SmartLivingPlat

Plataforma Tecnológica de la Domótica y las Ciudades Inteligentes

Boletín de Vigilancia Tecnológica

Mayo - Junio 2022

SMART BUILDINGS
SMART CITIES
INDUSTRIA 4.0

Financiado por la Agencia Estatal de Investigación (PTR2020-001242)

GOBIERNO DE ESPAÑA · MINISTERIO DE CIENCIA E INNOVACIÓN

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NOTICIAS

Positive Energy Neighbourhoods: Drivers of Transformational Change

Publicada en https://smart-cities-marketplace.ec.europa.eu/, 29/06/2022.

In order to scale up the implementation of positive energy neighbourhoods (PEN) & decarbonise the EU building stock, BPIE - Buildings Performance Institute Europe as part of oPEN Lab, provides 4 policy recommendations in its recent policy paper: 1. To endorse Member States to identify appropriate neighbourhoods to implement integrated renovation programmes. 2. To establish a harmonised definition of positive energy neighbourhood clarifying the boundaries of the built environment, & covering aspects related to use of renewables, energy communities, mobility, density and social cohesion;...

ver más...

Toronto wants to kill the smart city forever

Publicada en https://www.technologyreview.com, 29/06/2022.

In February, the city of Toronto announced plans for a new development along its waterfront. They read like a wish list for any passionate urbanist: 800 affordable apartments, a two-acre forest, a rooftop farm, a new arts venue focused on indigenous culture, and a pledge to be zero-carbon.

ver más...

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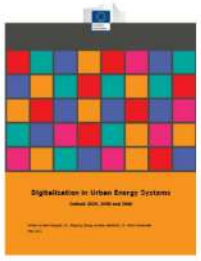
Digitalization in Urban Energy Systems

Publicada en https://smart-cities-marketplace.ec.europa.eu, 22/06/2022.



Scalable Cities are proud to announce the publication of the paper: "Digitalization in Urban Energy Systems. Outlook 2025, 2030 and 2040." Digitalization is defined as the transformation of a business or industry by using digital technologies to improve its processes. Digital tools can help to integrate and analyse data, underpin more effective and sustainable policymaking and urban planning, provide information and insights, and create benefits for citizens. Specially for urban dense areas, digitalisation can assist to reduce resource demand and improve flexibility to respond to changes.

ver más...

Roboethics keeps humans at the center

Publicada en https://ifr.org, 09/06/2022.

Are humans still at the center of innovation? This question is at the heart of the debate on roboethics, a topic that SIRI identifies as fundamental to the future development of robotics. "Human creates and has always created his tools to improve work - explains SIRI's presidente Domenico Appendino, tracing the history of robotics - but also to reduce risks, fatigue and protect his health.

ver más...

Volver al índice

District heating and cooling helping cities reach their climate and energy goals: Results of the EU level survey

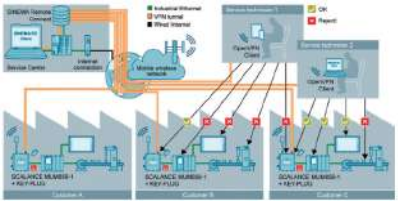
Publicada en https://smart-cities-marketplace.ec.europa.eu, 24/05/2022.

The stakeholder survey "Urban Heating and Cooling Transition" was launched in January 2022. Its results were presented and discussed at the REWARDHeat-Celsius policy workshop on 17 March in Brussels. The aim of the survey was to analyse stakeholders' awareness and understanding of DHC and its role in realising the EU's climate and energy objectives. It targeted all relevant stakeholders: both within the European institutions and the wide EU policy community

ver más...

Experience Centers Teach Cybersecurity Best Practices

Publicada en https://gca.isa.org, 10/05/2022.



The adoption of Industry 4.0 technologies is increasing efficiency and profitability across industrial control system (ICS) environments, making data available from myriad sources, and employing advanced software tools to analyze information. This gives plant staff insights for facility and machine optimization at a rate never before experienced in industry.

ver más...

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EMPRESAS Y MERCADOS

How Manufacturers Supercharge Massive Supply Chain Advantage with Industry 4.0

Publicada en https://news.sap.com, 30/06/2022.

