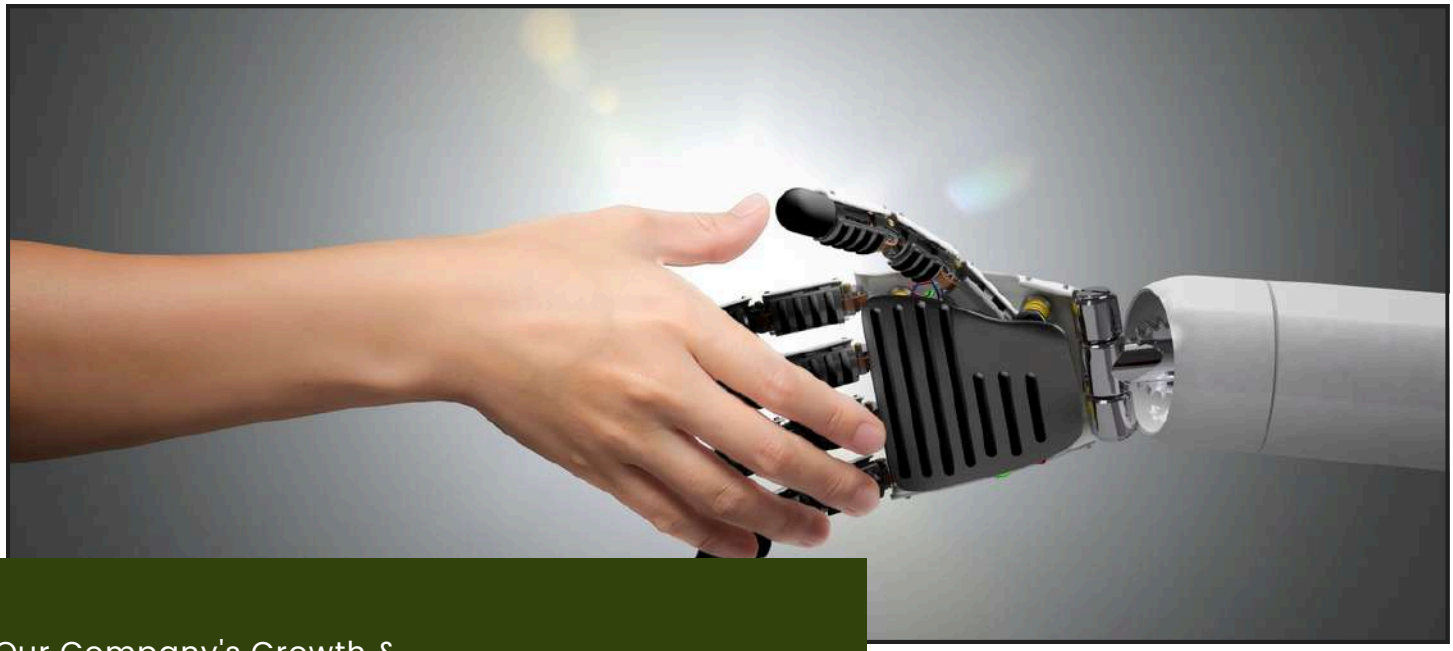
JUNE' 2026

NEWSEFFECT

INNOVATION FRONTIER



Our Company's Growth &

SUCCESS IN 2026

Our beloved leader, **Dr. Amit Goel,** has been recognized in the **IAM 300 – 2026 listing**, a prestigious global acknowledgment reserved for the world's leading IP strategists. He has also been named among the **Top Pioneering IP Management Experts to Watch** by **The Enterprise World**, further highlighting his exceptional contributions to the field of intellectual property management.

CONTENTS

EffectUal Services

Intelligence That Matters

AI ADVANCEMENTS

Google: Detecting Heart Rate Through Smartphone Camera AI

The technology uses the front-facing camera to record video of a user's face. A deep learning model then estimates heart rate from these recordings. According to Google, the system achieves a mean absolute percentage error of less than 10%. This meets industry accuracy standards across all skin tones. The system measures heart rate by detecting how light interacts with skin each time blood pulses through it. An on-device software pipeline processes short clips of facial video. Temporal shift convolutional neural networks then predict heart rate from these clips.

AI weather modeling being developed by U Chicago could help create more accurate forecasts

AI accomplishes that using pattern recognition, scanning millions of pixels and examining subtleties that humans may miss. So, Dr. Hassanzadeh had a thought. "Maybe we can go back to that idea and do weather forecasting as a pattern recognition problem," he said. Researchers trained AI weather models by digesting 40 years of high-quality weather observations. The model scans what the weather patterns look like now, finds a similar picture it's seen before and makes its prediction based on what happened last time. "You can do weather forecasts for days and weeks," Hassanzadeh said.

