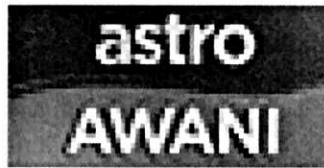


KERATAN AKHBAR-AKHBAR TEMPATAN
TARIKH: 22 NOVEMBER 2016 (SELASA)

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Pakar teknologi, juruteknik diiktiraf profesion iktisas melalui MBoT

KUALA LUMPUR: Satu strategi menjulang martabat bidang teknik dan vokasional (TVET) melalui pengiktirafan kepada profesion seperti pakar teknologi, juruteknik dan pekerja berkemahiran (skilled workers) oleh Majlis Pelancaran Lembaga Teknologis Malaysia (MBoT berlangsung baru-baru ini.

Majlis disempurnakan oleh **Menteri Sains, Teknologi dan Inovasi, Datuk Seri Madius Tangau** di Dewan Tun Abdul Razak, Pusat Konvesyen Bank Rakyat di sini pada Jumaat.

MBoT ditubuhkan sebagai sebuah badan profesional untuk mendaftar dan mengiktiraf Teknologis Profesional (Professional Technologist) serta Juruteknik Bertauliah (Certified Technician) sebagai profesion iktisas selaras dengan saranan Rancangan Malaysia Kesepuluh (RMKe-10) yang telah mengenal pasti keperluan penubuhan satu badan profesional untuk mendaftar dan mengiktiraf lulusan berkaitan kemahiran dan teknologi.

MBoT lahir atas usaha sama dan permuafakatan antara MOSTI dengan Kementerian Pendidikan, Kementerian Pendidikan Tinggi, Kementerian Sumber Manusia, Kementerian Kemajuan Luar Bandar dan Wilayah, Kementerian Belia dan Sukan, Kementerian Kerja Raya dan pelbagai kementerian lain.

Selaras dengan teras strategik kedua Dasar Sains, Teknologi dan Inovasi Negara atau DSTIN, iaitu Membangun, Memupuk dan Menggilap Bakat dalam bidang sains, teknologi dan inovasi (STI), MOSTI telah melaksanakan pelbagai program bagi membangunkan kapasiti sumber manusia berkaitan STI. Malaysia berhasrat untuk menjadi negara maju dan inklusif menjelang tahun 2020.

Malaysia memerlukan modal insan yang berpengetahuan, berilmu, beretika dan berakhlak untuk memacu pertumbuhan ekonomi yang mampan dan inklusif.

Mencapai sasaran tersebut, minat pelajar-pelajar terhadap bidang TVET perlu dipertingkatkan sebagai satu platform penting bagi meningkatkan tenaga kerja mahir di Malaysia. Peningkatkan pengambilan pelajar dalam bidang TVET setiap tahun secara berperingkat dari 164,000 pada tahun 2013 kepada 225,000 pada tahun 2020.

Program ini dijayakan atas sokongan dan kolaborasi dari Malaysian Technical University Network atau MTUN, yang terdiri daripada empat buah universiti awam tempatan, iaitu Universiti Malaysia Perlis (UniMAP), Universiti Malaysia Pahang (UMP), Universiti Teknikal Malaysia Melaka (UteM) dan Universiti Tun Hussein Onn Malaysia (UTHM).

Politeknik, kolej-kolej komuniti, institusi pendidikan tinggi swasta (IPTS) seperti Universiti Kuala Lumpur (UniKL), institusi-institusi latihan kemahiran (ILK), badan-badan bukan kerajaan (NGO) serta pihak industri juga turut menyumbang input dan sumber tenaga dalam penubuhan MBoT ini.

Bagi mengekalkan bilangan tenaga kerja TVET semakin bertambah di dalam industri, MBoT juga berperanan memastikan kualiti profesion ini adalah selari dengan perkembangan dinamik industri semasa.

