

Industry Focus: Logistics and Transport

The objective of the **Technology Adoption Programme (TAP)** is to improve accessibility of technology for small and medium enterprises (SMEs) to enhance productivity and innovation. As such, its reach spans a growing list of industry sectors, one of which is Logistics and Transport, overseen by Mr Sean Ang, Assistant Head of TAP.

A survey of the transport industry revealed that the bus operators wished to have a more efficient way of monitoring their school buses as well as the school children on board. As such, Mr Ang introduced several solution providers to the bus associations. Thus far, two of the bus companies which have benefitted are AZ Bus Pte Ltd and Sweet Seng School Bus.

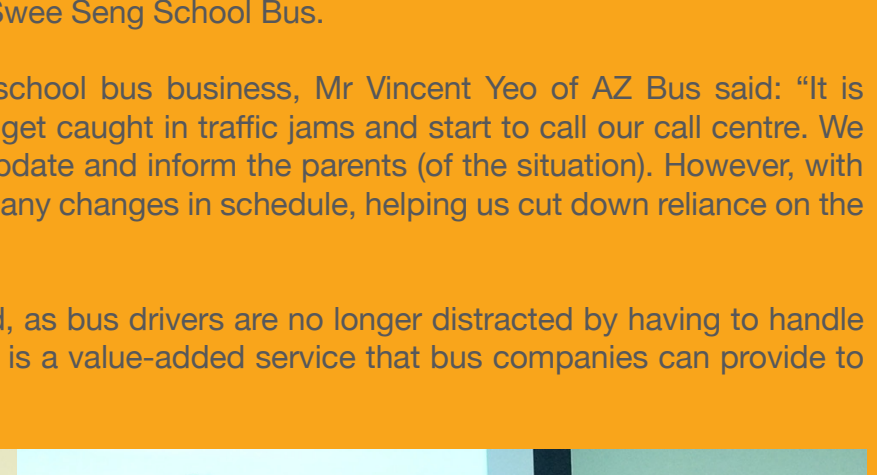
Explaining the significance of this implementation to his school bus business, Mr Vincent Yeo of AZ Bus said: "It is inevitable that parents get anxious when our school buses get caught in traffic jams and start to call our call centre. We will then need to contact the respective bus driver for an update and inform the parents (of the situation). However, with the monitoring solution, parents get real-time notification of any changes in schedule, helping us cut down reliance on the call centre."

The solution also enhances safety for the children on board, as bus drivers are no longer distracted by having to handle such queries from the call centre. Mr Yeo believes that this is a value-added service that bus companies can provide to schools and parents.



For Mr Yap Kim Hong of Sweet Seng School Bus, there is another clear benefit to installing a monitoring solution. He explained that bus drivers are required to keep records of all students on the bus, hence having a solution to track passengers on board would make the monthly accounting process much easier and more accurate.

As head of the trade group for these school bus companies, Mr Voo Soon Sang, President of the Singapore School & Private Hire Bus Owners' Association (SSPHBOA), is glad that the Association is working with A*STAR to introduce technology solutions to its members, especially with A*STAR acting as technical advisor to them. He further expressed the group's interest in exploring other solutions to see if they were suitable in helping members improve backend productivity.



Our Success Stories

Creating Precise Innovations Feinmetall Singapore Tapped on A*STAR for Business Success

Feinmetall Singapore is one of the few local SMEs to differentiate itself as a one-stop destination for designing, manufacturing and servicing of probe cards for the semiconductor industry. It strives to continuously harness innovations and technologies to bring success to its business partnerships. Hence, Feinmetall Singapore has worked with A*STAR to improve its business operations.

Innovating through T-Up

A core service offering of Feinmetall Singapore is the repair and replacement of precision needles. In 2012, the company took part in the **T-Up** programme under A*STAR's **GET-Up** initiative to collaborate with a researcher from Singapore Institute of Manufacturing Technology (SIMTech) for the development of an Automatic Needle Bending Machine. By late 2013, the design was completed and the machine was manufactured.

| Before Automatic Needle Bending Machine | After Automatic Needle Bending Machine |
|---|---|
| Laborious manual process required | Manual process no longer required. Staff can be deployed to perform more productive tasks |
| 4 minutes required to bend, measure and rework a needle | An average of only 40 seconds is needed to bend, check and rework a needle |
| | Productivity improvement of almost six-fold |
| | Increased capacity |
| | Business revenue boosted by 30% |
| | Customer base increased by 10% |



"Through T-Up, we were able to acquire relevant R&D expertise and technological capabilities at the most affordable cost."

