

# Can we weather this hot topic?

We are hot under the collar over the many shocking revelations by the new Government. But Auntie would like to talk about something else that is generating a lot of heat and definitely affects everyone too.

OF late, thunderstorms have become a scary thing for me. A recent drive home through fierce rain with repeated lightning flashes and ear-splitting thunder left me quite unnerved.

And that was quite unexpected as I am no stranger to stormy weather since I am a person who has lived her whole life in the tropics. In fact, I used to be quite amused that people from temperate countries were so awed by tropical thunderstorms.

This was especially so after my encounter with a tropical storm in the United States. That was in September 1999. I was in New York on assignment to cover the launch of a new skincare product.

Two weeks earlier, Hurricane Floyd had built up in the Caribbean and moved towards the US Eastern Seaboard. It hit the Bahamas as a Category Four hurricane, but progressively lost steam and was downgraded to a tropical storm by the time it reached the mid-Atlantic states.

But the authorities took no chances. New York City stopped the subway, non-emergency city workers were ordered to go home and schools and businesses closed early.

My media event was cancelled and us journalists were told to stay put in our hotel – the Plaza next to Central Park, no less. With the extreme state of precautions taken and dire warnings, I imagined a storm of immense proportions. So, I pulled back the curtains and waited in great anticipation.

And raindrops fell very gently against my window. I didn't see anything flying or crashing around. The sky did not light up with terrifying lightning and I don't recall hearing thunder.

And that was it. Tropical Storm Floyd came and went and seemed like a complete wash-out to me. Thankfully so, because the rain stopped in time for me to watch *Lion King* on Broadway.

Although I wasn't impressed by Floyd as it passed over Manhattan, the tropical storm caused extensive flooding and damage in New Jersey and New York. Many people had to evacuate their homes and highways closed for weeks.

That was 19 years ago and the weather has changed drastically. Climate change is upon us, brought about by global warming.

Earth's surface temperature has gone up in the last 150 years, so much so that even the oceans are experiencing more heat waves that last longer and of course spell bad news for coral reefs, ice caps and marine life.

What's more, the highest temperature ever measured anywhere for the month of April was recorded in the Pakistani city of Nawabshah: 50.2°C.

And with higher temperatures come more thunderstorms. That's because the greater heat evaporates more water vapour into the atmosphere, which fuels storms.

Climate change has also produced more lightning strikes, a phenomenon that has led to more fires, even in high latitudes. Between 1975 and 2015, researchers found that 87% of large fires in interior Alaska were caused by lightning. Such lightning strikes are predicted to increase by 59% by the middle of this century.

Such findings should make us sit up because Malaysia, with Subang in the Klang Valley as the epicentre, already has the third highest number of lightning strikes in the world, after

Venezuela and Congo.

Apart from increased lightning, storms also bring strong winds.

The *Guardian* reported that the United Kingdom is facing a sharp rise in wind storms, resulting in huge damage to property. A study by the insurance industry estimated that global warming could increase windstorm destruction by over 50% across the nation.

We got a taste of that too when strong winds during thunderstorms shattered glass panels at the Bukit Mertajam KTM station on May 29, ripped off the roof of a school in Telupid, Sabah on June 18 and uprooted large, old trees in Petaling Jaya's Taman Jaya Park on June 22.

Clearly, 21st century storms are no laughing matter because they are a clear manifestation of global warming.

Malaysia's mean surface temperatures have also increased from 0.6°C to 1.2°C over 50 years (1969-2009) and are projected to rise from 1.5-2°C by 2050, according to Dr Rawshan Ara Begum from Universiti Kebangsaan Malaysia's Institute of Climate Change.

Dr Rawshan reports that Malaysia, as a signatory to the Kyoto Protocol and the Paris Agreement on carbon emission reductions, has achieved about 33% reduction of carbon emission intensity per unit of GDP.