More books, less computers in classrooms: Norway imposes strict curbs on AI use in school education

Norway plans to restrict AI use in schools, banning it for students aged 6–13, allowing supervised use for ages 14–16 and introducing it in senior grades. Prime Minister Jonas Gahr Støre said the goal is to protect foundational learning in reading, writing and mathematics.

AI ADVANCEMENTS

A vaccine designed by artificial intelligence tested for the first time on humans could protect against vast swathes of viruses as they mutate.

Researchers at the University of Cambridge have used AI to develop a vaccine that could protect against multiple coronavirus variants, including future ones. By using machine learning to design a "super antigen" from shared viral features, the approach could also pave the way for broader vaccines against diseases like seasonal flu.

How Artificial Intelligence Is Reshaping the Dairy Industry

In his conversation with RFD News, Bjerga discussed how producers are using technology to improve precision, transparency and efficiency in dairy operations. He also talked about how AI could ultimately improve farm-level returns and how the technology may continue to expand both inside and outside the barn. Finally, Bjerga addressed how AI is being used in areas related to feed efficiency, production output and direct-to-consumer communication..

BMW Group brings Figure 03 humanoid to Spartanburg

BMW has deployed its humanoid robot, Figure 03, at its Spartanburg plant to sort components for assembly, showcasing AI-driven automation in production logistics. The facility also uses AI-powered quality inspection and 3D simulation, with plans to expand these technologies across its supply chain

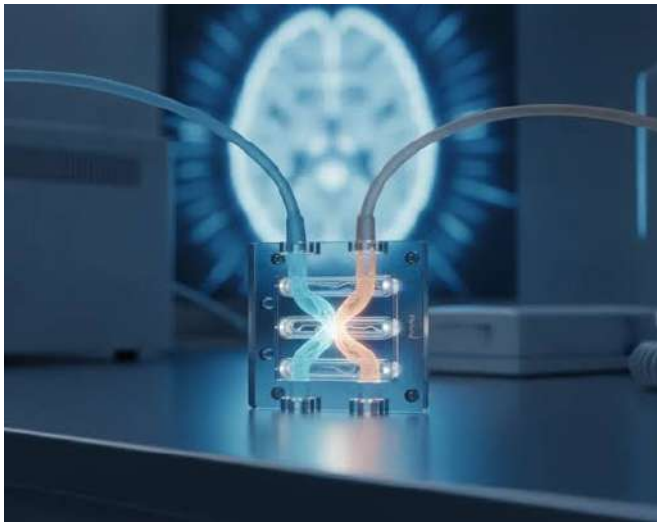
Tech-savvy daughter brings AI tools to family farm

AI calculates exact chemical needs and minimizes waste. Farmer uses technology to reduce time spent on government compliance. The Sharps use AI for tasks ranging from calculating herbicide control duration to creating maps for contract sprayers and burning permits. Rachel uploads Department of Agriculture requirements and soil analysis from Clemson University, and the system generates required documentation with proper formatting and guaranteed analysis.

DISRUPTIVE TECHNOLOGIES

BioArctic and Lilly sign research and collaboration agreement combining Lilly compound with BioArctic's BrainTransporter™ technology

BioArctic AB has entered into a research and collaboration agreement with Eli Lilly to develop a potential new neurodegenerative treatment by combining BioArctic's proprietary BrainTransporter technology with an undisclosed Lilly drug candidate. BioArctic will generate the new drug candidate, while Lilly will lead global development and commercialization.



Portuguese Lxbio has received the Outstanding Innovation Award

Portuguese biotech company Lxbio received the Outstanding Innovation Award at the World Conference on Targeting Phage Therapy in Valencia, Spain, for its engineered bacteriophage platform for targeted cancer therapy and precision biologics. The platform repurposes engineered bacteriophages as adaptable delivery systems for highly targeted oncology and other precision medicine applications.

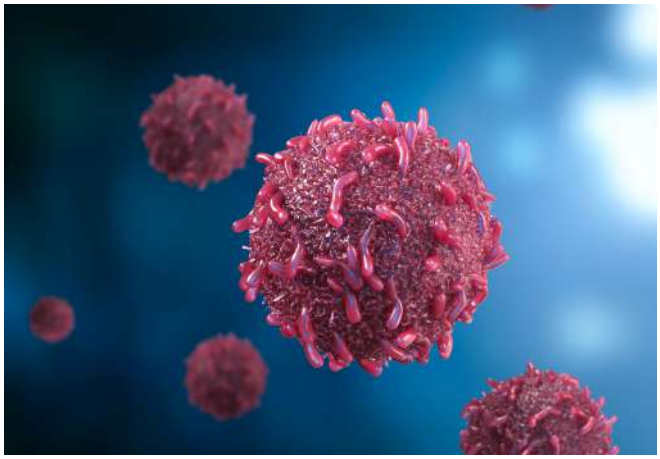
Greenstone Biosciences, Inc. and Intel Corp. Launch Strategic Collaboration to Scale Human-Centric Drug Discovery.

