جامعة الأميرة
نورة بنت عبدالرحمن
وكالة الجامعة للتطوير والجودة

قصص واو نيوز

ديسمبر ٢٠٢٠

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مجلة واو نيوز

هي نشرة إخبارية ربع سنوية تعرض الإنجازات الأكاديمية للجامعات التي تعتبر استثنائية وفريدة من نوعها.

أنواع القصص القابلة للنشر

- إنجازات الجامعة والطلاب وهيئة التدريس.
- الشراكات الجديدة.
- البرامج الجديدة.
- الفعاليات والأحداث.
- البحث ، إلخ.

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عدد الصفحات المطلوبة للقصص

- من عمود واحد إلى صفحتين.

WOWNews | 32 Asia & Oceania

Thammasat University wins World Innovation Award 'ReArm' that benefits ALS patients

ReArm Innovation and ALS Patients

Thailand - Thammasat University's 'ReArm' team achieved the Merit Award (Technology) and Best Prototype from the Global Student Innovation Challenge competition in International Convention on Rehabilitation Engineering and Assistive Technology or i-CREATe 2019 organized from 26 to 29 August 2019 at Canberra, Australia.

The 'ReArm' innovation serves as a new hope for hemiplegia and ALS patients as this new physical therapy method proved to be more economical and effective.

Asst.Prof.Dr. Banyong Rungroungdouyboon, Chief of Center of Excellence in Creative Engineering Design and Development and Chief of Mechanical Department, Faculty of Engineering, TU, revealed that ReArm is a rehabilitation and physical therapy innovation for patients with ALS and hemiplegia after stroke. It has an outstanding mechanism design that is more effective and lightweight as compared to other medical facilities. It also saves cost and time as patients do not have to visit hospitals or clinics for physical therapy.

"'ReArm' is suitable for patients with ALS and hemiplegia needs as it allows them to raise their arms and fingers more easily. The device is also portable hence it does not hinder their physical mobility. Theoretically, 'ReArm' helps patients rehabilitate and recuperate better."

Asst. Prof. Dr. Banyong also said that this award demonstrated the success of knowledge integration of research work and innovation between engineering, allied health science and physical therapy. Over 40 innovations by 10 countries were presented at the competition event including those from Sweden, Australia, Singapore, Japan and Hong Kong.

The 'ReArm' team consists of TU's fourth-year students from its Mechanical department, including Mr. Rom Panitchkul, Mr. Anas Supakpisarn and Mr. Sirapob Charoenpinyoing and Ms. Wakanari Ngarmdencharoensri, a physical therapist and a medical engineer.

Mr. Rom Panitchkul, a representative of 'ReArm' team stated that this innovation surfaced from our interest in patients who have suffered from a stroke. We visited hospitals and clinics to gain real experience about physical therapy and witnessed the extensive recuperative period for patients with ALS. Even when they get better, these patients do not seek physical therapy at the hospital because it is an expensive process. Therefore, the 'ReArm' technology is created to help better support the patients' arms and they are able to carry out physical therapy at home. 'ReArm' is lightweight weighing at four kilos and can be portable or fixed to a table for certain purposes.

"We are honored to represent Thailand in the participation of this competition. We would also like to thank Thammasat University and the physical therapist team for giving us the support in the creative innovation work of putting together this ReArm technology."

UTB receives first prize at Kingdom of Saudi Arabia Award for Environmental Management (KSAAEM) in the Islamic world

