UB NEWS LETTER

UNIVERSITAS BRAWIJAYA

July - September 2021

Kampus Merdeka
INDONESIA JAYA

Be Patient and Keep Achieving

*C*orona virus has been hit the world for about two years, including Indonesia. During the pandemic, we must also be patient. But not mean patience without activities and achievements. UB still achieves achievements. The position of UB in the Webometrics Ranking at the end of July 2021 rose to 4th than the previously was 5th rank.

In this edition news three students of the Faculty of Animal Husbandry made a rabbit pellet feed product made from rumen waste. HERBI Feed is a complete feed product for broiler rabbits which is substituted with beef rumen contents from slaughterhouse waste as an alternative source of crude fiber.

Here, we also present news about the elephant foot yam (Amorphophallus muelleri), That is one of the agricultural commodities with high levels of glucomannan, therefore it is suitable to be made a healthy food product such as biscuits. The elephant foot yam into healthy food products that have a selling value such as healthy biscuits for pregnant women. Five students who made biscuits for pregnant women from elephant foot yam named Amora Pregnancy Biscuit.

We also published a digital map application specifically designed for the visually impaired person called UBblindmap. This map is an application based on a UB map area which will later be released on the Google Play Store and can be downloaded by everyone. During the pandemic, the intensive care unit/ICU where critical patients who need various life support devices are placed. One of these life support devices is a urinary catheter, a device that helps patients excrete urine.

Finally, this newsletter presents the five UB students was created an IoT-integrated urinary catheter for ICU patients in the hospitals. With the creation of this automatic urinary evaluation catheter. It is hoped that the workload of health workers can be reduced so that they can allocate their time and energy in doing other things with higher urgency.

Enjoy with this newsletter, good luck!
(Humas/Mondry)

UB is Ranked 401+ in ASIA

Adharul Mutaqqin, S.T., M.T.,

Universitas Brawijaya (UB) is ranked 401+ universities in Asia or the 6th position of universities in Indonesia according to the Times Higher Education (THE) version.

Head of International Ranking, Adharul Mutaqqin, S.T., M.T., explained that UB position released by THE this year has not changed or is the same as the previous year.

"The ranking released by THE this time is the same as in 2020 at 401+. THE releases this ranking every year," he said.

Adharul added that there are five pillars that influence THE ranking, namely teaching, research, citation, industry income, and international outlook.

Industrial Income is the amount of funds received by UB related to research and down-streaming that has been done.

International Outlook is an international perspective on UB, how they view the quality of UB.

The quality can be seen from the lecturers, international collaboration or cooperation, publications, and also the interest of international students to study at UB.

Therefore, the more networks that are made with international partners, the more they will increase their appreciation so that they will be interested in coming to UB.

Adharul hopes that by looking at the score of this indicator, it can be an effort to improve priority programs carried out by UB.

"For example, in the research, we hope to be better by optimizing UB great resources," he said.

Meanwhile, six universities in Indonesia are above UB, namely, UI, ITB, UGM, IPB, and ITS. **(OKY/Humas UB/ Trans. Iir).**

MORISTIN,
A Natural Body Lotion to Prevent COVID-19

Five students of the Faculty of Fisheries and Marine Sciences Universitas Brawijaya (FPIK UB) were inspired to make a body lotion that can prevent COVID-19.

Indri Dwi Fitria, Rani Elvira, Jamiilah Zahrotul Jannah, Kevin, and Alfain Homis Fadil. Under the guidance of Muhammad Fakhri, S.Pi, M.P, M.Sc., they made the body lotion because they were inspired by the widespread use of hand sanitizer which actually causes dehydration of skin so that it becomes dry.

Body lotion is still the solution for most people since it has benefits for moisturizing and nourishing the skin. However, the use of synthetic ingredients such as butylated hydroxytoluene (BHT) and parabens in body lotions has a negative effect in long-term use and has been proven to be toxic and carcinogenic.

To overcome this problem, the five students made a body lotion by utilizing flavonoid content in moringa leaves and skin collagen from Catfish named MORISTIN.

"The content of moringa leaves such as apiin, epicatechin and hesperetin which has a good affinity for the active site of ACE2 (Angiotensin Converting Enzyme 2), can inhibit the interaction process of SARS-Cov-2. In addition, collagen from catfish skin can be used to prevent premature aging, prevent wrinkles, moisturize the skin and increase skin elasticity," said one member of the team, Indri.

MORISTIN is a skin care that is safe, healthy, and provides more protection as well as not causing side effects when it used regularly.

MORISTIN is formulated as an antiseptic body lotion that is rich in antioxidants, able to make the skin moist and

healthy, protect from UV rays and avoid the threat of bacteria and viruses.