Greenstone Biosciences, Inc. (Silicon Valley, CA) announces a collaboration with Intel Corp. (NASDAQ: INTC) to accelerate AI-enabled drug discovery using Greenstone's large-scale, human biobank of induced pluripotent stem cells and Intel's Edge AI advanced computing and AI infrastructure. Intel and Greenstone are working together to speed up the development of new medicines. The collaboration combines state-of-the-art human genetics and biology from Greenstone with Intel purpose-built silicon – to scale data processing, storage, and analysis. Greenstone has built the world's largest human biobank of induced pluripotent stem cells (iPSC).

DISRUPTIVE TECHNOLOGIES

Two Johns Hopkins innovators honored for advancing prostate cancer detection

Researchers Robert Dannals and Martin Pomper were recognized by the Bayh-Dole Coalition for developing Pylarify, an FDA-approved PET imaging agent that enables more accurate detection and monitoring of prostate cancer. Since its 2021 approval, Pylarify has been used in over 200,000 prostate scans annually, improving diagnosis and treatment decisions.



GLP-1 drugs linked to boosting testosterone, sperm count in men

Researchers at University Hospitals Coventry and Warwickshire and Warwick Medical School found that GLP-1 drugs may improve male reproductive health. In men aged 18–65 over 24 weeks, liraglutide increased testosterone, luteinizing hormone, and follicle-stimulating hormone levels, while semaglutide improved sperm morphology, alongside overall improvements in sperm count and quality.

FUJIFILM and HORIBA co-develop high-sensitivity inline Raman system to boost antibody yield

FUJIFILM Corporation and HORIBA have co-developed a high-sensitivity inline Raman measurement system for real-time monitoring of biopharmaceutical manufacturing processes, including cell culture and purification. The system combines HORIBA's Raman spectrometer with Fujifilm's single-use probe and proprietary algorithms, enabling highly sensitive, continuous process monitoring and improving antibody yield by ~10% compared to conventional UV-Vis control methods.

FUJIFILM
Value from Innovation

IP INSIGHTS

Smart AGVs with Integrated AI-Assisted Fleet Management System

What is AGVs?

Automated guided vehicles (AGVs) are driverless robots that follow predefined paths (like magnetic tape or lasers) to transport materials in warehouses and manufacturing.

Application of AGVs?

- **Manufacturing** In production environments, the AGV robot is essential for maintaining a lean workflow, as seen in WIP and raw material transport.
- **Warehousing and distribution,** the automated guided vehicles material handling optimizes the movement of finished goods and inbound/outbound logistics (e.g. Pallet movement, Inbound/outbound logistics, Cross-docking etc.)
- **Healthcare** Beyond industrial settings, the AGV robot provides reliable, 24/7 transport for sensitive hospital logistics. (e.g. Supply delivery, Medication transport, Waste management etc.)
- **Food and beverage** where hygiene and temperature control are non-negotiable, the AGV system offers a clean, reliable solution.
- **E-commerce and retail fulfillment** High-speed AGVs can sort thousands of individual packages per hour, directing them to the correct shipping lane with far greater accuracy than manual sorting. AGV robot can streamline this by transporting returned goods from receiving stations back to the Grid for restocking or to specialized inspection areas.
- **Paper and heavy industry** AGVs are used to transport massive, multi-ton rolls of paper through the facility.

How Does AI Work in AGVs?

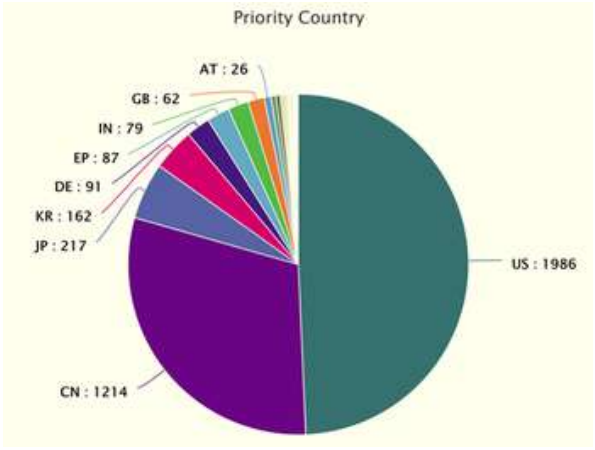
AI-assisted fleet management connects all AGVs to a central intelligent system that continuously receives real-time data like location, battery level, speed, and task status. The AI processes this data to assign the best-suited AGV for each job, optimize routes, and prevent congestion or collisions.

