Weekly Discovery

We SHARE to inspire and ignite ideas!

15 January 2018 - 19 January 2018

SPECIAL FEATURE by SUTD LIBRARY

Gamification of Corporate Training

With technological advancements, corporate training and learning has also changed. Fun, engaging, interactive are now key to make learning interesting for today's professionals. CEO of Kahoot!, a game-based learning platform, Erik Harrell shared, most (if not all) employees grown up playing games, it make sense that they would want to learn through gamification at work. Case studies have also shown that by tapping on gamification, it improved the learning outcomes and thus maximising the returns on training investments for corporates.

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AIR PURIFICATION

World's Largest Air Purifier Completes Successful Trial Run in Xi'an, China

This air purifier stands at 100 meters tall and can purify the air effectively from "severely polluted" to a "moderate" level. This tower is a "test" sized model and the full size is expected to be 500 meters tall.

Source: ArchDaily (16 January 2018)

ARTIFICIAL INTELLIGENCE

This Army of AI Robots Will Feed the World

This interview details the business journey of a startup which uses Artificial Intelligence robot LettuceBot to farm lettuces and how the entrepreneur has overcome various challenges.

Source: Bloomberg Businessweek (11 January 2018)

AUGMENTED REALITY & CONSTRUCTION

An Interactive Augmented Reality Tool for Constructing Free-Form Modular Surfaces

With the integration of Augmented Reality (AR), free-form modular designs can now be constructed by anyone with just AR goggles and a control subsystem, instead of relying on advanced digital fabrication technologies.

Source: Automation in Construction (January 2018)

BLOCKCHAIN

In China, You Can Track Your Chicken On–You Guessed It–The Blockchain

Users of Gogochicken can track every aspect of their free-range chicken in the blockchain, allowing them to distinguish a captive chicken from a free-range chicken and ensuring food safety, thereby regaining trust with their suppliers.

Source: Fast Company (12 January 2018)

CURRICULUM

How Students Can Shape the Design of Their Courses

Students' involvement in course development could provide great insights into how better teaching can be done for better learning. Explore how this has been carried out in the US and the benefits it has brought about.

Source: The Chronicle of Higher Education (11 January 2018)

CYBERSECURITY

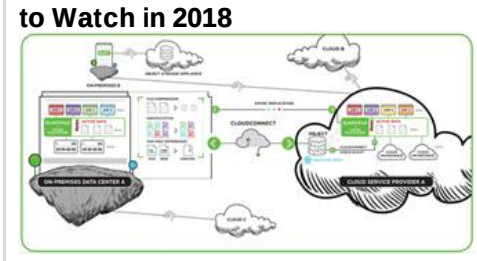
Pulses of Light to Encrypt Data and Protect Security of Cryptocurrencies

Researchers have invented a new method to create a frequency comb in the size of a human hair. This innovation could pave the way for robust quantum cryptography applications.
Read more at Science.

Source: University of Southern California (11 January 2018)

DATA STORAGE

Innovative Solutions to Data Storage Challenges: Four Storage Companies to Watch in 2018

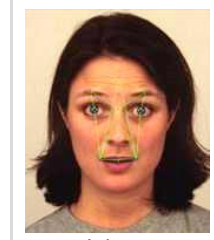


Innovative technologies used by storage solution providers shed insights on how software can overcome hardware limitations, solutions to hybrid storage challenges, and a shift from hardware- to software-based approaches.

Source: Frost & Sullivan (13 January 2018)

EMOTION RECOGNITION

Introducing Dynamism in Emotional Agent Societies

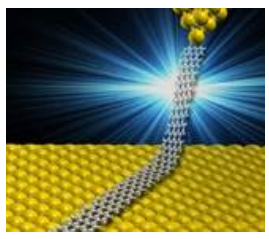


PAD (Pleasure, Arousal, Dominance) emotional model built on three elements (personality, empathy, affinity) is able to determine emotional status, allowing human–computer interaction to enhance the decisions made a machine.

Source: Neurocomputing (10 January 2018)

GRAPHENE

First Flashes of Light Observed from Individual Graphene Nanoribbons



Graphene nanoribbons enable light emission 100 times stronger than normal carbon nanotubes and the brightness of the light observed from graphene nanoribbons is adjustable through voltage. Read also at ACS.

Source: Phys.org (10 January 2018)

HEALTHCARE

Medicine's New Stethoscope

With a market that is projected to expand up to 25% within five years, liquid biopsy would become mainstream for cancer screenings. Read on and learn the advantages and limitations of this technique.

Source: Asian Scientist (Jul - Dec 2017)
Available @ SUTD Library (Call Number Q80 ASI)

INTERNET OF THINGS

100,000 IoT Sensors Monitor a 1,400-Kilometer Canal in China

This artificially created water canal is equipped with 100,000 Instrumental sensors of 130 types to monitor various factors like water quality, stress, strain, vibration, displacement, earth pressure, and water seepage.

Source: IEEE Spectrum (11 January 2018)

INTERNET OF THINGS

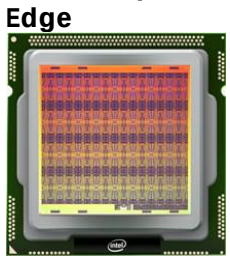
12 Emerging Internet of Things (IoT) Trends That Will Become Mainstream in 2018

Internet-of-Things (IoT) is revolutionising our lives and it has huge potential impact on many industries. Check out these 12 IoT trends to watch in 2018 which may help you to optimise your investments.

Source: CMS Wire (12 January 2018)

NEUROMORPHIC COMPUTING

Intel Unveils Prototype Neuromorphic Chip for AI on the Edge



A ground-breaking new prototype of neuromorphic processor that could effectively simulate brain activities and empower future devices to adapt and learn in real time just like human brains.

Source: DesignNews (12 January 2018)

ROBOTICS

Robotic Implants Spurs Tissue Generation Inside the Body

Image Source: Britannica

Operation procedures could be improved in the future with this motorised robot device that can be implanted into the affected area inside a human body and mend the body through an external programmable control unit.

Source: EurekAlert! (10 January 2018)

SMART HOMES

14 Predictions for the Future of Smart Home Technology

Smart homes are coming into their own and Google Home, Alexa, and Amazon's impressive sale numbers will surprise you. Check out the trends which will become mainstream in the coming year.

Source: Forbes (12 January 2018)

SPACE ROBOTS

NASA's New X-Ray Navigation Could Guide Robots Through Deep Space

X-Ray based millisecond pulsars are used to pinpoint an object travelling in deep space. The proposed SEXTANT system could find its place in future deep space navigation.

Source: Digital Trends (13 January 2018)

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