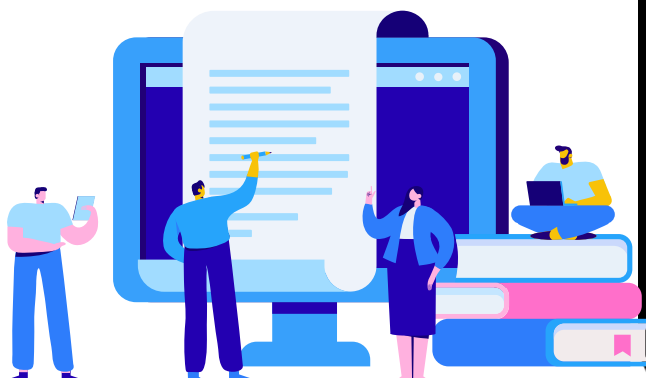# INFOCOMM CLUB BYTES

New Year New Me!
2022

BROUGHT TO YOU BY

IIM
**INFOCOMM
MEDIA
DEVELOPMENT
AUTHORITY**

*new year,
new programmes*
what are you looking forward to the most?

CONTENT

TEACHERS' WORKSHOPS

Calling all passionately curious educators!

Join us this March at the following teachers' workshops!

Adept Academy: Smart Technologies in Electric Vehicles

17th March 2022   10 seats

SenseTime: Artificial Intelligence Technology and AI Education

18th March 2022   10 seats

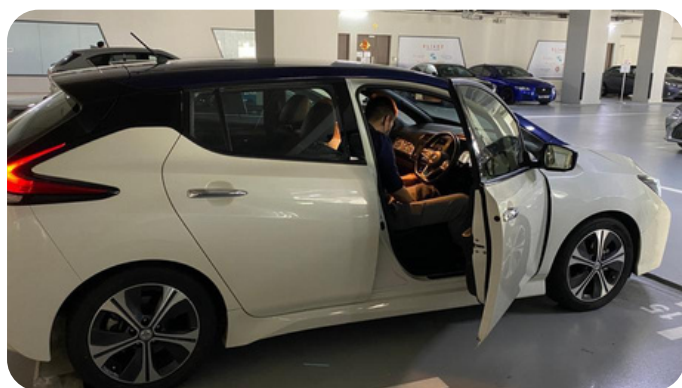**Click here to register!**

ADEPT ACADEMY: SMART TECHNOLOGIES IN ELECTRIC VEHICLES

Heard about Electric Vehicles (EVs) hitting our shores but don't know what the big deal is?

Join us for this informative workshop conducted by Adept Academy! Adept Academy is a professional training organisation that conducts practical and functional workshops through a structured training curriculum.

Come learn and make sense of new technologies such as autonomous driving, regenerative braking, smart navigation, Vehicle-2-Grid (bidirectional charging) and predictive maintenance technologies. You will appreciate how these technologies can bring meaningful changes to the automotive industry, our physical infrastructure and the way we commute in future.

The workshop also includes activities revolving around the propulsion system of EVs as well as battery and charging technologies. Participants will get to see a range of EVs and experience the smart technology powering them.

You will leave with an understanding of how EVs not only transcend current conventional vehicles but also what makes them a part of our collective future.

TEACHERS' WORKSHOPS

SENSETIME: ARTIFICIAL INTELLIGENCE TECHNOLOGY AND AI EDUCATION

SenseTime International AI Innovation Hub (Photo: SenseTime)

Artificial Intelligence (AI) has been a mainstay in the news and Hollywood movies in recent years. Do you know what advancements in AI mean for you and your students? How do you go about explaining AI to them?

SenseTime is a leading AI software company that focuses on creating an AI-empowered future through innovation. At the SenseTime International AI Innovation Hub, you will get to explore eight different zones showcasing real-world AI applications spanning across fields like education, healthcare and retail.

This includes an immersive zone featuring SenseTime's Mixed and Augmented Reality (AR) platform. You can even look forward to stepping up to a beauty bar that overlays photo-realistic makeup effects on your face in real time!

At the Hub, you will also get to experience hands-on coding modules with their SenseRover Mini and SenseStorm robots. Join us and uncover the ways AI learning can be personalised for your students. Learn about the possibilities for the future and your students' education.

