algorithm by Nvidia converts text into 3D mesh twice as fast as projects published barely 2 months ago. This means that the technical capabilities are now already surpassing our ability to work with them.



[ver más...](#)

EMPRESAS Y MERCADOS

OpenAI announces Point-E, a machine learning system that quickly creates 3D images from a text prompt

Publicada en <https://techxplore.com>, 21/12/2022.

A team of researchers at San Francisco-based OpenAI, has announced the development of a machine-learning system that can create 3D images from text much more quickly than other systems. The group has published a paper describing their new system, called Point-E, on the arXiv preprint server.



ver más...

Siemens Mobility to deliver a turnkey metro system for Sydney Metro – Western Sydney Airport

Publicada en <https://press.siemens.com/>, 21/12/2022.

Turnkey contract to integrate the delivery and commissioning of fully automated, driverless metro trains, digital rail infrastructure including signalling, electrification, telecoms, platform screen doors and depot. Providing latest digital products and platforms, optimizing operations throughout the network for the trains, rail infrastructure and subsystems. 15-year maintenance contract, first time usage of digital asset management applications by Railigent X in Australia



ver más...

Semtech's LoRa® Devices Optimize Building Management Systems in U.S.

Publicada en <https://iotbusinessnews.com>, 07/12/2022.

Semtech Corporation, announced that Sweden-based Nordic Proeye, an end-to-end Internet of Things (IoT) solutions provider for smart buildings, has integrated Semtech's LoRa® devices and the LoRaWAN® standard into its new HVAC optimization solution being launched today in the U.S. marketplace to reduce energy consumption.



[ver más...](#)

ABB opens state-of-the-art robotics mega factory in Shanghai

Publicada en <https://new.abb.com>, 02/12/2022.

Today, ABB officially opened its state-of-the-art, fully automated and flexible robotics factory in Kangqiao, Shanghai, China. The 67,000m² production and research facility represents a \$150 million (1.1 billion RMB) investment by ABB and will deploy the company's digital and automation technologies to manufacture next generation robots – enhancing ABB's robotics and automation leadership in China.



[ver más...](#)

Techman Robot Announces its All-in-One AI Cobot Series

Publicada en <https://www.tm-robot.com>, 24/11/2022.

Merging a powerful and precise robotic arm, native AI processing, smart vision system and comprehensive software suite in a single, easily deployed package. Techman Robot has announced the introduction of its TM AI Cobot series. AI Cobot is a Collaborative Robot, which combines a powerful and precise robot arm with native AI inferencing engine and smart vision system in a complete package, ready for deployment in factories, accelerating the transition to Industry 4.0.



[ver más...](#)

Dobot Launches Nova Collaborative Robots for Retail Automation

Publicada en <https://scitechanddigital.news>, 22/11/2022.

SHENZHEN, China, Nov. 22, 2022 /PRNewswire/ — Labor shortages and rising costs around the world are two major headwinds to the retail and service sectors, opening up new opportunities of automation transformation. To better capture this newfound demand, Dobot has developed the Nova Series of collaborative robots designed specifically for retail customers to handle tasks such as making coffee, cocktail, ice cream, noodles, fried chicken, and even physical therapy.



[ver más...](#)

2022 Leadership in Engineering Winners

Publicada en <https://www.designworldonline.com>, 20/11/2022.

Here in our 16th annual issue on Leadership in Engineering, we announce the winners in the Leadership Awards Program that we have been promoting throughout the year. The Design World User Community has cast votes and we are pleased to celebrate the winners in this special section of "Leadership in Engineering." Congratulations to all who participated!



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PATENTES

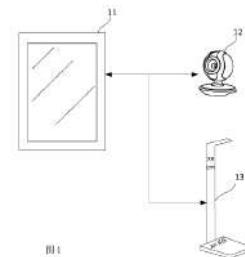
Augmented reality-based intelligent trying on method and system, terminal, and medium

Publicada en PATENTSCOPE Industria intelligente, 22/12/2022.

Solicitantes: SHENG, Mingrui [CN], SHENG, Zheng [CN]

The present application provides an augmented reality-based intelligent trying on method and system, a terminal, and a medium. The method comprises: obtaining commodity feature data of a commodity, and generating, according to the commodity feature data, a corresponding virtual commodity image; obtaining a real mirror image of a user; and combining the virtual commodity image of the commodity and the real mirror image of the user to generate and display a corresponding try-on effect image.

[ver más...](#)



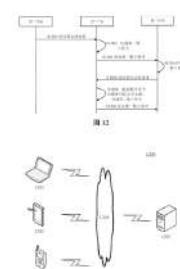
Digital currency-based payment method, platform, terminal, and payment system

Publicada en PATENTSCOPE Industria intelligente, 22/12/2022.

Solicitante: DIGITAL CURRENCY INSTITUTE, THE PEOPLE'S BANK OF CHINA [CN]

The present disclosure relates to a digital currency-based payment method, a platform, a terminal, and a payment system, and relates to the technical field of computers. A specific embodiment of the method comprises: receiving a target payment request for first digital currency in a frozen state, the first digital currency in the frozen state being generated on the basis of a pre-payment request and a pre-configured pre-payment deposit smart contract

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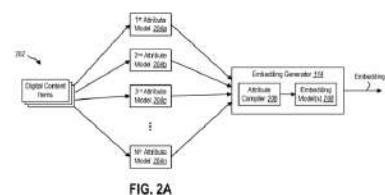


Generating and presenting multi-dimensional representations for complex entities

Publicada en PATENTSCOPE Industria intelligente, 22/12/2022.