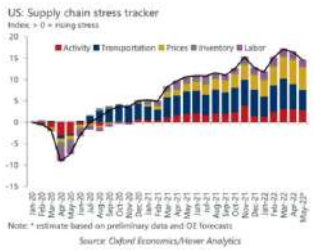
Buffeted by all manner of disruptions – the pandemic, geopolitical conflicts, and trade wars to name a few – manufacturers have elevated Industry 4.0 from shop floor tactic to business-led strategy. While automation may have begun in the factory, in an ultra-dynamic market where anything can and does happen, intelligence has kick-started the next digitalized revolution across industrial manufacturing.

ver más...

One of the biggest trends powering sky-high inflation got a lot better in May

Publicada en https://www.businessinsider.com, 09/06/2022.

Supply-chain issues have been a major factor in creating the US's year-long inflation problem. New signals reveal the mess is steadily being cleaned up. Today's inflation — which is running at the fastest pace since 1982 — boils down to a simple mismatch.



ver más...

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JR Automation to provide customers with flexible financial solutions

Publicada en https://www.jrautomation.com, 02/06/2022.

JR Automation is excited to now offer a private financing program for its innovative technology through the introduction of JR Automation Financial Services. The comprehensive offering allows customers to implement and scale their automation needs quicker and more affordably by providing financing options for their automation system as well as related costs including freight, service contracts, software licenses and spare parts provisioning

ver más...

Nokia and Mobile Industrial Robots (MiR) showcase real-time robot fleet management using private 5G wireless at LogiMat, Germany

Publicada en https://www.nokia.com/, 26/05/2022.

Nokia and Mobile Industrial Robots (MiR) showcase real-time robot fleet management using private 5G wireless at LogiMat, Germany. Nokia and MiR to show how private 5G wireless networks can deliver high-performance, low-latency and secure connectivity for Industry 4.0 digital transformation

ver más...

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Andreessen Horowitz bets on crypto with $4.5-bn fund, largest of its kind

Publicada en https://www.business-standard.com/, 25/05/2022.

The fund, the fourth crypto-dedicated investment vehicle for Andreessen Horowitz, brings its total digital-asset-focused efforts to $7.6 billion. Sagging crypto prices and the collapse of the TerraUSD stablecoin are no deterrent for venture capitalists who still see a lot of promise in the industry. In the latest example of that commitment, Andreessen Horowitz said Wednesday that it had raised a $4.5 billion crypto fund, the industry's largest to date.

ver más...

Cognata and Hancom MDS sign a key partnership agreement to accelerate ADAS and AV simulation adoption in the Korean Market

Publicada en https://www.cognata.com/, 16/05/2022.

Cognata's Simulation Platform to join the exclusive portfolio of Hancom MDS to become its premier solution for ADAS/AV prospects in South Korea. (Rehovot, Israel –16 May, 2022) Cognata, Ltd., announced today the integration of Cognata's simulation authoring software into Hancom's advanced portfolio, to further accelerate AV and ADAS simulation adoption into the progressive Korean market.

ver más...

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Qualcomm Advances Development of Smarter and Safer Autonomous Robots for Logistics, Industry 4.0, and Urban Aerial Mobility with Next-Generation 5G and AI Robotics Solutions

Publicada en https://www.qualcomm.com, 10/05/2022.

New solutions enable more productive, intelligent, and advanced connected robots and intelligent machines to improve business operations, enhance manufacturing productivity, and fuel innovation

ver más...

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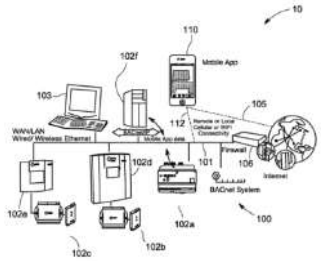
PATENTES

Network security management for a building automation system

Publicada en https://patentscope.wipo.int/, 30/06/2022.

Solicitante: TRANE INTERNATIONAL INC.
Methods and systems for performing an electronic security assessment of a building automation system are provided. The building automation system includes a controller and a network of electronic devices connected in electronic communication. T



ver más...

Managing energy using artificial intelligence

Publicada en Patentes AI patentscope, 23/06/2022.

Solicitante: MICRON TECHNOLOGY, INC. [US]/
Methods, devices, and systems related to managing energy using artificial intelligence (AI) are described. In an example, a method can include receiving first signaling including data representing an energy input at a processing resource of a computing device from a radio in communication with a processing resource of an energy source, receiving second signaling including user data at the processing resource of the computing device from a memory of the computing device, inputting the user data and the data representing the energy input into an AI model at the processing resource of the computing device, generating data representing a command as an output of the AI model, and transmitting third signaling

ver más...

