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**PRESS RELEASE: STUDENTS INNOVATORS PITCH SMART SOLUTIONS TO
DR VIVIAN BALAKRISHNAN ON THE BACK OF HACKATHON**

1. Budding technologists shared their interpretations of Singapore's Smart Nation vision with Minister for the Environment and Water Resources and Minister-in-charge of the Smart Nation Initiative, Dr Vivian Balakrishnan. Among the proposals were prototypes for a Smart carpark and a haze sensor.
2. Dr Balakrishnan was at the School of Science and Technology, Singapore (SST) as the Guest of Honour for Hackathon@SST, the first Singapore hackathon that is organised by secondary school students for participants from primary and secondary schools. The students engaged him during a tour of the school where he also tried his hand at manoeuvring robots and mobile applications.
3. Dr Balakrishnan also viewed the entries for the hackathon and commended the students' projects and enthusiasm. He encouraged them to continue innovating to co-create solutions to help build a Smart Nation.
4. Mr Hoe Wee Meng, Principal of SST, said, "SST's mission to nurture passionate innovators through real-world applications of science and technology is aligned to the Smart Nation vision which sees Singaporeans harnessing technology to enhance our quality of life. We will continue to forge ahead with initiatives to promote programming and other core competencies for 21st century success."
5. Hackathon@SST was launched in 2013 to enable local students to learn and hone programming skills. It is organised as a National Infocomm Competition under the Infocomm Development Authority of Singapore (IDA) flagship programme.



6. In 2013, participants were tasked to ideate and create web applications to enhance community living. This year, the scope was expanded to include mobile platforms. Technology stalwart, IBM Bluemix and local start-ups, Reactor and Tinderbox, have also joined in the fray to coach the participants as well as to provide an authentic, industry perspective to students' learning.

7. "Experimentation and Innovation are key in Singapore's Smart Nation journey, and this is one way we need young people to not only be part, but to help lead the journey. The IDA team wants to play its part by challenging people to "dream big" and help us tackle real challenges by provide learning opportunities such as with our National Infocomm Competitions." Steve Leonard, Executive Deputy Chairman of IDA.

8. More than 300 participants from over 30 secondary and primary schools took part in Hackathon@SST. Students were introduced to programming software such as App Inventor and Node-Red on IBM in a one-day course prior to the event.

9. Koh Chan Hong, a Secondary 3 student at SST said, "The rationale of this hackathon was to expose participants to a range of digital tools with the aim of building purposeful apps for the community. The pride that comes from being part of such a large-scale event is incomparable."

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About School of Science and Technology, Singapore

The School of Science and Technology, Singapore (SST) is a Specialised Independent School that offers a distinctive 4-year GCE O-Level programme with an integrated approach to applied learning. Learning in SST is multi-faceted as students gain a strong foundation of key academic concepts in core subjects like Mathematics and Science. Having delivered success at the GCE O-Level examination, the school aims to be a global leader in transforming learning and nurture passionate innovators through real-world applications of science and technology. For more information, visit www.sst.edu.sg.

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Annex A – Project Factsheet

Students spend one term in Secondary 2 developing a science project in place of regular classes. The projects showcased include a Smart car park and a haze sensor.

1) **SMART Carpark (Tan Teck En Donovan, Johan Soo, Joshua Wee Yu Shuen)**

With the rising number of cars in Singapore, demand for car parks in shopping and city area is significantly increasing. The students sought to provide a low cost upgrade to existing carparks to improve time efficiency through an arduino programme that assigns drivers to lots. The students leveraged their knowledge in electronics, programming and engineering for this project.

2) **Haze Sensor (Chow Zijie, Pan Ziyue, Rachit Agrawal)**

Air pollution is an invariable problem in many developed countries. Recent haze problems in Singapore have prompted two of SST's students to develop on an internet cloud-linked Air Quality Monitoring System that would interpret the air quality in the users immediate surroundings. The data collected is meant to compliment macro-level readings such as the PSI readings provided by the National Environment Agency (NEA).

The project took on an international perspective as the students collaborated with counterparts in Renda Fuzhong Xishan School in Beijing in the development of their project and clinched the 2nd prize in a competition organised by the Strategic Alliance of Global Educators (SAGE), an international alliance that allows wider and deeper sharing of pedagogical ideas, resources and best practices.

The students tapped on knowledge relating to sensors, arduino and Raspberry-Pi programming in the development of their project. The project also clinched the Bronze Award in the Singapore Science and Engineering Fair in 2015 and was shortlisted for the Agency for Science, Technology and Research (A*STAR) Talent Search Award.



Annex B - Hackathon@SST 2015 Factsheet

309 participants, 62 teams, 31 schools

8 Primary Schools	Ang Mo Kio Primary Greenwood Primary Innova Primary Kheng Cheng School MacPherson Primary Pei Hwa Presbyterian Shuqun Primary St Joseph's Institution Junior
23 Secondary Schools	Anderson Secondary Bartley Sec Bukit View Secondary Commonwealth Secondary Dunman High Dunman Secondary Greenwich Secondary Hong Kah Secondary Hwa Chong Institution Jurong West Secondary Kranji Secondary Maris Stella High Methodist Girls' School Nanyang Girls' High School NUS High School of Math & Science Punggol Secondary Raffles Institution School of Science & Technology, Singapore Swiss Cottage Temasek Junior College Temasek Secondary Xinmin Secondary Yishun Town Secondary

Award Categories

Category	Award	School
Primary	First	Kaatz (Shuqun Primary School)
	Second	Josephian Hackers (SJI Junior)
	Third	CS Team 2 (Kheng Cheng School)
	Judges Award	KCS Team 1 (Kheng Cheng School)
	Judges Award	MacPherson Pri Team 1 (MacPherson Primary School)
	Judges Award	Team BlackJack (Ang Mo Kio Primary School)
Secondary	First	NUS High Team 2 (NUS High School of Maths & Science)
	Second	Hwa Chong B (Hwa Chong Institution)
	Third	Raffles Team 2 (Raffles Institution)
	Judges Award	Percepshunn (Dunman High School)
	Judges Award	XINFINITY (Xinmin Secondary School)
	Judges Award	Never Safe from Waluigi (Methodist Girls' School)

