

FOREWORD

Welcome to the April - September newsletter issue of the Office of Assistant Vice Chancellor (OAVCIE).

Over the recent years, our university has been quite active in filing patent applications, both in the local and international domains. An updated Intellectual Property (IP) Policy has been implemented and put in place in February to further promote awareness on technology and intellectual properties created by the researchers and inventors of Universiti Brunei Darussalam (UBD). IP plays an essential role in the teaching and research functions of a university. UBD has so far filed over 60 patent applications: 35 applications have been granted; and, of those, 28 are granted in the United States. Just this year, five patent applications were granted, and another was filed.

As part of our continued effort in promoting IP awareness, UBD was invited to be part of the speaking panel for the World IP Day (WIPD) hosted online by the Brunei Intellectual Property Office (BruIPO) on 15th August 2020. This year's theme centers around 'green' and environmental innovation.

A talk on patent commercialization and ideation was held for the students of the School of Business and Economics in September to raise awareness of UBD's patented inventions and commercialization efforts.

In support of our university's efforts to diversify and establish network and industry engagement, our office has been unceasingly reaching out to industries and other government sectors to collaborate in key interest areas such as exploring potential for professional development. Just in August, Brunei Shell Petroleum (BSP) gave presentations in UBD to explore potential collaboration with UBD's researchers with regards to their decommissioned oil wells, and digitalization efforts. In late September, our office visited the Department of Scientific Services (DSS), Ministry of Health. This discussion was held to explore sensor research areas particularly in the field of micro-species detection.

In late August, the entrepreneurship arm of OAVCIE, Entrepreneurship Village (EV), invited the Brunei Info-Communication Technology Award (BICTA) working committee to give a presentation to students regarding the BICTA competition which aims to promote creativity within the ICT industry.

The past few months, although trying, had been fruitful for our office. Since the last issue, we saw the first case of Covid-19 in Brunei, and its outbreak and rise. Brunei is now returning to almost operating at 100%. Nevertheless, we are still in the midst of the Covid-19 pandemic and we wish for everyone to always stay safe and keep vigilant.

Thank you and best wishes!

Rahmah Ali



IN THIS ISSUE

Foreword1
BSP D&R Engagement2
IP Policy Webinar2
World Intellectual Property Day3
BSP Digitalisation Team Presentation 3
Patent Education4
Industry Engagement with RAB Green SDN BHD5
BICTA Roadshow at Entrepreneurship Village (EV), UBD5
Granted Patent Applications6
Industry Engagement with Department of Scientific Services
Patent Commercialization and Ideation Talk7
New Breadth Module7
Change in Staff in OAVCIE8

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.



BSP D&R ENGAGEMENT

On 20th July 2020, Brunei Shell Petroleum (BSP) Decommissioning and Restoration (D and R) team was invited to speak at Universiti Brunei Darussalam (UBD). The talk titled "BSP Decommissioning and Restoration (D and R) Phase 1 Engagement #1 with Universiti Brunei Darussalam" was held at the Institute of Health Sciences. The seminar was hosted by the Office Assistant Vice Chancellor Innovation and Enterprise. The aim of the seminar was to explore potential industrial research between BSP and UBD. In attendance were deans, researchers, and head of departments from faculties and departments from UBD.

One of the functions of the BSP D and R division is to look into the ageing facilities that are out of order. Some of the dilemmas faced by the D and R industry include cost of removal, facility waste management, legislation change, and environmental consideration. The proposed projects they put forward include Coral Interaction between Oil and Gas Infrastructures, Groundwater Sampling for Onshore Seria and Baseline Studies for Comparative Assessment.



IP POLICY WEBINAR

On 29th July and 5th August 2020, a webinar was held to talk about the implementation of Universiti Brunei Darussalam's (UBD) Intellectual Property (IP) Policy. The speakers were Siti Nor Rahmah Md Haider Ali, Hasnah binti Hassan, and Dr Nagender Anejafrom the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE).

UBD IP Policy 2010 has provided a beneficial environment to students, researchers, and faculty members to promote technology and Intellectual Property. UBD has filed over 60 patents. Based on feedback from faculty members and considering the recent trends in research and collaboration, OAVCIE 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 commercialisation of IP by engaging enablers in addition to creators.