This was made possible by mitigation actions such as implementing renewable energy and energy efficiency initiatives, green technologies, sustainable forest management and sustainable waste management through recycling and effluent treatment under national policies like the National Policy on Climate Change and National Green Technology Policy.

All this was under what was known as the Natural Resources and Environment Ministry. We have yet to see what form and function this ministry will take under the Pakatan Harapan government, but I do hope it will be given more clout and eminence, and will be headed by a truly environment-conscious minister.

We may be a small country, but we need to do our part because scientists believe they know how our planet will eventually end up if temperatures keep rising.

Earth will be like Venus, the planet next door whose size and mass are so similar to our planet, it's called Earth's twin.

According to *Smithsonian.com*, Venus is believed to have once had a liquid ocean that lasted for billions of years and could have easily harboured life forms. A build-up of carbon dioxide triggered an extreme global warming effect and destroyed its most habitable regions. Sound familiar?

Today, the surface temperature of Venus is 470°C and it is covered by clouds of sulphuric acid.

Earth already has acid rain because of the sulphuric dioxide emissions from power stations, airplanes and vehicles.

To me, it doesn't seem far-fetched to think that Venus was destroyed by its inhabitants who couldn't stop spewing carbon dioxide and sulphuric acid into their planet's atmosphere.

The next time it rains furiously with plenty of lightning, think of Venus and pray for Earth.

The new environment minister will be announced next week; Auntie hopes the person can take the heat. Feedback to [auntie@thestar.com.my](mailto:auntie@thestar.com.my).



# A wholesome science course

"I liked the balance of 50 per cent coursework and 50 per cent examination for academic performance," said Jordan Kee Zheng Feng of the Foundation in Science and Technology (FIST) programme at Sunway College.

He said he chose Sunway due to the brand recognition, and other factors, including the world-class facilities, the generous scholarships and also because of his parents.

"My mother claimed that I have always been interested in technology, ergo FIST was automatically the best choice for me", he explained.

"On my first day, I was anxious about college. I was worried that I would not be able to fit in, or make friends easily. My concerns subsided as I was greeted by the friendly student volunteers. I still remember the first person I met, Raphael John. He was the previous student president for the Sunway Foundation Programmes. I was impressed by the campus and facilities.

"Many months later, I can say for certain that FIST was not at all a bad choice. In fact, it was the best thing that has happened to me. Even though I was put into a small class, it gave us the needed attention from lecturers. If any of us had any difficulty with the syllabus, the lecturers were willing to help. They were patient and friendly, the subjects they taught were easily understandable and could be applied in real life.

"We learned important skills in life such as making strong arguments to convince people, delivering captivating presentations, and having good moral values. Critical thinking was one of the exceptional subjects that taught me how to think on my feet and handle any situation that life throws at me.

"The most important thing is that we all had a blast. Time flies when you are having so much fun. And because the programme is not fully exam-oriented, the various coursework assignments were enjoyable. We built bridges out of toothpicks, were given the opportunity to role play as safety officers at Sunway Lagoon, judged contestants from all around the world in a programming competition, created our own apps, and so much more."

For the former student of SMK Tropicana in Selangor, some of the assignments were fairly difficult, especially in groups, where work had to be delegated. But he was able to overcome the challenge with thorough planning and communication with his team members.

Most interesting in the programme for Kee were the people.

"They were all from different backgrounds and walks of life. In the short few months I

spent with them, they enabled me to see the world in a different perspective far different from my own. Meeting and befriending my classmates and lecturers allowed me to mature in many ways. It has made me a better person."

During his time in the programme, Kee actively participated in extra-curricular activities, which include running for vice-pres-



Jordan Kee  
Zheng Feng

ident for the Sunway Foundation Programme Student Committee, volunteering for the Sunway Foundation Programme July intake orientation, being photographer for the Sunway Foundation Programme Talent Time, a committee member of the Sunway Foundation Programme Public Relations Department, where he help raised funds for charity, and was voted Best Table Topic Speaker at the Sunway Toastmasters Club 2017. Jordan was also a participant of the the

Sunway Ambassador Leadership Trek in 2016 and attended the Asia Leadership Conference last year.