MORISTIN comes in three variants including Orange Fresh, Choco Melt, and Vanilla Sweet which are packaged in two sizes that are 250 ml at a price of Rp. 50,000 per bottle and 60 ml at a price of Rp. 15,000 per bottle.

MORISTIN is now spread commercially in online stores, namely Shopee (@moristin.id) and Tokopedia (moristin_id). In addition to the platform of online sales, MORISTIN is also present on the active Instagram page (@moristin.id) so that buyers can find out the latest info of the product.

"With the presence of MORISTIN body lotion product, it is hoped that it will attract public interest to continue implementing health protocols and taking care of themselves during this pandemic without having to worry about the side effects of using body lotion products regularly," Indri added.

MORISTIN has succeeded in obtaining research funding from the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia in the Student Creativity Week in the field of Entrepreneurship in 2021. **(IND/Humas UB/ Trans. Iir).**

Anti- Nausea Biscuit for Pregnant Women Achieves International Award

Biskuit Amora
Tersedia rasa
Original & Coklat

Elephant foot yam (Amorphophallus muelleri) is one of the agricultural commodities with high levels of glucomannan. Glucomannan is a polysaccharide compound which is useful for reducing cholesterol, accelerating satiety and slowing stomach emptying, therefore it is suitable to be made a healthy food product such as biscuits.

In Indonesia, the use of elephant foot yam in food products is still very minimal.

In addition, its market is still dominated for export needs.

Therefore, an effort is needed to process the elephant foot yam into healthy food products that have a selling value such as healthy biscuits for pregnant women.

Five students of Universitas Brawijaya (UB) consisting of M Ahmad Talkhis, Nabilla Alya Anastasya, Farida Lutfiya Azizah, Fatih Meru Samudera and Vio Awan Nur Hidayat under the guidance of Dr. Lilik Wahyuni, M.Pd made biscuits for pregnant women from elephant foot yam named Amora Pregnancy Biscuit.

Amora Pregnancy Biscuit is a processed product from elephant foot yam as a form of food diversification in the form of biscuits as complementary food for pregnant women.

The polysaccharide compounds in Amora Pregnancy Biscuit can be used as a medium and long-term energy source so that it can help pregnant women to be full longer and suppress stomach acid which can reduce nausea and vomiting to prevent hyperemesis gravidarium.

By consuming Amora Pregnancy Biscuit, pregnant women can avoid dehydration which is dangerous for the mother and fetus.

In addition, through the presence of the Amora Pregnancy product, it is hoped that it can be an enlightenment for farmers because the increasing demand for elephant foot yam as basic ingredients is expected to increase the opportunity to increase the selling value of elephant foot yam so that it can improve the farmer's economy.

Amora Pregnancy Biscuits is an innovation of the Student Creativity Program (PKM) organized by the Directorate General of Learning and Student Affairs of the Ministry of Research, Technology and Higher Education of the Republic of Indonesia.

Amora pregnancy biscuit product innovation has won a silver medal at the international Korean Women's Invention Exposition (KIWIE) 2021.

It is hoped that this achievement will make Amora Pregnancy Biscuit not only known in Indonesia but also internationally and will have the opportunity to take part in the 34th National Student Scientific Week (PIMNAS) in 2021.

Currently Amora Pregnancy Biscuit is sold at a price of Rp. 20,000. And for purchases, you can go through the following platforms, @Amora_biscuit (IG), Amorapregnancy_indonesia (shopee) or via WA 085606301662. **(AHM/Humas UB/ Trans. Iir).**

Amora Pregnancy Biscuit: Upaya Optimalisasi Manfaat Ekonomis Porang sebagai Produk Pangan Sehat bagi Ibu Hamil

Smart CCTV COVID-19 Helps Detecting Violators of Health Protocols

Five students from Universitas Brawijaya (UB), Alfian Fitrayansyah (FT'19), Affan Affandi (FT'18), Akmal Adnan Attamami (FMIPA'18), Muchammad Nasyruddin Hakim (FT'18), and Muhammad Lutfi Ardiansyah (FPIK'18) under the guidance of Raden Arief Setyawan, ST., MT. making innovation "Smart Mapping System for The Potential Spread of COVID-19 via CCTV on The Road Based on Computer Vision and Artificial Intelligence, Integrated with Vehicle Number Data".

The creation of the CCTV started from the team's anxiety of seeing the increasing number of COVID-19 cases while public awareness of the implementation of the Large-Scale Social Restrictions (PSBB) rules, in the use of masks, was still lack.

By utilizing Artificial Intelligence (AI) technology combined with CCTV technology, this innovation is believed to be able to assist in handling cases of the spread of COVID-19 by capturing the faces and license plates of motorcycle drivers who violate health protocols.