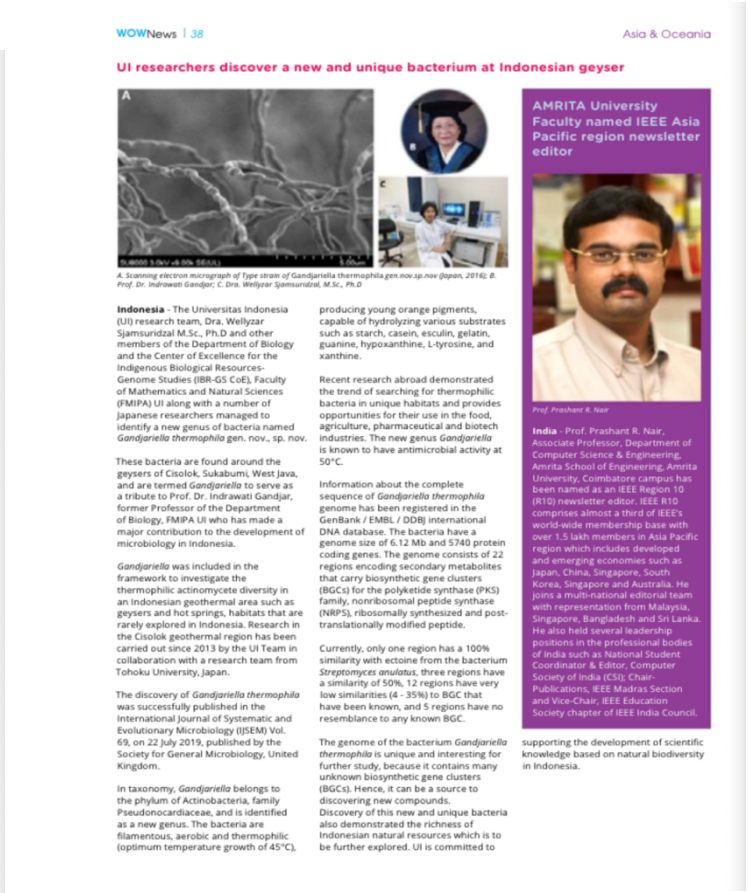
Assistant Vice-Chancellor (Academic), Dr. Hajah Noor Maya binti Haji Md Salleh receiving the award on behalf of UTB

Brunei - Universiti Teknologi Brunei (UTB) has received first prize under the category 'Best Non-Government Organisations (NGO)'s Leading Practices' at the Kingdom of Saudi Arabia Award for Environmental Management (KSAAEM) in the Islamic World for 2018-2019. The award was granted by the General Authority of Meteorology and Environmental Protection in the Kingdom of Saudi Arabia and ISESCO.

The winning project, entitled "Mitigating Floods and Fire Hazards in Forestry Using Internet of Things (IoT) System in Brunei Darussalam", attempts to use the IoT system in Brunei particularly in the peatland area to tackle forest fire. Since a few years back, peatland forest fires have been occurring in the Belait District over the Badas area caused by human activities. This can potentially disrupt the ecosystem that may lead to the degradation of peatland forest which becomes prone to fire, given the right conditions.

The project proposed a peatland fire prevention mechanism where it artificially keeps fire-prone peatland areas wet during prolonged dry climate to reduce the risks of forest fires. A detection sensor is used to monitor water level in the peatland areas. If excessive dryness is detected, the system will respond by releasing water from the dam to wet the soil drying. On the other hand, if the water is found to be excessive, the system will drain the water to avoid flooding.

The prestigious award was presented at an opening ceremony of the 8th Islamic Conference of Environment Ministers held at the Islamic Educational, Scientific and Cultural Organisation (ISESCO) Headquarters in Rabat, Morocco. Present to receive the award worth USD$30,000 on behalf of UTB was Yang Mulia Dayang Dr. Hajah Noor Maya binti Haji Md Salleh, Assistant Vice-Chancellor (Academic). Sixteen other recipients from 13 Islamic countries also received their awards at the ceremony.



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UI researchers discover a new and unique bacterium at Indonesian geyser

A. Scanning electron micrograph of Type strain of Gandjariella thermophila gen.nov.sp.nov (Japan, 2016); B. Prof. Dr. Indrawati Gandjar; C. Dra. Wellyzar Sjamsuridzal, M.Sc., Ph.D

Indonesia - The Universitas Indonesia (UI) research team, Dra. Wellyzar Sjamsuridzal M.Sc., Ph.D and other members of the Department of Biology and the Center of Excellence for the Indigenous Biological Resources-Genome Studies (IBR-GS CoE), Faculty of Mathematics and Natural Sciences (FMIPA) UI along with a number of Japanese researchers managed to identify a new genus of bacteria named *Gandjariella thermophila* gen. nov., sp. nov.

These bacteria are found around the geysers of Cisolok, Sukabumi, West Java, and are termed *Gandjariella* to serve as a tribute to Prof. Dr. Indrawati Gandjar, former Professor of the Department of Biology, FMIPA UI who has made a major contribution to the development of microbiology in Indonesia.

Gandjariella was included in the framework to investigate the thermophilic actinomycete diversity in an Indonesian geothermal area such as geysers and hot springs, habitats that are rarely explored in Indonesia. Research in the Cisolok geothermal region has been carried out since 2013 by the UI Team in collaboration with a research team from Tohoku University, Japan.

The discovery of *Gandjariella thermophila* was successfully published in the International Journal of Systematic and Evolutionary Microbiology (IJSEM) Vol. 69, on 22 July 2019, published by the Society for General Microbiology, United Kingdom.