WORLD INETELLECTUAL PROPERTY DAY

World Intellectual Property Day (WIPD) is celebrated annually on April 26. This year, the Brunei Intellectual Property Office (BruIPO) celebrates World Intellectual Property Day 2020 on 15th August with the theme "Innovate for A Green Future." BruIPO held a webinar and invited speakers from UBD to give presentations with the theme Patent Green not Patent Evergreen.

UBD invited Rabiatul Adawiyah from RAB Global Green, Haji Mohammad Redza from Smart Coating Technologies, and Afiq Mohammed from LiveWIRE Brunei to present during the session, and moderating the event was Ameerah Safiah. The topics presented were Target to Be A Net Zero Building, Anti-Mold Photocatalytic Coating, and Supporting Innovation and Entrepreneurship Amongst Youth in Brunei.



BSP DIGITALISATION TEAM PRESENTATION

The Brunei Shell Petroleum Digitalisation team was invited to do a presentation on 19th August 2020 at Universiti Brunei Darussalam. The talk was held at the Institute of Health Sciences. It was attended by researchers and post graduate students from Faculty of Science and Faculty of Integrated Technologies. During the event, the Digitalisation team shared their current and future projects that they are currently working on and are looking into. They also shared their digital transformation journey and their digitalisation efforts. Digital projects in BSP are carried out in three stages: Ideation, execution, and scaling up or replication. The topics that were presented included Automated Geophysical Analysis, Automated Pipeline Routing and Predicting Abnormality in Equipment Operating Condition Generate Prediction Model.

The aim of the talk was to explore potential collaboration and projects between UBD and BSP that align with the digitalisation efforts of the nation.



Patent Education

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Is it possible to get a worldwide patent?

No. There is no one patent that covers every country in the world. The patent system is a territorial system. In order to be protected in a particular country, a patent has to be granted in that country. The Patent Cooperation Treaty (PCT) application, which provides for the filing of a single international application can become a multitude of national applications, but not actual patents, and they are then examined in each of the countries designated.

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To file a patent, among other things there is the cost of all the examinations of the same invention that have to be conducted in different countries under present arrangements, the cost of translation and the cost of maintaining a patent. To keep a patent in force, an annual fee has to be paid, which can be quite substantial. On top of that, the maintenance fees have to be paid annually for each of the country where a patent is registered. Failing to do so would mean the loss of the protection of the patent in that country.

Are patents costly?

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Is there another way to protect an invention?

The patent is the most effective way of protecting an invention. Another effective way of obtaining protection is to keep the technology secret, and to rely on what is referred to as **trade secrets**, to keep information concerning the invention confidential. The disadvantage of that method is once the product is put on the market and can be dismantled, the secrets can be learned merely by looking at the product, and the trade secret protection is lost. With a patent, it does not matter whether someone else knows how to make the product, as long as it is patented, the product will be protected.

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Trade secrets protect the know-how and technical expertise, for example, to use particular information in the most useful ways. For example, Coca-Cola® has done this for over 100 years and as long as it continues to successfully maintain the secrecy of its formula, then the intellectual property protection will endure even longer than would a patent.

What is trade secret protection?

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INDUSTRY ENGAGEMENT WITH RAB GREEN SDN BHD

On 26th August 2020, the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) headed by Professor Dr. Mohd Ayub Sadiq visited RAB Global Green Sdn Bhd factory at Muara. OAVCIE was hosted by CEO of Global RAB Green Sdn Bhd, Rabiatul Adawiyah, and her team. During the visit, they showed their newly built green concept factory along with products they manufactured.

Some of the products showcased were their new agent fire extinguishers, aquaponic system, solar panels and Chromatic sealing self-illuminating Solar PV module, a patented product by Global RAB Green Sdn Bhd.

The Chromatic sealing self-illuminating Solar PV module patent aims to promote awareness on the usage of solar panels. The energy-saving solar panels can be made available off-the-shelf to promote sustainability and affordability. The solar panels are coated with colored design where it can be used for aesthetic and promotional purposes while at the same time generating power.

