

IE Insight

FOREWORD



Hasnah Hassan

It is a great pleasure to write the foreword for the first newsletter issue of the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) for the year 2020. This newsletter will be issued quarterly to showcase OAVCIE's latest activities, achievements and accomplishments in its effort in nurturing and promoting innovation and entrepreneurship.

As a kickstart, in January 2020, our Assistant Vice Chancellor and Deputy Director shared our department's innovation and enterprise activities at the 2nd ASEAN University Network (AUN) meeting in Manila. In the same month, we hosted a meeting with the Brunei Intellectual Property Office (BruIPO) to follow up on matters such as BruIPO's new management, invitation for UBD to participate in World IP Day and the updating of UBD's IP policy which is now at its later stage of release.

OAVCIE continues to offer and provide services such as research, invention and developmental projects, as well as training and consultancy to government and industries through the University and Industry Platform (U&I). In February, our Senior Patent Manager was invited to give a public talk on Patents hosted by AITI. As part of our support and potential industrial collaboration, our office visited Brunei Shell Petroleum and Shell LiveWIRE. Recently, an online meeting was held with the Halal division of the ministry of Religious Affairs to explore possible collaborations.

Other activities include the launching of a start-up company, MUAPPY, under the UBD startup Centre (USC) and the online CaffeInnovation by UBD's discovery year students under the Entrepreneurship Village (EV). At the same time, we are also actively preparing the Innovation Wharf which will be showcasing some of UBD's inventions for public viewing.

I am happy to report and congratulate the inventors of one newly granted United States Patent and Trademark Office (USPTO) patent in March 2020. To date, there are 31 issued patents from 60 filings, of which, 23 out of 38 patents filed in the United States have been granted. Since late last year, the office has been in constant contact with inventors to review the patents and discuss the commercialisation route of their inventions.

Despite in the current COVID-19 outbreak, OAVCIE is still functioning with safety measures put in place, social distancing being observed with extra care and meetings being conducted online. We hope, during this difficult time, we can continue to serve at our best capacity.

The year 2019 was a challenging yet productive year for the OAVCIE team. We thank all clients, colleagues and collaborators for the continued trust and support. OAVCIE has many interesting activities in the pipeline for this year and look forward to share the highlights in the forthcoming newsletters. Praying for a fruitful 2020 for everyone!

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OFFICE OF ASSISTANT VICE CHANCELLOR INNOVATION AND ENTERPRISE

The Office of Assistant Vice-Chancellor Innovation and Enterprise (OAVCIE) was formed in 2017; to assist in UBD's transformation into a university of innovation and enterprise.

The office's functions include Education on Intellectual Property (IP), Entrepreneurship, Patent Management, Marketing and Licensing, Business development and assistance for Start-ups as well as Industry Outreach. OAVCIE also oversees UBD Innovation Wharf and Prototype Development Unit, and is responsible for consultancies and services within UBD as the UBD's focal point of contact with industries.

WELCOMING A NEW ASSISTANT REGISTRAR

In early February 2020, we welcomed Harris Ar-Rafi bin Mohd Zaini as the new Assistant Registrar for the Office of Assistant Vice Chancellor (Innovation and Enterprise). He is replacing Ak Baharudin bin Pg Razak who had been with our office for over three years.



UBD IP POLICY

UBD IP Policy 2010 has provided a beneficial environment to students, researchers, and faculty members to promote technology and Intellectual Property. UBD has filed 60 patents and have received 31 issued patents. It includes 38 and 23 patents filed and granted, respectively in USA. Access to UBD patents and technologies is available at <http://innovation.ubd.edu.bn>. Based on feedback from faculty members and considering the recent trends in research and collaboration, the Office of AVC (Innovation and Enterprise) has updated the UBD IP Policy. The new IP Policy will provide guidelines on IP Ownership from Sponsored Projects, Discovery Year Projects, and others. The new policy will also provide guidelines on commercialization of IP by engaging enablers in addition to creators. The office shall be organizing webinars/seminars to answer any questions on the new IP Policy.

INNOVATION & PATENTS 101: HOW TO BECOME AN INVENTOR

Coming up with a patent is a creative process that also demands some understanding of the legal dimension and the administrative procedures.