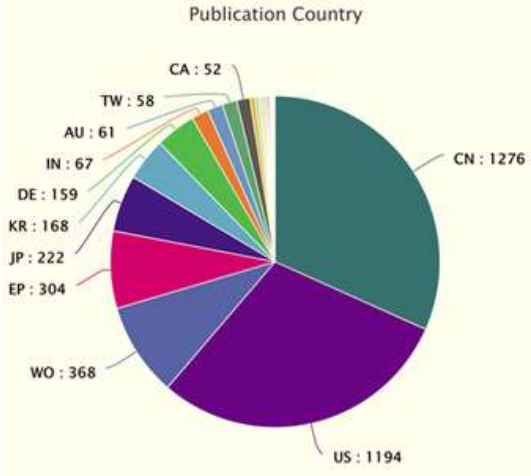
If disruptions occur—such as obstacles or low battery—the system instantly recalculates routes or schedules charging without interrupting operations. Over time, it improves efficiency through continuous learning from operational data.
Key components include:

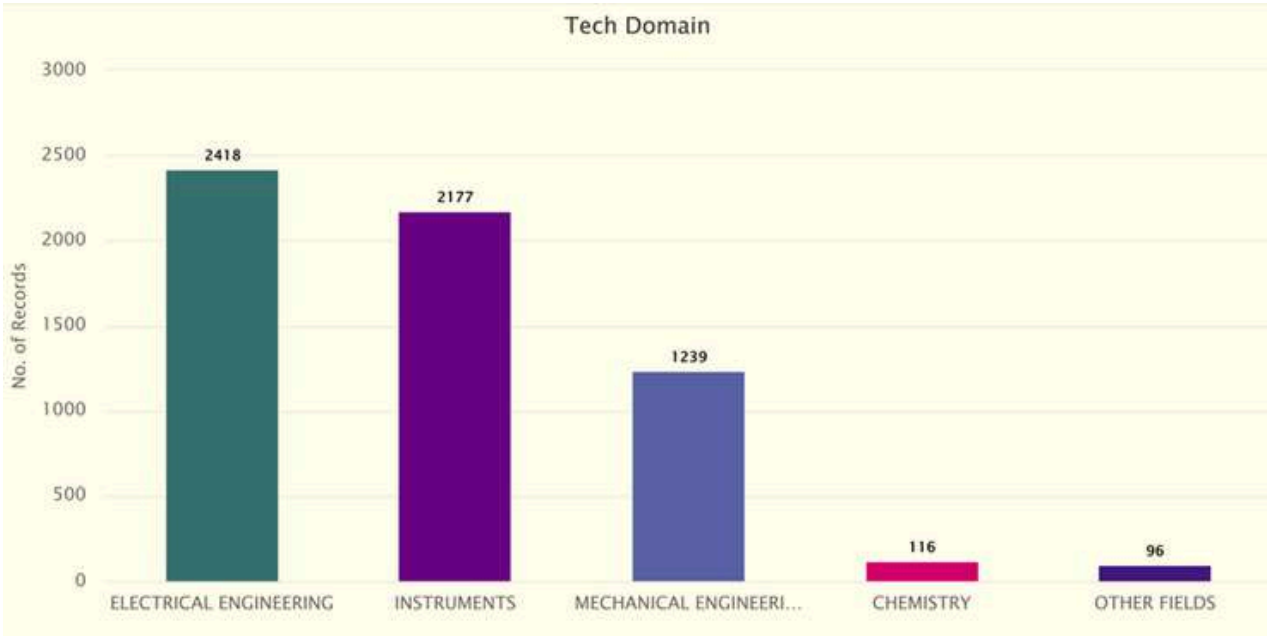
- Data Collection Agent: Monitors fleet operations in real time and highlights critical issues.
- AI Decision Module: Analyzes data to optimize task allocation and routing.
- Fleet Controller: Sends navigation commands and tracks task execution.
- Agentic Driver Safety (AI Dashcam): Detects unsafe driving behavior and triggers real-time coaching.
- Fraud & Spend Control AI: Detects abnormal fuel or expense patterns using telematics and transaction data.
- Continuous Calibration System: Refines predictions and control decisions using historical and live data.