Solicitante: MICROSOFT TECHNOLOGY LICENSING, LLC [US]

The present disclosure relates to generating a complex entity index based on a combination of atomic and deep learned attributes associated with instances of a complex entity. For example, systems described herein generate a multi-dimensional representation of entity instances based on evaluation of digital content associated with the respective entity instances. Systems described herein further generate an index representation in which similarity of entity instances are illustrated and presented via an interactive presentation that enables a user to traverse instances of an entity to observe similarities and differences between instances of an entity



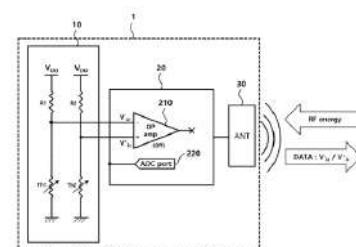
ver más...

Passive multi-channel sensor tag capable of measuring sensing values in multiple channels at low cost without loss of sensitivity even in low power environment

Publicada en PATENTSCOPE Industria intelligente, 22/12/2022.

Solicitante: HARVEN CO., LTD. [KR]

According to embodiments of the present invention, provided is a passive multi-channel sensor tag comprising: a sensing circuit unit that is driven by power received from an external reader and measures two or more sensing values; an MCU that receives the two or more sensing values as input; and an antenna unit that receives power and signals from the external reader and transmits the two or more sensing values to the external reader.



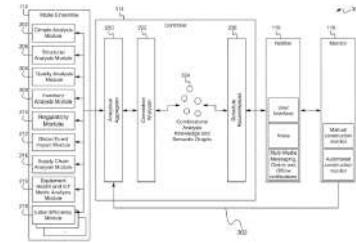
ver más...

Intelligence driven method and system for multi-factor optimization of schedules and resource recommendations for smart construction

Publicada en PATENTSCOPE Industria inteligente, 20/12/2022.

Solicitante: Slate Technologies Inc.

Techniques to generate a digitally optimized schedule for a construction activity to meet a construction objective(s) of a construction project are disclosed. An artificial intelligence system receives a plurality of input data sets that impact the construction project. Each of the plurality of input data sets is processed to achieve the construction objective(s). The artificial intelligence system processes the plurality of input data sets using a respective ensemble of machine learning models. The artificial intelligence system generates machine learning validated intermediate output data sets corresponding to each of the plurality of input data sets.



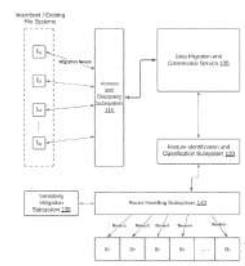
ver más...

Systems and methods for intelligent digital item discovery and machine learning-informed handling of digital items and digital item governance

Publicada en PATENTSCOPE Industria inteligente, 20/12/2022.

Solicitante: DryvIQ, Inc.

Systems and methods of computing classifications for and migrating digital content that includes accessing a digital content corpus within a source data storage system; in response to accessing the digital content corpus, for each distinct item of digital content of the plurality of distinct items of digital content: computing, via one or more digital content machine learning classification models, a content classification inference; identifying automated digital content handling tasks of a plurality of distinct digital content handling tasks based on the content classification inference each distinct item of digital content



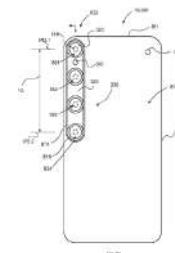
ver más...

2D digital image capture system and simulating 3D digital image and sequence

Publicada en PATENTSCOPE Industria intelligente, 15/12/2022.

Solicitantes: NIMS, Jerry [US]; KARSZES, William M. [US]; POL, Samuel [US]

A system to capture a plurality of two dimensional digital source images of scene by user, a smart device having a memory device for storing an instruction, a processor in communication with the memory and configured to execute the instruction, a plurality of digital image capture devices in communication with the processor and each image capture device configured to capture a digital image of the scene, the plurality of digital image capture devices positioned linearly in series within approximately an interpupillary distance, wherein a first digital image capture devices is centered proximate a first end of the interpupillary distance



[ver más...](#)

Blockchain-based transaction method

Publicada en PATENTSCOPE Industria intelligente, 15/12/2022.

Solicitante: ALIPAY (HANGZHOU) INFORMATION TECHNOLOGY CO., LTD. [CN]

A plurality of embodiments disclosed in the present description provide a blockchain-based transaction method. One of the methods comprises: a transaction party invoking a smart contract in a blockchain system, wherein a digital identity may be registered, on a chain, for a digitized item in the blockchain system, and an owner identifier of the digitized item may be written into a digital identity document of the digitized item; if one or more transaction counterparties want to obtain the ownership of the digitized item, the one or more transaction counterparties invoking the smart contract in the blockchain system to initiate a transaction request; and further invoking the smart contract in the blockchain system to complete a transaction, determining a new owner of the digitized item, and updating, on the chain, the owner identifier of the digitized item.

[ver más...](#)

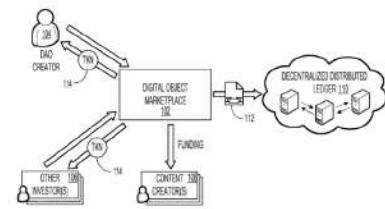
Distributed ledger-based decentralized autonomous organizations and collaborations

Publicada en PATENTSCOPE Industria inteligente, 15/12/2022.

Solicitante: Kyodai Technologies Inc., d/b/a/ Rensa Games

Systems and methods for creating and managing decentralized autonomous organizations (DAOs) using distributed ledgers are provided. An investor can submit a proposal for disbursement of funds from the DAO for the creation of digital objects. The DAO can be associated with a set of voting share tokens that can be provided to the investors according to their contributions to the DAO. When investors use their tokens to vote on the proposal, a smart contract deployed to a distributed ledger for the DAO can review the votes and the corresponding tokens to determine if the proposal is approved.