Mr Sam Chee Wah, General Manager, Feinmetall Singapore

Riding on the wave of this success, Feinmetall again tapped onto T-Up in 2013 to secure a researcher to help generate attractive product and technology concepts, which Feinmetall hoped would capture the contact probes market for wafer level testing of flip chips.



Training through Snap2Tell

Feinmetall Singapore has also benefited from another A*STAR initiative, TAP, to train its technicians.

Wafer probe card manufacturing requires precise and complex procedural fabrication, with zero tolerance for processing error. Having trained and skilled technicians at both Feinmetall Singapore's as well as at its customers' sites, is a key objective of the company.

To this end, Feinmetall Singapore customised the Snap2Tell mobile app from Institute for Infocomm Research (I²R), to allow staff and customers easy and efficient access to instructional videos – by simply taking a picture of the company logo. These videos are then streamed directly into the users' smart devices for viewing.

Snap2Tell also allows updating of instructional and operational videos without having to amend and print new manuals, which reduces the need for frequent re-training classes. This new tool has improved the productivity of the company's training process by 30%, leading Feinmetall Singapore to now explore its suitability for other processes.

Snap2Tell Manja Delights Kitchen Embraces Productivity Initiative

Manja Delights Kitchen was started in 2009 by Madam Masnah and her husband Mr Jamaludin as a home business supplying traditional kueh and Hari Raya cookies, later expanding to a stall in Taman Jurong Market & Food Centre in 2010.

As their business grew, the couple needed a more efficient way of running their stall operation. Through DEW@SMCCI, they were introduced to **TAP** to explore how technology could help.

Manja Delights Kitchen is among the first local SMEs to adopt I²R's Snap2Tell Alive. By taking a picture of Manja Delights Kitchen's namecard or logo, customers will be able to readily access information such as the address, opening hours and the online catalogue. As such, the app allowed Madam Masnah to increase her productivity by reducing the time spent on answering queries. She is now able to spend her time more constructively doing what her business is best known for – making and selling kueh, and is confident that Snap2Tell Alive would be a trend in the future.

"We are just a simple Malay kueh stall, but we are not afraid to try new technologies. We believe we should also leverage on technologies to reach out to the younger generation."

Stall owners Madam Masnah and her husband Mr Jamaludin



Item Management and Tracking System (IMTS) LSH Electrical Engineering on Track for Higher Efficiency



LSH Electrical Engineering Pte Ltd was founded in 1980 and offers low-voltage switchboards and customised steel enclosures for electrical power needs.

The company was looking for a more efficient and accurate way to trace the location of stock easily, when it decided to implement an RFID-based Item Management Tracking System (IMTS), developed by the Singapore Institute of Manufacturing Technology (SIMTech).

With the new system, the time taken for inventory stock take for an item type was reduced from an hour to just 30 minutes, a huge improvement of 50%. The company is happy to note that employees are now able to spend more time on systems analysis and doing design work, rather than going through the stock list.

For more information on A*STAR programmes for SMEs, go to <http://www.a-star.edu.sg/sme/OUR-PROGRAMMES/READY-TO-GO-PACKAGES.aspx>

