KONGU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), ERODE – 638107 DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT Bulletin

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DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 08.12.2023

FAME-II BOOST

The Ministry of Heavy Industries (MHI) has released a new phased manufacturing program (PMP) for electric vehicle (EV) charger parts to support the FAME India Scheme Phase-II, aimed at boosting domestic manufacturing.



The move is expected to incentivize the setting up of more public EV charging stations, which is currently seen as a bottleneck in the adoption of EVs due to range anxiety among consumers. By establishing a timeline for indigenous manufacturing, the government aims to reduce import dependency and foster a self-sufficient ecosystem for EV infrastructure.

Submitted by

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IT BULLETIN Date: 11.12.2023

DOT ANNOUNCES '5G & BEYOND HACKATHON 2023'

The Department of Telecommunications (DoT) in India has been actively organizing hackathons to encourage the development of 5G products and solutions. These initiatives have resulted in the creation of innovative solutions across various technological verticals. In line with its commitment to promoting technological advancements, the DoT has announced the commencement of applications for the '5G & Beyond Hackathon 2023' from June 28, 2023. This hackathon aims to identify cutting-edge ideas with a focus on India and transform them into practical and effective 5G and beyond products and solutions.

Categories of Focus

Participants in the hackathon have the freedom to develop 5G and beyond solutions across multiple categories. These categories includes:

- **Healthcare:** Innovations in healthcare delivery, telemedicine, remote patient monitoring and health data analytics using 5G technology.
- Education & Governance: Solutions that leverage 5G to enhance remote learning, e-governance, and citizen services.
- **Environment:** Solutions addressing environmental challenges through the use of 5G technology such as pollution monitoring, smart energy management and waste management.
- **Public Safety & Disaster Management:** Innovations focusing on public safety, emergency response, disaster management and early warning systems using 5G networks.
- **Smart Cities & Infrastructure:** Applications of 5G in transforming urban infrastructure, transportation, energy management and public services.
- **Cyber Security:** Solutions incorporating 5G technology to enhance cybersecurity measures, threat detection and data protection.

Submitted by

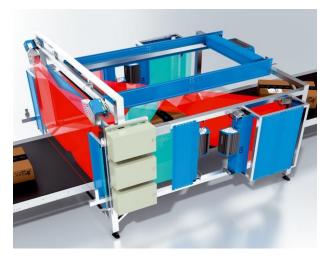
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IT BULLETIN Date: 12.12.2023

COLOR LINE SCAN CAMERA

The ICR890-4 Pro Color is the first camera for track and trace systems that can dynamically adjust its focus and output additional color images. Its applications include 1D and 2D code reading tasks in transport and logistics processes and features include enhanced modular camera design, LED illumination unit, focus control unit and a high-performance decoder.



These features allow for incoming objects to be automatically digitized both at goods receipt and when handling item returns, meaning it can be used to create comprehensive master data for each respective object. Additionally, the ICR890-4 Pro Color has a throughput of more than 18,000 objects per hour at conveying speeds up to 4.5m/s. The images and data produced in the system can be used for other applications using Sick software applications.

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IT BULLETIN Date: 13.12.2023

WIRE PROCESSING SYSTEM

The clipx Wire Assist System is a customizable system that includes a software program and an optional adjustable workbench with a variety of accessories. The software controls the wire cutting and labeling devices, guiding the user through onscreen instructions on a laptop or touchscreen.



The program can be used with the Cutfox 10 wire cutting machine, the Thermomark Roll series printers, the CF3000 wire stripper and ferrule crimper and the CF500 ferrule and lugs crimping machine. The optional clipx Wire assist workbench is an ergonomic workstation that keeps panel builder needs within reach. The technician can adjust the tabletop's height and maneuver the mounted machines. The workbench also features wire spool rods or mounting shelves for access to wires needed to complete the task at hand.

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IT BULLETIN Date: 14.12.2023

MACHINE MONITORING SOFTWARE

eNET Client machine monitoring reporting by giving users the ability to automate and customize machine monitoring reports with Microsoft's Power BI software which comes built-into every seat of eNET Client. A monitoring data explorer user interface can be displayed in a timeline or graph view, allowing for deeper dives into data, along with the password-protected ability for management to edit past events, part number, operator and job number monitoring data.



Quality control and maintenance department dashboards can be set up in eNET Client to gain visibility into manufacturing operations bottlenecks to increase machine up-time. eNET Client also includes the eNET LT software which features a CNC file editor, including the smart file compare feature and 3D back-plotting capabilities for G-code programs.

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IT BULLETIN Date: 15.12.2023

DATA COLLECTION SOFTWARE PLATFORM

The new OptiFact software platform enables users to collect, manage and analyze data from hundreds of factory devices, including ABB robots, to determine key performance indicators including cycle time and overall equipment efficiency. OptiFact allows users to determine the root cause of production errors. With ABB's RobotStudio Cloud, users can adjust the program to develop improved robotic operations.



RobotStudio's desktop, cloud and AR viewer solutions help users develop new deployments of ABB industrial robots or adapt existing ones to new production tasks. Features such as Automatic Path Planning allow robots to determine the most efficient paths and avoid collisions with existing obstacles.

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IT BULLETIN Date: 16.12.2023

COVRRSTUDIO

CovrrStudio is cloud-based video editing software where you can make videos in 3 to 4 simple clicks. It has a lot of pre-made proven templates which are already popular on various platforms. it gives the flexibility for making a video or videos with the best size with the different social media platforms. Literally, anyone can use it and make video without taking any course for learning this software. It has created like marking styles video editing processes so that one can earn more money and bother the freelancers and business owners to get engaged with the targeted customers.





Pros

- Cloud based online video editor
- Easy to create videos
- Have video making tools
- Make any length of video

Cons

- Do Not have motion graphic types of elements
- Sometimes do not add images in the video panel

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IT BULLETIN Date: 19.12.2023

MOTION PILLOW

The Motion Pillow uses AI to help tackle snoring problems and give one a better night's sleep. The AI Motion System detects a user's snoring and slowly inflates airbags to lift their head and open their airway to reduce it. The accompanying app tracks sleep data, including snoring time, airbag operation time, sleep score, sleep time and even takes recordings of one's snoring to play back later.



To build on the technology, the company also introduced an accompanying Motion Ring to monitor one sleep status in real time and send data to the motion system for a more seamless experience. The combination of the ring with the pillow, known as motionsleep, earned the CES 2024 Innovation Award in the Smart Home category.

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IT BULLETIN Date : 20.12.2023

POWER BANKS

The INIU PowerNova power bank is a travel-ready mobile device engineered with the demands of avid adventurers and professionals alike in mind to keep them connected at all times. The power bank features a compact design that can be stowed virtually anywhere and boasts a 27,000mAh capacity that's approved for carrying on airplanes. Offering support for PowerDelivery 3.1 charging, the power bank has three outputs to charge up to three devices at once while the built-in smart display provides real-time monitoring of performance.

The INIU PowerNova power bank can be recharged in 1.8-hours when plugged into an AC outlet and also supports pass-through charging to let the device be used as a charger adapter. The power bank supports charging speeds up to 140W to easily support high-demand devices like laptops.