Trend semasa teknologi pembuatan kini antara lain melibatkan *automation*, *internet-of-things* dan *cyber-physical systems*.

Dalam menyokong aspirasi negara untuk menempuh Industri 4.0 ini, MBOT dilihat sebagai berada di platform yang paling sesuai untuk leverage pelbagai bidang teknologi yang berada di bawah pengawalseliaan MBOT bagi memberi nilai tambah kepada pelbagai industri negara.

Akta Teknologis dan Juruteknik 2015 dalam Seksyen 19 dan 20 telah ditubuhkan bagi membenarkan setiap Professional Technologists dan Certified Technician yang berdaftar dan telah diluluskan oleh MBOT untuk menggunakan gelaran singkatan Ts. atau P.Tech (bagi Professional Technologists) dan Tc. atau C.Tech (bagi Certified Technician). Ini merupakan salah satu mekanisme pengiktirafan kepada teknologis dan juga juruteknik negara.

MBOT telah membuka pendaftaran kepada empat kategori, iaitu Teknologis Berijazah, Teknologis Profesional, Juruteknik Berkelayakan dan Juruteknik Bertauliah. Kelayakan program-program pengajian teknologi/ teknikal atau kemahiran serta pendaftaran sebagai ahli MBoT akan ditentukan oleh majlis-majlis akreditasi yang akan ditubuhkan di bawah MBoT.

Individu yang memenuhi kelayakan yang ditetapkan oleh MBOT adalah layak berdaftar sebagai ahli.

Pendaftaran keahlian teknologis dan juruteknik yang layak boleh dibuat secara dalam talian di laman sesawang www.mbot.org.my.



Gempa Bumi Kuat Landa Wilayah San Juan, Argentina

KUALA LUMPUR, 21 Nov (Bernama) -- Gempa bumi kuat berukuran 6.7 pada skala Richter melanda pantai Timur Wilayah San Juan, Argentina pada 4.57 pagi tadi.

Jabatan Meteorologi dalam kenyataannya di sini berkata gempa itu berpusat di 282km timur laut Santiago, Chile dan 16,567km barat daya Pontian, Johor.

Walaupun bagaimanapun, gempa bumi itu tidak menimbulkan ancaman tsunami.

-- BERNAMA

KERATAN AKHBAR
HARIAN METRO (SETEMPAT) : MUKA SURAT 14
TARIKH: 22 NOVEMBER 2016 (SELASA)

Fenomena air pasang besar diramal landa Kelantan

Kota Bharu: Jabatan Meteorologi Kelantan meramalkan fenomena air pasang besar akan melanda negeri ini pada 14 Disember depan.

Pengarahnya, Rabiah Al Adawiah Zakaria berkata, penduduk diminta berjaga-jaga dengan mengambil langkah pencegahan banjir supaya dapat mengelak sesuatu tidak diingini berlaku.

"Untuk Disember ini, jangka taburan hujan di kawasan klauster adalah 450 milimeter (mm) hingga 600 mm manakala di kawasan pedalaman, kadar taburan hujan adalah 430 mm sehingga 650 mm.

"Mengikut bacaan berkenaan, kadar taburan berkenaan mampu menyebabkan paras air di sesetengah tempat meningkat ditambah dengan fenomena air pasang besar serta musim

monsun timur laut," katanya ketika dihubungi di sini, semalam.

Rabiah berkata, orang ramai boleh memeriksa taburan hujan yang lebat melalui portal met.gov.my.

"Melalui portal berkenaan, semua amaran berkaitan taburan hujan lebat turut dapat diakses bagi memudahkan orang ramai mendapatkan maklumat," katanya.

Sementara itu, Rabiah berkata jambatan sementara yang menghubungkan Gua Musang-Jeli, tenggelam akibat taburan hujan yang tinggi daripada biasa di kawasan pedalaman Gua Musang, kelmarin.