Regarding this, Dr Jin Ping Han, PhD from Yale University and Research Staff Member at IBM T. J. Watson Research Center conducted a Patent Talk on "Innovation & Patents 101: How to Become an Inventor" on Jan 7, 2020. Dr Jin's work includes key elements for Artificial Intelligence hardware computing acceleration and bioinspired dynamic frontend for speech recognition. She was a technical leader at IBM and Infineon (shortly Intel) for IBM-Alliance and IBM-client research and development projects on advanced CMOS technologies. She has more than 50 peer-reviewed publications and over 70 US/international patents granted.

Dr Jin highlighted best practices that are required to invent and to become an inventor. She elaborated the distinctive requirements for



Dr Jin Ping Han

Invention and Technology Paper. She underscored that experimental data is great to have but is not essential for a technology paper. A technology paper can have indefinite claims, while the invention would only have definite claims.

Dr Jin mentioned that at the core of every patent has to be an idea that is patentable, novel, non-obvious and has economic potential. The most challenging and also most exciting step is to conceive an innovative idea. It is also essential to put together effective teams and ensure that the team continues to function through all stages of the patent collaboration.

PATENT PROTECTION SEMINAR

On 19th February 2020, Dr Nagender Aneja, Senior Manager of the Office of Assistant Vice Chancellor (Innovation and Enterprise) was invited as one of the speakers to present at a seminar hosted by the Authority for Info-communications Technology Industry of Brunei Darussalam (AITI) with the support of the Brunei Intellectual Property Office (BruIPO). The talk titled "Patent Protection: Securing the Rights to Your Innovation" was held at the Seri Kerna Hall, AITI Office in Anggerek Desa. Dr Nagender presented on patentability criteria and patent drafting.

Other topics that were discussed by the other panels of speakers were on the patent legal system in Brunei, experience on patent commercialisation using PCT (international protection) and patent enforcement.

The seminar was held to increase awareness of patent value and processes to increase number of commercialised ICT patents in Brunei. Those that attended were from the ICT industry, MSMEs, CIOs/CTOs, students and the public.



Dr Nagender Aneja.

2ND ASEAN UNIVERSITY NETWORK – UNIVERSITY INNOVATION AND ENTERPRISE (AUN-IE) MEETING

The 2nd ASEAN University Network – University Innovation and Enterprise (AUN-UIE) meeting was held on the 13th January 2020 at De La Salle University in Manila, The Philippines. The meeting was attended by representatives from 6 AUN Member Universities: Universiti Brunei Darussalam (UBD), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM), De La Salle University (DLSU), Singapore Management University (SMU) and Chulalongkorn University (CU), as well as representatives from Chulalongkorn University Innovation Hub (CU I HUB) as Secretariat of AUN-UIE and the AUN secretariat. Attending on behalf of UBD were Pg Dr Emeroylariffion Abas, Deputy Director of Innovation and Enterprise, Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) and Dr Muhammad Saifullah Abu Bakar, Deputy Director of Research, Office of Assistant Vice Chancellor Research (OAVCR), UBD.

In the meeting, the participants had the chance to discuss various ASEAN-level Innovation and Enterprise (IE) related activities that had been conducted as well as future activities planned by various AUN member universities. Among the activities discussed were the ASEAN University Startup League that will be happening on 20th and 21st March 2020 in Bangkok and the annual Winter Bootcamp; both of which are organized by CU I Hub. The meeting also discussed the establishment of the Global University Innovation and Entrepreneurship Platform. It is envisaged that the platform shall be able to synthesize all innovation and entrepreneurship related matters, including activities, programmes, news, courses and announcements from members of AUN and around the world.

The main purpose of the AUN University Innovation and Enterprise (AUN-UIE) is to strengthen and leverage innovative capacity of universities in ASEAN by offering the universities a common space for research, academic cooperation and a network-connection. AUN-UIE also plans to equip current ASEAN students and future generations with technological competency and innovative thinking.

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Group photo with representatives from various universities under AUN, during the meeting.

JAN– MAR 2020 GRANTED PATENT APPLICATIONS

U35: Electrochemical Immunosensor for Analyte Detection

Applications: The invention is related to a carbon nanofiber-based label free electrochemical immunosensor for sensitive detection of proteins in a fluid. The immunosensor is a modified carbon nano-fiber screen protected electrode (CNF-SPE) with a carboxyphenyl film activated by EDC/NHS. Monolayer of 4-aminophenylboronic acid coating was then fabricated onto the electrode to allow orientation of antibody via bonding of boronic acid-saccharide of oligosaccharide moiety located on the Fc region of antibody. The modified electrode is then used for the detection of a hormone such as a rbST in a fluid with a detection limit of 1pg/ml.