[ver más...](#)

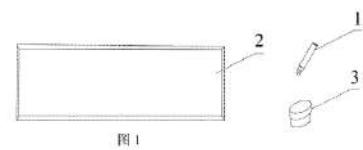


Flexible intelligent writing system

Publicada en PATENTSCOPE Industria inteligente, 15/12/2022.

Solicitante: SHENZHEN FREE INTERACTIVE TECHNOLOGY CO., LTD [CN]

Disclosed in the present invention is a flexible intelligent writing system, comprising a stylus, a writing device, and a board eraser, wherein the stylus is a conductive capacitive whiteboard stylus; the writing device is a flexible intelligent capacitive writing device; the board eraser is a conductive intelligent board eraser; the capacitive whiteboard stylus is used for performing writing on the flexible intelligent capacitive writing device, and can write ink marks of various colors; the flexible intelligent capacitive writing device is used for presenting the ink marks of various colors written by the capacitive whiteboard stylus in real time



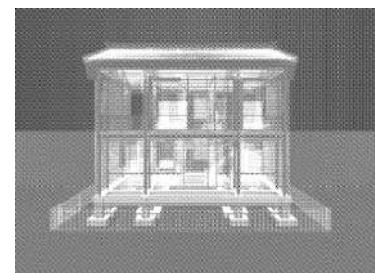
[ver más...](#)

Prefabricated building smart management data storage method based on bim

Publicada en PATENTSCOPE Industria intelligente, 15/12/2022.

Solicitante: QINGDAO UNIVERSITY OF TECHNOLOGY [CN]

The present invention relates to a prefabricated building smart management data storage method based on BIM, which method belongs to the technical field of digital management of prefabricated buildings. The method in the present invention comprises the following steps: S1, constructing an information storage platform based on BIM; S2, constructing structured data and unstructured data; S3, using a hierarchical and modular framework to perform management



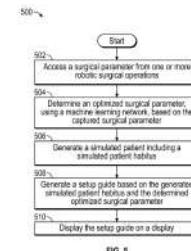
ver más...

Systems and methods for clinicalworkspace simulation

Publicada en PATENTSCOPE Industria intelligente, 15/12/2022.

Solicitante: DIGITAL SURGERY LIMITED

A computer- implemented method for clinical workplace simulation includes capturing a surgical parameter from one or more robotic surgical operations, based on a sensor; and determining an optimized surgical parameter based on the captured surgical parameter. The surgical parameter includes a patient habitus, a port location in a first patient, and/or a robotic arm placement relative to the first patient. The optimized surgical parameter includes an optimized port placement location in a second patient, and/or an optimized robotic arm placement location relative to the second patient.



ver más...

Fine-grained visual recognition in mobile augmented reality

Publicada en PATENTSCOPE Industria intelligente, 14/12/2022.

Solicitante: IBM

Obtain access to a three-dimensional point cloud representation of an object including poses of a scanning digital camera and corresponding video frames. Down-sample the three-dimensional point cloud representation to obtain a set of region-of-interest candidates. Filter the region-of-interest candidates to select those of the region-of-interest candidates having appearance changes, which distinguish different visual states, as selected regions of interest, based at least in part on the poses of the camera. Generate region of interest images for the selected regions of interest from corresponding ones of the video frames; and train a deep learning recognition model based on the region of interest images. the trained deep learning recognition model can be used, for example, to determine a visual state of the object for repair instructions.

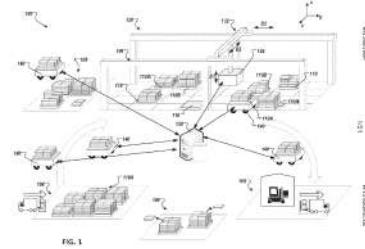
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Automatic transportation of pallets of goods

Publicada en PATENTSCOPE Industria intelligente, 08/12/2022.

Solicitante: LINEAGE LOGISTICS, LLC

Abstract A system for automatically assembling multiple pallets of goods using a first device configured to pick layers of goods from pallets and move them over other pallets within an assembly area. In addition, the system includes a second device configured to move pallets of goods into, from, and/or around the assembly area. The first device can be, for example, a gantry or robotic arm configured to pick and move layers of goods over pallets. The second device can be, for example, automated guided vehicles that automatically navigate and are capable of picking up, moving, and dropping off pallets.



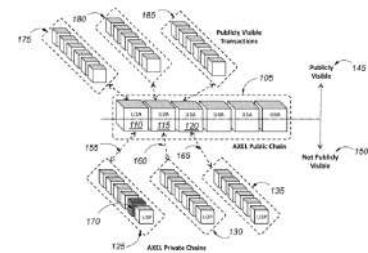
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Autonomous exchange via entrusted ledger digital signature management and administration

Publicada en PATENTSCOPE Industria intelligente, 08/12/2022.

Solicitante: Duvon Corporation

A signature is a unique identifier that is created by the signor or signatory for the purpose of acknowledging or otherwise providing acceptance of a transaction such as signing a check, contract or other transactional vehicle. The system and method disclosed herein provides for the authenticating and tracking of each signature within a digital environment such as a blockchain by applying a unique identifier to each signature. The identifier created for the signature is then attached to the vehicle being signed such as a document or a contract, which is then also assigned an identifier to enable the permanent association of the signature and the vehicle that was signed.