"The photo of the violator's license plate can be used to track the identity of the violator through the license plate ownership data. After obtaining the identity of the violator, then the data is synchronized with the SIM data to check the address of the driver. The next process is mapping the address on the identity obtained as an area that has the potential for COVID-19 because one of the people does not comply with the health protocol while on the road. After mapping out areas with the potential for COVID-19, the government can take preventive actions in those areas, such as conducting socialization, or even imposing sanctions to violators," said one team member, Nasyruddin Hakim from Civil Engineering.

This solution can help the government in determining policies without waiting for data on the high number of areas affected by Covid-19 cases. By mapping the distribution of areas potentially affected by Covid-19, the government can take preventive actions before the high number of Covid-19 cases in the area, such as conducting counseling and providing strict sanctions specifically for the area.

After passing through various file selections and presentations in front of the jury, Smart COVID-19 won the Gold Medal Awards at the 2021 International Invention Competition For Young Moslem Scientists (IICYMS), which was attended by around 157 teams from 15 countries. In addition, they also received Special Awards from Malaysia Innovation, Invention and Creativity Association (MIICA).

"With this innovation, it is hoped that it will have impact on increasing public compliance with health protocols and can prevent the early spread of COVID-19," said Alfian. **(NH/Humas UB/ Trans. Iir).**

KATALIS,
an Automatic Urinary Catheter that Reduce the Burden of Health Workers in the Pandemic

During the current pandemic, the burden of health workers in Indonesia has definitely increased significantly, especially in the intensive care unit/ICU where critical patients who need various life support devices are placed.

One of these life support devices is a urinary catheter, a device that helps patients excrete urine.

With the presence of a urinary catheter, health workers can early detect diseases that may occur in patients.
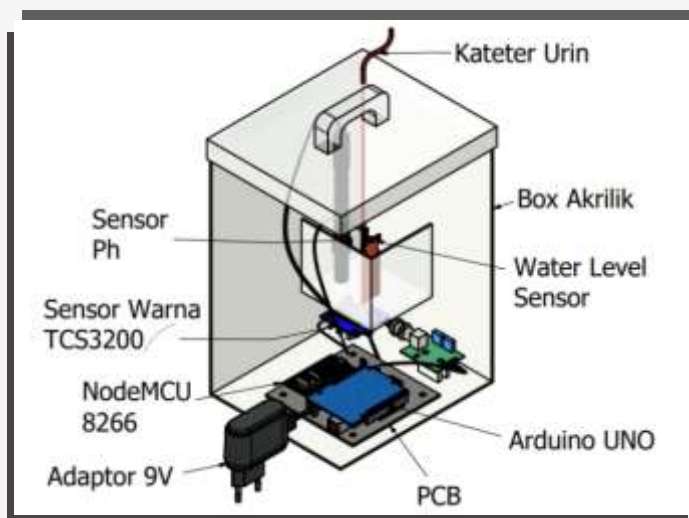
However, unfortunately limited ICU health personnel must monitor urinary catheters in real-time.

With this background, five Universitas Brawijaya students who are members of the Student Creativity Program- Creative Initiative (PKM-KC) team consist of Maghfira Rahma Azizah (FK), Indira Swastika Utama (FK), Aliifah Hanantika (FK), Muhammad Rizky Akbar (FT).), and Muhammad Fawwaz Islami (Vocational) under the guidance of Dr. Yulian Wiji Utami, S.Kp., M.Kes, created an IoT-integrated urinary catheter for ICU patients in hospitals.

"Monitoring urine output by health workers on patients during the pandemic is very inefficient. With the creation of this automatic urinary evaluation catheter, it is hoped that the workload of health workers can be reduced so that they can allocate their time and energy in doing other things with higher urgency," said one of the team members, Maghfira.

KATALIS has advantages over other advanced catheters, in which it has three sensors to monitor changes in color, volume, and pH in the patient's urine in real-time.

With KATALIS, health workers can monitor changes in urine in patients without having to approach patients one by one directly as is usually done.

KATALIS is connected to an IoT application that is equipped with notifications if there are conditions that require health workers to follow up on changes in the patient's urine directly.

In addition, in the KATALIS application there are patient profile features that are the responsibility of the health worker concerned, including medical records, sensor evaluation data result, and sensor evaluation data graphs that are presented hourly.

KATALIS uses three sensors installed to support its function, namely the TCS3200 color sensor, the DF Robot V1.1 pH meter sensor, and the water-level sensor. The sensor is activated by connecting the adapter to electricity source.

The application of an automatic evaluation urinary catheter is the same as a urinary catheter in general, so that health workers have no difficulty in using this catheter.

