

KERATAN AKHBAR-AKHBAR TEMPATAN
TARIKH: 20 JUN 2016 (ISNIN)

Bil	Tajuk	Akhbar
1.	Hujan batu boleh melanda tiga kali setahun di Malaysia	KOSMO
2.	Hujan batu bukan fenomena luar biasa	Berita Harian
3.	Minister: Hail can happen thrice a year	Malay Mail
4.	Flash floods hit KL	Malay Mail
5.	Pitfalls of the 'Internet of Things'	New Straits Times

KERATAN AKHBAR
KOSMO (NEGARA) : MUKA SURAT 10
TARIKH : 20 JUN 2016 (ISNIN)

Hujan batu boleh melanda tiga kali setahun di Malaysia

KUALA LUMPUR - Fenomena hujan batu yang melanda ibu negara awal bulan ini boleh berlaku dengan kekerapan tiga kali dalam setahun, kata Menteri Sains, Teknologi dan Inovasi, Datuk Seri Madius Tangau (gambar kecil).

Beliau berkata, pada tahun ini, sebanyak dua kejadian hujan batu berlaku di Malaysia iaitu pertama pada Januari lalu di Bukit Jelutong, Shah Alam dan yang terbaharu pada 3 Jun lepas di Bukit Jalil dekat sini.

"Kejadian hujan batu yang melanda negara bukanlah satu fenomena yang luar biasa tetapi ia amat jarang berlaku di ne-

Gempur hujan batu landa Bukit Jalil

OMNISTEADIAN SATELIT HAWA DAN METEOROLOGI TANGAU, MADIUS

KUALA LUMPUR - Hujan batu bersebaran di seluruh negara yang melanda di kawasan Bukit Jalil di sini semasa petang semalam merupakan kejadian hujan batu yang ketiga dalam setahun.

Kejadian hujan batu berlaku di seluruh negara semalam pada petang semalam.



KERATAN Kosmo! 4 Jun 2016.



gara kita.

"Berdasarkan rekod yang kita ada, ia boleh berlaku dengan kekerapan antara satu hingga tiga kejadian dalam tempoh masa setahun," kata beliau di sini semalam.

Madius berkata, fenomena hujan batu terhasil apabila ketulan ais terbentuk dalam awan ribut pe-

tir atau awan kumulonimbus, iaitu sumber utama pembentukan hujan ribut petir, disebabkan oleh arus perolakan yang kuat dalam awan tersebut.

"Hujan batu lazimnya berlaku ketika ribut petir kuat dalam ketinggian awan yang melepasi takat beku sehingga mencapai 40,000 kaki," katanya.

Madius berkata, saiz hujan batu yang terhasil lazimnya antara 5 milimeter (mm) atau sebesar biji



HUJAN batu sebesar duit syiling 20 sen melanda kawasan TTDI Jaya di Shah Alam pada 3 Jun lalu.

kacang sehingga 1.5 sentimeter (sm) iaitu sebesar sebiji guli.

"Kejadian hujan batu ini

biasanya berlaku setempat iaitu sekitar kawasan yang berada di bawah awan kumulonimbus. Tempoh ke-

jadiannya juga agak singkat iaitu hanya lebih kurang 20 minit," katanya.

Dalam kejadian hujan batu yang melanda ibu negara pada petang 3 Jun lepas, rekod Stesen Meteorologi Petaling Jaya menunjukkan hujan berukuran 60.2 mm serta kelajuan angin mencapai 46.8 kilometer sejam adalah sebab berlakunya fenomena hujan batu itu.

Dalam pada itu, Madius menasihatkan orang ramai yang berdepan kejadian hujan batu atau seumpamanya supaya menjauhi tingkap dan segera berlindung di tempat yang selamat.

"Jika berada di dalam kenderaan, pastikan anda meletak kenderaan (berlindung) di bawah jambatan atau struktur yang kukuh," katanya. - Bernama

Hujan batu bukan fenomena luar biasa

➔ Kejadian boleh berlaku dengan kekerapan tiga kali setahun

► Kuala Lumpur

Fenomena hujan batu yang melanda ibu negara awal bulan ini boleh berlaku dengan kekerapan tiga kali dalam setahun, kata Menteri Sains, Teknologi dan Inovasi, Datuk Seri Madius Tangau.

Beliau berkata, pada tahun ini, sebanyak dua kejadian hujan batu berlaku di Malaysia, pertama di Bukit Jelutong, Shah Alam, pada Januari lalu dan yang terbaru di Bukit Jalil, dekat sini, pada 3 Jun lalu.

"Kejadian hujan batu yang melanda negara bukanlah satu fenomena yang luar biasa tetapi ia amat jarang berlaku di negara kita.

"Berdasarkan rekod, ia boleh berlaku dengan kekerapan antara satu hingga tiga kejadian dalam masa setahun," katanya.

Madius berkata, fenomena hujan batu terhasil apabila ketulan ais terbentuk dalam awan ribut petir atau awan kumulonimbus, iaitu sumber utama pembentukan hujan ribut petir, disebabkan oleh arus perolakan yang kuat dalam awan.

