

# Weekly Discovery

We SHARE to inspire and ignite ideas!

#### ARCHITECTURAL RESEARCH

Architectural Research: Three Myths and One Model



The first myth is that typical research definitions cannot be applied to architecture. The second myth is that architecture must appeal to other disciplines, to be considered to have a credible philosophy. The last myth is that merely designing a building is research. A new architectural research model was proposed to debunk these myths. Source: <u>ArchDaily</u> (3 January 2017)

FUTURE TECHNOLOGY

Special Report: 2017 Top Tech to Watch



Here are some new technology breakthroughs you may expect to come this year: robo-taxi, logistics network for drones, 5G services, 10-nanometer chipmanufacturing technology, and more.

Source: <u>IEEE Spectrum</u> (December 2016)

#### LEADERSHIP

# An Innovative Start To 2017: 10 Leadership Steps For An Innovation Culture



A culture of innovation must move away from traditional processes and adopt holistic and unconventional activities such as reviewing a failure from different perspectives to make it a success.

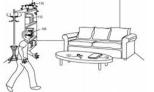
Source: Forbes (31 December 2016)

PREDICTIONS 12 CEOs Share Their Predictions For 2017



#### AUGMENTED REALITY

How Microsoft's HoloLens Headset Could Help Find Your Keys



Microsoft's HoloLens augmented reality (AR) headset can help you locate misplaced items and keep track of your fridge inventory using AR and Cloud technologies. Learn more from its new <u>patent</u>.

Source: <u>GeekWire</u> (2 January 2017)

GREEN ARCHITECTURE

#### Bowl-Shaped Roofs Harvest Rainwater and Promote Natural Cooling in Arid Environments



To cope with water scarcity, this design studio came up with an architectural solution, Concave Roof, to harvest and store rain water and moderate indoor temperature through its double-roof system.

Source: Inhabitat (2 January 2017)

## MACHINE DESIGN

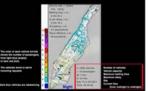
Machine Design Leaders in OEM 2017



Machine Design's special "digital only" annual feature of leaders in OEM with technology articles, editorial insights and "leaders" profiles.

Source: Machine Design (2016)

ROUTING ALGORITHMS A Mere Algorithm Could Make NYC Taxis Four Times More Efficient



2 January 2017 - 6 January 2017

# COLLABORATION

# 2017: Collaboration Is No Longer A Choice, But An Imperative



In the new business environment today, the key to success is collaboration. It is the ability to collaborate and become the indispensable partner that will give you a truly competitive advantage and become a dominant player.

Source: DigitalTonto (1 January 2017)

#### INDUSTRY FORECAST

# Experts Share The Industries Poised For a Strong 2017



For some, 2017 will be a very good year – from technological advancements to private financing, entrepreneurs all over are predicting strong changes and preparing our world for a better future. Check out the predictions from 6 industry experts.

Source: Entrepreneur (30 November 2016)

#### MATERIALS

## Wolverine-Inspired Material Takes Shape



Scientists have designed an inexpensive transparent, self-healing and stretchable material that conducts electricity. It could be used to power artificial muscles and enhance the performance of batteries, electronic devices and robots. Read more at <u>Advanced Materials</u>.

Source: <u>Rdmag.com</u> (28 December 2016)

#### SMART MATERIALS INDUSTRY Smart Textiles - High-Tech Materials



CEOs across industries shared their expectations for 2017 -- from challenges they expect, their aspirations to how the US election outcome might help affect change.

Source: Fast Company (21 December 2016)

Researchers at MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) developed an algorithm that can serve 98% of the taxi demand through the use of 3,000 four-passenger cars. This reduces traffic congestion by effective carpooling. You can read more at <u>CSAIL</u>.

Source: Popular Mechanics (2 January 2017)

Catch on to the latest innovations in various materials across industries, including lightweight materials, bio-based materials, non-woven materials and more. Also check out the key patents in the fields.

Source: Frost & Sullivan (30 December 2016)

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