

Built Environment Research and Innovation Institute



ONLINE SPECIAL

Construction Tech: Ensuring You Choose the Right Solution, and it's Scalable

With so many options available, it can be overwhelming trying to decide which tech solutions construction company needs and which are the best fit for the company. So where do you start?

Read more >

ADVANCED CONSTRUCTION



The Evolution of Volumetric Modular Technology. By PBC Today

Jackie Maginnis, chief executive of the Modular & Portable Buildings Association, discusses the evolution of volumetric modular technology from its inception to the advanced systems that are proving increasingly popular today.

Read more >



Kenyan Entrepreneur makes Paving Slabs out of Plastic Waste. By WEF

Nzambi Matee, the founder of Nairobibased Gjenge Makers, which transforms plastic waste into durable building materials. Their product is almost five to seven times stronger than concrete.

Read more >



The Robot That Compares Design to Reality at the Construction Site. By Lilly Cao

In November of 2020, Foster + Partners announced a collaboration with the robotics design company Boston Dynamics. Together, the two have been testing Boston Dynamics' robot dog, Spot, to help capture and monitor progress on construction sites

Read more >

| GREEN BUILDING TECHNOLOGY



Green Technologies For A Sustainable Future.

By Andreas Schneider

Have you heard of the <u>sustainability</u> <u>triangle</u>? It consists of three pillars: economic, ecologic and social. It reconciles economic and social developments with the environment and social interests so that the needs of all living people are met and at the same time those of future generations. The aim is to find a sweet spot between the three.



Self-healing Concrete: Is This The Future of Buildings?
By Keith Breene

Self-healing concrete is one example of the kind of technology which could add years to a building's life. The material is able to release a healing agent when cracks appear. When the agent comes into contact with a catalyst inside the concrete it turns into a solid, strong polymer.



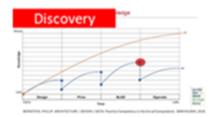
City Developments Limited (CDL) Pledges to Reach Net Zero Carbon Emissions by 2030.

By The Straits Times

CDL has developed a <u>Smart</u>, <u>Sustainable</u> <u>and Super Low Energy (3S) Green Building Framework</u>, which is in line with the Building and Construction Authority (BCA) Super Low Energy (SLE) building requirements as well as international standards to improve health and wellness in buildings. It has plans to introduce BCA SLE certified buildings in its portfolio.

Read more > Read more > Read more >

DIGITALISATION



The Construction Data Journey: Start Now! By David Bowcott and Chris Greene

As we approach a mature state on the Construction data journey, there will be a shift in company culture as the value of data will have proven itself to your entire organization. Decision-making often becomes easier and many of the once time consuming and monotonous tasks can be eliminated, making room for more critical thinking and strategy.

Read more >

Videos



22 Amazing Construction Innovations

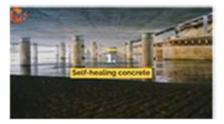
From smart manhole repairing to square hole drilling. This innovative construction equipment such as floor scrapers, floor heating systems, brick making machines, tile breakers, and much more will be the most important assistant to people for construction works.



Common Data Environment (CDE): What You Need to Know for Starters. By Darren Graham

The writer outline the definition and characteristics of a "true CDE" and explore how the Common Data Environment (CDE) strengthens collaboration across the construction industry and allows for seamless data sharing.

Read more >



5 Innovative Concrete Technologies

Concrete — a material that can be traced back over 2,000 years — still remains the most popular choice for builders today. From self-healing to Martian, we've gathered five innovative concrete technologies with the potential to completely transform the construction industry.



How The Digitalisation of The Construction Process Will Impact Upon Infrastructure Projects. By Clyde & Co LLP

In this podcast, Socio Luis García and Associate Marina Arancón discuss the incorporation of these innovative tools on construction projects and their legal impact on the ways construction companies do business in Spain.

Read more >



Everything You Need to Know About 5G

5G has already made its way to the construction industry in 2020. Thanks to high bandwidth, combined with the very low latency that 5G offers, the technology is set to improve data capture significantly across various project delivery processes

UPCOMING WEBINARS

24 Feb

Deep Dive into Technology Trends in FM

Register here

Singapore International Facility Management Association (SIFMA) is starting the new year with the first of SIFMA The SMART FM Series: "Deep Dive into Technology Trends in FM". Find out the latest developments in Al and computer vision in facilities management, smart sensors and IoT solutions in modern built environment, robotics and automation solutions for cleaning, pest control and marine industries.

Time: 3:00 PM to 4.30PM (SGT)

Moderator: Mr Frank Ngoh, Honorary Secretary (Singapore International Facility Management Association

Panellist:

- Dr Tian Jing, Senior Lecturer & Consultant, Institute of system Science, NUS
- Dr Dora Hu Juanjuan, Head, Sustainability Built Environment, I2R, A*STAR
- Dr Mohan Rajesh Elara, Assistant Professor, SUTD
- Mr Oliver Meili, Head of Connected Solutions APAC, Bosch IO

26 Feb

Dynamo and Beyond: An Introduction to Coding for BIM Professionals

This session is for BIM professionals and other BE related professionals with little or no coding experience. The goal is to give you some information, resources, and tips to allow you to create a Dynamo graph or code a quick solution when appropriate, and to know when more advanced skills would be needed.

Time: 9:00 AM to 10:30 AM (SGT)

Host and Speaker: Carl Storms - Technical Solutions Lead

Zoom <u>Link</u> (Meeting ID: 924 1595 3981)

Want to contribute for Tech Insights?

We welcome written contributions from all who share a keen interest in advanced construction, green building technology, and digital innovation. Email us at Stanley Tan@bca.gov.sg



© 2020 Building and Construction. All Rights Reserved.