> "Develop a passion for learning. If you do, you will never cease to grow."
>
> Anthony J. D'angelo
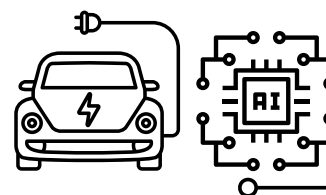
Click here to register!

TECH FOR GOOD

APPLYING TECHNOLOGY TO URBANISATION

Singapore has maintained its lead in the 2021 IMD-SUTD Smart City Index (SCI). A "smart city" is an urban setting that applies technology to enhance the benefits and diminish the shortcomings of urbanisation for its citizens.

The index takes into account input from 118 cities' residents of how technology had improved their lives. One of the reasons for Singapore's achievement is due to the policies it has pursued, particularly in terms of providing e-government services and education. It was also noted that the Republic closely monitored how the COVID-19 virus was circulating with the use of digital facilities such as apps.

Read the full article to find out which other cities made it to the top 10 list!

## AUTONOMOUS UNDERWATER ROBOT DIVES INTO POSSIBILITIES
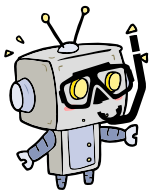
BeeX co-founders, Grace Chia (center) and Goh Eng Wei (left). (Photo: BeeX)

Engineers Grace Chia and Goh Eng Wei were part of an 8-person undergraduate team that built an autonomous underwater robot nearly 10 years ago. Fast forward to the present and their start up, BeeX, is looking to expand after raising seed investment.

BeeX's product is essentially self-driving cars but underwater, said Chia, the Chief Executive of the startup. "The problem we're trying to solve is how to keep marine infrastructure safe without risking human lives out at sea." Large-scale underwater inspections are often done in dangerous conditions. BeeX's flagship hovering autonomous underwater vehicle (HAUV), AIKANBILIS, relies on years of research and development in underwater self-driving technology so as to minimise the need for human involvement. BeeX's clients come from industries like oil and gas as well as renewable energy.

Read on to find out how BeeX might also contribute to Singapore's maritime defence!

TECH @ PLAY
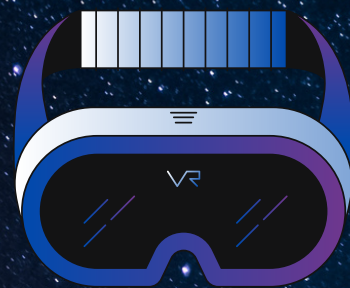
ENJOYING K-POP, SHOPPING AND CAR RACING AT THE SPEED OF 5G

Singapore is on track to have island-wide 5G coverage by 2025. In fact, you may already be enjoying the benefits of 5G without knowing it.

With better data speed, capacity, network availability and end-to-end security, 5G has been used to stream worldwide K-Pop concerts like BTS' Permission to Dance on Stage, and has also been adopted by e-commerce platforms for operations. In time to come, you can even race a 1:10 model car remotely on Sentosa at speeds of up to 58km/h!


5G Remote Racing with Formula Square at Southside, Sentosa. (Photo: Singtel)

According to Mr Ritesh Chandra, Managing Director, Communications and Media Lead, SEA at Accenture: "The advantages that 5G provides come at a critical time where society as a whole seeks more collaborative and immersive experiences, whether we are at our homes or travelling the world. The ultimate impacts of 5G are not fully realised yet but we do know that it is time to think big and reimagine all possibilities."

Click here to see how 5G is supercharging recreation and entertainment today!

VIRTUAL MUSEUM TOURS WITH AI
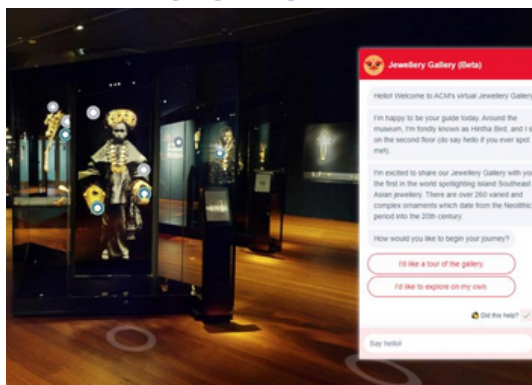
Fancy having your very own personal tour guide when you visit a museum? Meet Allie, a chatbot powered by artificial intelligence.