Trend Themes

- **1. Travel-ready Power Banks -** The compact design and airline-approved capacity of the INIU PowerNova power bank cater to the needs of frequent travelers and professionals on the go.
- **2. Multi-device Charging -** With three outputs, the INIU PowerNova power bank allows users to charge multiple devices simultaneously, offering convenience and efficiency for individuals with multiple devices.
- **3. Real-time Performance Monitoring -** The built-in smart display of the INIU PowerNova power bank provides users with real-time monitoring of performance, ensuring they can keep track of their device's power status on the go.

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IT BULLETIN Date: 21.12.2023

META QUEST 3

The Quest 3 (515g) is actually heavier than the Quest 2 (503g), the slimmed-down components on the front, including the new pancake lenses, make the headset much easier to balance with the head strap. Meta also shrank its Touch Plus controllers, removing the sensor rings that made the previous version clunky and sometimes cumbersome to store. The company says it was able to do this because of the new sensors on the headset and some AI/machine-learning enhancements that can better predict one's hand and finger movements.



Display LCD with 2064 x 2208 pixels per eye, 120Hz refresh rate

Weight 515g

Processor Qualcomm Snapdragon XR2 Gen 2

RAM/Storage 8GB with 128GB or 512GB

Battery life 1-2 hours depending on use cases

Tracker/sensors Six advanced camera sensors with high-res color mixed reality,

two RGB camera with 18ppd

Controllers 126 grams each, powered by a single AA battery

Submitted by

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IT BULLETIN Date: 22.12.2023

WIRELESS TV

LG has announced the launch of the world's first wireless OLED TV - the 97-inch LG SIGNATURE OLED M (model 97M3). This pioneering television model removes tangled cables' mess, giving viewers a sleek, clutter-free experience.

Beyond the power cord, this state-of-the-art TV promotes a minimalistic setup free of tangled cables. LG's innovative solution is especially for users who regularly interface their TVs with devices such as gaming systems and set-top boxes, offering them a simpler approach to managing connections.



Embarking on this tech journey, LG's wireless TV emerges. With the introduction of the Zero Connect technology, the necessity for cables tethered closely to the screen is a thing of the past. This evolution immerses viewers in the grandeur of an expansive screen, devoid of any distracting clutter.

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IT BULLETIN Date :02.01.2024

GEMINI

What is Gemini?

Recently, Google released Gemini, their most recent AI model which in multiple tests outperforms ChatGPT. Developed by the London-based Google company DeepMind, Gemini exhibits sophisticated capabilities in a number of formats, including assessing and rating a student's physics homework.

According to Google, Gemini outperforms ChatGPT's most potent model, GPT-4, on 30 of 32 benchmark tests, showcasing its aptitude for reasoning and picture comprehension.

Gemini is a multimodal model that is available in three versions and can interpret text, speech, graphics, video and computer code all at once.

The search engine is one of the items that the model is intended to integrate with. Except for the UK and Europe, where regulatory authorization is still waiting, the initial rollout will take place in more than 170 nations.

The three versions of Gemini

DeepMind CEO Demis Hassabis reportedly told The Guardian that Gemini is the company's most complicated project to yet. The most potent form, Ultra, will be made available to the general public in early 2024. The other two iterations of Gemini-Pro, Nano and Ultra will be delivered in stages.

Ultra has already outperformed human specialists, achieving 90% on a multitasking test covering areas as broad as mathematics, physics, law, medicine and ethics.

AlphaCode2, a revolutionary code-writing tool that outperforms 85% of competition-level human computer programmers, can also be powered by Gemini's Ultra model. Google intends to do external "red team" testing on Ultra's security and safety.

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IT BULLETIN Date: 03.01.2024

HOLOBOX TECHNOLOGY

The holographic display showcase/cabinet is a 3D platform fully integrated that combines the most advanced technologies of processing of image with a modern window counter. This allows to focus the attention on the product and show to one's costumer in a unique way. There are not only models of hologram, but combination of real output with projections of holograms inside the case. Our 3D holographic window display with animations in real time brights clarity and visibility, encouraging its display customizing the size to one's needs as a customer. This advertising is ideal for museums, hall, shop windows, exhibitions and events.



Features:

- * Visually stunning product display
- * Holographic video combine with real object
- * Bright and free floating holographic picture
- * "Plug and Play" easy setup
- * High reliability and long lifetime for 24/7 use
- * Flight case package for save transportation
- * Full HD resolution
- * Built-in sound

Submitted by

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IT BULLETIN Date : 04.01.2024

HUMANOID ROBOTS

Robotics is witnessing significant advancements in humanoids, designed to perform a wide range of tasks in various environments. The human-like design with two arms and two legs allows the robot to be used flexibly in work environments that were actually created for humans. It can therefore be easily integrated e.g. into existing warehouse processes and infrastructure.



The Chinese Ministry of Industry and Information Technology (MIIT) recently published detailed goals for the country's ambitions to mass-produce humanoids by 2025. The MIIT predicts humanoids are likely to become another disruptive technology, similar to computers or smartphones, that could transform the way they produce goods and the way humans live.

"The five mutually reinforcing automation trends in 2024 show that robotics is a multidisciplinary field where technologies are converging to create intelligent solutions for a wide range of tasks," says Marina Bill, President of the International Federation of Robotics. "These advances continue to shape the merging industrial and service robotics sectors and the future of work."

Submitted by

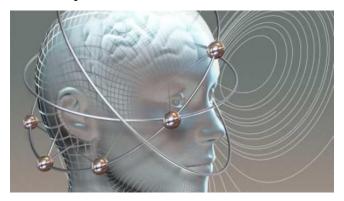
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IT BULLETIN Date: 05.01.2024

BRAIN READING ROBOTS

Brain reading robots use EEG signals to differentiate distinct brain signals corresponding to various bodily motions for an action. Because it is human-centered and utilized for domestic chores, business tasks and other security objectives, brain-reading robotic technology is an important field of robotics. Mind reading robotic technology also employs several complex algorithms. Brain mapping is interpreting electric brain impulses and converting them to spatial representation. Neurons in the brain generate electric impulses which are monitored by inserting several electrodes on the scalp. Growing applications of brain-reading robots for simplifying human labor in many areas such as education, medical, pharmaceutical and manufacturing are predicted to drive revenue development.



Almost every city now has electric vehicles and battery charging stations. Smartphones with the processing capacity of a computer have mostly replaced bulkier mobile phones. Virtual reality headsets and powerful gaming PCs are taking gaming to new heights. Even the way people interact and connect has evolved due to developments such as social media and video calling. On the other hand, wireless mind-reading technology is far closer to reality than many people realize.

Submitted by

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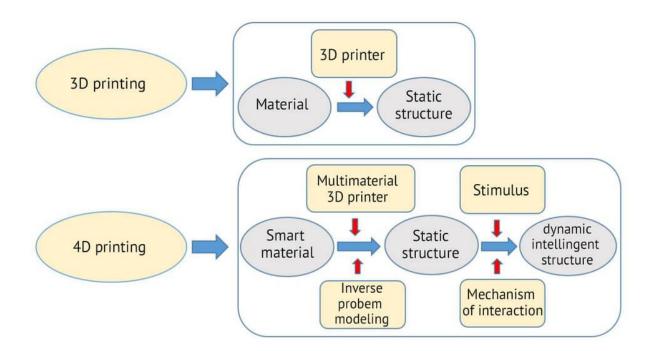
DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 06.01.2024

4D PRINTING

How does 4D Printing work?