"FIST is a wholesome course that teaches important and relevant skills. The subjects are structured in such a way that it provides fundamentals of diverse fields, enabling graduates to pursue many paths."

Kee is pursuing BSc (Hons) in Computer Science at Sunway University under the Jeffrey Cheah Special Entrance Scholarship.

"Computing has been one of my best skills and this programme seems appropriate to hone in on the talent", he said on his choice of degree programme. He aspires to be the first to bring artificial intelligence and machine learning to Malaysia.

The FIST programme at Sunway College offers more than academic learning. FIST, together with FIA, are Sunway College home grown programmes developed to prepare students for tertiary studies and are direct pathways to undergraduate programmes at Sunway University.

The Sunway Foundation programmes emphasise the importance of holistic development of well-rounded students in both numerical and communication skills through structured subjects in Mathematics and English.

Students also take specialist electives like Information Technology, Accounting, and enrichment electives like Culture and Ideas, and Critical Thinking Skills that offer them exposure to multiple disciplinary thinking and analysis.

To find out more about the Foundation in Science and Technology or Foundation in Arts programmes at Sunway College, drop by the campus on June 30 and July 1, from 10am to 4pm for the Sunway Education Open Day.



LAMPIRAN 3  
NEW STRAITS TIMES (HIGHER ED) : MUKA SURAT 2 & 3  
TARIKH : 27 JUN 2018 (RABU)

UNIVERSITIES

# Researchers taking nanotech one step further

**L**UBRICANTS are key for engines and machines to perform efficiently and these are crucial to people's daily lives. Lubricants help mitigate friction and overheating which causes energy losses and damage.

Professor Mohammad Khalid and Dr Abdul Khaliq Rasheed of the Graphene and Advanced 2D Materials Research Group (GAMRG) at Sunway University have discovered and produced the technology to improve automotive and industrial lubricants. Both scientists developed the graphene nanolubricant containing millions of the world's thinnest, strongest, lightest, hardest and most conducting nanosheets.

"Wear of engines and machinery continues to be a global concern costing billions annually. Traditional lubricants which use chemical additives have reached the threshold limit in terms of efficiency.

"To meet the modern engineering lubrication challenges which primarily deal with nanoscale-friction and thermal performance, we took up nanomaterials to find a solution.

"Having successfully exploited metallic, metal oxides, graphene and other two-dimensional materials for heat transfer applications since 2007, our current focus is on heat transfer fluids which include nanolubricants," said Mohammad.

This year, they aim to commercialise their graphene-based nanolubricant Infinoil which can reduce friction and wear, improving

**Infinoil is advanced technology at an affordable price.**

**ABDUL KHALIQ RASHEED**

Research fellow at GAMRG, Sunway University



Mohammad Khalid (left) and Abdul Khaliq Rasheed of GAMRG at Sunway University.

engine efficiency in automotive and industrial applications. Graphene, derived from a natural source is a single, one atom thick layer of carbon atoms. According to Mohammad, the possibility to extract out an atomic sheet is only made possible in the last decade.

Infinoil nanolubricants reduce wear and remove heat from the engine and machine components through a culmination of several mechanisms at nano-scale. Last year in November, Infinoil was tested at the F1 circuit in Sepang, Malaysia. The vehicle it was tested on ran in a 24-hour race, displaying outstanding endurance. Infinoil was found to resist degradation better than other lubricants used during the race.

"Racing requires high performance lubricants that can resist extreme conditions. When we explained the technology of our product, the team was excited to test the same in pre-race trials and based on the excellent performance during trials, the team decided to go with our product for the actual race," explained Abdul Khaliq.

Muhammad Daniel Hatim, team manager of MRF D Garage, said: "The engine nanolubricant outperformed our competitors' as we didn't

have to top-up the engine oil during the 24-hour run while some racers had to top-up their engine oil two to three times. Our engine's oil pressure, as well as its temperature, was maintained."