Volver al índice

Method and device for providing artificial intelligence assistant service through voice call

Publicada en Patentes AI patentscope, 23/06/2022.

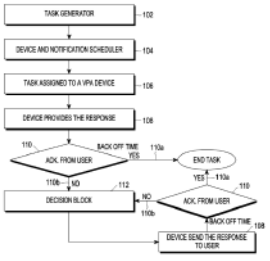
Solicitante: ICUBEON INC. [KR]
Embodiments may provide an operation method of a first terminal performing a question-and-answer operation through a voice call. In this case, the operation method of the first terminal may comprise the steps of: receiving a voice call from a second terminal and making an automatic connection; after the automatic connection is made, receiving a first query request message from the second terminal

ver más...

Method and systems for executing tasks in iot environment using artificial intelligence techniques

Publicada en Patentes AI patentscope, 23/06/2022.

Solicitante: SAMSUNG ELECTRONICS CO., LTD. [KR]
The present disclosure provide a method for executing tasks in an IoT environment using artificial-intelligence (AI) techniques. The method includes: receiving at least one current task related to a user; identifying, based on a pre-defined criteria, a type of the at least one current task and a priority-level of the at least one current task from the at least one current task; generating based on an AI-model, a correlation of one or more of a user-location, a device-usage history pertaining to the user, a list of current active devices with respect to the user, and a user-preference within the IoT environment; and identifying at least one device for communicating a task-execution status



ver más...

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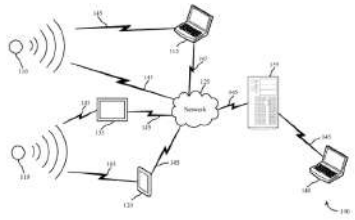
Home automation system supporting dual-authentication

Publicada en https://patentscope.wipo.int, 14/06/2022.

Solicitante: Vivint Inc.
Techniques are described for a security and automation system. One method includes detecting a presence of a person proximate a residence, receiving a first authentication factor from a device associated with the person, receiving a second authentication factor associated with the person, and initiating a change of state of a locking mechanism associated with a barrier of the residence based on the first authentication factor and the second authentication factor.

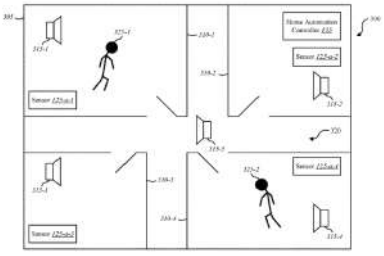


ver más...

Voice annunciated reminders and alerts

Publicada en https://patentscope.wipo.int/, 14/06/2022.

Solicitante: Vivint Inc.
A computer-implemented method for announcing reminders and alerts is described. In one embodiment, appointments of an electronic calendar are monitored via a processor of a home automation system. A trigger of an upcoming appointment is detected. Information regarding the upcoming appointment is announced via a speaker of the home automation system.



ver más...

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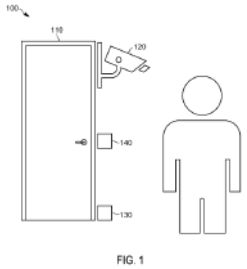
Autonomous self-learning artificial intelligence intent system for access control

Publicada en Patentes AI patentscope, 09/06/2022.

Solicitante: MOTOROLA SOLUTIONS, INC. [US]
One embodiment provides an access control system (200) including access control sensors (120) to detect actions performed in a vicinity of an access point (100), a verification sensor (130) to verify access of the access point (100), and an electronic processor (210) communicatively coupled to the access control sensors (120) and the verification sensor (130). The electronic processor (210) is configured to in response to an access intent model (280) satisfying an accuracy condition, deploy the access intent model (280) for the access point (100) and receive a dataset indicating an action performed in the vicinity of the access point (100).

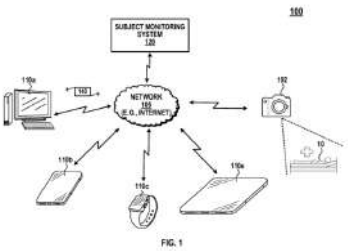


ver más...

Systems and methods for detection of subject activity by processing video and other signals using artificial intelligence

Publicada en Patentes AI patentscope, 09/06/2022.