OAVCIE and RAB Global Green Sdn Bhd exchange ideas on potential collaboration. Discussions were focused on various related areas to sustainability, research, teaching and entrepreneurship.



BICTA ROADSHOW AT ENTREPRENEURSHIP VILLAGE (EV), UBD

On the 27th August 2020, the Brunei Info-Communication Technology Awards (BICTA) Roadshow visited Entrepreneurship Village (EV), Universiti Brunei Darussalam (UBD) to provide students with the opportunity to join the next BICTA award competition. BICTA is known for its advocacy on innovation, a platform that provides opportunities for local aspiring Bruneians with creativity within the ICT industry. One of BICTA's aim is to productively make use of the rapidly growing new digital technologies by the year 2035; achieving Brunei's national vision.

Over 30 UBD students attended the BICTA roadshow, to know more on the opportunity to participate in the upcoming competition specifically in the tertiary award project category. During the sharing session, Pg Sarimah bte Pg Hj Abdul Latiff from SUHBE.CO and Mohd Jamil bin Hj Abd. Jalil from Authority for Info-Communications Technology Industry of Brunei Darussalam (AITI), provided the students with insights into the realm of local entrepreneur industries. Students were briefed on the essentials characteristics of being a young aspiring entrepreneur; to come up with a valid solution to the problems within the local community by efficiently and effectively utilizing their ICT knowledge. UBD students were truly inspired and encouraged by BICTA's movement, 'Smart Nation Through Digital Transformation' enabling them to proudly move forward with 'clearentreprenuer' vision without the fear of failing, but with the courage

of technology innovation.



BICTA is an annual event co-organized by the Ministry of Transport and Info-Communication, AITI and InfoCom Federation Brunei (IFB), to stimulate innovation and creativity in ICT industry amongst individual, students and associations including SMEs. UBD encourages its students and staffs to bring forth their innovative ICT projects for the BICTA competition. Please contact the Office of Assistant Vice-Chancellor Innovation and Enterprise (OAVCIE) on office.ieo@ubd.edu.bn for more information on the BICTA competition, or to find out how UBD can support you in the competition.



APR-SEPT 2020 GRANTED PATENT APPLICATIONS

U44: Medicated Patch for Preventing Exit Site Infections During Peritoneal Dialysis

Applications: A medicated patch for patients includes a medication layer containing a medication therein, and a backing film disposed on one side of the medication layer. The patch also includes a skin adhesive layer disposed beneath the medication layer; and a protective liner disposed beneath the skin adhesive layer. The patch is placed on a catheter by applying pressure to skin of a subject after insertion of the catheter therein, thereby holding the catheter and the medication diffusing into the skin prevents an exit site of infection.

Inventors: Sheba Rani Nakka David; Rajan Rajabalaya

Granted | 15th Sept '20 Filed | 08th Aug '17

U40: PROTON CONDUCTING ELECTROLYTE

Applications: Proton conducting oxide electrolytes for solid oxide fuel cells has got considerable interest for its capability of intermediate temperature operation which solve the problems like materials degradation, prolong the lifetime and reduced cost by reducing the operating temperature of SOFCs from 900 oC to 600 oC. The invention discloses a new proton conducting material, which shows highest power density at 600 degree C.

Inventors: Abul Kalam Azad; Mohamad Iskandar Petra; Nikdalila Radenahmad

Granted| 14th Jul '20 Filed|8th Aug '17

U34: COMPOSITION FOR A ROOFING MATERIAL

Applications: The invention provides a roofing material and applying the roofing material using specific angles to deflect infra-red rays. The method of applying roofing material provides aesthetically nice finish and saves energy costs.

Inventors: Toru Kitamura; Nur Fajrini Binti Matjalina; Nursyahidah Husna Binti Haji Tarip; Haji Muhammad Redza Bin Haji Hussin; Mohammad Zul Amali Bin Haji Mahri

Granted | 5th May '20 Filed | 27th Oct '14

U24: REDUCING CONVERSION LOSSES AND MINIMIZING LOAD VIA APPLIANCE LEVEL DISTRIBUTED STORAGE

Applications: The invention identify an alternating current power source associated with a direct current-powered device and determines a storage scheme for storing direct current power.