In taxonomy, *Gandjariella* belongs to the phylum of Actinobacteria, family Pseudonocardiaceae, and is identified as a new genus. The bacteria are filamentous, aerobic and thermophilic (optimum temperature growth of 45°C), producing young orange pigments, capable of hydrolyzing various substrates such as starch, casein, esculin, gelatin, guanine, hypoxanthine, L-tyrosine, and xanthine.

Recent research abroad demonstrated the trend of searching for thermophilic bacteria in unique habitats and provides opportunities for their use in the food, agriculture, pharmaceutical and biotech industries. The new genus *Gandjariella* is known to have antimicrobial activity at 50°C.

Information about the complete sequence of *Gandjariella thermophila* genome has been registered in the GenBank / EMBL / DDBJ international DNA database. The bacteria have a genome size of 6.12 Mb and 5740 protein coding genes. The genome consists of 22 regions encoding secondary metabolites that carry biosynthetic gene clusters (BGCs) for the polyketide synthase (PKS) family, nonribosomal peptide synthase (NRPS), ribosomally synthesized and post-translationally modified peptide.

Currently, only one region has a 100% similarity with ectoine from the bacterium *Streptomyces anulatus*, three regions have a similarity of 50%, 12 regions have very low similarities (4 - 35%) to BGC that have been known, and 5 regions have no resemblance to any known BGC.

The genome of the bacterium *Gandjariella thermophila* is unique and interesting for further study, because it contains many unknown biosynthetic gene clusters (BGCs). Hence, it can be a source to discovering new compounds. Discovery of this new and unique bacteria also demonstrated the richness of Indonesian natural resources which is to be further explored. UI is committed to supporting the development of scientific knowledge based on natural biodiversity in Indonesia.

AMRITA University Faculty named IEEE Asia Pacific region newsletter editor

Prof. Prashant R. Nair

India - Prof. Prashant R. Nair, Associate Professor, Department of Computer Science & Engineering, Amrita School of Engineering, Amrita University, Coimbatore campus has been named as an IEEE Region 10 (R10) newsletter editor. IEEE R10 comprises almost a third of IEEE's world-wide membership base with over 1.5 lakh members in Asia Pacific region which includes developed and emerging economies such as Japan, China, Singapore, South Korea, Singapore and Australia. He joins a multi-national editorial team with representation from Malaysia, Singapore, Bangladesh and Sri Lanka. He also held several leadership positions in the professional bodies of India such as National Student Coordinator & Editor, Computer Society of India (CSI); Chair-Publications, IEEE Madras Section and Vice-Chair, IEEE Education Society chapter of IEEE India Council.

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كيفية جمع القصص:

١- يتم استخدام النموذج الموصى به (في الصفحة المقبلة).

٢- ترسل كل جهة النموذج إلى جميع أعضائها لتوثيق القصص الشخصية والإنجازات للطلاب والموظفين.

٣- يتم اعتماد القصص المتعلقة بالإنجازات والشراكات والمنتديات من قبل كل جهة.

٤- يتم إرسال هذه القصص عبر البريد الإلكتروني إلى وكالة الجامعة للتطوير والجودة، حيث سيتم تصفيتها ونشرها من قبل إدارة الهوية والسمعة المؤسسية بالتعاون مع وحدة التصنيفات الدولية.

WOWNEWS

نموذج ١

عنوان القصة

ماذا حدث؟ ماذا كان الغرض؟

من كان مشاركاً؟ أسماء الأفراد.

تاريخ ومكان الحدث.

الإنجازات.

شكر للجهات الراعية: الكلية ،

العمادة/ وكالة الجامعة، والإدارة العليا.

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نموذج ٢

التأكد من ملكية حقوق الطبع والنشر للصورة + جودة عالية الدقة

العنوان

Curabitur: Sociis natoque penatibus et magnis dis parturient montes.

ماذا حدث؟ ماذا كان الغرض؟
تشمل: الأسماء والتاريخ والمكان

En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.En hiver, il fait froid en France. Le soleil se lève tard. Il fait encore nuit quand je vais au travail. Parfois, il y a même de la neige.

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الإنجازات

Continued...

الشكر

جامعة الأميرة نورة بنت عبدالرحمن
Princess Nourah bint Abdulrahman University

وكالة الجامعة للتطوير والجودة
vdq@pnu.edu.sa

إدارة الهوية والسمعة المؤسسية
vdq-aui@pnu.edu.sa

وحدة التصنيفات الدولية
vdq-wru@pnu.edu.sa