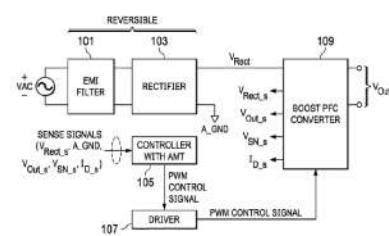
ver más...

Autonomous mode transition for multimode operation in boost pfc converters

Publicada en PATENTSCOPE Industria intelligente, 08/12/2022.

Solicitante: Texas Instruments Incorporated

A controller for a boost power factor correction (PFC) converter. The controller is configured to operate the boost PFC converter in multiple operating modes, including a continuous conduction mode (CCM), a transition mode (TM), and a hybrid mode in which the controller operates the converter in both CCM and TM within a same line cycle. An example controller includes a current control loop and a mode transition circuit. The current control loop is configured to compute an inductor current for each of first and second operation modes, based on a current sample taken, for example, during a boost synchronous rectifier conduction period of the converter.



ver más...

Digital rights management using distributed ledgers

Publicada en PATENTSCOPE Industria inteligente, 08/12/2022.

Solicitante: KYODAI TECHNOLOGIES INC. [US]

Systems and methods for managing digital rights associated with digital objects using distributed ledgers are provided. A digital object marketplace receives a request to access a digital object via an interface provided by the digital object marketplace. The marketplace queries the user's digital wallet for a license token generated by a smart contract for the digital object deployed in a distributed ledger. If the user does not have a license token, the marketplace prompts the user to purchase one. If the user submits a request to purchase a license token, a payment is transferred, using the smart contract, from the user's digital wallet to the digital wallet of the owner of the digital object.

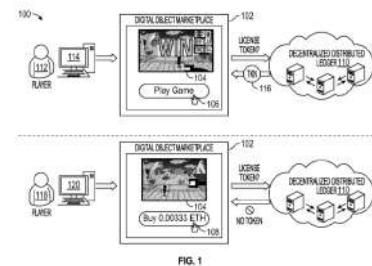


FIG. 1

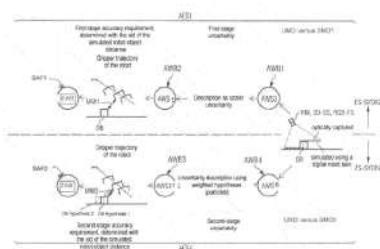
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Method, computer program product and robot controller for configuring a robot-object system environment, and robot

Publicada en PATENTSCOPE Industria inteligente, 08/12/2022.

Solicitante: Siemens Aktiengesellschaft

In order to be able to automatically eliminate discrepancies, arising in the course of the configuration of a robot-object system environment, between the reality of the robot-object system environment and its digital representation as a CAD model, without manual on-site commissioning of the robot-object system environment with adaptation of the CAD model to the reality, the following is proposed for configuring a robot-object system environment having at least one object and having a robot for object manipulation and object sensing

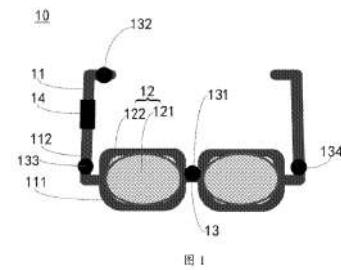


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Smart eyeglasses and method for displaying image

Publicada en PATENTSCOPE Industria intelligente, 08/12/2022.

Solicitante: SHENZHEN TCL DIGITAL TECHNOLOGY LTD. [CN]
Smart eyeglasses (10) and a method for displaying an image. The smart eyeglasses (10) comprise: a display assembly (12) mounted in a frame (111), the display assembly comprising lenses (121) and transparent display screens (122) stacked on the lenses (121); and an image acquisition module (13) and a processing control module (14) which are arranged on the frame (11) and connected to the transparent display screens (122), the image acquisition module (13) being used for acquiring depth information of a real scene



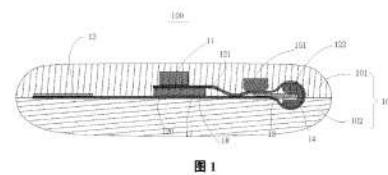
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Watchband and smart watch

Publicada en PATENTSCOPE Industria intelligente, 08/12/2022.

Solicitante: GOERTEK INC. [CN]

Disclosed in the embodiments of the present invention are a watchband and a smart watch. The watchband comprises: a silica gel watchband main body; a circuit board assembly, which is embedded in the watchband main body and comprises a flexible circuit board; and an acceleration sensor, which is arranged on the flexible circuit board. The watchband of the present application can accurately sense micro-movements of a user, so as to implement a man-machine interaction mode of a smart wearable device more accurately, thereby improving the user experience.



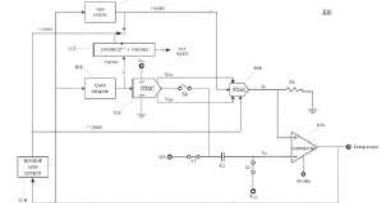
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Pivoting successive approximation register ADC for a radiation hard autonomous digital readout

Publicada en PATENTSCOPE Industria intelligente, 06/12/2022.

Solicitante: United States of America as represented by the Administrator of NASA

An analog digital converter that does not require a dedicated reference voltage, can digitize a rail-rail input signal and provide house-keeping functions to a ROIC or other IC. The RHADR system may operate without support from a main electronics board, which would only have to supply a power supply voltage to, and read the outputs from, the chip. This is achieved with (1) a Pivoting Successive Approximation Register ADC (PSAR ADC) and (2) radiation hard by design (RHBD) techniques.



ver más...

System and method for cooperative internet sharing for an intelligent transport system

Publicada en PATENTSCOPE Industria intelligente, 02/12/2022.