Inventors: Syazana Abdullah Lim; Minhaz Uddin Ahmed

Granted | 31st Mar '20

Filed | 19th May '15

Patent Education

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What is the first-to-file system?

A patent will be granted to the first person to file a patent application. The Paris Convention for the Protection of Industrial Property (1883), which is the oldest Convention administered by WIPO (World Intellectual Property Office) dealing with industrial property, has provided for 'right of priority.' This right means that, on the basis of a regular first application filed in one of the Contracting States, the applicant may, within a period of 12 months, apply for protection in any of the other Contracting States. These later applications will then be regarded as if they had been filed on the same day as the first application. In other words, these later applications will have priority over applications which may have been filed during the same period of time by other persons for the same invention.

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How long does a patent last?

The term of a patent is typically 20 years from the date on which the application is filed. This gives the developer of the technology the right to have it to himself for a certain number of years in exchange for full disclosure to the public of how to use it. When the patent rights expire, the technology becomes public property, and the public is free to use it for their own good.

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For the period of protection the patent holder may exclude others from **making, using, offering for sale, selling, and importing** the invention claimed in the patent. However, the patent owner has the right to assign (sell) or to license the patent. In other words, the patent owner may if he/she so wishes, transfer his/her exclusive rights to another person through the conclusion of licensing contracts. A patent does not necessarily give the inventor or the owner of the patent the right to use the invention. A patent only prevent others from marketing and profiting from the invention for a period of years.

What benefits do patents offer?

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The issue of **enforcement** would become important after the grant has been issued. Detection of potential or actual infringements, and bringing these to the infringer's attention rests exclusively with the patent holder. A polite letter giving notice of the existence of the patent is sent, carrying the implication that a lawsuit might follow. Such letters could lead to either a suppression of infringement or a conclusion of a successful **licensing** arrangement.

What happens in the case of infringement?

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MUAPPY LAUNCHING EVENT

On 29th February 2020, Muappy, a start-up company under the mentorship of UBD Startup Centre (USC), launched their mobile application at the Core Auditorium, UBD. The launch was officiated by the Guest of Honor, Yang Mulia Datin Dayang Hajah Anita Binurul Zahrina bte Pehin Orang Kaya Laila Wijaya Dato Seri Setia Haji Awang Abdul Aziz with a ribbon-cutting ceremony.

Muappy is a data-driven platform that won the BICTA Competition under the Industry category in 2019. Their product is a mobile application that integrates Artificial Intelligence (AI) and gamification into digital loyalty or membership card system. The startup was founded by Dr. Reneiro Andal Virrey, a UBD alumnus under the Faculty of Integrated Technologies and is joined by members from various background disciplines.

For the launch, Muappy has invited a total of 30 vendors and partners that have joined the app to attend. The vendors that had joined the app comes from industries such as Food and Beverage, Fashion, Textile, Desserts, Cafes, Car Detailing, Accommodation, Games, and Fitness Studios. The app launched as a Beta to get feedback from the public to further improve the application.



Muappy Team, a USC alumni startup with their members of multi-disciplinary backgrounds

The event was made possible with the cooperation of teams from the UBD Startup Centre (USC), Entrepreneurship Village (EV), UBD Alumni and UBD Discover Year Incubation students. The success of the launch was also the result from the help of the creative minds from HisWay Event Management Services, a fellow startup incubatee under EV.

UBD Startup Centre (USC) is an initiative under the university that supports UBD startups such as Muappy towards commercialisation while also encourage multi-disciplinary collaboration across all faculty.

ONLINE CAFFEINNOVATION: THE PODCAST EDITION BY DISCOVERY YEAR INCUBATION PROGRAMME STUDENTS

Caffeinnovation is a platform for young student entrepreneurs from UBD Discovery Year Incubation programme to share their thoughts and experiences on entrepreneurship.