Solicitante: DIGNITY HEALTH [US]
Various embodiments of a system and associated method for detection of subject activity by processing video and other signals using artificial intelligence are disclosed herein. In particular, a subject monitoring system is disclosed that monitors subjects using a video-capable camera or other suitable video capture device to identify a subject's status of an individual by monitoring subject actions in real-time. The system further monitors other persons in the room with a subject to identify their actions and identities to ensure safety of the subject and facility while preventing confusion of the system as multiple individuals step in and out of frame over the course of the collected video feed.



ver más...

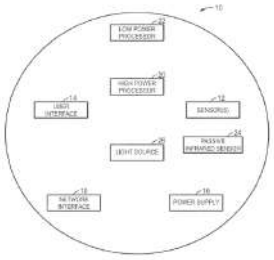
Volver al índice

Smart-home automation system that suggests or automatically implements selected household policies based on sensed observations

Publicada en https://patentscope.wipo.int/, 09/06/2022.

Solicitante: Google LLC

Embodiments provided herein relate to enforcing a device restriction policy. A device restriction policy may be stored that maps one or more portions of a household with particular household occupants of a plurality of household occupants. A request may be received to activate the device restriction policy on a household occupant.

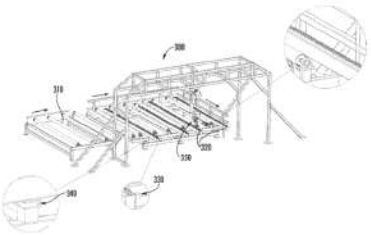


ver más...

Automated systems and methods for floor and ceiling units in the construction of modular building units

Publicada en https://patentscope.wipo.int, 03/06/2022.

A system and method for assembling framing assemblies for use as ceiling or floor structures of modular building units using automation are disclosed. The framing assemblies include trusses that are attached at the lateral edges thereof by a joist including at least one layer of dimensional lumber to form a substantially rigid framework. Cover panels are positioned over and attached to an inner surface of the framing assembly.



ver más...

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Artificial intelligence camera for visual inspection with neural network training onboard

Publicada en Patentes AI patentscope, 02/06/2022.

Solicitante: DEEPVIEW CORP [US]
A system and method for performing visual part inspections are described herein. The system uses an imaging device in conjunction with at least one image recognition neural network to identify characteristics of parts by way of their images, training the system either during part inspection or not during part inspection to better recognize these characteristics.

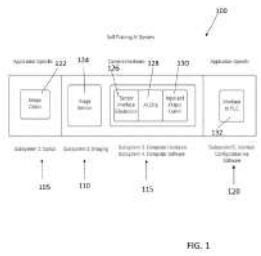

FIG. 1

ver más...

Method and device for generating virtual face by using artificial intelligence

Publicada en Patentes AI patentscope, 27/05/2022.

Solicitante: SRUNIVERSE CO., LTD. [KR
The present invention relates to a method and a device for generating a virtual face by using artificial intelligence, the method comprising the steps of: receiving multiple pieces of face source data and at least one piece of face background data and performing comparison and learning of an inferred face and a real face through deep learning, by a virtual face generation device; and receiving one piece of face background data and generating, through a model obtained by the comparison and learning, virtual face data in which the face inferred from the multiple pieces of face source data and a feature of the one piece of face background data are combined.

ver más...

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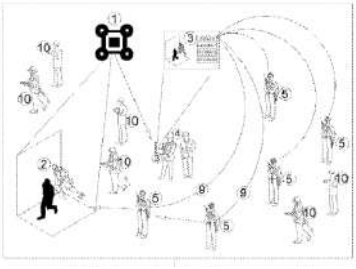
Método para transmitir y rastrear parámetros detectados por drones mediante (PAAS) con (IA).

Publicada en Patentes AI patentscope, 27/05/2022.

Solicitante: DROVID TECHNOLOGIES [CL]
La invención da a conocer un método y sistema que combina: detectar parámetros por medio de vehículos aéreos no tripulados (RPAs) y sistemas aéreos no tripulados (UAS), una interfaz gráfica de accionamiento de alertas, adaptación de una red neuronal para clasificar una pluralidad de datos, una secuencia informática para transmitir data, un módulo de intercomunicación entre drones, métodos y aplicaciones de análisis de predicciones, un método de evaluación de actividades con inteligencia artificial, un proceso de gestión autónoma en la nube. El método integra, rastrear el procedimiento de ejecución sobre las acciones correctivas y preventivas de los parámetros detectados y transmitidos.

