Weekly Discovery
We SHARE to inspire and ignite ideas!

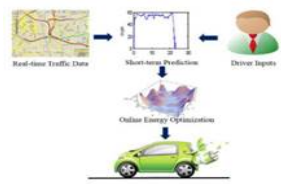31 January 2017 – 3 February 2017

SPECIAL HIGHLIGHT
CYBER-PHYSICAL SYSTEMS
A Cyber-Physical System (CPS) is an integrated networked 'intelligent' system comprising both the physical and computational components. These systems usually have scalable algorithms for analyzing real-time software and are adaptive and predictive. Common applications of CPS are sensor-based communication-enabled autonomous systems but other sophisticated types include smart grid, avionics, military applications, healthcare and transportation.
READ MORE>

ARTIFICIAL INTELLIGENCE
A computer program that learns how to save fuel

Source: IEEE Xplore

Developing an energy management system for Plug-in hybrid electrical vehicles is especially challenging. These researchers have come up with an algorithm that can help to reduce fuel usage. You can read more at IEEE Xplore.

Source: The Economist (28 January 2017)
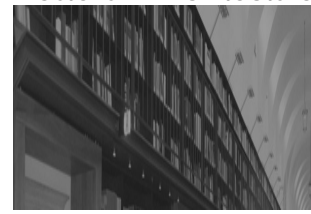
ECONOMY
Aging and urban divergence

Understand the challenges and effects faced by the cities of Japan, Western Europe, and the United States as they face a decline in urban population growth fueled by an aging population and slowing down of urban migration.

Source: Brookings (23 January 2017)

EDUCATION
7 Things I Learned While Getting My Master's in Architecture

Includes not being able to study something one is not intrigued by, steps must be taken to accomplish goals, follow your instincts and that the Master's degree is a long journey.

Source: ArchDaily (21 January 2017)

ENTREPRENEURSHIP
5 Architects Who Turned to Selling Products, Not Architecture

Architects who became entrepreneurs and started their own companies dedicated to the creating and selling products that are creative and enjoyable.

Source: ArchDaily (21 January 2017)

FABRIC
New Exosuit Fabric Could Boost Mobility in People with Disabilities

Using textile producing technology to produce smart textile actuators suits that can be worn to help the elderly or disabled to walk.

Source: Livescience (25 January 2017)

FLYING CARS
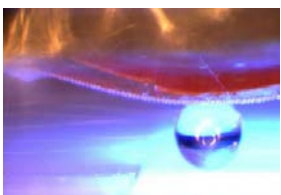### 9 Flying Cars That Just Might Take You to Work One Day

Most of these flying cars look more like aircrafts than traditional automobiles. While most are still prototypes, a race is going on as to who can develop the first commercially viable "flying car".

Source: Popular Mechanics (30 January 2017)

MATERIALS
Controlling adhesive material remotely with light

An adhesive material that mimics the adhesive technique found in nature. This new material can be remotely controlled with ultraviolet light and can be useful to robotics, medical technology and various industries. Check out this video and Science Robotics Article.
Source: Sciencedaily (25 January 2017)

MEDICAL DEVICES
Technical Insights Research deliverable: Innovations in Medical Devices in Bioelectronics
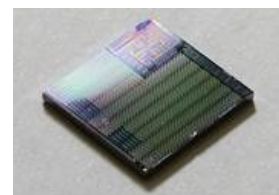
This report features new and emerging technologies and advances in the fields of Bioelectronics. In particular it covers devices treating migraines, hypertension, inflammatory disease, and obesity.

Source: Frost & Sullivan (20 January 2017)

SEMICONDUCTOR DEVICES
Self-Healing Transistors for Chip-Scale Starships

Nanowire transistors can self-repair radiation defects during space travel resulting in spacecraft's being able to last long distances and cut down the time required to reach their destination.

Source: IEEE Spectrum (30 January 2017)

TRENDS IN TECHNOLOGY
Top 10 Technology Trends Impacting Infrastructure & Operations

Which key technology trends should I&O leaders be focusing on to lead in digital business growth and innovation? Some of the emerging trends include: Hybrid Data-centers, Containers and Microservices, Business-driven IT, Remote Device, Management, and more.

Source: Gartner (7 December 2016)

URBAN PLANNING
Vim and Vigour

From child-sized alcoves in Japan, public pools in Brisbane and new cycle tracks in Lisbon urban planners are once again revolutionizing the cities taking into the consideration the well-being of the citizens. You can read this article in the Monocle February 2017 issue at Library Level 1.

Source: Monocle (February 2017)

3D PRINTING
3D printing: Human skin is now being printed in labs

Discover how 3D printing can be used to print body parts in the laboratory, including skin. This is good news for animal rights activists, as synthetic skin can be used instead of animals for chemical testing purposes.

Source: The Memo (25 January 2017)