The digital assistant acts as a tour guide for the Asian Civilisations Museum (ACM) and leads users of its website through a virtual replica of its Jewellery gallery. Visitors can also ask Allie questions about the gallery or the museum, such as "What is the oldest object in the gallery?" The project is a collaboration between the museum, AI-solutions developer Taiger, and spatial data company Matterport3D.

Read this article to find out how the museum also plans to make use of a facial recognition and data analytics system!

TECH @ WORK

5G SPURS PAYMENT INDUSTRY TO INNOVATE
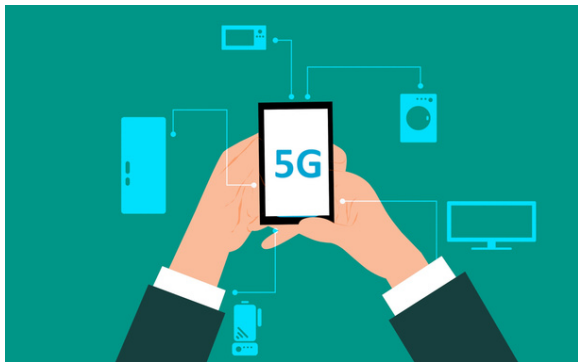
To stay competitive and relevant, payment companies will have to adapt to the evolving situation and invest in Internet of Things (IoT) and blockchain technology.

With the improvements in communication technology, the flow of data has become more efficient. While this has birthed forth new business models in the commercial world, such as e-commerce and mobile wallets, it is also driving and reshaping the payments industry. As 5G ramps up the flow of data, the flow of money simply has to catch up to support new business models.

Consumers will greatly benefit from 5G's enhancements to telecommunications and have access to more payment alternatives like Digital Payment Tokens (DPT), which includes cryptocurrencies. Merchants and retailers, correspondingly, will have to embrace the new payment alternatives to continue serving their customers.

Find out how making payment will continue to evolve in this article!

DEMAND FOR TALENT IN ARTIFICIAL INTELLIGENCE WILL INCREASE

Minister for Communications and Information Mrs Josephine Teo said that the demand for talent in artificial intelligence will continue to increase in the years ahead. Singaporeans should be supported to develop skills to meet the demand for talent.

Catch the 1 minute video clip here!

ELLA, SINGAPORE'S ROBOT BARISTA BREWING COFFEE FOR JAPAN

Singapore start-up Crown Digital's robot barista, Ella, brews and serves coffee in the heart of Japan's train stations. Consumers there have taken well to Ella and the kiosk's automated and cashless ordering system. According to Crown Digital's CEO and founder, Keith Tan, Ella was created to solve the manpower crunch, an issue present in many countries.

Click this link to read Ella and Keith's story.

CODE FOR FUN: WAIT, CODING ...IS FUN!?

JURONGVILLE SECONDARY SCHOOL'S CODE FOR FUN

MANY students without coding experience think of coding as an insurmountable wall. They think it's difficult, tedious, and something irrelevant in their daily lives.

That was the case too for a batch of Jurongville Secondary students, until their school signed them up to participate in IMDA's Code For Fun (CFF) Secondary 2021.

To the students' surprise, coding wasn't as hard as they thought it would be! Many found it exciting, and were amazed to learn that coding and technology could be easily used to solve real world problems.

Jurongville Secondary students worked on a variety of projects including but not limited to landslide sensors, forest fire alarms and even a buzzer that would make a loud sound if someone were to use their phone late at night when they should be sleeping.

There was a learning curve, but the students learnt through the prototyping process to test, debug and iterate their solutions.

One of the students, Anya Wong, used temperature detectors and sound emitters to code a forest fire alarm. She said, "Even if the process is tough, we should not give up because when we finally solve the problem, the feeling of accomplishment is incomparable."

