



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**FACULTY OF
CIVIL ENGINEERING**

SCHOOL OF COMPUTING

REPORT OF PECIPTA'19

TECHNOLOGY AND INFORMATION SYSTEM

SECP1513 – 09

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Innovation Beyond Innovation

International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA) organised by the Ministry of Higher Education, Malaysia together with its partner institutions since 2001 till now. PECIPTA aims to enhance networking and collaboration among participants, industries, agencies and others potential players to explore, improves and ensure the technologies developed can be transferred to industries and communities nowadays. University Tun Hussein Onn Malaysia (UTHM) is selected to co-host 10th PECIPTA this year in which held at the Dewan Sultan Ibrahim UTHM from 22nd to 23rd September 2019 and our group got the opportunity to join this programme for the first time. It is a great way to explore and gain new experienced because we can see various types of new technologies, invention and innovation that were offered to our world nowadays. There were so many booths presented their new innovations from local university and local companies and the sharing talked also given by successful people in Malaysia.

The categories of exhibition include Biosciences and Biotechnology, Physical Sciences and Engineering, Information and Communication Technology, Health and Allied Sciences and Social Sciences and Humanities. Basically, what we get from that exhibition was about the technology revolution from the past until nowadays. We have visited many booths that participate on the exhibition and one of booth that capture our attention was 'HELP THE BLIND TO READ' booth from UNIVERSITY KEBANGSAAN MALAYSIA. This booth dedicated to patient who losing their eyesight at later age, as we know most of blind people use the braille to help them know something or help them to get an information. What is braille actually? Braille is a system of reading and writing in our language without the use of sight and enables people with blindness and visual to read and write. Refined in the late 1800's by Louis Braille, it was originally developed by a French army captain named Charles Barbier to enable his officers to read battle commands during the night without the aid of candle light. Braille can be transcribed in English, Spanish, French, German, Italian, and many more languages. It is really help blindness people but nowadays we have made an innovation which like was

University Kebangsaan Malaysia did. They make an application which help blindness to increase prevalence of adults with visual impairments and can also decrease the ability to see. Therefore, I think that application and the new reading device for blind people very beneficial since it is user-friendly. The users can bring it everywhere because it very light, compact, can be portable and the price also affordable for them to get it. It is very easy to use that machine application what they needed just a source that they want to read and then they just put the text on that machine and put their mobile phone above which is the place that have been provided. There is an application that will capture the texts and it will read to them. So, we think that was the best innovation to help blindness to enhance their ability. It will also give the impact field for them which is it can increase the productivity of the visual impaired, also it can reduce unemployment and financial burden for the blindness people.

Next, an application was created by 'GURU PENDIDIKAN KHAS, SK.PENDIDIKAN KHAS BATU PAHAT' special for disability students is laundry speed using web based. The laundry processes include washing, drying, pressing (ironing), and folding were provided. The application helped the students to manage the order that received from their customers. This system became more systematic since the students do not need to write down or record data of the ordered one by one. By using the application, it helped them to prevent from any mistakes happens when they are taking the order especially about the payment because payment already set in the system. Furthermore, the consumption of papers also can be reduce and customers can save more time because their ordered can be process within 2 minutes only through laundry speed. The purposed of speed laundry using web based are to produce students that able to compete between academic and soft skills, be independent, and aware to the potential in themselves. We can see clearly the web laundry speed very useful for disability students because it is a career therapy process to attract their interest to use the new technology which is computer and a preparation for them to face their future. Besides that, the benefits of web laundry are a platform for the community to communicate with the OKU and to expose to the community about the real ability and speciality among the disability students. The use of this web laundry through online not only has an impact on disability students but also the communities.

We were excited to visit University Technology Malaysia, UTM's booth at PECIPTA because they made an application used for reliability analysis to fix offshore structural systems or others structural system for jetty or wharf head for port facilities. The advantages of this application are offer excellent efficiency or reliability analysis of offshore without sacrificing accuracy, optimum and economical design for all types offshore structure and the most important is adequate structural safety when waves in-deck and air insufficient. Basically, this application supported detailed re-assessment that applied to the management of the structure's safety, integrity and reliability analysis for offshore structures without sacrificing accuracy. So, the apps provided useful design information for oil field development efficiency using parametric studies.