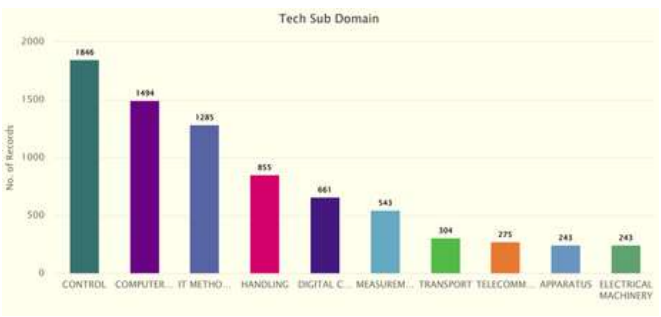
IP INSIGHTS

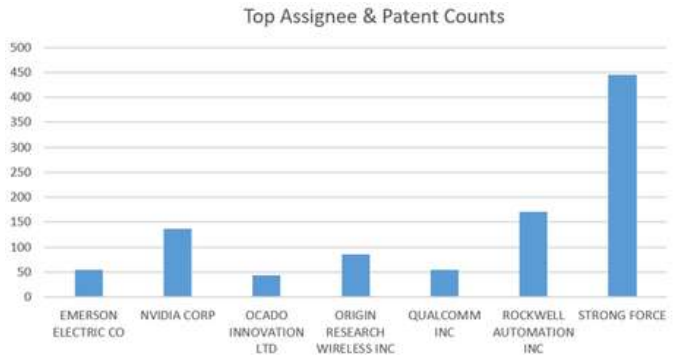
Smart AGVs with Integrated AI-Assisted Fleet Management System











IP NEWS

US places India on priority watch list for Intellectual Property rights

- The United States has placed India on its 2026 priority watch list for intellectual property rights. The designation, outlined in a report by the United States Trade Representative (USTR), flags persistent concerns over IP protection and enforcement.

- The annual report reviews how effectively US trading partners safeguard IP rights such as patents, copyrights and trademarks. This year, six countries, Chile, China, India, Indonesia, Russia and Venezuela, were placed on the list.

- The US raised concerns about high import duties on IP-related products and gaps in protection of trade secrets and test data. It also noted delays in legal processes, including trademark and copyright cases.

- The US said India has made some progress on intellectual property (IP) protection, but several issues remain. It cited problems in the patent system, including delays, strict rules leading to rejections, and the possibility of revocations.

- "The US intends to continue to engage with India on IP matters, including through US-India Bilateral Trade Agreement negotiations and the TPF's Intellectual Property Working Group," the report said.

IP NEWS

Vision Marine Technologies Receives USPTO Notice of Allowance for Electric-Vessel Powertrain Authentication Technology

- Vision Marine Technologies received a USPTO Notice of Allowance for a patent application titled “Authentication of One or More Powertrain Components of an Electric Vessel.”

- The application relates to authentication of components within an electric vessel’s integrated powertrain, including:
  - Propulsion motor
  - Power electronics
  - Battery systems
  - Power distribution hardware
  - Vessel control systems

- It supports Vision Marine’s E-Motion™ high-voltage marine propulsion platform, which is designed as a fully integrated electric propulsion system.

- The invention focuses on system-level component authentication within that architecture, strengthening IP protection around the platform.

- CEO Alexandre Mongeon stated the allowance reinforces Vision Marine’s strategy to build layered intellectual property protection around E-Motion™, combining propulsion, energy storage, controls, and service infrastructure.

VISION
MARINE TECHNOLOGIES

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IP NEWS

India's TCS to take $70 million hit after US Supreme Court rejects appeal

- Tata Consultancy Services will book a one-time exceptional charge of $70 million after the U.S. Supreme Court rejected its appeal in a trade secrets case, bringing its total exposure in the matter to $220 million, the firm said.

- The U.S. Supreme Court on June 15 let stand a $168 million damages award in favour of DXC Technology.

- TCS, which had already set aside $150 million for the case, said it will book a further $70 million towards damages, interest and legal costs as a one-time exceptional charge in the first quarter of 2027.

- The case stems from a 2019 lawsuit filed in Dallas federal court by DXC's predecessor, Computer Sciences Corporation, which accused TCS of hiring around 2,200 Transamerica employees and using their inside access to build a rival life-insurance platform.

- A jury in 2023 recommended TCS pay $210 million for willfully stealing trade secrets, but U.S. District Judge Brantley Starr cut that to $168 million, $56 million in compensatory and $112 million in punitive damages, a decision the 5th U.S. Circuit Court of Appeals upheld in 2025.