Berlaku ketika ribut petir di ketinggian awan 40,000 kaki

"Hujan batu lazimnya berlaku ketika ribut petir kuat dalam ketinggian awan yang melepasi takat beku sehingga mencapai 40,000 kaki," katanya.

Madius berkata, saiz hujan batu yang terhasil lazimnya adalah antara 5 milimeter (mm) atau sebesar

biji kacang sehingga 1.5 sentimeter (cm) iaitu sebesar sebiji guli.

"Kejadian hujan batu ini biasanya berlaku setempat iaitu sekitar kawasan yang berada di bawah awan kumulonimbus. Tempoh kejadian juga agak singkat iaitu hanya kira-kira 20 minit," katanya.

Dalam kejadian hujan batu yang melanda ibu negara pada petang 3 Jun lalu, rekod Stesen Meteorologi Petaling Jaya menunjukkan hujan berukuran 60.2mm serta kelajuan angin mencapai 46.8 kilometer sejam adalah sebab berlakunya fenomena hujan batu itu.

Madius menasihatkan orang ramai yang berdepan kejadian hujan batu atau seumpamanya supaya menjauhi tingkap dan segera berlindung di tempat yang selamat.

"Jika berada di dalam kenderaan, pastikan anda meletak kenderaan (berlindung) di bawah jambatan atau struktur yang kukuh," katanya.

Fakta nombor

1.5
SENTIMETER
saiz hujan batu yang boleh terhasil

60.2
MILIMETER
hujan dan kelajuan angin 46.8km/j akibatkan hujan batu



[FOTO IHSAN PEMBACA]

BERNAMA

Hujan batu yang dikutip ketika ribut di Bukit Jalil pada 3 Jun lalu.

Minister: Hail can happen thrice a year

KUALA LUMPUR — The hail which hit the capital earlier this month can occur three times a year, says Science, Technology and Innovation Minister Madius Tangau.

"Hail is not an unusual phenomenon, but it's rare in our country. Based on our records, it can occur one to three times in a year," he told Bernama.

Madius said the phenomenon is a result of strong thunderstorms and when the cumulonimbi clouds (the main source of the formation of thunderstorms) reached a height of 12,190m.

"When the temperature goes below freezing point, rain drops become ice lumps about the size of a marble or 1.5cm," he said.

"Hail usually occurs around areas under the cumulonimbus clouds and lasts for a relatively short time, about 20 minutes."

In the hailstorm that hit the capital on the evening of June 3, Petaling Jaya Meteorological Station records show rain measuring 60.2mm and winds of up to 46.8 km per hour was the cause of the phenomenon.

Madius advised people facing hail incidents to stay away from windows and immediately seek refuge.

"If in a vehicle, make sure you park under a bridge or a sturdy structure," he said.



A car accelerates through a flooded Jalan Raja Chulan yesterday. — Picture courtesy of Kuala Lumpur Fire and Rescue Department

Flash floods hit KL

KUALA LUMPUR — Motorists were forced to navigate their way through flooded roads after a downpour here yesterday.

Kuala Lumpur Fire and Rescue Department chief operations officer Samsol Maarif Saibani said the thunderstorm, which began at about 5.20pm, caused water levels to rise in Jalan Raja Chulan, Jalan Kelapa Muda, Jalan Duta, Jalan Dutamas,

Jalan Kuching and Batu Muda.

Samsol said a flood monitoring team was sent to the locations, while officers used vehicles embedded with warning lights to divert traffic.

Traffic was brought under control and the rain began to subside at 7pm.

"The water levels were manageable. The water slowly receded and the traffic was

moving," he said.

The thunderstorm uprooted a tree near the old toll booths in Jalan Kuching.

The Malaysian Meteorological Department issued a warning at 5.23pm yesterday, forecasting that Kedah, Pulau Pinang, Selangor, Kuala Lumpur, Putrajaya, Negri Sembilan, Pahang and Sabah would be hit by storms later in the evening.

Pitfalls of the 'Internet of things'

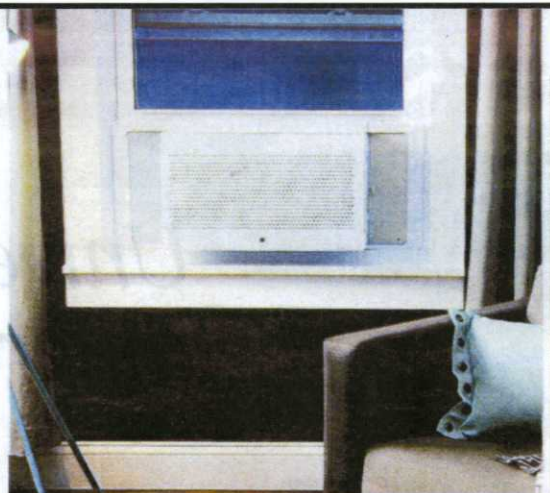
DOUBLE-EDGED SWORD: Convenience of Internet-connected products clouded with cybersecurity concerns

THE Internet of things (IoT) is a catchall phrase for the global network of Internet-enabled sensors, devices and systems that collect and shares a vast amount of personal data. Wildly diverse and growing fast, the billions of IoT products out there right now include fitness trackers, medical devices, household appliances, mobile gadgets and even Barbie dolls. According to IT research company, Juniper Research, there are now more than 13.4 billion IoT products in use and by 2020, the figure will hit 38.5 billion.