"This exhibition hoped to secure wider participation of the industrial sector and innovation enablers. In today's time of innovation, local companies can benefit by being in the know of cutting edge findings. This exposition focuses actively on research that has resulted in products that have been commercialised or have the potential," added Prof Dr Rosmawati. We get the opportunity to visit one of the UTHM booth itself. UNIVERSITY TUN HUSSEIN ONN(UTHM) has made a new formulation to eat bitter gourd which is 'KARELA PUDDING'. This booth want to let us know that we can eat variety of snack that have been improvise from the healthy food itself. We already know that bitter gourd have an excellent source of vitamins B1, B2, and B3, C, magnesium, folate, zinc, phosphorus, manganese, and has high dietary fibre. It is rich in iron, and contains twice the beta-carotene of broccoli, twice the calcium of spinach, and twice the potassium of a banana. Most of people does not like bitter gourd because of their taste was so bitter but they did not know that many of the sickness can be prevent by eating bitter gourd or other name Karela. So, we think UTHM has did their best to help people who has obesity, diabetics and kidney stone disease. People can get healthy by eating this pudding and they also can enjoy the nutrients of bitter gourd with acceptable taste. This pudding has been made of from the bitter gourd extract and bitterness masked by a little milk. In addition, did you know that bitter gourd or karela is not include as vegetable but actually it is a fruit. Bitter gourd was really good for consumption and for various medical purposes. This innovation giving more nutritious than other pudding because

we well-known that most of other pudding contain a lot of sugar and food colouring so it can give side effect to our body. Bitter gourd can help in maintaining blood sugar levels, lowers bad cholesterol levels, it also good for glowing skin and lustrous hair and last but not least it can also help in weight loss. We can say that the innovation that have been made by UTHM was really benefit.

As the conclusion, we were really amazed on what PECIPTA shared to us new information and gave us a meaningful experienced to see the new innovations in our new era globalization. I recommended to all people, if you are interested in observing the latest developments in the world of research, inventions and products in Malaysia, then PECIPTA 2019 is a must to visit. For researchers with completed products, this event can help you to get a successful commercialisation and distribution of products. But for those whose inventions are at an early stage, this exposition can provide them with the needed exposure, which can help them not only to find out more about potential markets, but also to obtain research funding. I hope any exhibition like PECIPTA will be held more after this in our country to exhibit creative and innovative thinking especially among the young generation.

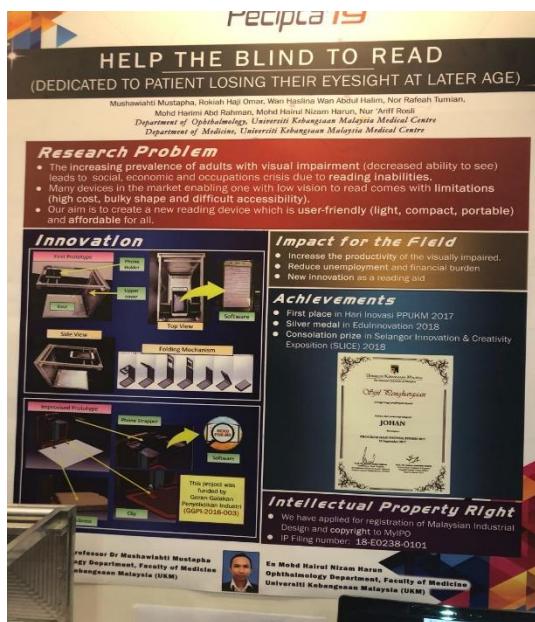
APPENDIX



PECIPTA'19
DEWAN TUN DR.ISMAIL



SPEED LAUNDRY
SK.PENDIDIKAN KHAS BATU PAHAT



HELP THE BLIND TO READ
UNIVERSITI KEBANGSAAN MALAYSIA



WHEELCHAIR CONTROLLED
UNIVERSITI MALAYSIA SABAH



**AUTOMATIC TOILET
SK.KAMIL(1)**



**DEAF'S VOICE
SMK DATUK PETER MOJUNTIN**



**KARELA PUDDING
UNIVERSITI TUN HUSSEIN ONN MALAYSIA**



**EIJAZ STICK
SMPK VOKASIONAL INDAHPURA**