4D Printing Technology uses commercial 3D printers such as Polyjet 3D printers. The input is a "smart material" that can be either a hydrogel or a shape memory polymer. Thanks to their thermomechanical properties and other material properties, smart materials are given the attributes of shape change and are differentiated from the common 3D printing materials.



On the other hand, objects printed with 3D Printing technology, are characterized by rigidity. That means that the 3D printed objects are going to keep their 3D shape once printed.

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IT BULLETIN Date: 07.01.2024

DRIVERLESS CARS

China has amassed a ferocious pack of EV-makers, led by the world's top producer BYD, that are not only forcing price cuts but are also pushing the envelope on autonomous vehicles. This is helped by the fact that some of its EV-makers such as Huawei started out as smartphone manufacturers and have been quite adept at making cars smarter.



Musk has been struggling to lay his hands on enormous amounts of data to feed AI in cars to be able to drive themselves. His visit last weekend to China, where collecting data on driving behaviour is relatively easier than in the US or Europe, could yield the breakthrough Tesla has been seeking for a decade. It could also avert price wars that EVs are going through.

China has amassed a ferocious pack of EV-makers, led by the world's top producer BYD, that are not only forcing price cuts but are also pushing the envelope on autonomous vehicles.

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IT BULLETIN Date: 08.01.2024

FOLDABLE TECH DEVICES

Samsung entered this realm recently with their popular Galaxy smartphone line of folding new technology inventions and it's an idea that many tech companies have been incorporating into new designs.

At CES 2022, we witnessed ASUS enter the fray with the introduction of the Zenbook 17 Fold. Featuring a huge 17.3-inch screen, the versatile device can function as a laptop, tablet, book or even a PC.



Indeed, users may attach a Bluetooth keyboard and touchpad to the bottom half and the Zenbook transforms into a fully functional laptop. Or simply fold it in half to use the virtual on-screen keyboard. Fold it in half and the size shrinks down to just 12.5 inches. It's compact enough to carry easily in your arms, backpack or messenger bag.

It also comes equipped with all the bells and whistles, including an OLED screen, HDR, Dolby Atmos and much more.

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IT BULLETIN Date : 09.01.2024

QUANTUM COMPUTING

Quantum computing is a process of solving real-time problems using the principles of

quantum mechanism, which uses quantum bits and qubits. Quantum computing offers

superposition to the qubits as they exist in multiple states simultaneously, giving the quantum

computers the authority to perform many calculations simultaneously. It harnesses quantum

mechanics and processes information with lightning speed, far quicker than traditional computing

devices.

Quantum computing processes complex calculations are accessible and valuable in cyber

security and cryptography, drug development and healthcare, financial modeling, climate change

forecasts and Quantum computing as a service(QCaaS) very soon.

Quantum Computing Trends for 2024

• Quantum's advantage is that it applies quantum computing to solve specific practical

problems faster and more efficiently than classical computers.

• Quantum computing is working on building hybrid computing solutions that combine

classical systems with quantum computing solutions.

Qubit stability is a primary concern and quantum error correction will significantly impact

the adoption of quantum computing in the real world to resolve complex problems.

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IT BULLETIN Date: 10.01.2024

SKYTED SILENT MASK

Taking a call in public is not the most comfortable thing – nobody wants to air personal business to everyone within earshot. Problem is, there's not much one can do if one decides to take the call, since one will often need to talk a bit louder in public if one wants to be clearly heard. The Skyted Silent Mask, which is currently being shown off as a functional prototype at CES, offers a way to make those very public calls just a little more private by letting one make those calls inside a sound-absorbing mask.



It absorbs sounds, reducing the chatter that leaves its confines by 25 decibels, enough to keep most of the people around one from hearing whatever comes out of one's mouth. The mask is equipped with a wireless mic that one can pair with one's phone, allowing one to make handsfree voice calls without having to use any additional device.

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IT BULLETIN Date: 11.01.2024

ORCAM HEAR

Hearing aids amplify any sound picked up by its microphone, such that it can be heard by individuals with hearing impairment. Problem is, they amplify, pretty much, every sound they pick up, which can be an issue if one is trying to hear a single person in a loud and crowded area, like a party or a trade show floor.



These hearing-assistive earbuds are designed to help with that by letting one choose which voices one wants to amplify from the companion app, which uses AI to isolate the different individual voices it picks up and gives one a handy list to choose from. This makes it easier to hold conversations even in crowded places with plenty of bustle, making it a potentially valuable tool for both the hearing impaired and those who are just overwhelmed from all the noise around them

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IT BULLETIN Date: 12.01.2024

NANOLEAF SKYLIGHT

Nanoleaf makes some of the best smart lights in the market, from their classic modular hexagon lights and other shaped lights to smart bulbs and more. Their newest smart light reprises the same modular design as their hexagon lights, albeit with more powerful illumination that makes them functional as ceiling lights, making them a viable replacement for traditional light bulbs.



One will need to hardwire one of the light panels to one's home's electrical system, although everything else one adds after that (up to 99 additional ones) can just draw power via contact with the other modules. Each Skylight module comes in a one-foot square shape, with 1,400 lumens of brightness and a color temperature range of 2700K to 6500K, so a few of these will be enough to provide suitable illumination even for bigger rooms. These are multi-color LEDs, by the way, so one can use them as regular daylight-style illumination or use them to set the mood with any of 16 million available colors.

Submitted by

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IT BULLETIN Date: 18.01.2024

RAZER PROJECT ESTHER

If one enjoys the rumble vibrations on a controller while playing, we imagine one's going to be a lot more excited feeling those same tactile sensations all over one's body. That's exactly what Razer's gaming cushion delivers. Designed to secure on top of any gaming chair, the cushion's 16 haptic actuators can all be controlled individually, allowing devs to impart sensations of direction, distance and location for all the in-game events one will encounter. Even better, the haptic actuators can take audio from a connected PC and turn it into matching rumble vibrations, so one can enjoy the haptic sensations even with games that don't support it, since it can turn those in-game sounds into matching tactile sensations.



It's not limited to games, either, as it will also respond to movies, music and pretty much, any kind of content with accompanying audio onboard. For now, it's only a concept, but this seriously feels like something that can be interesting in the real-world.

Submitted by

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IT BULLETIN Date: 19.01.2024

VIXION01 AUTOFOCUS EYEWEAR

When using an older camera, it's not unusual to require fiddling with the lenses to get it to focus right, especially when switching to a new subject at a different distance. Of course, modern autofocus systems have solved this for the most part, allowing one simply aim the lens at one's new subject and wait for the camera to fix the focus on its own. Human eyes have our own version of this autofocus system, allowing us to easily focus our sights from one spot to another. Problem is, our eyes can stiffen as we get older, making it just a tad more difficult to quickly do the switch.



These "autofocus glasses" look to help that. Equipped with a front-facing time of flight sensor, the wearable can identify what subject one is looking at and measure one's distance from them, after which it will adjust its integrated lenses to ensure one get optimal focus. Basically, it gives one sharper eyesight for objects both near and far, alternating between them swiftly and seamlessly, all without putting any added strain on the eye muscles.