Proponents contend that once we are fully immersed in IoT, the technology will engender myriad benefits. They claim that energy-saving IoT products will enhance our situational awareness and quality of life, too, through automation. For example, when a sleep tracker is connected to a smart air-conditioner and coffee maker, the wearer not only wakes up to a freshly-brewed cup of coffee, but also feeling totally refreshed because the temperature in his bedroom is synced to his sleeping pattern. So not only does the wearer of the sleep tracker know the quality of his sleep, he is also doing his part for the environment by letting the smart air-conditioner adjust the temperature accordingly throughout the night. As appealing as this high-tech option may sound, it is unfortunately clouded by serious cybersecurity concerns.

The biggest fear right now is that a large number of IoT products are susceptible to hacking. Indeed, many IoT products are resource-constrained, meaning that they do not come with firewalls, encryption/authentication and antivirus capabilities built-in. We install security protection into our smartphones, personal computers and tablets. But doing so with the smart toothbrush or kettle may not be possible because they have limited computing power. Even if it were possible to patch IoT products with security upgrades after they had left the factory, it would be a logistical nightmare given their sheer numbers out there.

According to estimates from Hewlett Packard, a staggering 70 per cent of IoT products currently in use are vulnerable. In a sign of things to come, penetration tests (or "pen-testing") designed to uncover security vulnerabilities in IoT products have shown that it is possible to



One of the latest **smart air-conditioner models that can be connected to the Internet**. IT research company Juniper Research estimates that by 2020, 38.5 billion Internet-connected products will be in use.

breach home Wi-Fi networks via IoT appliances. So hackers could, in theory, exploit weaknesses in everyday IoT products and work their way into corporate or government networks as employees bring their infected gadgets to work.

Sounds incredible, but in 2013, we inched closer to this dystopian nightmare when hackers breached the database of Target and stole the credit card numbers of 40 million customers apparently by hacking the United States retailer's Internet-enabled heating and air-conditioning system.

In the worst case, hackers could take over or shut down major infrastructure networks throwing critical sectors like banking, transportation and telecommunications into chaos. The consequences would be catastrophic. Or they might attempt to retrieve sensitive information stored in these networks. Bear in mind, IoT products collect a vast amount of personal data. Not just plain information like names, birth dates and contact details, but revealing information like energy consumption patterns, geo-location data and lifestyle habits. To the untrained eye, this kind of information means nothing but in the hands of sophisticated criminals, it can be used to make scams more elaborate and convincing.

The reality is that IoT is a "double-edged sword". Having an IoT security camera that lets you see what is happening in your house via your smartphone might make a lot of sense when you are away, but it also means that cybercriminals could watch you in your own home if the system had been compromised. Likewise, owning a smart TV that is voice-activated might seem like a nifty idea except that your privacy would vanish if hackers were able to listen in on your private conversations.

Common sense tells us that we should never share anything online that we do not want others to know about. But, with the advent of IoT, the datafication of our most intimate personal information is unavoidable. More importantly, we will not have a choice about it. So if you are concerned about your online data privacy, then you should definitely

be very worried about IoT.

Shunning IoT products completely would be unrealistic since they do bring important benefits. Furthermore, as existing electronic products get phased out, users have no choice but to replace them with IoT ones. Try buying a rear-projection TV today or apply for a job without a smartphone and you will see the impracticality of snubbing the latest technology. If turning our backs on IoT products is not feasible, then what we need is prepare for its inevitable arrival.

For major organisations, this would mean integrating IoT products in a step-by-step fashion — taking the time to evaluate the technology with great care. The government can certainly help by assessing every IoT product for potential risks. If an IoT product is deemed too much of a cybersecurity risk then it should definitely not be integrated into a broader network.

The government also needs to set industry standards to ensure that IoT product manufacturers do not cut corners on their products since building in added security features will eat into their bottom-line. Apart from tightening security in the cyber domain, the government also needs to put tough data protection measures in place to limit abuses of personal information collected by IoT products. Lastly, consumers play a crucial role, too; besides ensuring that their IoT products are secure, they must also be responsible enough to avoid those that are not.

When all is said and done, we need to recognise that at the moment no software-based product is really "hacker proof" and sooner or later, some IoT products will be breached by hackers. So, some loss of online data privacy is to be expected as we enter the IoT age. The key then is finding that balance between risks and rewards — that sweet spot which allows us to enjoy the upside, while keeping the pitfalls to a tolerable level.

The writer is a Research Fellow with the National Security Studies Programme in the Office of the Executive Deputy Chairman, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore

We install security protection into our smartphones, personal computers and tablets. But doing so with the smart toothbrush or kettle may not be possible because they have limited computing power.



TAN TECK BOON