Technology Showcase

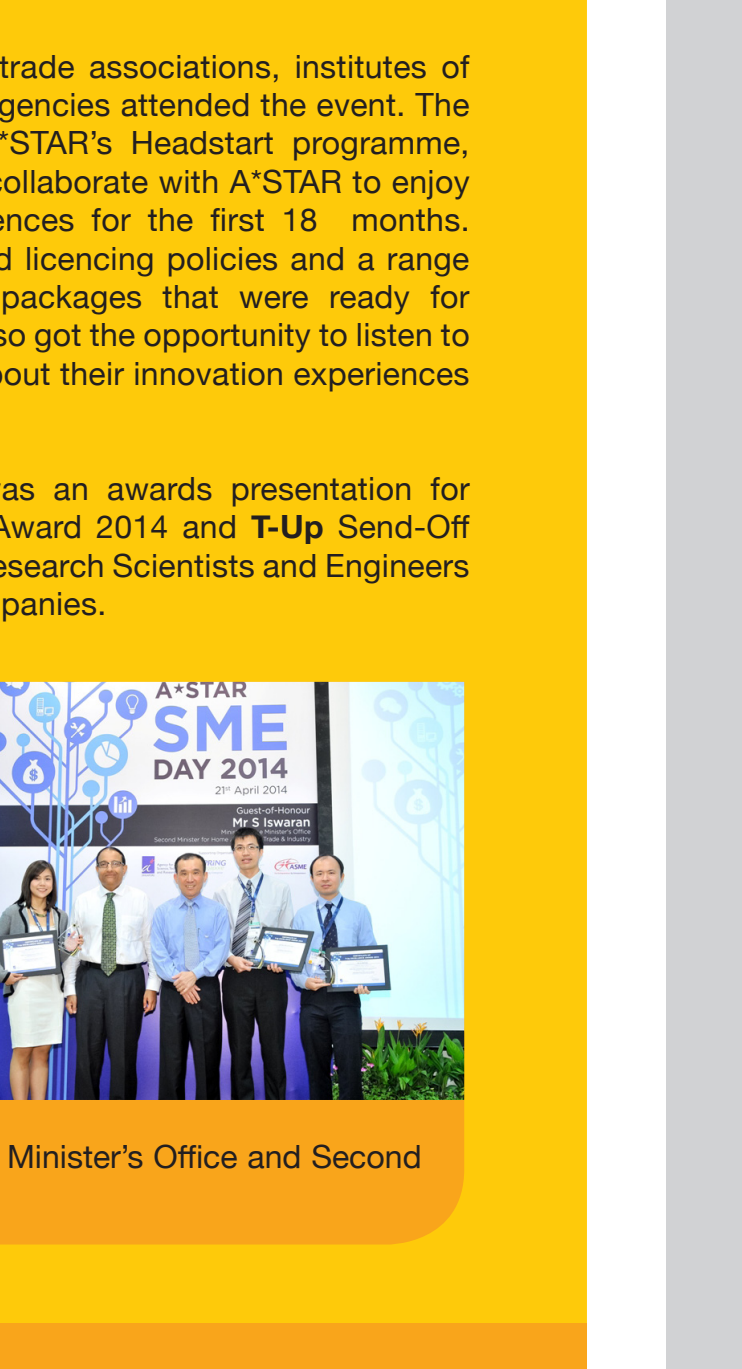
iBeacon Location-based Mobile Services

This new location-based mobile service from SIMTech works on Bluetooth Low Energy (BLE) 4.0, also known as Bluetooth Smart. The technology enables an iOS and Android device or other hardware to send push notifications to iOS and Android devices within the range.

The retail industry is a potential key market for this service. For example, a shopper at a beacon-enabled department store may browse a shoe display and decide to buy a pair of shoes. He or she can receive a discount coupon in his or her phone immediately for use upon purchase.

Car dealers too can benefit, as customers can receive on-the-spot information on the cars that they are looking at. iBeacon will push information about the interested cars to customers' enabled phones, allowing them to not only know more about the respective vehicle, but also instantly compare different car specifications to help them make the right decisions.

There is a myriad of possibilities for this service once a merchant embraces the hardware. Other areas of application include events management, healthcare, tourism and security.



Wireless Paging System Restaurant Paging cuts Queuing Pain

Commonly used as emergency or hospital beeper solutions, pager technology is now gaining traction in the F&B industry as well.

These restaurant pagers are given out to customers waiting for a table so that they do not have to join a physical queue but are free to shop around in the vicinity. When the table is ready, the restaurant will send an alert to the pager that is held by the customer, informing him or her to return.



A few local companies have successfully tailored this to the unique needs of their operations. Coffee & Toast for example, employs a more mature workforce, so it adopted the restaurant paging system to reduce the burden of prolonged waiting for its employees. Initially implemented at two outlets, the system was so well-received it was eventually rolled out to all 13 of its local cafes.