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IT BULLETIN Date: 20.01.2024

BARACODA BMIND SMART MIRROR

People who like to look at mirrors while giving themselves affirmations might enjoy this smart mirror, which asks users how they're doing and proceeds to give them positive reinforcements based on their responses. That's right, it's one is own personal Tony Robbins (or whoever is the current hot self-help guru of the moment), whose sole purpose is to help one manage stress and help improve one's mood.



If one doesn't respond, it can analyze one's expressions, gestures and voice tone to identify your current mental state which it can use to provide spoken affirmations, guided meditation and even light therapy sessions. According to the outfit, it uses a combination of AI and natural language processing to provide its unusual brand of self-help. There's a small touchscreen near the bottom of the mirror, by the way, which one can use to run a variety of apps available under its CareOS platform.

Submitted by

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IT BULLETIN Date: 22.01.2024

GARMIN LILY 2

Garmin has long made some of the best GPS sports watches out there. Problem is, they also tend to make them a tad too big for most women's tastes. Except, of course, the Garmin Lily, which is smaller and more fashion-forward than, pretty much, the rest of their line.



At CES this year, the outfit unveiled the next generation of the Lily sports watch, bringing all the usual fitness, health, and smartwatch features found in the outfit's watches. Since it's made specifically for women, they highlights various features aimed at that demographic, including the ability to track menstrual cycles, monitor pregnancy, and tracking for a variety of dance fitness activities, including Zumba, Afrobeat, Bollywood, EDM, and hip-hop.

Submitted by

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IT BULLETIN Date: 23.01.2024

SAMSUNG BALLIE ROBOT

Companies have been making companion robots for homes every year for what feels like an entire decade now. So far, though, robot vacuums have been the only ones to actually make any real headway in a lot of people's homes. Samsung's trying once again this year with an updated version of their Ballie robot, which they're now billing as "a true AI companion."



Controlled via voice commands, the robot can take charge of patrolling one's home and alerting when anything seems amiss, while the ability to interface with smart devices allows it to fix a few things by itself, too (it can turn off the lights on an unoccupied room it passes, for instance, as well as activate the dog feeder when the pup gets hungry). A built-in projector allows it to beam images up a wall, allowing one to catch the news on the kitchen counter even without a TV in sight, making it arguably the best implementation we've seen of a mobile projector.

Submitted by MOHANRAJ T II B.Sc. IT

DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 24.01.2024

ASUS ZENBOOK DUO

A fair number of people who use a USB monitor along with their laptop when they're working on the road – that second screen just comes in so handy in many situations. That's the one of the reasons we think companies have been experimenting with a second screen on their laptops. In the past, Asus has done it by adding a smaller screen just above the keyboard.



This time around, though, they're going all in by equipping a laptop with dual 14-inch panels (3K resolution and 120Hz refresh rate each) stacked on top of each other. How does it work? Basically, they connected a pair of displays using a hinge, allowing them to fold flat like a clamshell, then added a Bluetooth keyboard that one can sandwich in between the displays. During use, one can leave the keyboard on top of the bottom display to use it like a regular laptop. For dual-screen use, though, one has to take out the keyboard and stand the displays upright via a kickstand in the back to get one's on-the-go dual-monitor setup.

Submitted by

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IT BULLETIN Date: 30.01.2024

DJI FLYCART 30

DJI has plenty of drones – drones that shoot video, drones that race other drones, and drones that carry heavy cameras for professional productions. Their newest drone, however, is designed for transporting goods, making it a full-fledged delivery drone. Designed to serve as a true workhorse, the drone has a payload capacity of 66 pounds, allowing it to deliver pretty heavy cargo, with a maximum flight distance of 9.9 miles when carrying a full payload (17.4 miles when empty) and a maximum speed of 44.7 mph, allowing it to cover big distances pretty fast.



It can also fly through winds of up to 26 mph, so it can make its deliveries even on windy days, while operating in temperatures up to -4 to 113 degrees F), which should allow it to take flight most days of the year. Naturally, it comes with the outfit's intelligent sensors and autonomous flight capabilities, making for one powerful drone.

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IT BULLETIN Date: 31.01.2024

XREAL AIR 2 ULTRA

Billed as an "affordable, full-featured spatial computing" device, these AR glasses look poised to be the next big thing, judging from the activity on their booth at CES. Of course, it could just be the tech-obsessed crowd at the event, seeing how previous AR efforts haven't really taken off among a more mainstream audience. At any rate, their newest AR glasses, which are just slightly thicker and bigger than regular glasses, bring some really nice features that make it a compelling vehicle for augmented reality.



For instance, it has two 3D cameras (one in each corner of the frame), which enable six degrees of freedom (6DOF) positional tracking, allowing users to map their environments and use their hands to interact with virtual elements. On the display front, it delivers a 1080p picture to each eye, with 120 Hz refresh rate, 500 nits of brightness, and a 52-degree field of view. It also boasts support for Apple's spatial video tech, so one can use it to watch those spatial content filmed on the iPhone 15. For now, the hardware is meant exclusively for developers, since they'll need a robust ecosystem of apps if this thing will actually garner serious traction, although consumers can also get one if they want to be early in on the tech.

Submitted by

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IT BULLETIN Date: 01.02.2024

ASUS ZENSCREEN FOLD

Easily the most interesting monitor at the show, this 17.3-inch folding OLED panel can literally collapse into half its size, making it possible to slip in a bag and bring with one on-thego.



Designed for portable use, the monitor connects to one's laptop via a USB-C connection, so there's no need to run a separate power line, while an embedded allows one to securely set it upright on any flat table, making it very convenient to use in the field. It can be used as a single 17.5-inch display with a 2,560 x 1,920 resolution or as two 12.5-inch 1080p displays, while boasting 100 percent coverage of the DCI-P3 color space. When folded, by the way, it looks like one of those netbooks from over a decade ago, making it very compact.

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IT BULLETIN Date: 02.02.2024

RABBIT R1 AI ASSISTANT

The R1 AI Assistant is simple enough, but it does require one to learn an app and interact with a whole bunch of screens each time out. This standalone AI assistant wants to eliminate that. Instead of using an app, one has pull out to this device and tell it what he/she need, then let its AI go to work doing the task on its own.



It has its own SIM card slot and Wi-Fi connectivity, so it can hop onto the internet on its own, although one will have to give it access to one's various online accounts, which one can do via a web portal. In case, the AI doesn't know how to do something, one can teach it to by simply pointing its onboard camera to one's desktop or phone screen while one does the errand himself/herself.

Submitted by

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IT BULLETIN Date: 03.02.2024

MSI CLAW

MSI launched its entry to the gaming handheld category at CES and it runs on Intel's new Core Ultra chips, which, MSI claims, outperforms AMD's chips in performance and battery life (at least, with the chips currently used in other gaming handhelds).



Gamers enjoy their PC games on a 7-inch touchscreen display with 1080p resolution, a 120 Hz refresh rate, and 500 nits of brightness, with Intel's XeSS tech onboard to maximize FPS for the smoothest gaming experience. It's got an asymmetrical gamepad layout with backlit controls, including Hall Effect joysticks and triggers that can hold up to long periods of gaming, while the integrated thermal system redirects airflow to cool internal components to avoid overheating during extended play.