Infinoil, according to Abdul Khaliq, "is advanced technology at an affordable price". The nanolubricant — Malaysia's first graphene technology meets American Petroleum Institute, Society of Automotive Engineers and American Society for Testing and Materials standards. The advantages of the nanolubricant include lower wear and friction; higher heat transfer capacity; and lower oil volatility which will ultimately result in lower fuel consumption.

Mohammad, who is also GAMRG head, has more than 12 years of experience while Abdul Khaliq, a research fellow, has more than 10 years of experience in nanotechnology. The group's main research activities are to develop graphene and 2D materials technologies, and apply them in different heat transfer applications (such as lubricants, coolants and composites).

"In addition to research, we offer consultancy to those in the automotive



**SAMBUNGAN...**  
**NEW STRAITS TIMES (HIGHER ED) : MUKA SURAT 2 & 3**  
**TARIKH : 27 JUN 2018 (RABU)**



industry and our activities contribute to the National Graphene Action Plan 2020," addedd Mohammad.

At the moment the two are focusing on automotive engine lubrication, aiming to introduce nanolubricants to the power, manufacturing and construction industry.

"We are also exploring nanolubricant solutions for locomotive, marine, and aerospace industries," added Abdul Khalid.

"We see nanolubricants playing a huge role in the Fourth Industrial Revolution." The duo also tested Infinoil at third party certified labs, 1000cc, 1800cc and four-stroke single cylinder engines used in motorbikes.

GAMRG is part of the Research Centre of Nano-materials and Energy Technology under the School of Science and Technology at Sunway University.



**LAMPIRAN 4**  
**NEW STRAITS TIMES (HIGHER ED) : MUKA SURAT 3**  
**TARIKH : 27 JUN 2018 (RABU)**

**RANKINGS**

## KAIST, the most innovative university in the Asia Pacific

**KAIST**, University of Tokyo and Pohang University of Science & Technology (POSTECH) top the annual Reuters ranking of Asia Pacific's Most Innovative Universities for 2018.

The Asia Pacific ranking aims to identify and rank the educational institutions in the region doing the most to advance science, invent new technologies and power new markets and industries. Compiled in partnership with Clarivate Analytics, a global data company providing trusted insights and analytics, the ranking is based on empirical data including patent filings from Derwent Innovation and research paper citations from the Web of Science.

The most innovative university in the region, for the third consecutive year, is South Korea's KAIST. Formerly known as the Korea Advanced Institute of Science and Technology, it is the nation's oldest research-oriented science and engineering university, with campuses in Daejeon, Seoul and Busan.

Recent KAIST research highlights include the development of a highly durable platinum-based fuel cell catalyst that removes particulate matter from the air while it is in operation, an innovation that could lead to more efficient electric vehicles that reduce pollution when driven.

KAIST once again earned its first-place rank among the Asia Pacific's most innovative universities by producing a high volume of influential inventions. Its researchers submit more patents than any other university on the list, and those patents are frequently cited by outside researchers in their own patents and papers.

Japan's University of Tokyo takes the runner-up spot, moving up one

rank from 2017. Korea's POSTECH takes third, also moving up one, and Seoul National University comes in fourth after dropping two. Tsinghua University (#5) is the highest-ranked university in China, up one from last year. Osaka University (#6), Kyoto University (#7), Sungkyunkwan University (#8), Tohoku University (#9) and the National University of Singapore (#10) round out the top 10.

Only three new institutions appear on the list this year, all of them based in China: The China University of Mining & Technology (#56), Shandong University (#67), and Xiamen University (#74). The region exhibits a remarkable consistency, unlike Europe and North America: In contrast, Reuters' 2018 ranking of Europe's Most Innovative Universities featured 15 new entries.