"Mengikut bacaan stesen meteorologi di Gua Musang, kadar taburan hujan di kawasan berkenaan mencecah 45 mm namun pada hari ini (semalam) tiada hujan direkodkan di kawasan berkenaan," katanya.

'Brace for heavier downpours'

1,000mm of rain to be recorded this month alone, says weatherman

By **ADRIAN CHAN**

adrianchan@thestar.com.my

PETALING JAYA: Downpours along the west coast will get worse, with about 1,000mm of rain to be recorded this month alone.

In comparison, the total amount of rainfall in the west coast between January and now was 1,200mm.

The Meteorological Department (known also as MetMalaysia) gave this warning to the Drainage and Irrigation Department (DID), asking

it to prepare for a deluge.

Areas that will be affected were Penang, Perak, Kedah, Perlis and northern Selangor, it said.

DID director-general Datuk Seri Zulkefli Hassan said the department was making more preparations for heavier, more frequent downpours and flash floods.

"It is expected that localised rain will continue to fall along the west coast, with higher intensity and within a short period of time (until November ends)," he said.

For the east coast, he said, staggered rainfall was expected and the department was looking to MetMalaysia for accurate predictions.

He said based on records of long-term average rainfall, more rain would likely fall there on the last week of this month and the second week of December.

Zulkefli added that MetMalaysia had yet to detect the cold surge associated with the northeast monsoon along the east coast of

the peninsula.

The surge, which is characterised by cold winds that bring rain, has yet to be detected, meaning rainfall has yet to reach its peak along the coast, he said.

On Sunday, the department had issued a warning of heavy rain and overflowing rivers in Kelantan, Terengganu, Johor and Perlis.

For warnings and updates on water levels and flood situations, go to <http://publicinfobanjir.water.gov.my/>.



UMCIC Anjur Persidangan 'University Start-up' Malaysia 2016 Esok

KUALA LUMPUR, 21 Nov (Bernama) -- Pusat Inovasi dan Pengkomersialan Universiti Malaya (UMCIC) akan menganjurkan persidangan dua hari 'University Start-Up (UStart)' 2016 bermula esok.

Bertemakan "Mewujudkan Kesan Ekonomi dan Sosial melalui 'University Startups'", persidangan itu akan dihadiri hampir 300 peserta dan pempamer dari institusi pengajian tinggi serta syarikat, pemain industri, agensi awam, usahawan, promoter dan peniaga dari Malaysia dan negara ASEAN.

"Persidangan dua hari itu akan diisi dengan sesi perkongsian bersama penceramah yang terdiri daripada pemegang taruh daripada usaha niaga teknologi, pemimpin ekosistem, pengurus inkubator dan inovator sosial menerusi forum, pameran dan sesi padanan," kata UMCIC dalam kenyataannya.

Antara penceramah ialah Ketua Pegawai Eksekutif (CEO) Catcha Group, Patrick Grove; **CEO Perbadanan Pembangunan Teknologi Malaysia (MTDC), Datuk Norhalim Yunus**; CEO Pusat Inovasi dan Kreativiti Malaysia (MaGIC), Ashran Ghazi dan Duta Pergerakan Keusahawanan Global, Nur Fazura Sharifuddin.

Acara tahunan itu adalah kesinambungan atas kejayaan UStart Malaysia dan UStart ASEAN yang diadakan tahun lepas.

UStart kali ini diadakan di Auditorium Kompleks Pengurusan Penyelidikan dan Inovasi Universiti Malaya, dan akan dirasmikan Menteri di Jabatan Perdana Menteri Datuk Seri Nancy Shukri.

-- BERNAMA

The globalisation of research

4TH REVOLUTION: R&D investment fuels innovation, sharpens competitive advantage, creates new industries and allows exploitation of new opportunities

Countries are in a race to keep up or risk being left behind economically. This is evidenced by a surge in research and development investments in recent years.



TAN SRI ZAKRI
ABDUL RAZAK

We are living through what has been dubbed "the fourth industrial revolution".