↑Anya Wong (left)
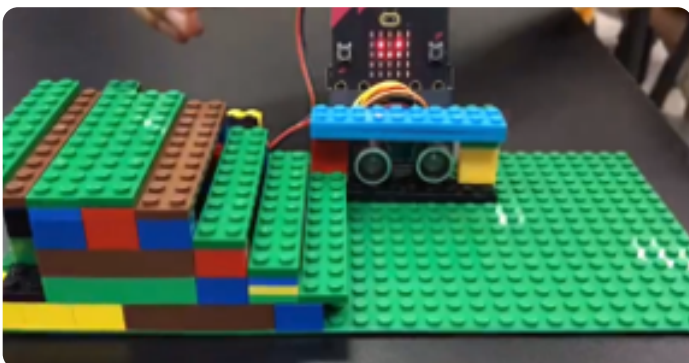
↓Goh Jun Hao

Another student, Goh Jun Hao, worked on a prototype that warns about potential landslides upon detecting changes in object distances. "I didn't expect that coding would be fun and that I would enjoy it this much," he said.

CODE FOR FUN: WAIT, CODING ...IS FUN!?

JURONGVILLE SECONDARY SCHOOL'S
CODE FOR FUN

> " It provides a foundation programme for teachers to modify the content and extend it to their own applied learning programmes.
>
> **- Jurongville Secondary Teacher** "

The teachers were also very positive about the programme.

One of them commented, "I would strongly recommend the CFF programme to other schools as the programme really helps our students to learn things that are more meaningful in an out-of-classroom context."

For Jurongville Secondary, they've managed to synergise their Applied Learning Programme on Real-World Learning through Electronics with CFF's content on the coding of microcontrollers. The programme broadened the students' perspective to problems faced by people around the world, and also let them apply what they have learnt to try solving problems related to climate change.

The students can also bring what they have learnt from their problem-based approach from CFF into other subject's curriculum, said another teacher, who believes that the benefits of CFF extends to teachers as well. "It provides a foundation programme for teachers to modify the content and extend it to their own applied learning programmes."

Daaver Raj Denosh Mohan coded a fire alarm for his project and he earnestly wants you to know:

↑Daaver Raj (right)

"Please join, as it is very fun!"

WE WANT TO HEAR FROM YOU!

Have an exciting story or idea you want to share with us?
Please send your stories, ideas and/or enquiries to IMDA_CODESG@imda.gov.sg.
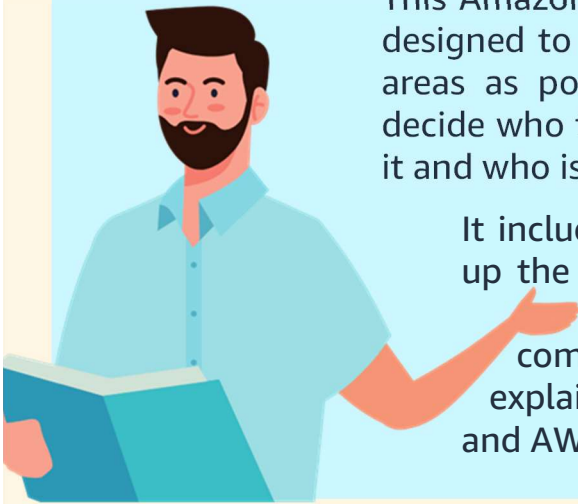
amazon Honeycode BETA mini Hackathon

AWSome App building with No Code!

Hi teacher!

Looking for a mini hackathon for your students?

This Amazon Web Services (AWS) sponsored mini hackathon is designed to be a neat package so you have control in as many areas as possible. It is an intra-school competition and you decide who the target audience is. You also decide when to run it and who is the deserving winner!

It includes self-learning materials for participants to pick up the required skills, and instructions on how they can start building their solution. After participants complete their solutions, they film a short video to explain it, and send the videos to you. You pick a winner and AWS sponsors a prize for them. Participation is free!

Student experience

#1 Learn

What is Amazon Honeycode?

Find out what Amazon Honeycode offers
https://ytube.io/3PKM
(and more learning materials)

#2 Register & Build

Register for an account, think of an awesome project, and start building!

Click "Try for free" at
https://www.honeycode.aws/

#3 Submit

Record a video run-through (max 3min) of your app and submit it to your teacher by the due date.

Community support and help available at
https://honeycodecommunity.aws/

Find out more at
https://bit.ly/3u0iyFT

Hackathon ends 30 June 2022