### REUTERS TOP 75:

#### ASIA'S MOST INNOVATIVE UNIVERSITIES FOR 2018

1. Korea Advanced Institute of Science & Technology, South Korea
2. University of Tokyo, Japan
3. Pohang University of Science & Technology, South Korea
4. Seoul National University, South Korea
5. Tsinghua University, China
6. Osaka University, Japan
7. Kyoto University, Japan
8. Sungkyunkwan University, South Korea
9. Tohoku University, Japan
10. National University of Singapore, Singapore



CONTESTS

## Malaysia wins FameLab International Final 2018

SITI Khayriyyah Mohd 'Hanafiah, or Kye, a 33-year old biological science lecturer from Malaysia, was crowned the 2018 FameLab International Champion at the recent Cheltenham Science Festival. She successfully competed against 27 science communicators from across the world.

Kye represented Malaysia, where she works as a lecturer at Universiti Sains Malaysia. Her winning talk focused on tuberculosis control and she convinced the judges through her calm engaging presence on stage, her fine story-telling skills and her clarity of content. She is the second Malaysian FameLab International Champion after Professor Dr Abhimanyu Veerakumarasivam won the title in 2016.

The final was held in front of a live



Siti Khayriyyah  
Mohd Hanafiah

audience of hundreds at the Arena in Cheltenham, United Kingdom. The judges included Vivienne Parry (science writer and broadcaster), Clifford Johnson (Professor in Physics and Astronomy, author and science communicator) and Farrah Nazir (Acting Creative and Partnerships Lead, Wellcome Trust).

Kye said afterwards: "When I get on the stage and I am about to speak and have dropped all of that anxiety and nerves and just commit to that moment, it is really quite magical. Being able to have that connection with the audience is great."

International final judge Parry said: "People think that being a good science communicator is about being extrovert. But actually what Kye showed us was that quiet

authority and stunning clarity of content is the thing that really communicates best to a very wide audience."

Ali Mawle, director of education for Cheltenham Festivals, said: "FameLab unites the world through a passion for science and for sharing it with the public. Kye embodied the 3 Cs — content, clarity and charisma; she and the other finalists demonstrated how much FameLab has raised the bar for science communication since it began in 2015."

In Malaysia, FameLab is co-organised by the British Council and The Malaysian Industry-Government Group for High Technology.

The video of Kye's winning talk is available on the FameLab YouTube channel: <https://www.youtube.com/watch?v=bMBfeevRlyw>

## Wan Azizah: Beef up NDCC to forecast new disasters

By LO TERN CHERN  
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**KUALA LUMPUR:** The National Disaster Command Centre (NDCC) must improve its capability to forecast new disasters, especially those related to climate change, says the Deputy Prime Minister.

Datuk Seri Dr Wan Azizah Wan Ismail said while the NDCC had done a great job so far, there was always room for improvement and proactive efforts were necessary.

"We must improve its capability to forecast new disasters, especially looking at the climate change phenomenon, which I think must be studied in depth.

"For example, prolonged water stress and strong winds seldom occur here, but we have to make necessary preparations like scenario planning to face any eventualities," she said at the opening of the 32nd meeting of the Asean Committee on Disaster Management and related meetings here yesterday.

She said the NDCC also needed to be a one-stop centre for all matters related to disaster management in



### Hi-tech focus:

Dr Wan Azizah being briefed on the iPled Ultra Lite equipment by Special Malaysia Disaster Assistance and Rescue Team logistic assistant Corporal Sufendi Suraji after launching the 32nd meeting of the Asean Committee on Disaster Management and related meetings. — Bernama

the country to avoid overlapping between various agencies.

The meetings, which end tomorrow, seek to promote Asean resilience through innovative financing and form cooperation with member

states on disaster management, among others.

In Kangar, Dr Wan Azizah, who is also the Women, Family and Community Development Minister, said she would propose to the Cabinet to

celebrate the first Sunday of each July as Parents Day starting next year.

She said Mother's Day and Father's Day, which were previously celebrated on different dates,

would now be merged as one celebration.

"The proposal has been agreed upon within the ministry. I will raise it in the Cabinet.