- TCS argued to the Supreme Court that DXC should not have won unjust enrichment damages without proving actual losses, and that the punitive award was excessive. DXC said the lower court's ruling needed no further review.

IP NEWS

SS&C Advent Sues Advent AI for Trademark Infringement and Unfair Competition

- Financial technology company SS&C Advent (SSNC.O), has sued software company Advent AI in California federal court for allegedly violating its trademark rights in the "Advent" name.

- SS&C Advent said in the complaint filed on Monday, that Advent AI's name is likely to confuse consumers, accusing the company of trademark infringement and unfair competition.

- San Francisco-based SS&C Advent provides software for investment, wealth and hedge fund managers. It was known as Advent Software before it was bought by SS&C Technologies in 2015.

- SS&C Advent owns several federal "Advent" trademarks for software. The lawsuit said that Advent AI, a company that specializes in AI-related software, applied to register its own "Advent" trademarks in 2024.

- SS&C Advent asked the court in its lawsuit to block Advent AI's use of "Advent" in commerce and requested an unspecified amount of monetary damages.

- The case is Advent Software Inc v. Advent AI Inc, U.S. District Court for the Northern District of California, No. 3:26-cv-06187.

IP NEWS

Legal Tech Showdown: Eve Legal Accused of AI Patent Infringement

- AI-based legal technology company AI.Law sued competitor Eve in California federal court on Wednesday for allegedly infringing one of its patents.
- AI.Law said in the complaint, that Eve's technology infringes a patent covering technology for drafting legal documents with AI assistance. The case is one of the first patent disputes between competitors in the fast-growing legal AI sector.
- Spokespeople for Eve did not immediately respond to a request for comment on the lawsuit. AI.Law founder Troy Doucet said in a statement that the company welcomes "competition and innovation in legal AI, tempered appropriately through intellectual property rights."
- Reuters' parent company Thomson Reuters, which owns Westlaw, is also a competitor in the legal technology field.
- San Francisco-based Eve provides several AI-based tools for plaintiffs' law firms, including tools for evaluating new cases, drafting documents, generating medical chronologies, and sending and responding to discovery requests. The startup was valued at $1 billion last year after a round of funding from venture capital firms including Spark Capital and Andreessen Horowitz.
- Ohio-based AI.Law said in the complaint that its competing platform features more than 30 AI-powered tools for tasks including drafting motions and demand letters. The lawsuit said that Eve's platform infringes an AI.Law patent covering a method for "using artificial intelligence to transform unstructured materials into long-form, properly formatted documents."

IP NEWS

UGG boot maker loses US patent trial over Quince 'dupes'

- Deckers Outdoor Corp failed to convince a jury in California federal court on Monday that Quince's "dupes" of its UGG boots infringed a valid patent covering the boot's design.

- The jury, shutting down its argument that Quince's version of the popular sheepskin UGG boots violated its intellectual property rights, according to the verdict sheet made public on Tuesday. The jury also determined that Quince's boots would have infringed if the patent were valid.

- The trial is one of the first over the legality of "dupes" -- popular products that are advertised as low-cost equivalents to their brand-name counterparts. Quince, which specializes in dupes, says its mission is to "create products of equal or greater quality than the leading luxury brands at a much lower price."

- Spokespeople and attorneys for Deckers did not immediately respond to a request for comment on the verdict.

- "This case was never about an ankle boot," Quince Head of Legal Joel Dion said in a statement. "It was about whether one company can claim ownership of a common, category-wide design and use the courts to push out anyone who competes with it."

- Deckers also owns footwear brands Hoka and Teva. It sued Quince in 2023 and accused it of infringing a design patent -- a type of U.S. patent that covers object designs instead of inventions -- covering the UGG Classic Ultra Mini boot.

- Quince denied the allegations.

- Deckers had previously argued that Quince also violated its trademark rights. U.S. District Judge Araceli Martinez-Olguin dismissed Deckers' trademark-related claims last year after finding the UGG design was too generic for trademark protection.