Solicitante: MINDA CORPORATION LIMITED

The present disclosure relates to system for cooperative internet sharing for an intelligent transport system. the system may comprise of a supervisory control unit (scu) (102) which is coupled to a digital video recorder (dvr) (104). the supervisory control unit (102) is connected to a cloud server (106). in an embodiment, the supervisory control unit (102) is connected to the digital video recorder (104) via an ethernet connection (108), where scu has to enable point-to-point (ppp) protocol for internet access via ethernet. the supervisory control unit (102) may send navigation data gathered from a gps unitand audio and video related information of passengers retrieved from the dvr 104 in real time to the cloud server (106), via a single gsm unit.fig: 1

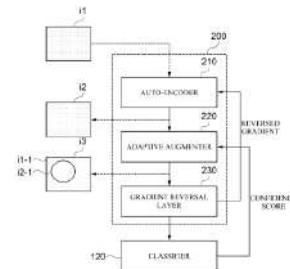
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Apparatus for deep fake image discrimination and learning method thereof

Publicada en PATENTSCOPE Industria intelligente, 01/12/2022.

Solicitante: SAMSUNG SDS CO., LTD.

An apparatus for deep fake image discrimination according to an embodiment includes an interface unit configured to receive image data and a classifier configured to determine whether the image data input through the interface unit is a deep fake image, and the classifier is trained to determine a deep fake image based on a synthetic image generated by swapping a portion of a real image with a fake image generated by self-replicating the real image.



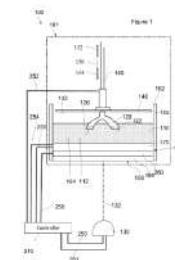
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Flexible sensor for additive manufacturing device

Publicada en PATENTSCOPE Industria intelligente, 01/12/2022.

Solicitante: FORCAST RESEARCH & DEVELOPMENT CORP. [CA]

An additive manufacturing device includes a container for containing feed stock material and having an optically transparent bottom wall. The additive manufacturing device further includes a radiation source configured to emit radiation in an optical path incident on the bottom wall and a sensor positioned in the optical path of the radiation above the bottom wall. The sensor is configured to sense a temperature of feedstock material at a reaction interface as the radiation polymerizes at least a portion of the feedstock material. The sensor is constructed to meet a transparency threshold and a flexibility threshold.

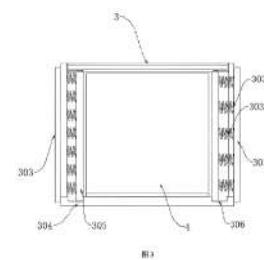


Logistics transportation container having push discharging structure and discharging method therefor

Publicada en PATENTSCOPE Industria inteligente, 01/12/2022.

Solicitante: NANJING YUZHI INTELLIGENT TECHNOLOGY CO., LTD. [CN]

Disclosed in the present invention are a logistics transportation container having a push discharging structure and a discharging method therefor, relating to the technical field of logistics transportation. The logistics transportation container comprises a container body, a turnover door structure and an anti-bumping inner frame structure, wherein the container body comprises the turnover door structure used to seal the container body, and the anti-bumping inner frame structure embedded inside the container body for providing support rigidity



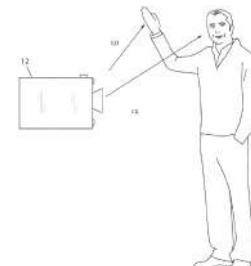
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Monitoring System and Method Having Gesture Detection

Publicada en PATENTSCOPE Industria inteligente, 01/12/2022.

Solicitante: Arlo Technologies, Inc.

A method of and system are disclosed for detecting various gestures by an imaging device and executing a task assigned to these gestures. For instance, the task could include a number of smart home functions, as well as various text and other communication transmissions. The imaging device, which can be a digital camera, is wirelessly communicable with one or more base stations and/or access points over a wireless local area network. The imaging device transmits images and/or videos, which can be reviewed by a computer vision program ("CV"). CV can identify potential gestures in the images and/or videos and compare any such images and/or videos to a database of known gestures.



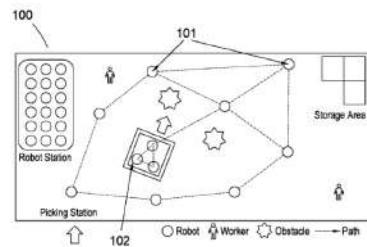
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System and method for optimizing wireless coverage in infrastructure-less logistics and warehousing operations

Publicada en PATENTSCOPE Industria intelligente, 01/12/2022.

Solicitante: Kabushiki Kaisha Toshiba

A method for optimizing coverage of a wireless network of a plurality of mobile robots in an environment in which each robot includes an optical sensor module, a microprocessor, and a wireless communication module. The method includes: receiving, by a first robot in the network, signals from a second robot in the network; determining, by the first robot based on the signals, that the first robot or second robot do not fulfil a network coverage condition



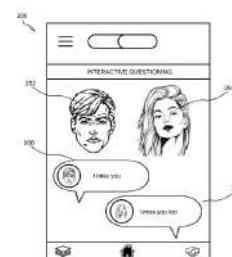
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System and method for posthumous dynamic speech synthesis using neural networks and deep learning

Publicada en PATENTSCOPE Industria intelligente, 01/12/2022.