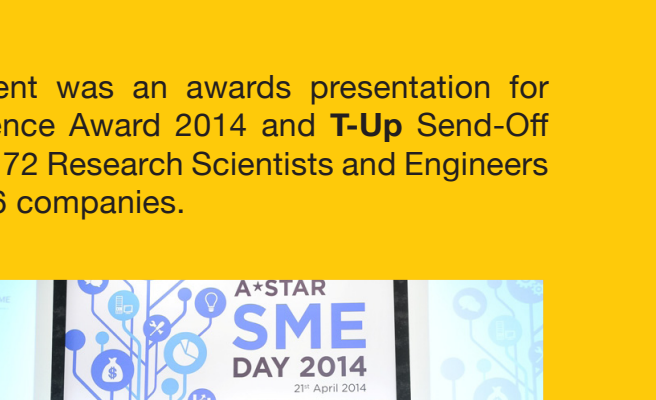
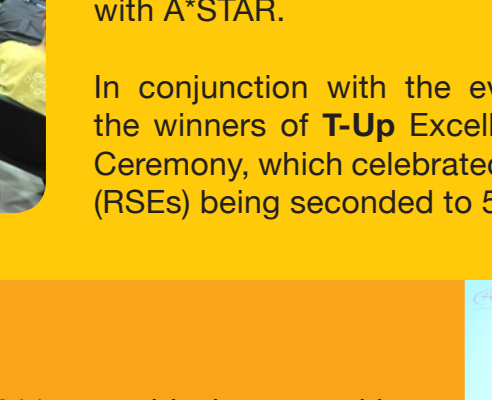
Soon Huat Teochew Kway Teow Mee, a noodle stall located in a coffee shop at Geylang, also uses the paging system. This move helped relieve its aged stall owner, who suffers from knee problems, of the difficulty of hand delivering the noodles to its customers.

She and her husband were contemplating closing their business down when they decided to give the restaurant pager a shot. Having implemented the system, they were able to continue operating and customers can still enjoy their authentic kway teow mee at their stall in Geylang.

Said the stall uncle, "This is very easy to use and has made it much more convenient for us to work."

Our Past Events

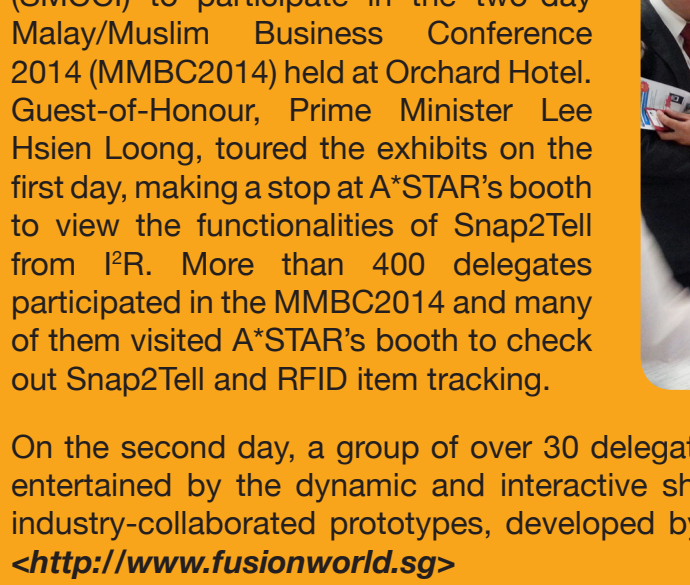
Inaugural A*STAR SME Day



The inaugural A*STAR SME Day was held on 21 April 2014 at Biopolis as a platform for local industries to discover how innovation and technology can be used to boost productivity and support business growth.

"The success of Singapore's SMEs in adapting to changing economic realities hinges on their abilities to harness technology and innovation to develop new growth models and creative approaches to productivity. The government will continue to support SMEs in their transformation journey. SMEs are encouraged to make full use of A*STAR's SME initiatives to upgrade their capabilities, innovate and develop new products and services."

Mr S. Iswaran, Minister in Prime Minister's Office and Second Minister for Home Affairs and Trade & Industry



632 representatives from SMEs, trade associations, institutes of higher learning and government agencies attended the event. The attendees were introduced to A*STAR's Headstart programme, which allows all local SMEs that collaborate with A*STAR to enjoy royalty-free and exclusive IP licences for the first 18 months. A*STAR also introduced enhanced licencing policies and a range of 12 Ready-to-Go technology packages that were ready for immediate adoption. Attendees also got the opportunity to listen to fellow industry participants talk about their innovation experiences with A*STAR.