IP NEWS

Amgen owes $20.2 million in antibody patent lawsuit, US jury says

- Amgen subsidiary Teneobio must pay biotech company Harbour Antibodies $20.2 million in damages for infringing a patent related to antibodies used in biologic drugs, a federal jury in Delaware said on Friday.
- The jury agreed with Harbour that Teneobio's UniRat platform violated Harbour's patent rights in technology for using genetically engineered mice to produce antibodies.
- Harbour's Harbour Mice are used to create antibodies for the research, development and production of biologic drugs.
- Biologics are made from biological cells, unlike traditional pharmaceuticals, and are among the most complex and expensive drugs on the market.
- Harbour, a Dutch subsidiary of China-based Harbour BioMed, sued Teneobio in 2021, arguing that Teneobio's UniRat system for genetically engineering rats mimicked its technology.
- Amgen bought Teneobio for $900 million earlier that year to bolster its biologics business.
- Teneobio denied the allegations and argued the patent was invalid.
- An Amgen spokesperson said the company will pursue "certain important legal issues with the court in post-trial proceedings."
- A spokesperson for Harbour did not immediately respond to a request for comment.

TECHNOLOGY THEMES

6G Sensing - Integrated sensing and communications (ISAC) brings new capabilities to mobile networks.

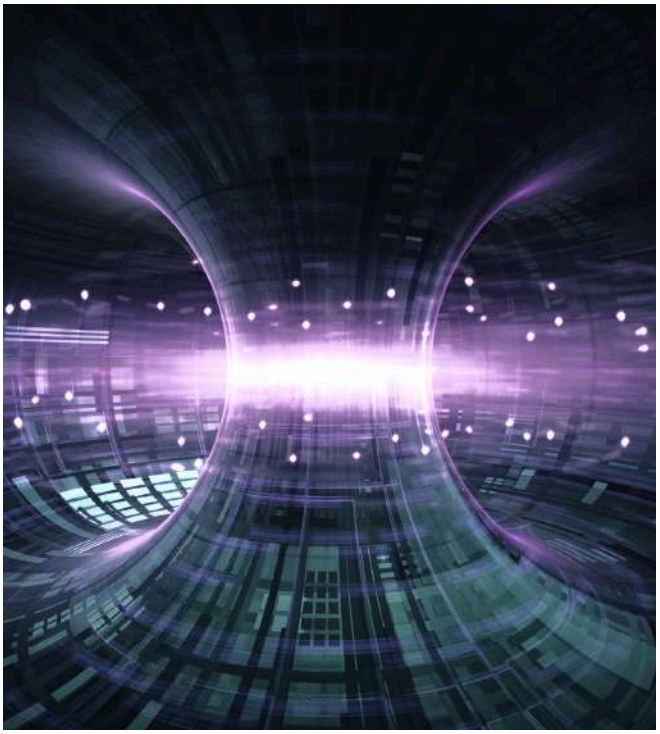
Integrated Sensing and Communication (ISAC) in 6G enables networks to transmit data and sense the environment at the same time using radio signals. It can detect objects, track movement, and understand surroundings without separate radar systems. This supports use cases like smart transport, drones, industrial automation, and disaster response, offering both long-range tracking and high-precision sensing for a more intelligent wireless network.

When the radio environment stops behaving

At the EuCNC & 6G Summit, researchers from the University of Oulu showed that 6G treats the environment as an active part of the network, not just a barrier. Their work focuses on accurate radio-wave simulation, the benefits of FR3 (upper mid-band) spectrum, and intelligent programmable surfaces that enhance communication, sensing, and energy efficiency.

Q-FE: A Quantum-Native 6G Far-Edge Architecture Securing Industrial IoT Digital Twins via CSIDH-PQC and Asynchronous Federated Learning

A new research proposal introduces Q-FE, a quantum-ready architecture designed for future 6G Industrial IoT (IIoT) networks. It combines Micro-Digital Twins for real-time processing, post-quantum cryptography to protect against future quantum cyber threats, and asynchronous federated learning to securely train AI models without sharing sensitive data. The proposed solution significantly reduces communication overhead, achieves sub-millisecond latency, and speeds up AI model convergence, making it a promising step toward secure, intelligent, and highly reliable 6G-powered industrial automation.