Solicitante: Brock Daily

A system and method for posthumous dynamic speech synthesis digitally clones the original voice of a deceased user, which allows an operational user to remember the original user, post mortem. The system utilizes a neural network and deep learning to digitally duplicate the vocal frequency, personality, and characteristics of the original voice from the deceased user. This systematic approach to dynamic speech synthesis involves several stages of compression, coding, decoding, and training the speech patterns of original voice. The data processing of original voice includes audio sampling and a Lossy-Lossless method of dual compression



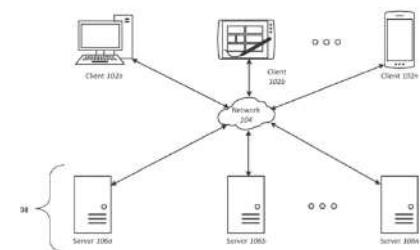
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Systems and methods for validation of policies of a smart contract on a centralized or distributed digital ledger

Publicada en PATENTSCOPE Industria intelligente, 01/12/2022.

Solicitante: Civic Technologies, Inc.

Systems and methods are described for policy-validated transactions using a centralized or distributed ledger. A request to execute a transaction and a transaction signature is received from a user's computing device. The transaction signature is generated with a private key of the user's computing device. The transaction corresponds to a token associated with the user's computing device and the transaction is subject to a first policy of a set of one or more policies. The transaction signature corresponds to the request to execute the transaction is determined using a public key of the user's computing device.



[ver más...](#)

A smart contract based blockchain application using non-fungible token for authorized asset sharing

Publicada en PATENTSCOPE Industria intelligente, 30/11/2022.

Solicitante: JACOB ELMON; BRANDON ELMON

The authentication of digital assets in the form of non-fungible tokens (NFTs) in a blockchain network 507 to allow authorised digital assets sharing. Allowing buyers to purchase and access original digital assets such as audio, video and e-book for example via a blockchain network 507. The digital assets are tokenized into NFTs, which are embedded with an audio file 511 as a unique identifier. Smart contracts in the blockchain network verify, identify and update the digital assets. The process also gives the buyer and owner access to a unique audio sound or music that validates the transaction. the originality of the NFTs.

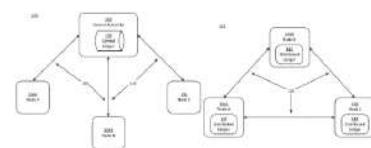
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Systems and methods for controlled access to blockchain data

Publicada en PATENTSCOPE Industria inteligente, 29/11/2022.

Solicitante: STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY

Methods and systems for managing and/or processing a blockchain to maintain data security for confidential and/or personal data are provided. According to certain aspects, the disclosed data security techniques may enable access sharing functionality utilizing the blockchain. For example, access sharing may be utilized to file documents, share policy information, and/or comply with an audit.



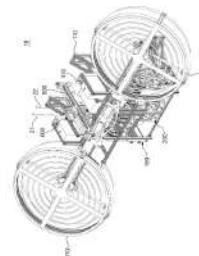
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Building exterior wall cleaning robot

Publicada en PATENTSCOPE Industria inteligente, 24/11/2022.

Solicitante: IUCF-HYU (INDUSTRY-UNIVERSITY COOPERATION FOUNDATION HANYANG UNIVERSITY) [KR]

A building exterior wall cleaning robot is disclosed. The building exterior wall cleaning robot comprises: a robot body which cleans a building exterior wall while being suspended on ropes and has a predetermined weight; an LM guide which is coupled to the robot body and provided to have a predetermined length; and a moving unit which is connected to the ropes and moves along the LM guide to move the point on which the tension of the ropes is acting.



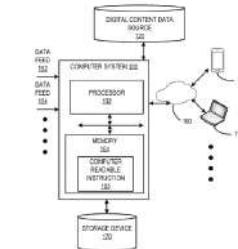
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Dynamic digital content delivery using artificial intelligence (ai) techniques

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: Meta Platforms, Inc.

According to examples, a system for providing dynamic digital content may include a processor and a memory storing instructions. The processor, when executing the instructions, may cause the system to receive a plurality of data feeds. The processor may further analyze the data feeds to identify values for parameterized variables. A plurality of deep learning (DL) models can be trained to obtain product attribute data from the data feeds. The processor may then identify rules or triggers based on the values of the parameterized variables. The rules and/or triggers cause the processor to dynamically generate or select digital content and transmit the digital content to user communication devices of selected audience.



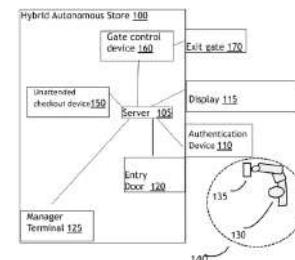
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Hybrid autonomous store

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: AiFi Corp

This application relates to systems, methods, devices, and other techniques for a hybrid autonomous store that can be utilized within a retail environment. This system with doors, cameras, and sensors is designed to have many functions within a store with identification system and sometimes can be utilized in a store with or without human cashier.



ver más...

Method and system for automatic replenishment of retail enterprise store, and computer-readable storage medium

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: Starbucks Corporation

A method and system are disclosed for automatic replenishment of a retail enterprise store, and a computer-readable storage medium. In the method of the present disclosure, historical operational transaction data of at least one store of the same type as the retail enterprise store is used to obtain four indicators of each product of the at least one store, a plurality of target features having an impact on an indicator matrix composed of the four indicators are extracted to provide replenishment suggestions

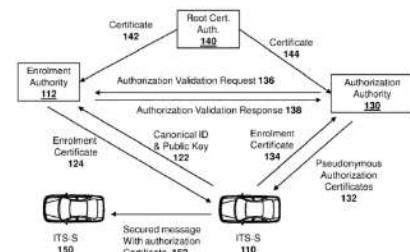
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Method and system for handling dynamic cybersecurity posture of a v2x entity