In conjunction with the event was an awards presentation for the winners of **T-Up** Excellence Award 2014 and **T-Up** Send-Off Ceremony, which celebrated 72 Research Scientists and Engineers (RSEs) being seconded to 56 companies.

T-Up Excellence Award 2014 Winners

T-Up Excellence Award was launched in 2011 to provide due recognition to outstanding seconded research staff from the research institutes for their achievement and contribution to their T-Up companies. The winners are:

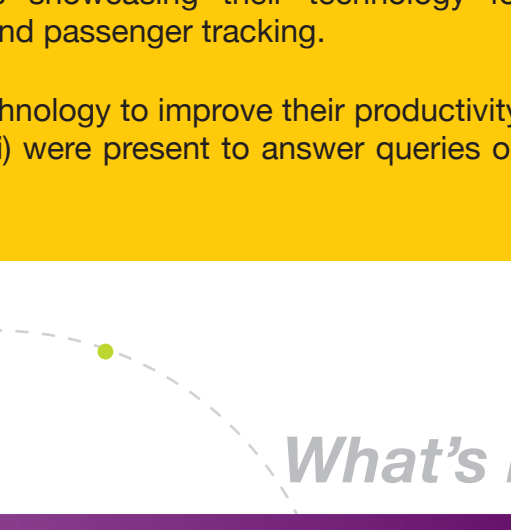
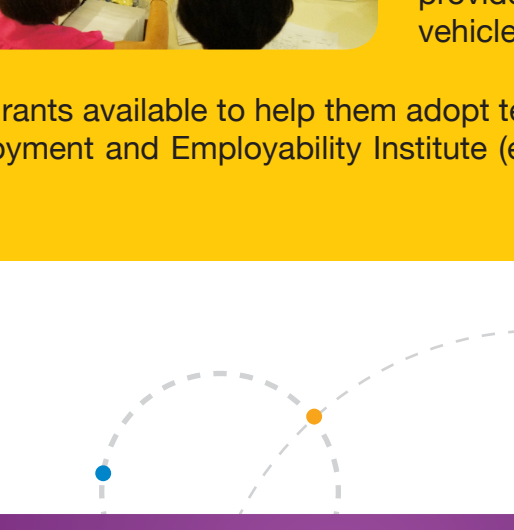
- Ms Joanne Teoh, SIMTech, seconded to Façade Global Master Pte Ltd
- Dr Keni Wu Chih-Hua, IHPC, seconded to ERS Industries Pte Ltd
- Dr Li Qiming, I²R, seconded to Claut Pte Ltd

The awards were presented by Guest-of-Honour, Mr S. Iswaran, Minister in Prime Minister's Office and Second Minister for Home Affairs and Trade & Industry



Malay/Muslim Business Conference 2014

TAP was invited by the Singapore Malay Chamber of Commerce & Industry (SMCCI) to participate in the two-day Malay/Muslim Business Conference 2014 (MMBC2014) held at Orchard Hotel. Guest-of-Honour, Prime Minister Lee Hsien Loong, toured the exhibits on the first day, making a stop at A*STAR's booth to view the functionalities of Snap2Tell from I²R. More than 400 delegates participated in the MMBC2014 and many of them visited A*STAR's booth to check out Snap2Tell and RFID item tracking.



On the second day, a group of over 30 delegates, including 12 from Penang, Malaysia visited FusionWorld and were entertained by the dynamic and interactive showcase of award-winning inventions and cutting edge in-house and industry-collaborated prototypes, developed by A*STAR research institutes. For more information, please visit us at <http://www.fusionworld.sg>