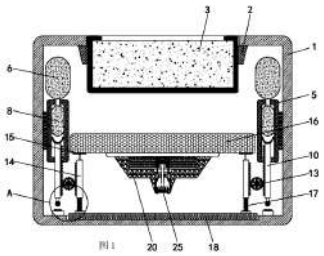


ver más...

Smart-manufacturing artificial intelligence smart wristband used for skin protection

Publicada en Patentes AI patentscope, 27/05/2022.

Solicitante: HANGZHOU GONG SHU TECHNOLOGY CO., LTD. [CN]
Provided is a smart-manufacturing artificial intelligence smart wristband used for skin protection, comprising a main body (1); the main body (1) is internally provided with two mounting members (2); a central control component (3) is fixedly mounted between the two mounting members (2); the left and right inner walls of the main body (1) are provided with fixing members (4); a fixing component (5) is fixedly mounted on the outer side of the fixing member (4); a first airbag (6) is fixedly mounted on the upper side of the fixing component (5); by means of the downward movement of a first movable gear rod (10), an induction member (11) is caused to come into contact with an induction piece (12) and emit an electrical signal, causing a refrigeration apparatus (21) to start operating



ver más...

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Privacy-preserving computing on subject data used to develop artificial intelligence tools

Publicada en Patentes AI patentscope, 19/05/2022.

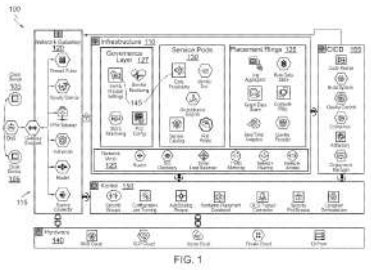
FIG. 1

Solicitante: GENENTECH, INC. [US]
The present disclosure relates to techniques for privacy-preserving computing to protect a subject's privacy while using the subject's data for secondary purposes such as training and deploying artificial intelligence tools. Particularly, aspects are directed to receiving, at a local server, subject data regarding a first subject, performing, by the local server, a de-identifying operation, an anonymizing operation, or both on the subject data, sending the subject data to a remote server, receiving a production model from the remote server, the production model including parameters derived in part from the processed subject data, receiving, at the local server, subsequent data regarding a second subject, inputting, by the local server

ver más...

Blockchain for artificial intelligence training

Publicada en Patentes AI patentscope, 05/05/2022.

Solicitante: INTERNATIONAL BUSINESS MACHINES CORPORATION [US]
An example operation may include one or more of dividing a neural network that corresponds to an artificial intelligence (AI) model into a plurality of sub-models, assigning the plurality of sub-models to a plurality of blockchain peers, respectively, training the sub-models, via the plurality of blockchain peers, to generate training results within an iteration, and committing the training results to a blockchain which is accessible by the plurality of blockchain peers.

ver más...

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Network optimization method based on big data and artificial intelligence

Publicada en Patentes AI patentscope, 05/05/2022.

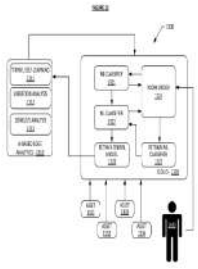
Solicitante: INSPUR TIANYUAN COMMUNICATION INFORMATION SYSTEM CO., LTD [CN]
Disclosed is a network optimization method based on big data and artificial intelligence, relating to the technical field of network optimization and comprising: collecting multi-dimensional wireless network data and standard and customized signaling XDR data, performing data wrangling and cleaning by means of complementary fusion, and backfilling and storing longitudes and latitudes of user sampling points; acquiring precise user behavior by associating a displacement algorithm with a GIS architecture layer; determining a user-level moving state and stationary state by means of the displacement algorithm and indoor and outdoor user analysis, acquiring an indoor and outdoor user situation from signaling analysis

ver más...

Systems and methods for self-learning artificial intelligence of things (aiot) devices and services

Publicada en Patentes AI patentscope, 05/05/2022.

Solicitante: SHORELINE IOT, INC. [US]
The invention is generally directed to systems and methods of monitoring or predicting a service event for an industrial asset using an artificial intelligence of things (AIoT) system including an AIoT device, AIoT cloud, and a self-learning AI classification and analytics engine. The device may include one or more sensors and an inference engine for reducing power consumption and detecting anomalies at the edge and sending data associated with anomalies to a signal processor for classification and AI-driven automatic configuration.



ver más...