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IT BULLETIN Date: 05.02.2024

LUMEN GLASSES

Designed to serve as an electronic guide dog for the vision-impaired, this headset is fitted with cameras and other sensors that allow it to recognize whatever's in front of the user, which it uses to guide them on which direction to move to advance to their destination while avoiding obstacles.



It relies on haptic feedback, along with auditory cues, to let the user know which direction to go at any time, making it possible for the blind to make their way around even on crowded sidewalks and walkways. Since it's electronic, it's also not limited to specific destinations the way trained guide dogs are, as one can literally choose any nearby location and the device can help one get there on foot. Aside from leading users around, the device can also be used to help the blind read product labels when they're in groceries (it has built-in speakers) and all sorts of other vision-related tasks.

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IT BULLETIN Date : 06.02.2024

INTERNET OF BEHAVIOR (IOB)

Internet of Behavior, also known as IoB, can be defined as the collection and use of data

to drive behaviors. Wearable technologies, individual online activities, and household electrical

devices collect this data, which can provide valuable information about user behavior and interests.

It is based on human psychology perspectives such as purchasing or following a specific online

brand to track and interpret those behaviors using emerging technological innovations and

developments in machine learning algorithms.

IoB is the combination of 3 fields:

Technology

• Data Analytics

Behavior Science

In theory, IoB could provide organizations with critical insights that enable them to increase

productivity, monitor compliance with COVID-19 safety protocols, and more. As an example,

consider Uber and its IoT application. It's used to keep track of drivers and passengers. A survey

is conducted at the end of each journey to evaluate the passenger experience. They can go even

further by using IoB instead of IoT to collect data without the need for a survey to evaluate the

experience. To automatically work on feedback, it is possible to track the driver's behavior and

then interpret the passenger experience.

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IT BULLETIN Date: 07.02.2024

TELEHEALTH

Telehealth services ensure that doctors stay connected to the patients and our patients stay

connected to doctors no matter where they are. By using the telehealth service, our movement

disorder and Parkinson's disease specialists can provide one with quick, convenient, remote access

to consultations, treatment, and advice ensuring that one gets the care that one needs, without

disrupting one's daily routine. For some patients with a movement disorder, mobility can be

difficult, and telehealth services become vital to the ongoing treatment and monitoring of

progressing conditions.

Live video streaming and video conferencing allow the patients and neurology specialists

to communicate directly through a live video call. This method of communication acts as a

substitute for an in-office meeting when one cannot be made. It allows doctors to identify,

diagnose, and monitor the visible signs of movement disorders, such as tremors. This is also

facilitated primary care and specialist care referral services by allowing several doctors in

different-different locations to collaborate on diagnoses and determine the best treatment and care

options available not only in one area but worldwide.

Mobile health (mHealth) allows patients and motion disorder specialists to deliver healthcare and

educational support through mobile devices such as telephones and tablet computers.

Communication can be conducted by text messaging, speaking over the phone, instant messaging,

or online communication platforms such as chat rooms.

Remote Patient Monitoring System (RPMS) uses remote technology to allow neurology

specialists to monitor the progress and care by sharing information directly with them. MDPDS

provides remote devices that can record information such as one's weight, blood pressure, and

heart rate, for example, and relay this information directly to one's dedicated MDPD specialist.

Submitted by

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IT BULLETIN Date: 08.02.2024

CHIPOLO ONE SPOT OBJECT TRACKER

The Chipolo ONE Spot object tracker is a more discreet AirTag alternative that doesn't skimp on functionality. Like Apple's excellent product, this gadget is compatible with the tech giant's vast Find My network, ensuring that one's items will be easy to discover if lost.

The One Spot has an integrated keyring hole, unlike the AirTag. The tracker has a replaceable battery that can last for up to a year between swaps.

By tapping into the massive army of iPhones, iPads, and Macs, there are countless millions of devices around the world that are able to report back one's tracker's location. For example, if one leaves one's keys in the cushion of a cafe, the location will be sent back to the tracker's owner entirely in the background, whenever a supporting Apple device passes by. Instead of relying on a third-party Chipolo app, everything is managed in Find My from setup to tracking.



To pair the Chipolo One Spot:

- Open the Find My app and head to the new Items tab
- Tap on "Add New Item"
- Choose "Other Support Item" on the popup card
- Then press the center of the One Spot after which one will hear a chime
- Tap "connect" once it appears
- Assign a name and emoji to one's tracker

Submitted by

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IT BULLETIN Date: 09.02.2024

WIRELESS CHARGING STAND

This freshly launched 2-in-1 MagSafe charging stand by Satechi became an instant favorite of ours for its design, versatility, and fast charging speeds. Featuring an exterior made from aluminum and vegan leather, the accessory is a perfect match for any Apple setup. Its iPhone dock has adjustable viewing angles, while its base has a slot for charging AirPods or other compatible earbuds.

The charging stand supports the latest Qi2 wireless charging standard, so it's fast and futureproof. We love that it folds completely flat for easy storage.



The Anker MagGo Wireless Charging Station (Foldable 3-in-1) is a compact multi-device Qi2 wireless charger. With its 15W ultra-fast charging capability, courtesy of Qi2 certification, it ensures one's devices are quickly powered up and ready to go. It can charge one's iPhone, AirPods and Apple Watch at the same time, eliminating the need for multiple chargers and making one's place less messy.

Submitted by

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IT BULLETIN Date: 12.02.2024

VOICE SEARCH OPTIMIZATION

Benefits of Voice Search Optimization

Voice search optimization can help businesses stand out in the digital landscape and ensure

that their content is seen by the right people. Here are some of the benefits of voice search

optimization:

1. Increased Visibility: By optimizing content for voice search, businesses can ensure that their

content is seen by more people. Voice search queries tend to be longer and more specific than

traditional text-based queries, and content that is optimized for voice search is more likely to

appear higher in search engine results.

2. Improved User Experience: Voice search optimization can improve the user experience by

providing users with more relevant and useful results. When content is optimized for voice search,

it is more likely to accurately answer a user's query and provide them with the information they

are looking for.

3. Increased Traffic: Optimizing content for voice search can lead to increased traffic to one's

website. By appearing higher in search engine results, businesses can attract more users to their

website and potentially increase their customer base.

4. Improved Brand Awareness: Voice search optimization can help businesses build brand

awareness. By providing users with relevant and useful results, businesses can build trust and

loyalty among their target audience.

Submitted by

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DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 13.02.2024

INTELLIGENT PROCESS AUTOMATION

Intelligent Process Automation is basically a mechanism that follows the rule that says,

anything which will be automated should be automated. The platform utilizes software that

automates the entire processes of business for instance handling the info, interpreting applications,

replying to emails, processing the transactions, and many more. It is a prediction that after adopting

this particular technology, there are huge chances of growing in a big way.

Top 3 Intelligent Automation

Klippa

Klippa DocHorizon is an AI-powered Intelligent Document Processing solution,

utilizing OCR, AI, NLP and Computer Vision for precise data capture, document

classification, detection, information extraction and document verification. It supports various

document types and formats in 100+ languages, excelling in processing invoices, receipts,

purchase orders and identity documents.

Hyperscience

Hyperscience leverages AI-driven solutions to enhance back-office efficiency, utilizing a

proprietary machine learning platform. This cloud-based system automates document-based

workflows, efficiently handling various content types, including handwritten documents.