The almost daily introduction of remarkably innovative new materials, products and processes are transforming economies and society at an unprecedented and unpredictable speed and scale.

According to the World Economic Forum: "...when compared with previous industrial revolutions, the fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management and governance."

Countries are in a race to keep up or risk being left behind economically. This is evidenced by a surge in research and development (R&D) investments in recent years.

United Nations data reveal that worldwide R&D has grown from an (inflation adjusted) US\$660 billion (RM2.9 trillion) in 1990 to almost US\$1.5 trillion in 2013. And much of the growth in that timeframe came from here in Asia, where research funding almost quadrupled — from US\$167 billion to US\$623 billion.

The Malaysian Industry-Govern-

ment Group for High Technology is currently hosting the Asia Pacific regional meeting of the Global Research Council (GRC) in Kuala Lumpur.

The GRC is a virtual organisation, comprising the heads of science and engineering funding agencies around the world. It is dedicated to improving research at the regional and global levels and promoting high-quality collaboration between countries.

Among other things, the GRC plays a crucial role in promoting collaboration between nations by creating, for example, standards and basic principles for peer review of research. These include the transparency of the evaluation process, impartiality and confidentiality, all important in creating trust.

Other active concerns include ensuring the accuracy of data and ethical standards in research involving human subjects. The meeting in Kuala Lumpur is one of five regional sessions designed to generate ideas for discussion at the GRC's 6th annual global conference in Ottawa, Canada, in May next year.

The discussions here had two key areas of focus:

HOW do societies manage the contentious relationship between "fundamental research" — aimed at discovery for its own sake — and "innovation" — intended to generate more immediate economic growth and jobs? And,

AS research becomes a more global collaborative enterprise, and with so much at stake, how can we improve the efficiency and effective-

ness of collaborations to maximise results, enhance the quality of science, avoid unnecessary duplication, exploit economies of scale, and address issues of common concern that can only be solved by working together?

According to GRC papers prepared for the meeting, research is being shaped by increasing openness — more public communication, data sharing and citizen engagement.

As well, research has assumed a more "problem-based" focus over the past 20 years, involving larger teams of academic and non-academic experts from multiple disciplines.

To quote Senior Professor Datuk Dr Khalid Yusoff, Vice-Chancellor and-president of UCSI University: "The rise of international collaboration over the past two decades is dramatically increasing the impact and importance of research, and that success in turn is inspiring even greater funding of and cooperation among scientists."

That cooperation is essential, as are the ambitious national investments, if we are to meet the daunting challenges ahead, which include meeting the 17 Sustainable Development Goals.

We need innovation to accelerate the generation of energy from renewable sources, to improve the quality of air, to make full use of precious fresh water resources, to create strong new building materials locally, to improve and protect health and agriculture, and in so many other vital areas.

It is especially encouraging that low- and middle-income nations, where spending on research and development has traditionally been limited, governments are reforming old funding agencies or creating new ones, and pouring money into them.

The benefits are many and large. R&D investment fuels innovation, sharpens competitive advantage and enables the creation of new industries and exploitation of new economic opportunities. The big spender nations, when it comes to R&D, tend to be among the most prosperous.

Malaysia is an excellent case in point. Here at home it is no coincidence that between 2000 and 2012, gross domestic product (GDP) per capita grew from US\$4,000 to almost US\$10,800 as national R&D investment rose from 0.5 to 1.26 per cent of GDP.

And, while economic headwinds due to a major dip in commodity prices have caused a pause in the growth of R&D funding in some countries, Malaysia included, it is important for all nations to invest more. Malaysia aims to achieve R&D intensity of at least two per cent by 2020, recognising the importance of this investment to our wellbeing and future sustainability.

Malaysia extends its welcome and highest support to the GRC's efforts to maximise the effectiveness and efficiency of research collaborations and capabilities at the regional and global levels.

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The writer is science adviser to the prime minister