"I'm confident the other ministries will agree," she added.

Dr Wan Azizah said that so far, only three countries – South Korea, the United States and the Philippines – celebrate Parents Day and she hoped Malaysia would do the same.

Earlier, she attended the national Parents Day Celebration in Wawasan 2020 Hall.

Gracing the event was Raja Perlis Tuanku Syed Sirajuddin Putra Jamalullail and his consort, Raja Perempuan of Perlis Tuanku Fauziah Tengku Abdul Rashid.

Themed "Parents Are The Most Beautiful Gifts", it was attended by more than 1,000 people.

The event also saw awards handed out to parents who had excelled in their role.

Watch the video  
[thestartv.com](http://thestartv.com)





## Mudah potong dan asing biji cili

**C**ILI adalah sejenis sayuran yang sering dijadikan bahan utama dalam masakan.

Cili juga dipanggil paprika atau pimiento di negara Hungary dan Sepanyol.

Walaupun ia pedas, namun kehadirannya sering melengkapi rasa pada sesuatu masakan.

Rasa pedas itu bukan sahaja boleh dirasakan di mulut, malahan juga tangan kita akan merasakan pijar selepas memotong cili. Hal ini kerana kandungan yang terdapat di dalam cili itu adalah kapsaisin.

Semakin tinggi kandungan kapsaisin, cili akan menjadi semakin pedas.

Dalam masakan Melayu, India dan Cina, kebanyakan menggunakan cili kering dalam masakan. Hal ini menimbulkan masalah kepada tukang masak kerana terpaksa berhadapan dengan proses untuk memotong cili kering dalam kuantiti yang banyak.

Sekali lagi Zull Design Autotronic (ZDA) tampil dengan rekaan mereka yang sentiasa memudahkan



UTUSAN & ZULL DESIGN  
www.zulldesign.com.my

pengguna di samping memberi penyelesaian terhadap sesuatu masalah yang dihadapi pengusaha perniagaan.

Mesin memotong cili kering ini dibuat dengan menggunakan

keluli tahan karat sepenuhnya supaya mesin dapat digunakan dalam jangka masa yang

lama dan mudah untuk proses pembersihan.

Jadi tidak akan timbul isu mesin tidak dapat



dibersihkan kerana takut mesin berkarat. Bahan yang mereka gunakan adalah berkualiti tinggi dan tahan lasak.

Mesin ini mampu memotong cili kering antara 20 kilogram (kg) hingga 30 kg dalam masa satu jam sahaja. Walau bagaimanapun, mesin tersebut turut mampu menyiapkan lebih daripada jumlah tersebut jika operator yang memasukkan cili ke dalam mesin tersebut dapat memasukkan cili dengan lebih pantas.

Dengan kata yang lebih mudah, kapasiti cili kering yang dipotong bergantung kepada operator yang menjaga mesin tersebut.

Saiz mesin ini tidak terlalu besar dan tidak juga terlalu kecil. Saiznya muat untuk penggunaan di rumah atau di premis perniagaan yang kecil.

Tambahan pula, kuasa yang digunakan oleh mesin ini hanya 240V dan sangat sesuai untuk

digunakan di rumah.

Selain daripada itu, mesin ini turut dilengkapi dengan penggetar mini (*mini vibrator*) yang menggunakan motor berkuasa 1000 rpm untuk proses pengasingan biji cili.

Penggetar mini ini berfungsi untuk mengasingkan ke semua biji cili yang telah dipotong oleh mesin pada awal proses tadi. Ini bermaksud, pengguna mesin ini yang rata-ratanya adalah tukang masak tidak perlu lagi membasuh dan menapis cili berulang kali untuk membuang biji cili yang telah dipotong.

Secara tidak langsung, dengan penggunaan mesin memotong dan pengasingan biji cili ini, ia dapat mempercepatkan proses memasak dan menjimatkan masa terutama kepada pengusaha makanan yang perlu memotong cili dalam kuantiti yang sangat banyak dalam tempoh sehari.