UiPath RPA

UiPath provides a suite of tools, including a user-friendly visual workflow designer and a

robust robotic automation platform, enhancing efficiency by automating repetitive tasks without

human intervention. Designed for large-scale automation, UiPath accelerates business

transformation with streamlined automated processes.

Submitted by

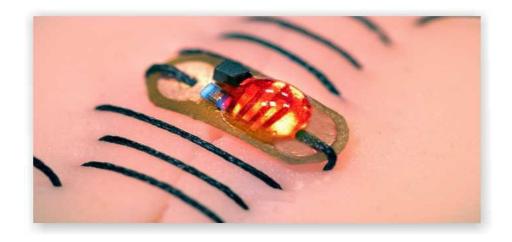
RADHIKA S

DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 14.02.2024

SMART SUTURES THAT DETECT INFECTIONS

Have ever wondered how a doctor knows when a wound of patient is infected? Of course they wait for a while for the patient to show the signs and symptoms of that particular infection. And they may be in contact with a high school student from Ohio to help him, who has created and developed a genius invention to save lives.



Dasia Taylor, at the age of 17 invented sutures that change their color from bright red to dark purple when a wound becomes infected. This happens by detecting a change in the skin's pH level in the body.

They have built two types of temperature sensors on the sutures. One is a silicon diode that shifts its current output with temperature; the other, a platinum nanomembrane resistor, changes its resistance with temperature. The micro-heaters, meanwhile, are simply gold filaments that heat up when current passes through them.

Submitted by

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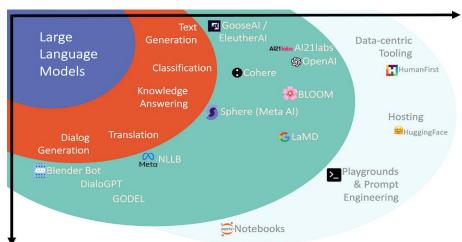
DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 15.02.2024

LARGE LANGUAGE MODELS (LLM)

In 2025, 50% of digital work is estimated to be automated through apps using these language models. As LLM-based solutions gain momentum, businesses have come to think of them as thinking machines. Language models are highly popular among organizations working in retail, e-commerce, marketing, education, finance and healthcare. Large language models (LLMs) are revolutionizing various industries by offering real-time updates on regulatory changes, detecting fraudulent financial activities and providing personalized financial advice.

In healthcare, they enhance patient care through efficient clinical documentation, accurate diagnostics and interactive patient assistance. Moreover, LLMs are transforming marketing through content creation, personalized campaigns and sentiment analysis, driving engagement and insights into customer behavior.



Example - Autonomous workplace assistances (AWAs) are infused with Large-language-model capabilities, these digital co-workers are expected to be utilized in 10% of operational processes for SMBs and Enterprises to streamline tasks and foster an efficient workplace as per Forrester.

Submitted by

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IT BULLETIN Date: 16.02.2024

BIOMETRICS

Biometrics is the use of unique physical or behavioral characteristics to identify an

individual. Biometric technologies are used to capture and measure these characteristics such as

fingerprints, facial recognition, iris scans, voice recognition and more.

The goal of biometrics is to provide a more secure and convenient way to identify and authenticate

individuals, compared to traditional methods such as passwords and security tokens. Biometric

technologies can be used in various applications such as:

Physical access control: Biometric systems are used to grant or deny access to buildings,

rooms, or other secure areas based on a person's biometric data.

• Logical access control: Biometric systems are used to grant or deny access to computer

systems, networks, or other digital resources based on a person's biometric data.

• Time and attendance systems: Biometric systems are used to track and record the arrival

and departure times of employees.

Border control: Biometric systems are used to identify and authenticate individuals at border

crossings, airports and other points of entry.

• Law enforcement: Biometric systems are used to identify suspects and track criminals.

Biometrics technology is becoming more prevalent in many areas and it's expected to

continue growing in the future. It can provide a more secure and convenient way to identify and

authenticate individuals, but it also poses potential privacy risks.

It's important to have a robust data security and privacy protection policies in place for any

biometric technology implementation. This includes measures such as encryption, anonymization

and secure storage of biometric data.

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IT BULLETIN Date: 17.02.2024

SMART MIRRORS THAT CAN MONITOR YOUR HEALTH

In today's busy schedule it's hard to catch a common symptom that one's body gives one before catching a disease. Thanks to technology, soon one's mirror will be able to predict most of the diseases one is about to catch. A Harvard-MIT graduate student created a mirror which can measure variations in brightness produced by blood flowing through vessels in the face. This means no more searching fever symptoms on web and finding one has cancer.



The smart mirror, which has already been recognized with a 2024 CES Innovation Award in the smart home category, combines AI and natural language processing (NLP) to analyze the sentiment of whoever is looking into the mirror through expressions, gestures, and tones. It then adapts to one's current mood and provides light therapy sessions, guided meditations, and self-affirmations, with the goal of improving one's mood and better managing one's stress.

The technology works through the CareOS platform, which allows third-party providers to connect their applications for display within a mirror's interface. It's built with specs like an omnidirectional microphone for voice detection, a 4K ultra-HD camera, and Face ID as a security measure to unlock the mirror.

Submitted by

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IT BULLETIN Date: 19.02.2024

ROLLABLE TV DISPLAY

Imagine a TV that can be rolled like a paper. LG OLED TV-R is a similar modern home TV which can roll its screen in and out of a box with just a click of a button. This also means that now one doesn't need to hang the TV on one's wall.



Specifications

65" Rollable OLED

Size	65"	Resolution	UHD
Curvature	50R	Luminance (APL 25 / 100%)	450 / 135nit
Color Garmut (DCI)	99%	Refresh Rate	120Hz

Submitted by

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IT BULLETIN Date : 20.02.2024

GYROGLOVE

News out of the annual Consumer Electronics Show often focuses on the most exciting new tech gadgets, from next-gen TVs to the latest VR headsets.

The idea is that the movement of the gyroscope counteracts the force of the person's tremor, allowing them to move their hand more smoothly. The design is simple, ensuring users can easily take the battery-powered glove on and off themselves.



The glove itself is made of soft, machine-washable fabric and fastens with a zipper. A small gyroscope — a mechanical device that spins and readjusts itself as it's moved is mounted in a housing on top of the glove, on the back of the hand. There is also a battery pack attached and users may be able to get from 4 hours to 2 days's worth of battery life out of it, depending on the frequency of the tremors.

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IT BULLETIN Date: 21.02.2024

MBUX VIRTUAL ASSISTANT

The MBUX Virtual Assistant unveiled at CES 2024 is the most human-like interface with a Mercedes-Benz yet. Based on MB.OS, it presents a new face to the customer with natural and empathetic interaction. With its four different emotions, the MBUX Virtual Assistant is in tune with customer needs and uses generative AI and proactive intelligence to make life easy, convenient and comfortable. Also leveraging the power of MB.OS as well as advanced 3D gameengine graphics is MBUX Surround Navigation, which seamlessly marries route guidance and assistance.



Meanwhile, Mercedes-Benz is bringing even more productivity, convenience and personalisation into the car with the ongoing expansion of its app portfolio. These include MBUX Collectibles, Mercedes-Benz's first in-car app to showcase NFTs like the limited-edition Mercedes-Benz NXT Superdackel collection.