Sharing Session at SMCCI

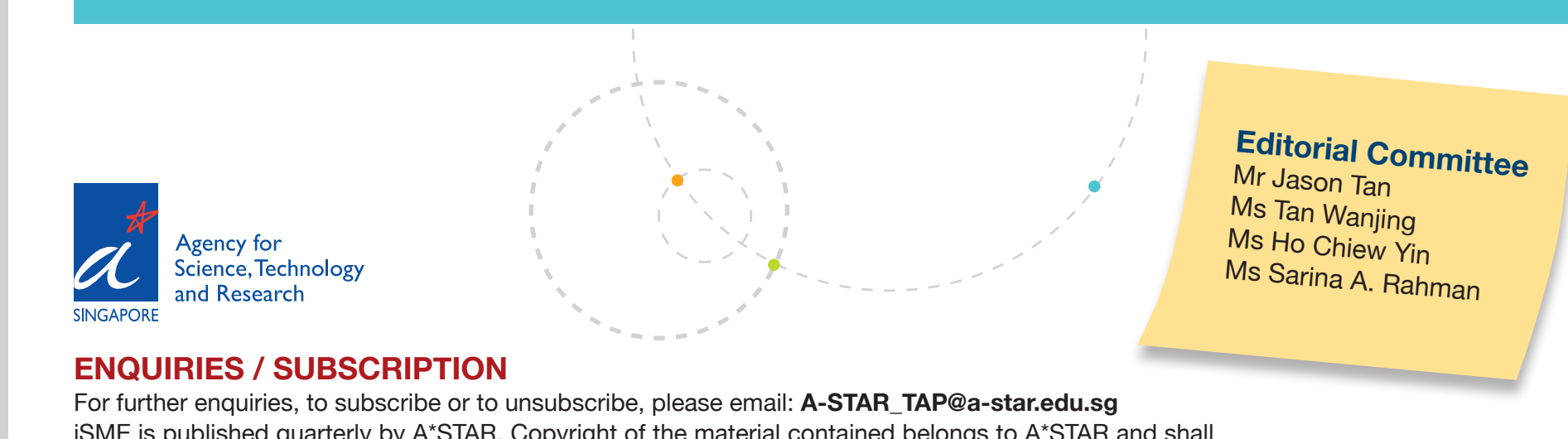
On 9 May 2014 at SME Centre @ SMCCI, A*STAR shared with a group of SMEs on its technology solutions that could help them raise productivity. Participants were treated to a live demonstration of Snap2Tell by representatives of I²R; while SIMTech was also present to demonstrate how RFID could be used to keep track of business assets and inventory.



ASME Technology Adoption for Productivity Expo

Supported by A*STAR, the Technology Adoption for Productivity Expo held on 21 May 2014 attracted 77 participants to the event. Organised by the Association of Small and Medium Enterprises (ASME), the Expo drew participation from 5 A*STAR research institutes where researchers shared on solutions made available for SME adoption.

Through this Expo, participants were able to understand how technology could potentially aid in increasing their business productivity. ETPL, also known as Exploit Technologies Pte Ltd, further explained on what technology collaboration would mean to SMEs and how IP licensing could be utilised. An interactive panel session ensued after the sharing sessions by respective A*STAR researchers where participants had their questions on the use of technologies answered.



A*STAR-SSPHBOA Productivity and Technology Day



A*STAR and the Singapore School & Private Hire Bus Owners' Association (SSPHBOA) jointly organised the A*STAR-SSPHBOA Productivity and Technology Day on 9 June 2014. It was an informative event for 145 SSPHBOA members, with several solution providers showcasing their technology for vehicle and passenger tracking.

Participants also learnt about the different grants available to help them adopt technology to improve their productivity, while SME Centre @ SMCCI and the Employment and Employability Institute (e2i) were present to answer queries on these grants.

What's New

16th Annual SMEs Conference & 17th Infocomm Commerce Conference 20-21 August 2014

A*STAR will be participating in the largest bilingual SME event, organised annually by the Singapore Chinese Chamber of Commerce & Industry (SCCCI). The 16th Annual SMEs Conference & 17th Infocomm Commerce Conference will be held from 20 - 21 August 2014 at Suntec Singapore, and will centre on the theme "Transforming SME 1.0 to SME 2.0: Recalibrate, Reload, Renew."

Visit our booth, where A*STAR research institutes and Centres of Innovation will be showcasing their capabilities and technologies to help SMEs innovate or improve their productivity.

Admission is free for registered companies, so register now at www.sccc.org.sg/smeicc or call 6337-8381.

Details:

- 16th Annual SMEs Conference & 17th Infocomm Commerce Conference
- 20-21 August 2014
- Exhibition Halls 404 to 406, Suntec Singapore
- Free admission for registered companies

To find out what exciting events are coming up next, visit: <http://www.a-star.edu.sg/sme/NEWS-AND-EVENTS/TAP-Events.aspx>

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