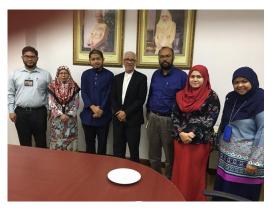
Inventors: Zainul Charbiwala; Sunil Ghai; Devasenapathi P. Seetharamakrish; Swarnalatha Mylavarapu; Jimmy Lim Chee Ming

Granted| 21st Apr '20 Filed|11th Jun '13



INDUSTRY ENGAGEMENT WITH DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

On 29th August 2020, the Office of Assistant Vice Chancellor (Innovation & Enterprise), Universiti Brunei Darussalam had an engagement meeting with Officers from the Department of Scientific Services (DSS) under the Ministry of Health. The meeting was



hosted by Hjh Rahimah bte Hj Hanafi, Director of DSS, with her teams; Pg Hjh Sofiah bte Pg Hj Bakar (Quality Manager) and Nur Nisrinah Hj Yusof (Head of Food Chemistry section). The delegation from OAVCIE was led by Prof. Dr. Mohammad Ayub Sadiq, Assistant Vice Chancellor (Innovation & Enterprise) and accompanied by Assoc. Prof. Minhaz Uddin Ahmed, lead researcher of the biosensor group as well as other OAVCIE staff members.

During the meeting, UBD presented several potential collaborations especially in the field of Halal sensor for the detection of porcine in food products, and how the two entities can work together for the mutual benefits of both parties. Though focusing on halal sensor development, both parties also explored other collaborations in research and development, development of UBD patents as well as teaching and learning.

PATENT COMMERCIALIZATION AND IDEATION TALK

On 9th September 2020, a talk to introduce UBD patents was held for students from the UBD School of Business and Economics (UBDSBE) and incubates from the Entrepreneurship Village (EV), by the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE). The talk was led by Mr Lim Kok Shien, Deputy Director of OAVCIE and head of EV/USC, and was presented by Hasnah Hassan, Siti Nor Rahmah Ali and Dr Nagender Aneja from OAVCIE. The aim of the talk is to introduce the university's patents to the students for the purpose of commercialization ideation. Commercializing and placing patented inventions out in the market is one of the challenges faced by many inventors. Many patented inventions do not go into the market once it is granted. Universiti Brunei Darussalam has over 60 filed patent applications. By raising awareness and involving multiple disciplines, it is hoped that more patented inventions will commercialize and thus, raise motivation for more patent commercial success.



NEW BREADTH MODULE



For the August-December 2020 semester, the Faculty of Integrated Technologies in collaboration with the Office of Assistant Vice Chancellor (Innovation and Enterprise), is introducing a new breadth module, GE-2405: Intellectual Property Rights module. The module is open to all UBD students, specifically targeting students from FIT, FOS, UBDSBE and FASS. OAVCIE expects to run the new breadth module every semester.

This module is an introductory module which aims to cover the fundamentals behind Intellectual Property Rights (IPRs) within a multidisciplinary context consisting of research, development and innovation, entrepreneurship and legal perspective. Details of the module can be found at http://innovation.ubd.edu.bn/iprmodule.



APR-SEPT 2020 RECENTLY FILED PATENT APPLICATIONS

U82: A PROTONIC CERAMIC FUEL CELL AND ELECTROLYTE

Applications: The present invention relates to a solid oxide fuel cell especially protonic ceramic fuel cell which can operate at intermediate temperature and fuel cell thereof

Inventors: Abul Kalam Azad; Ahmed Afif bin Abedin; Sumon Reza; Shahzad Hossain; Juliana Zaini

Filed 31st Aug '20

CHANGE IN STAFF IN OAVCIE

The second half of 2020 saw a change in the staff at the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE). We said farewell to Adna Shatriremie bin Hj A. Abd Rahman, who had been transferred to the Ministry of Education, Brunei Darusslam, to head their newly established Entrepreneurship Innovation Centre. The office welcomes Mr Lim Kok Shien, as Deputy director of Innovation and Enterprise, and head of Entrepreneurship Village and UBD Startup Centre.

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