

# Weekly Discovery

We SHARE to inspire and ignite ideas!

11 June 2018 - 15 June 2018

## 3D HAND TRACKING

### A Webcam Is Enough to Produce a Real-Time 3D Model of a Moving Hand



Introducing an easy and low-cost solution to address the highly challenging problem of real-time 3D hand tracking. Now it is possible to generate a timely 3D skeleton model of a moving hand via a webcam!

Source: [FurekAlert!](#) (8 June 2018)

## 3D PRINTING

### A New 3D Printer Builds Temporary Electronics on Your Skin



A new 3D printing technique that draws precise patterns of electronic device temporarily onto the skin. Unlike traditional 3D printers, this device makes it possible to print on moving objects.

Source: [Science News](#) (6 June 2018)

## 3D PRINTING

### Netherlands to Build World's First Habitable 3D Printed Houses

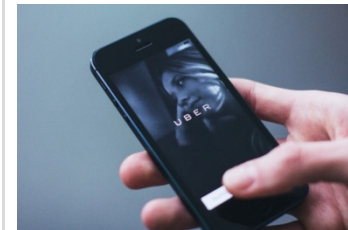


Have you imagine living in a 3D printed house? Now you can. Netherlands will have the world's first habitable 3D printed house, transforming the whole building industry.

Source: [The Guardian](#) (6 June 2018)

## ARTIFICIAL INTELLIGENCE

### Uber Files Patent for AI System That Can Tell When Passengers Are Drunk

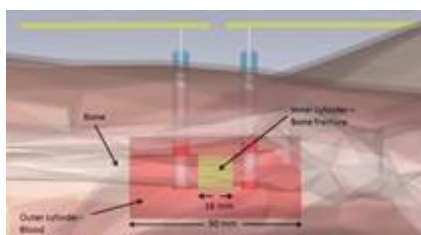


Get insights of how Uber takes passenger safety seriously by using AI to predict passengers' physical state. Find out more from the [published patent](#) via our Patsnap database.

Source: [Interesting Engineering](#) (12 June 2018)

## BIOMEDICAL DEVICES

### Implanted Antennas Track Fracture Healing



Promising results from proof-of-concept offer tracking of fracture healing with the use of monopole antenna system to transmit the measurement of power via radiofrequency signals.

Source: [Physics World](#) (11 June 2018)

## CANCER DETECTION

### In the Blood: Researchers Work to Fine-Tune a Test That Could Better Detect Lingering Disease in Cancer Patients



Liquid biopsy is highlighted in this article as a promising diagnostic and prognostic tool for personalised treatment of cancer. Also learn about a low-cost and highly efficient [nanobiochip](#) for cancer detection.

Source: [Discover](#) (June 2018)  
Available @ SUTD Library (Call Number Q1 D54 DIS)

## CONSTRUCTION OUTLOOK

### Shaping the Future of Construction: Future Scenarios and Implications for the Industry



This outlook report illustrates three distinct future scenarios of the construction sector and our urban spaces – Building in a Virtual World, Factories Run the World, and a Green Reboot.

Source: [World Economic Forum](#) (March 2018)

## DESIGN PRACTICE

### Studio: Transforming Design Practice: In Conversation with Formwerkz Architect



© Albert Lim

Read this in-depth interview of 3 local architecture university students who braved the waves to build their company. Find out the factors considered by them when they embarked on the Al-Islah Mosque project.

Source: [The Singapore Architect](#) (May 2018)  
Available @ SUTD Library (Call Number NA1 SIN)

## MANUFACTURING

### Pharmaceuticals Manufacturing

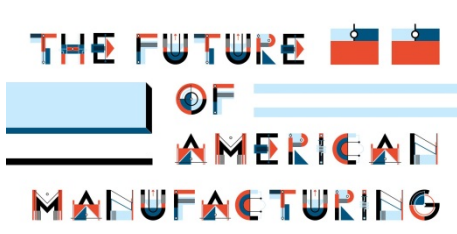


A 20-page report that outlines the key trends and challenges in the pharmaceutical manufacturing industry by showcasing 5 pharmaceutical companies as case studies.

Source: [Frost & Sullivan](#) (8 June 2018)

## MANUFACTURING

### The Future of American Manufacturing



'Made in USA' is making a comeback. Read about the advantages, challenges, innovations and involvement of robots, and many more, in the US manufacturing sector.

Source: [Popular Mechanics](#) (June 2018)  
Available @ SUTD Library (Call Number T1 POP)

## MOVING WALLS

### Sliding Walls Animate the Facade of Fouad Samara Architects' Modulofts Apartments



These innovative sliding walls allows you to partition off various spaces in your apartment with up to 16 different configurations, meeting the need for small and medium-sized accommodation.

Source: [Dezeen](#) (10 June 2018)

## PHOTOCATALYSIS

### Overlooked Compound Proves Useful for Photocatalysis

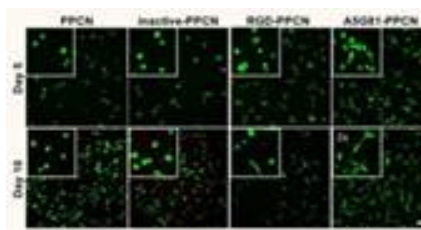


Oxyfluoride, a previously underestimated compound, was found to be useful in creating a new photocatalytic material. The findings open the door for artificial photosynthesis and solar power research. Read also at [JACS](#).

Source: [Asian Scientist](#) (7 June 2018)

## REGENERATIVE DRESSING

### Regenerative Bandage Accelerates Healing in Diabetic Wounds



A new drug-free bandage that hastens the healing of diabetic wounds (which can be painful and hard-to-treat) 33% faster and more effectively. Read more at [PNAS](#).

Source: [Science Daily](#) (11 June 2018)

## ROBOTICS

### Tomorrow's Cities: Dubai and China Roll Out Urban Robots



Robocop? E-Patrol Robot? These robots are nothing new in Dubai and China. This article highlighted that as the rise of city robots is inevitable and technology is here to stay. But, will the public perception and regulation change?

Source: [BBC News](#) (10 June 2018)

## WATER RESOURCES

### MIT's New Tech Turns Power Plants and Data Centers into Water Sources

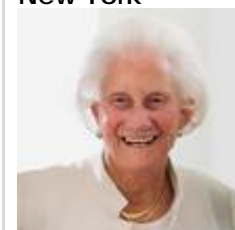


Scientists developed a new technique which could be used to harvest water from cooling towers in power plants. This innovation opens the possibility for alternative drinking water sources in the future. Read also at [Science](#).

Source: [Fast Company](#) (8 June 2018)

## WOMEN ARCHITECTS

### Hardly Anyone Can Name More Than One Female Architect, Says Director of New Movie About Women That Built New York



Beverly Willis, an American architect, attempts to bring greater awareness to women architects through a 17-minute short film, which showcases hundreds of female architects and engineers who have shaped the urban environment of Manhattan.

Source: [Dezeen](#) (12 June 2018)

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