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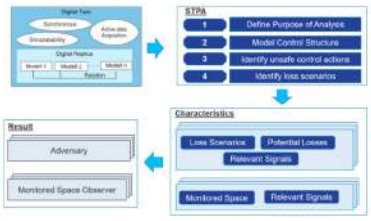
PUBLICACIONES CIENTÍFICAS

Situational Risk Assessment Design for Autonomous Mobile Robots

Publicada en https://www.sciencedirect.com, 21/06/2022.

The emerging autonomous mobile robots promise a new level of efficiency and flexibility. However, because these types of systems operate in the same space as humans, mobile robots must cope with dynamic changes and heterogeneously structured environments.

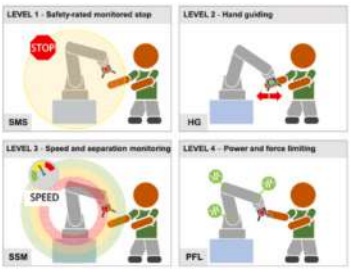


ver más...

Deliberative safety for industrial intelligent human–robot collaboration: Regulatory challenges and solutions for taking the next step towards industry 4.0

Publicada en https://www.sciencedirect.com, 15/06/2022.

In previous scholarly literature, safety is understood as a main obstacle for introducing human–robot collaboration in industrial production. This interdisciplinary paper is concerned with the safety and regulation of human–robot collaboration and contribute to this debate through a case study of stakeholders in Sweden, exploring the views of the involved stakeholders which is largely absent in previous research literature.



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Selection of optimal machine learning algorithm for autonomous guided vehicle's control in a smart manufacturing environment

Publicada en https://www.sciencedirect.com, 26/05/2022.

Artificial intelligence is a field of research that is seen as a means of realization regarding digitalization and industry 4.0. It is considered as the critical technology needed to drive the future evolution of manufacturing systems. At the same time, autonomous guided vehicles (AGV) developed as an essential part due to the flexibility they contribute to the whole manufacturing process within manufacturing systems.

ver más...

Control framework for collaborative robot using imitation learning-based teleoperation from human digital twin to robot digital twin

Publicada en https://www.sciencedirect.com, 24/05/2022.

Despite the deployment of collaborative robots for various industrial processes, their teaching and control remain comparatively difficult tasks compared with general industrial robots. Various imitation learning methods involving the transfer of human poses to a collaborative robot have been proposed.

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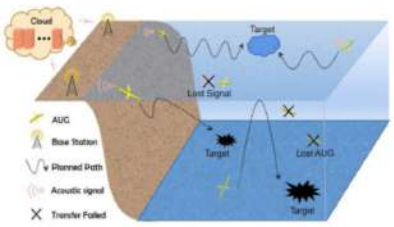
A digital twins enabled underwater intelligent internet vehicle path planning system via reinforcement learning and edge computing

Publicada en https://www.sciencedirect.com, 14/05/2022.

The Autonomous Underwater Glider (AUG) is a kind of prevailing underwater intelligent internet vehicle and occupies a dominant position in industrial applications, in which path planning is an essential problem. Due to the complexity and variability of the ocean, accurate environment modeling and flexible path planning algorithms are pivotal challenges.



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A grasps-generation-and-selection convolutional neural network for a digital twin of intelligent robotic grasping

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

Robotic grasping plays an essential role in human-machine cooperation in various household and industrial applications. Although humans can instinctively execute grasps in an accurate, stable, and rapid way even under a constantly changing environment, intelligent grasping remains a challenging task for robots.

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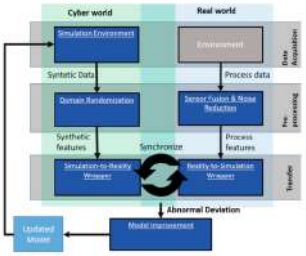
Self-improving Models for the Intelligent Digital Twin: Towards Closing the Reality-to-Simulation Gap

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

This paper presents a novel approach to ensure the quality of the Digital Twin models that modern Cyber-Physical Manufacturing Systems (CPMS) rely on. CPMS are configurable and intelligent. Environmental and system parameters change frequently. Thus, static models are inadequate.



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Semantic localization in BIM using a 3D LiDAR sensor

Publicada en https://arxiv.org, 02/05/2022.

Conventional sensor-based localization relies on high-precision maps. These maps are generally built using specialized mapping techniques, which involve high labor and computational costs. While in the architectural, engineering and construction industry, building information models (BIMs) are available and can provide informative descriptions of environments

ver más...

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