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IT BULLETIN Date: 22.02.2024

TRANSPARENT TELEVISIONS

Transparent televisions are the latest breakthrough in consumer electronics, offering both top-end design and impressive functionality. These exclusive devices can effortlessly integrate into any setting while providing top-notch entertainment. The entire concept intends to change how we engage with technology at home and work.

The rise of transparent TV technology:

In the last few years, transparent TVs have gained huge recognition. Also, as display technology advances, the demand for these televisions has experienced a significant leap. OLED and MicroLED panels have emerged as the leading technologies for creating transparent displays. It offers exceptional picture quality and contrast ratios while maintaining transparency when not in use.

Additionally, manufacturers have been focusing on enhancing the design aesthetics of transparent TVs, making them thinner, lighter, and more visually appealing. The trend toward sleeker and more minimalist designs reflects the increasing desire for technology to seamlessly blend into contemporary living environments.



The evolution of the technology

One notable initiative in the transparent TV industry is the integration of smart features and connectivity options. Manufacturers are incorporating voice control, smart home integration and IoT compatibility into their transparent TV models. This, in turn, offers users a more immersive and seamless entertainment experience.

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IT BULLETIN Date: 23.02.2024

AI ASSISTANT

An AI assistant is an application that uses natural language processing (NLP) and machine learning to interact with users in a human-like way. They do this in two main ways: by text, or through voice.

AI assistants can be extremely effective in streamlining, automating and improving manual processes. However, AI assistants vary in their functionality, quality and use cases. This means that some will suit one's business better than others.

Types of AI Assistant

1. AI legal assistant

An AI legal assistant is an application that uses artificial intelligence to provide support and assistance to legal professionals.

2. AI writing assistant

An AI writing assistant is a tool that leverages AI to help individuals and businesses to improve their writing by flagging suggestions, corrections and enhancements that can be made to their copy.

3. AI scheduling assistant

AI scheduling assistants are designed to help individuals and teams manage their schedules, appointments and meetings more effectively.

4. AI email assistant

AI email assistant tools leverage AI to streamline, respond to and organize emails for busy individuals and businesses.

5. AI transcription assistant

AI transcription assistants leverage AI to convert spoken language into written text. This type of AI assistant is designed to automate the transcription and note-taking process, making it easier to convert audio or video recordings into readable and searchable text.

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IT BULLETIN Date : 26.02.2024

MURF AI

KEY FEATURES OF MURF AI

1. Text to Speech

With Murf AI's primary text-to-speech feature, can convert one's text into 100% natural-sounding AI voiceovers in over 20 languages and accents. Murf uses dozens of quality checks and linguistic analyses to ensure the accuracy and authenticity of the generated voiceovers. Murf AI's text-to-speech feature will save one's valuable time and effort by eliminating the need to hire voice actors or spend hours recording and editing audio.

2. Murf API

It only takes five simple steps to get access to Murf API:

- 1. Contact The Murf AI team by completing and sending the form on the API page.
- 2. One of the Murf AI team members will contact one to discuss one's specific needs.
- Unwind as Murf AI prepares one's API access, and be sure to take a look at Murf's API documentation.
- 4. Test the API by integrating it into one's website or application.
- 5. Start crafting memorable experiences that are worth paying attention to.

3. Canva Add-On

Murf AI offers a convenient Canva add-on that allows one to integrate Murf AI voices into the videos and presentations one creates using Canva.

4. Voice Cloning

To create a custom voice for Murf, fill out the contact form on Murf AI's Voice Cloning page. A Murf AI team member will be in touch with one and will work with one to create one's custom voice!

Submitted by

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DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 27.02.2024

NIMO PC

The current generation of PCs has run its course, and it's time to step back and rethink personal computing, given the breakthrough in cloud computing, head-mounted displays and Bluetooth technology.

The Nimo 1 Core is a PC the size of a mouse. It uses the Qualcomm XR2 solution designed specifically for spatial computing and it will work with either the Nimo 1 or the Rokid Max glasses.



This solution will compete with the Apple Vision Pro at a small fraction of the price. With a wireless foldable keyboard and a small wireless mouse coupled with the head-mounted display, this PC provides the potential for a mobile, virtual 50-inch display in a pocket-sized solution.

Submitted by

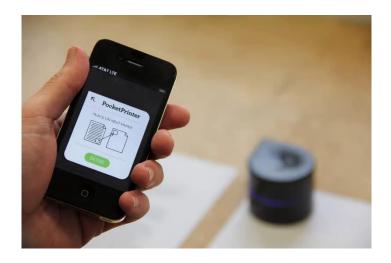
SWATHY V

DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 28.02.2024

MINI MOBILE ROBOTIC PRINTER

The Mini Mobile Robotic Printer was conceived by Zuta's founder Tuvia Elbaum, an entrepreneur from Jerusalem. Elbaum tells Gizmag that he came up with the idea from constantly working on the go with smartphones, tablets and laptops and wanting a way of printing without having to wait to get home or to the office.



The printer uses an omni-wheel system that allows it to accurately move around the page that it is printing on. It prints at a speed of 1.2 pages per minute and the current prototype can reach up to 96×192 dpi, although the final product is expected to provide a higher resolution. Size-wise, it measures 10×11.5 cm $(3.9 \times 4.5$ in) and weighs around 300 g (10.6 oz). The device will run for one hour on a full charge, which takes about three hours.

Submitted by

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DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date :29.02.2024

SELF-CLEANING WATER BOTTLE

Self-cleaning water bottles use UV technology to zap waterborne microbes and keep them out of one`sdrink, regardless of the water source. This is unlike filtered water bottles, which use a variety of mechanisms to trap pathogens and sediment.



The biggest difference between water bottles that provide filtration and self-cleaning water bottles is that the UV technology used in self-cleaning bottles doesn't get rid of dirt and sediment. So while the bottles can kill viruses, bacteria and other microorganisms that can make one sick, they won't filter out heavy metals or other particulates like an actual purification system might. They're still better at ensuring one has clean water than traditional water dispensers or single-use plastic bottles, though.

Submitted by

THANASHREE S P

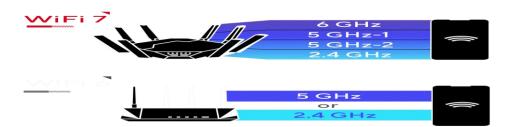
DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN Date: 01.03.2024

Wi-Fi 7

The seventh generation of Wi-Fi promises major improvements over Wi-Fi 6 and 6E and could offer speeds up to four times faster. It also includes clever advances to reduce latency, increase capacity and boost stability and efficiency.

Wi-Fi 7 is IEEE 802.11be in the old naming convention, where Wi-Fi 6 was IEEE 802.11ax and Wi-Fi 5 was IEEE 802.11ac. Like previous standards, Wi-Fi 7 will be backward compatible. But to take advantage of the new features and improved performance it promises, one will need to upgrade one's devices. That means buying new routers and access points, not to mention new smartphones, laptops, TVs, and so on.



While WiFi 6E increased channel width in the 6 GHz band to 160 MHz, WiFi 7 introduces ultrawide 320 MHz channels, doubling data transmission capacity. One can think of networking as a virtual freeway and the doubled bandwidth as a doubling of the number of lanes. Now larger vehicles are allowed to get on the freeway and can pack more data than ever before.