TECHNOLOGY THEMES

Eurobites: Consortium seeks to head off 6G cyber threats

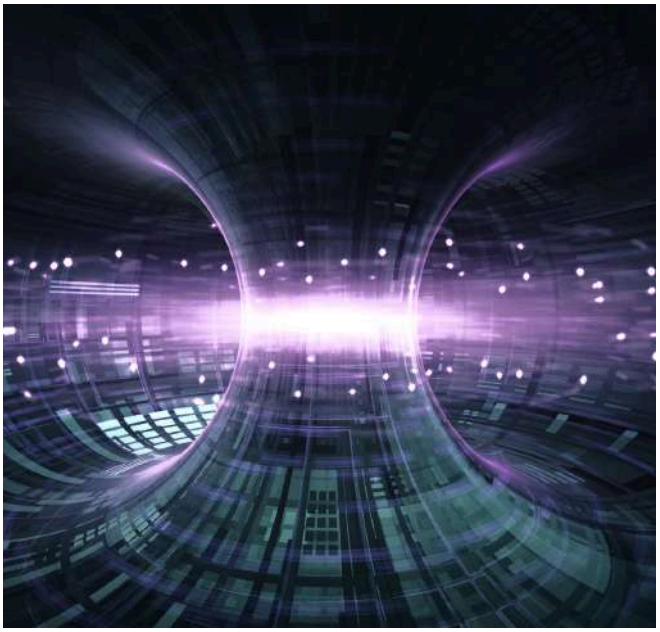
The telecom industry is advancing 6G through two key innovations: SHIELD-6G, an EU project led by University College Dublin with partners like Telefónica, Ericsson, and Nokia, which is building real-time cybersecurity for detecting and responding to threats; and a joint Orange–CEA lab working on semantic communications that transmit meaning instead of raw bits to improve efficiency and reduce network load.

AI-Native Closed-Loop Security for 6G-Enabled Cyber-Physical Systems: From Edge Detection to Network-Wide Mitigation

As 6G connects billions of cyber-physical systems like autonomous vehicles, smart grids, robots, and healthcare devices, traditional security will be insufficient due to ultra-fast, real-world attack risks. The proposed solution is an AI-driven, edge-based security framework that enables real-time threat detection and response, continuously improving through technologies like federated learning, digital twins, SDN, NFV, O-RAN, LLMs, post-quantum cryptography, and zero-trust architecture.

WiWorld-RealData: A Real-World Multi-Modal Dataset for 6G Wireless World Models

Accurate 6G digital twins need real-world data that captures both wireless channels and the environment. WiWorld-RealData is a large outdoor multi-modal dataset combining channel measurements with images, LiDAR, mmWave radar, and GNSS data from campus routes. It improves wireless propagation modeling, and a case study shows that adding environmental data significantly enhances path-loss prediction, supporting AI-driven 6G network design.



GLANCE @EFFECTUAL

A Proud Moment for Effectual Services

We are delighted to share that our esteemed leader, **Dr. Amit Goel**, has been featured by The Enterprise World in its prestigious issue **"Top Pioneering IP Management Experts to Watch in 2026."**

This distinguished recognition highlights Dr. Amit Goel's exceptional leadership, forward-thinking vision and unwavering commitment to excellence in the field of Intellectual Property Management.

GLANCE @EFFECTUAL

GLOBAL
LEGAL ASSOCIATION

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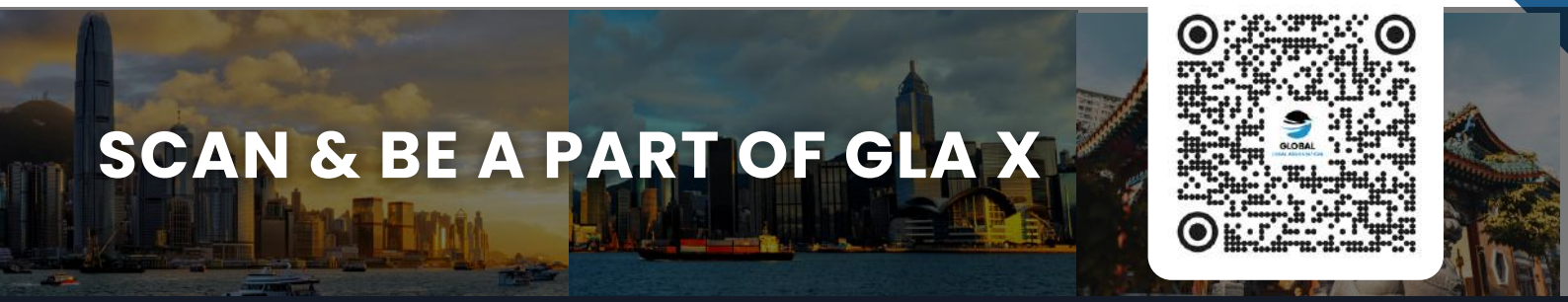

GET IN TOUCH

The sum of human ingenuity and expertise that powers us.

Human interactions that drive innovation.

EffectUal Services

Intelligence That Matters

For more information connect with us

info@effectualservices.com

OUR OFFICES

USA

Suite-427,425 Broadhollow Road, Melville | NY-11747

+1-972-256-8133

INDIA

SDF A-05, NSEZ, Noida–Dadri Road, Noida Phase II -201305

+91-120-452-2210

SINGAPORE

531A, Upper Cross Street, Singapore-051531

+91-120-452-2211