Another difference between KATALIS and conventional urinary catheters is the use of acrylic instead of disposable urine bags.

The purpose of using acrylic is to save on the use of plastic used for the production of disposable urine bags.

To dispose urine, the user does not need to disassemble the acrylic block, but simply by opening the hole on the side of the block, the user can empty the acrylic box where urine is stored.

KATALIS has succeeded in obtaining research funding from the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia in the Student Creativity Week in the field of Copyrights in 2021 and will fight for the XXXIV National Student Scientific Week (PIMNAS) 2021 in October. **(AFH/Humas UB/ Trans. Iir)**

UB Expert:
The Transition from Pandemic to Endemic is too Early

*T*he central government is starting to prepare changing the status of the Covid-19 pandemic in Indonesia to endemic. In fact, President Joko Widodo invited all parties to prepare for the transition from a pandemic to an endemic.

During his visit while reviewing the implementation of vaccinations at SLB Negeri 1 Yogyakarta, DIY on Friday, September 10, 2021, President Jokowi said that the Covid-19 outbreak cannot be predicted when it will disappear. So the president invites all parties to prepare for the transition from pandemic to endemic as a step to coexist with Covid-19.

Responding to this, the economist who is also the Dean of the Faculty of Economics and Business (FEB) Universitas Brawijaya (UB), Abdul Ghofar, SE., M.Sc., DBA., Ak considered that the government is too early in planning the transition from pandemic to endemic .

According to him, the decision to make Covid-19 as an endemic will affect people's mindsets. So it is feared that people will ignore health protocols.

At the same time, the government will find it difficult to implement a policy of limiting community activities when the transition from pandemic to endemic is enforced.

"When an endemic is declared, it will affect the movement of community activities. Our society will tend to feel that Covid-19 is over. The danger is when people become ignore to health protocols," he said.

According to him, this could trigger higher cases while restricting policies would also be more difficult since it is considered as an endemic, no longer a pandemic.

On the other hand, there is no country in the world that has made Covid-19 as endemic. Everyone still considers Covid-19 as pandemic even though a number of countries have relaxed the activities of their citizens.

"No country has said that this is endemic, actually. All countries still say this is a pandemic, even though they look at the conditions of each country, some have relaxed, some have not relaxed, some have tightened the activities of their citizens," he said.

Abdul Ghofar said there are three important keys that the government must achieve so that the transition from pandemic to endemic does not trigger new problems. Namely the compliance of vaccination target, health standards and new normal habits in the community.

Ghofar explained that the level of the economy cannot immediately increase even though it has entered the post-pandemic. According to him, there will be uneven economic growth in each country.

Influenced factors are the compliance of vaccination target and health service standards in each country, as well as the effectiveness of the economic stimulus carried out by each country.

"This is what we call as uneven economic growth, so economic growth is uneven. Countries with high vaccination rates and high health standards will experience higher economic growth than countries with low vaccination rates, besides the government's stimulus, he said.

Meanwhile, the current vaccination compliance in Indonesia is still low. Based on data from the Ministry of Health, the vaccination compliance until September 14, 2021 at 18.00 WIB was still 35.92 percent for the first dose of vaccine and 20.54 percent for the second dose of vaccine from the target number of 208,265,720 residents.

"Well, Indonesia's vaccination rate is not too high," he said.

According to Ghofar, in order not to trigger problems in the transition process from pandemic to endemic, the government must pursue a minimum target of 70 percent vaccination accomplishment.

"The vaccination program must be completed quickly until we reach 70 percent. If necessary, large-scale disbursement for vaccination must be conducted. Indeed, the daily case rate is currently down. But the problem then is that cases may increase if the vaccination has not reached herd immunity," he said.

The government must also be able to create a new normal culture. That is to habituate the community to remain disciplined in carrying out health protocols even though the Covid-19 case is decreased.

"Socialization on the importance of health protocols must continue to be carried out. I think it should be continued even though it is considered as endemic later. The truly new normal is when the government declares this to be an endemic, not a pandemic anymore. That's the truly new normal," he said.

According to Ghofar, ideally the government can make a transition from pandemic to endemic in the next year after the compliance of vaccination target meets the minimum requirements for creating herd immunity.

"In my opinion, with the acceleration of vaccination, we can make the endemic transition in the next year," he said.

Reducing Budget Burden

Ghofar evaluates, the government start planning the transition from pandemic to endemic to reduce the burden on the government budget. Because if it is endemic, the government will not interfere too much related to public health financing.

"The government hastened to say that this is endemic so that the government's burden on health will decrease since it is no longer a pandemic. If it is endemic, the government will not interfere too much with the financing. If the intention is like that, the burden on society will be even higher," he concluded. **[Humas UB/ Trans. Iir]**