Before WiFi 7, transmissions were limited to one band, such as 2.4 GHz or 5 GHz. Multi-Link Operation (MLO) allows a device to simultaneously connect on multiple bands, enabling faster speeds by aggregating bandwidth, with more reliable WiFi connections on multiple concurrently used bands.

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IT BULLETIN Date : 02.03.2024

JACKERY SOLAR MARS BOT AND ROOFTOP CAMPER

The Solar Generator Mars Bot is like a portable power station on wheels with solar panels sliding out of the sides to capture more sunlight. Like NASA's Opportunity Rover with power outlets, ready to roam the Las Vegas Strip on a mission to discover undercharged cell phones.

The product is at CES to make a splash and look cool, of course, but Jackery's Emma Ross told me the goal was also to demonstrate a potential future for mobile, portable renewable energy. Something like this Mars bot might one day exist commercially and do actual, useful things right here on Earth.



The details are still yet to be sorted out, but the rooftop tent enclosure itself can provide about 600 watts of power. The extendable panels reach out from the enclosure like wings, making the whole setup look like a Transformer caught halfway between superhero and F-150. Those panels can provide an additional 400 watts, Ross said, but it's unclear yet if they'll be included in the final product when it ships.

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TIMEKETTLE X1 INTERPRETER HUB

The rise of generative AI has enabled the live translating device space to boom, and many of the tools were on display at CES.

The device leverages AI to provide real-time translations for up to 40 languages. My colleague and I had a conversation from Spanish to Chinese in a very loud expo room and the device had no problem picking up the audio and outputting accurate translations. It also showcased live transcription on the screen.



The device includes two earbuds, which can be shared between two users. Then, multiple X1 devices can sync, providing smooth interpretations for up to 20 people in five different languages, perfect for meeting rooms or multilingual classrooms.

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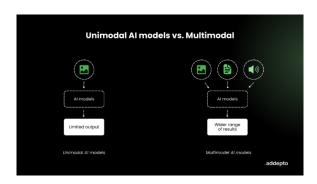
IT BULLETIN Date: 05.03.2024

MULTIMODAL AI

Multimodal artificial intelligence is a subset of artificial intelligence that focuses on leveraging multiple modalities to build more accurate and comprehensive AI models. Multimodal models can effectively combine information from different sources such as images, text, audio and video, to create a more accurate and comprehensive understanding of the underlying data.

Multimodal VS. Unimodal AI models

Despite performing relatively similar functions, multimodal and unimodal AI models take distinctive approaches to developing AI systems. For instance, unimodal models focus on training AI models to execute a specific task using one source of data. Multimodal models, on the other hand, combine data from different sources to effectively analyze a given problem.



Multimodal Models Work for Different Types of Inputs

- 1. Text-to-image generation and image description generation
- 2. Visual question answering
- 3. Image-to-text search and text-to-image
- 4. Video-language modeling

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IT BULLETIN Date: 06.03.2024

NO-CODE MACHINE LEARNING

No-Code Machine Learning Platforms

CreateML

CreateML is a no-code platform by Apple that creates and trains custom machine learning models. CreateML is an independent macOS application that includes a range of pre-trained model templates.

DataRobot

DataRobot was founded in 2012. DataRobot aims to democratize data science and automate enterprise end-to-end machine learning processes.

Google Cloud AutoML

Google Cloud AutoML works in the cloud. Google Cloud AutoML includes Vision for image classification, Natural Language Processing, AutoML Translation, Video Intelligence and Tables.

Graphite Note

The complexity of machine learning poses a significant challenge, especially for non-technical professionals.

Levity

Levity enables end users to train custom models on their use-case-specific data. Levity is suitable for SMEs and Enterprises.

Lobe

Lobe is a Microsoft product. Lobe offers advanced image classification, with object detection and data classification.

RunwayML

RunwayML is a great no-code machine learning platform for creators and makers. RunwayML allows machine learning techniques to be accessible to students and creative practitioners.

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IT BULLETIN Date: 07.03.2024

HAPTX GLOVES G1

The magic of HaptX is air, generated quietly and efficiently by the powerful new Airpack. Light enough to wear as a backpack for roomscale use or easily placed on a table, the Airpack does it all. No tethers holding one back, and a 3-hour battery for free, on-the-go movement.



The first haptic gloves that fit like a conventional glove. With soft, flexible digits, palm, and wrist, these Gloves offer dexterity and comfort. And with 4 different sizes, all adult hands get the best fit and performance.

The HaptX SDK makes it easy for developers to bring realistic touch to applications. Included are: Unity and Unreal Engine plugins, a C++ API, and a ROS node for robotic connection and control. Plus, a ground-breaking haptic multiuser feature so workers can feel the same objects while in the same environment.

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IT BULLETIN Date: 08.03.2024

SAMSUNG GALAXY RING

Activity tracking: While it's highly doubtful that the Ring would be able to fit or use GPS, it should be able to track one's daily activity such as walking, running and so forth and measure one's heart rate.

Advanced sleep tracking: We know the Galaxy Ring will have some sort of sleep-tracking functionality, but it better be solid. This is another table-stakes feature that the competition, *especially* the Oura Ring, excels at.

Temperature tracking: If the Galaxy Ring could keep tabs on your temperature, it would not only help you know if you were coming down with something but could also be helpful for women who want to track their cycles and pregnancy.



Media control: Reports suggest that the Galaxy Ring will be able to control other devices, which sounds fantastic if implemented well. Rather than tapping on one's phone or one's wireless earbuds, it would be handy if one could tap the Galaxy Ring to change music tracks, change the volume, or even accept and reject calls.

Wireless charging: Like the Oura Ring, the Samsung Galaxy Ring needs to be able to charge wirelessly. Bonus points if one will be able to charge it by placing it on the back of the Galaxy S24 Ultra, or other Samsung phones offering reverse charging.

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ORCAM MYEYE PRO

OrCam MyEye can only learn one face at a time. For best results, make sure to learn one face at a time in an area with good lighting. During the learning session, OrCam MyEye will announce if there are too many faces detected and request that one focuses only on one face. OrCam MyEye will cancel the learning session should it continue to detect more than one face.

During the learning session, using the stop gesture will end the learning session. OrCam MyEye will make a low, double beep sound to indicate it has ended the learning session.



If OrCam MyEye fails to recognize a previously learned person, onecan re-learn that face by following the instructions titled "Learn New Faces". If face learning is at first not successful, OrCam MyEye will assist one by announcing whether the person is too close or too far away or is not centered to one or is not facing one. OrCam MyEye can learn up to 100 faces.

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IT BULLETIN Date: 12.03.2024

META SMART GLASSES

Improved audio: We have all-new custom designed speakers with extended bass, higher maximum volume, and improved directional audio that provides reduced audio leakage for improved calls, music, and podcasts — even in noisy or windy environments.

Share your point of view: A new ultra-wide 12 MP camera translates to improved quality for one's photos and 1080p videos up to 60 seconds

Power up: Ray-Ban Meta smart glasses are powered by the all-new Qualcomm Snapdragon AR1 Gen1 Platform, which enables higher quality photo and video processing and even faster compute.



Comfort and control: We reduced the weight of the glasses and slimmed down the profile in every direction, making them lighter and more comfortable and the glasses are now water-resistant (IPX4).

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