### SPEKIFIKASI

Bahan : Keluli tahan karat  
Kuasa : 240V  
Kapasiti : Antara 20 hingga 30kg/jam (atau lebih bergantung kepada operator)  
Saiz Mesin : 34 sentimeter (sm) x 42 sm x 78 sm  
\*Tambahan : Penggetar AC Motor 1000 rpm





# Tong sampah automatik

→ Trashbot dilengkapi penderia, terbuka sendiri apabila didekati pengguna

Oleh Mohd Khairul Anam  
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► Baling

**T**ahap kesedaran yang rendah segelintir masyarakat di negara ini ketika menggunakan tong sampah di kawasan awam dengan betul mendorong sepasukan pelajar Maktab Rendah Sains MARA (MRSM) Baling, di sini, menghasilkan produk inovasi tong sampah automatik yang dinamakan Trashbot.

Ahli kumpulan itu, Muhammad Nadjwan Mohd Mayan, berkata inovasi kreatif yang dibangunkan didorong sikap sesetengah pengguna yang tidak mahu menyentuh tong sampah sedia ada disebabkan khuatir tangan mereka kotor dan boleh dijangkiti pelbagai penyakit.

Beliau berkata, tong sampah mesra pengguna itu bersifat pintar dan mampu terbuka sendiri apabila pengguna mendekatinya dalam jarak 10 sentimeter, malah pen-

deria juga dipasang untuk memberikan isyarat sekiranya kuantiti sampah berkenaan penuh.

"Kami mengambil masa seminggu untuk menyiapkan tong sampah kreatif ini yang tidak memerlukan pengguna menyentuhnya kerana dikawal secara automatik.

## Tong berbunyi

"Trashbot dilengkapi dengan sistem bunyi yang mampu mengelakkan tong sampah dirosakkan atau dibuka oleh haiwan seperti kucing, malah kami juga memasang seperti bunyi anjing untuk mengelakkan haiwan berkenaan menyelongkar tong sampah ini," katanya kepada *BH Skor*, baru-baru ini.

Produk berkenaan adalah antara 160 kumpulan yang mengambil bahagian dalam Festival Penyelidikan, Inovasi dan Kreativiti (RICFest) MRSM Baling 2018 pada Februari lalu.

Perasmian program RCFest yang julung kali diadakan di maktab berkenaan disempur-

nakan Timbalan Ketua Unit Penyelidikan dan Inovasi MARA, Dr Syarida Hashim serta dihadiri Pengetua MRSM Baling, Encik Abdul Kadir Dewa.

Sementara itu, Dr Syarida berkata, program itu dapat menggalakkan minat generasi muda terhadap bidang penyelidikan yang berpotensi membantu negara

untuk terus bersaing pada peringkat antarabangsa.

"Kita lihat peserta mempunyai kreativiti dan idea yang sangat baik. Pendekatan ini membolehkan pelajar menonjolkan bakat serta potensi diri, sekali gus dapat menegakkan kajian dijalankan ke peringkat lebih tinggi," katanya.



Dr Syarida (dua kanan) dan Encik Abdul Kadir (kanan sekali) bersama-sama peserta menunjukkan produk Trashbot.

info

## Festival RCFest MRSM Baling 2018

→ Diadakan pada 26 Februari lalu

→ Program dikenali sebagai *Schallwide Enrichment Model (SEM) TYPE III* sebelum ini menuntut setiap pelajar MRSM menjalankan kajian sebelum menamatkan pengajian

→ SEM mendedahkan pelajar mengenai maklumat asas pelbagai bidang dengan dibimbing guru terbabit sebelum menjalankan kajian seperti seorang pengkaji profesional

→ Inovasi Trashbot dibangunkan pelajar Tingkatan Lima terdiri daripada Muhammad Akhmal Naim Muhd Zaidi, Muhammad Najmi Noordin dan Muhammad Mukhlis Zulkifli