In ensuring the health and safety of EV's members amidst the outbreak of COVID-19 virus, the students of UBD DY continued to have the Caffeinnovation sessions through the online conferencing application, Zoom. These sessions are held every Thursday morning and they are held publicly on their Instagram page **@ubdincubation**. On 26th March 2020, the first Online Caffeinnovation was successfully organized with the topic: 'The Survival Plan for Business Start-Ups'. The discussion focused on acknowledging and adapting to a deflating economy and increasingly harsh business conditions due to the advent of social distancing.

In the upcoming Online Caffeinnovation sessions, the discussion will be focusing on the importance of finding innovative ways for startups to conduct businesses and to continually engage with their customers.

The students of UBD DY Incubation, under Entrepreneurship Village (EV), hope to provide their best efforts to facilitate meaningful and interesting discussion in an environment where they can learn and grow to be future thriving entrepreneurs of Brunei Darussalam.

The idea of an online platform fits with the university's effort in implementing online learning and teaching over the years. It is also hoped that by putting the Caffeinnovation platform online, it can help students within and outside of UBD to share and explore entrepreneurship experiences with each other.



The First Online Caffeinnovation Poster

INDUSTRY ENGAGEMENT MEETING WITH BRUNEI SHELL PETROLEUM

On 6th February 2020, the Office of Assistant Vice Chancellor (Innovation and Enterprise) visited Brunei Shell Petroleum (BSP) for an Industry Engagement Meeting. The meeting was attended by Prof. Dr Mohd Ayub Sadiq @ Lin Naing, Assistant Vice Chancellor (Innovation and Enterprise), Pg Dr Emeroylariffion Abas, Deputy Director of Innovation and Enterprise and Harris Ar Rafi Mohd Zaini, Assistant Registrar, Office of Assistant Vice Chancellor (Innovation and Enterprise) from Universiti Brunei Darussalam. BSP was represented by Haziq Lim, Social Investment Lead, Nadiah Kasmadi, Social Investment Advisor, Mariana Omar, Chief Production Geologist, Marian Ledi-Ernest, Graduate Development Advisor, Idrus Puasa, Production Geoscience Discipline Advisor, Hj Rosita Hassan, In-Country Value Manager, Hj Amirul Noeh, Capability Development, Chandran Peringod, Head Production Technology, Md Saifulbahari Md Alinoordin, Business Opportunity Manager (Decommissioning and Restoration), Suriani Garip, External Relations Lead, Hj Rusidah Ibrahim, Head Subsurface Learning, Sofiah Umar, Digitalisation Manager and Ahmad Musaddiq Mohammad, Rotating Engineer.



Group photo with representatives from BSP

In the meeting, Prof. Dr Mohd Ayub Sadiq @ Lin Naing and Pg Dr Emeroylariffion Abas introduced UBD and the Office of Assistant Vice Chancellor (Innovation and Enterprise). UBD also presented and discussed potential collaboration in the areas such as oil spillage, micro pesticide and fertilizer, microbial degradation, fuel adulteration and other green projects. The Industry Engagement meeting aims to ensure there are opportunities for both the Industry and UBD in collaborating to translate into enterprise.

SHELL LIVEWIRE VISIT



Group photo with representatives from LiveWIRE

Shell LiveWIRE Brunei is Brunei Shell Petroleum's flagship enterprise development programme with the objective to strengthen local economies. Some of LiveWIRE's objectives focuses on developing entrepreneurial culture, skills and knowledge and providing access to finance, market linkages, technology and mentoring to local business.

On 10th February 2020, staff from the Office of Assistant Vice Chancellor (Innovation and Enterprise) visited Shell LiveWIRE to further discuss potential collaboration. The visit was hosted by Ms. Rosita Hasan, LiveWIRE Brunei Chairperson, who provided insights on their core business focusing on Entrepreneurship.

The visit provided UBD with an understanding of the different entrepreneurial programmes and projects under LiveWIRE in areas of Agro Biz, Energy transition, Digitalization and Industry 4.0.