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: BlackBerry Limited

A method at a network element, the method including receiving at least one message at the network element, the at least one message being one or both of: an update status information message from an updates server; and an anomaly detection status information message from anomaly detection server; determining, based on the receiving the at least one message, a dynamic cybersecurity posture indication for an intelligent transportation system entity



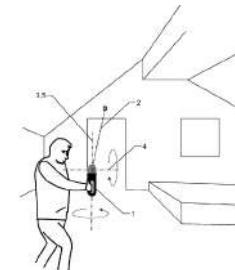
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Reality capture with a laser scanner and a camera

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: LEICA GEOSYSTEMS AG

A reality capture device for generating a digital three-dimensional representation of an environment enables an object within an infrastructure to be surveyed or detected. The reality capture device is compact and easy to use, allowing for fast and reliable capture. The reality capture device can be carried and moved by a mobile carrier, particularly a person, robot or vehicle, and can be moved during a measuring process for generating a digital representation of an environment. The mobile reality capture device includes a localization unit for providing a simultaneous localization and mapping functionality, a laser scanner, and a camera unit.



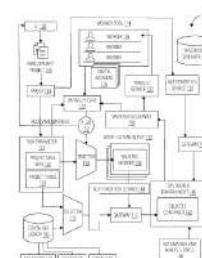
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Resource configuration and management system for digital workers

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: Ampliforce Inc.

A resource configuration and project management system identifies sandboxed task data and task parameters including project skill sets and project tools. An online community is provided of autonomous or semiautonomous artificial agents (digital workers), examples being chatbots for customer service, technical support, and advisory services.



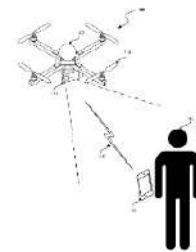
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User Interaction Paradigms For A Flying Digital Assistant

Publicada en PATENTSCOPE Industria intelligente, 24/11/2022.

Solicitante: Skydio, Inc

Methods and systems are described for new paradigms for user interaction with an unmanned aerial vehicle (referred to as a flying digital assistant or FDA) using a portable multifunction device (PMD) such as smart phone. In some embodiments, a user may control image capture from an FDA by adjusting the position and orientation of a PMD. In other embodiments, a user may input a touch gesture via a touch display of a PMD that corresponds with a flight path to be autonomously flown by the FDA.



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Digital-twin-based testing for cyber–physical systems: A systematic literature review

Publicada en <https://www.sciencedirect.com>, 26/12/2022.

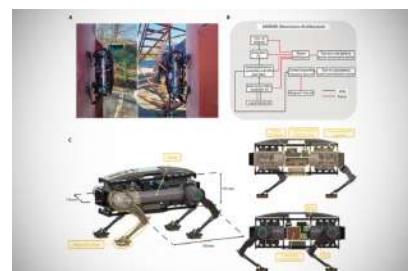
Cyber-physical systems present a challenge to testers, bringing complexity and scale to safety-critical and collaborative environments. Digital twins enhance these systems through data-driven and simulation based models coupled to physical systems to provide visualisation, predict future states and communication. Due to the coupling between digital and physical worlds, digital twins provide a new perspective into cyber–physical system testing.

[ver más...](#)

Agile and versatile climbing on ferromagnetic surfaces with a quadrupedal robot

Publicada en <https://www.science.org>, 14/12/2022.

A climbing robot that can rapidly move on diverse surfaces such as floors, walls, and ceilings will have an enlarged operational workspace compared with other terrestrial robots. However, the climbing skill of robots in such environments has been limited to low speeds or simple locomotion tasks. Here, we present an untethered quadrupedal climbing robot called MARVEL (magnetically adhesive robot for versatile and expeditious locomotion), capable of agile and versatile climbing locomotion in ferromagnetic environments.



[ver más...](#)

ThreatKG: A Threat Knowledge Graph for Automated Open-Source Cyber Threat Intelligence Gathering and Management

Publicada en <https://arxiv.org>, 10/12/2022.

Despite the increased adoption of open-source cyber threat intelligence (OSCTI) for acquiring knowledge about cyber threats, little effort has been made to harvest knowledge from a large number of unstructured OSCTI reports available in the wild (e.g., security articles, threat reports). These reports provide comprehensive threat knowledge in a variety of entities (e.g., IOCs, threat actors, TTPs) and relations, which, however, are hard to gather due to diverse report formats, large report quantities, and complex structures and nuances in the natural language report text.

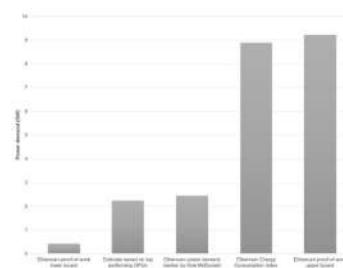


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Cryptocurrencies on the road to sustainability: Ethereum paving the way for Bitcoin

Publicada en <https://www.cell.com>, 06/12/2022.

Cryptocurrencies such as Bitcoin are facing increasing pressure from regulators around the world to limit their power demand. This perspective highlights how Ethereum, the second largest cryptoasset by market capitalization, likely succeeded in significantly reducing its power demand through an event called The Merge. This event occurred on September 15, 2022, and consisted of Ethereum's proof-of-work mining mechanism being replaced with an alternative known as proof of stake. The Ethereum network likely reduced its power demand by 99.84% to 99.9996% as a result of this change. In absolute terms, the reduction in power demand could be equivalent to the electrical power requirement of a country such as Ireland or even Austria.



ver más...

Traversable wormhole dynamics on a quantum processor

Publicada en <https://www.nature.com>, 30/11/2022.