UBD STARTUP CENTRE (USC)

USC is a startup incubation centre for UBD alumni and graduating students to take a chance to spin-off their amazing ideas into a successful ventures. UBD Startup Centre (USC) provides a platform and ecosystem for startup growth within the university which includes facilities, co-working space, mentoring and network support. By giving a platform for our alumni, we aim:

- To help rekindle research project ideas with intention to elevate them further.
- To help diffuse the ideas with other student's input from another discipline and with the exposure to the real market's problems and opportunities.
- To promote multidisciplinary projects and culture amongst UBD alumni that aims to create employment through startups
- To guide UBD research work to commercialization in line with the university's vision

For more information, please visit USC's website at: <http://startupcentre.ubd.edu.bn/>



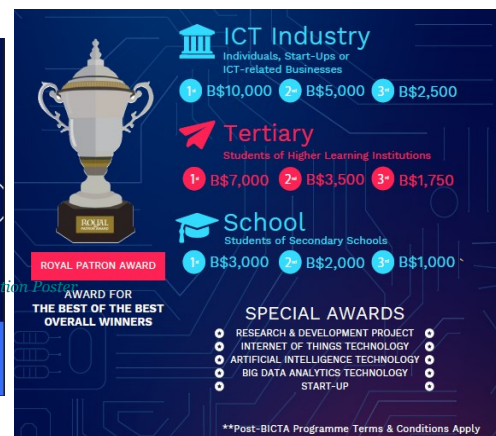
UBD Startup Centre

BRUNEI ICT AWARDS 2020

The Brunei Info-Communication Technology Awards (BICTA) is an annual event organised by the Ministry of Communications to stimulate innovation and creativity in Information and Communications Technology (ICT) industry amongst individual, students and associations including SMEs. It was first introduced in 2004. In conjunction with BICTA, a roadshow was conducted at UBD by the organisers of BICTA to encourage applications. This year's theme is "Smart Nation through Digital Transformation." For further information, visit their website at <http://www.bicta.gov.bn/Theme/index.html>. Students and researchers can contact us for applications or further information regarding BICTA at office.iao@ubd.edu.bn. Registration is now open.



BICTA Awards



LIVEWIRE BRUNEI BUSINESS AWARDS

This event is organized specifically for young and enterprising people in Brunei Darussalam Designed to reward and recognized those who are outstanding in their Business planning and existing business operations. The LiveWIRE Brunei Business Awards programme is an integral part of LiveWIRE International Programme organised around the world. The LiveWIRE Brunei Business Awards is fully funded and is the community flagship of Brunei Shell Petroleum (BSP) Sdn Bhd. For further information, visit their website at <https://livewirebrunei.com/awards>. Students and researchers can contact us for applications or further information regarding this competition at office.iao@ubd.edu.bn.

- To align with LiveWIRE Brunei main stakeholders' focus on Circular Economy and In Country Value opportunities in agrotechnology and innovation.
- Support the development of young entrepreneurs with access to finance, incubation and mentors
- Promote creation of sustainable businesses with available market linkages and the use of technology
- Identify potential businesses for Shell LiveWIRE Top Ten Innovator global competition and to feature export ready alumni for LiveWIRE eShop to help them access global customers



Focus areas



ONLINE MEETING WITH THE HALAL FOOD DIVISION, MINISTRY OF RELIGIOUS AFFAIRS

Discussions on potential collaboration efforts between Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE), Universiti Brunei Darussalam (UBD) and Halal Food Control Division, Ministry of Religious Affairs (MoRA), was held on the 17th March 2020. Due to the restrictions on social gathering during the Covid-19 period, the meeting was held online, via zoom. Leading the meeting on behalf of OAVCIE was Prof Dr. Mohammad Ayub Sadiq (Assistant Vice-Chancellor Innovation & Enterprise), who was joined by Dr Minhaz Uddin Ahmed, research lead for the Bio-Sensor group at UBD, as well as other staff members from OAVCIE. Joining from the Halal Food Control Division were head and officers from the department.

UBD had the chance to share some of their works related to the halal industry; including filed and granted patents, projects and various initiatives. Of particular interest to the Halal Food Control Division were the various sensors that had been developed for the detection of various meats including porcine. Discussions were focused on various modes of collaboration that can be explored between the two entities in the area of teaching, research and sharing of resources. The two entities also exchanged views on the halal industry, particularly in Brunei, as well as future directions.

The meeting provided UBD with an insight into the role of Halal Food Control Division and information on stakeholders in the Halal food industry in Brunei. UBD hopes to move forward with different industries to make the research and development activities at UBD to be more in line with Wawasan 2035.



Video conference between UBD and Halal Food Control Division

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