The holographic principle, theorized to be a property of quantum gravity, postulates that the description of a volume of space can be encoded on a lower-dimensional boundary. The anti-de Sitter (AdS)/conformal field theory correspondence or duality¹ is the principal example of holography. The Sachdev–Ye–Kitaev (SYK) model of N¹ Majorana fermions^{2,3} has features suggesting the existence of a gravitational dual in AdS², and is a new realization of holography^{4,5,6}. We invoke the holographic correspondence of the SYK many-body system and gravity to probe the conjectured ER=EPR relation between entanglement and spacetime geometry^{7,8} through the traversable wormhole mechanism as implemented in the SYK model^{9,10}.

[ver más...](#)

A comprehensive review of cyber-attacks and defense mechanisms for improving security in smart grid energy systems: Past, present and future

Publicada en <https://www.sciencedirect.com/>, 21/11/2022.

Due to the advancement in communication networks, metering and smart control systems, as well as the prevalent use of Internet-based structures, new forms of power systems have seen moderate changes with respect to several aspects of contradictory Cyber–Physical Power Systems (CPPSs). These structures usually have connections between power sections and cyber parts.

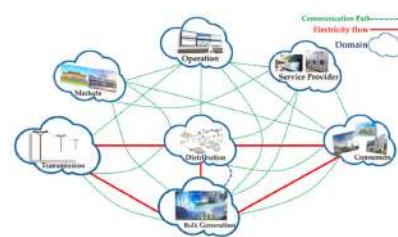
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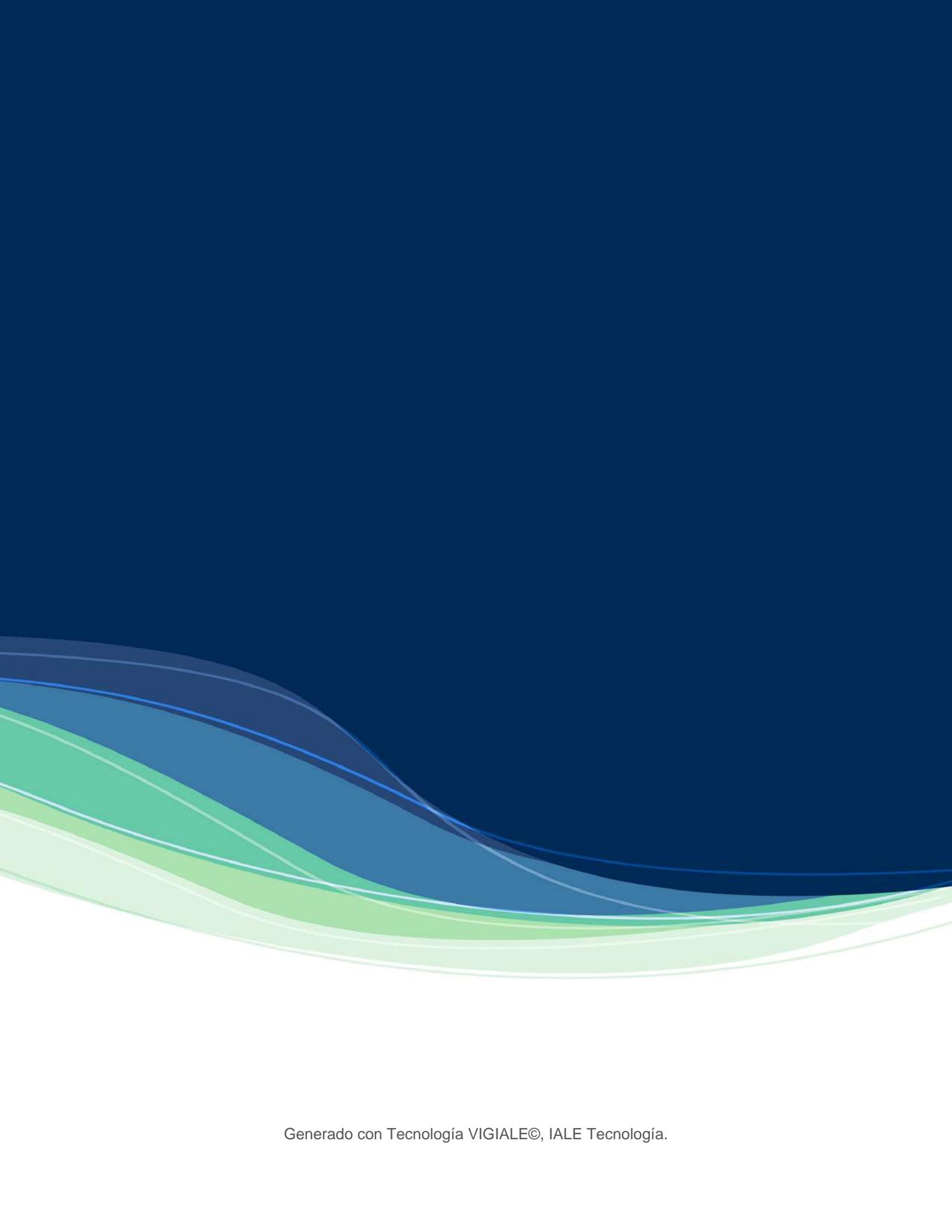
Review on cyber-physical and cyber-security system in smart grid: Standards, protocols, constraints, and recommendations

Publicada en <https://www.sciencedirect.com>, 05/11/2022.

The smart grid (SG) system is an intelligent technology that facilitates the integration of green technology and environmental aspects, which is a two-way communication system for information transformation, power generation, and distribution. The development and application of communication technology in the traditional power system deployed the SG cyber-physical system. The SG systems have a complex architecture that contains critical devices and Internet of Things (IoT)-based infrastructures.

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