

RICES

RESEARCH INNOVATION COMMERCIALISATION & ENTREPRENEURSHIP SHOWCASE

2020

**ENTREPRENEURSHIP
& SOCIAL INNOVATION**

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The publisher hereby records its gratitude to individuals who have helped in one way or another to make this book project a reality.

CONTENTS

FOREWORD

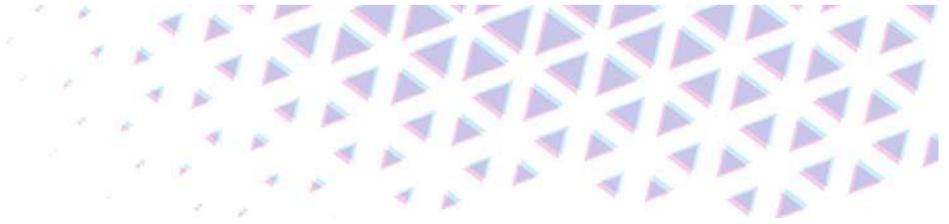
VICE PRESIDENT RESEARCH AND INDUSTRIAL COLLABORATION AND ENGAGEMENT (RICE).....	v
CHAIRPERSON OF RICES 2020.....	vi
HEAD OF MMU PRESS.....	vii

ENTREPRENEURSHIP & SOCIAL INNOVATION

Augmented Reality in Business Card.....	1
Developing Shariah Compliant Equity-Based Crowdfund Model for Solar Energy in Malaysia.....	2
Edcraft Gamified Learning (EGL) - An Online Recycling Workshop.....	3
Management & Science University (MSU) Mysolar.....	4
Redesigning Design Thinking: An Online Delivery Mode Experience.....	5
Scalable Aquaculture Monitoring System.....	6
Sit2Order Food Ordering System.....	7
Three Dimensional (3D) Printed Face Shield During COVID-19: A Community Response.....	8
Alex Snow School.....	9
Bagan by Singgah Production.....	11
Alternate Game Production Pipeline.....	13
Tripin' Panel: A Unique Comic Strip Experience Awaits.....	14
Cleekpay.....	15
Driving Simulator for Driving Education.....	17
Hipstrike Apparel: A Startup Under MMU Startup Scheme.....	19
Kondis Green Aquaponics Greenhouse.....	21
MADE by Radw.....	23
Electronic Wheel Security.....	25
Nexhealth.....	27
Sehaty: A Startup Under MMU Startup Scheme.....	29
TUKANG.MY - Digital Instant Solution for Households and Fixers.....	31

Animation and Visual Effects Production Project.....	33
FCA Final Year Project 1 “Asrama”.....	34
Challenges and Opportunities in #NewNormal: Risk Management & COVID-19 Pandemic.....	35
e-Bazaar: The Challenges and Opportunities in the New Normal.....	36
EEL 2020: Digital Advertising & Branding: Identity Recast for Entrepreneurs (DABIRE 2020).....	37
Embedding Entrepreneurial Learning in ECE3086 Multimedia Technology and Application.....	38
Embedding Entrepreneurial Learning in EME 3066 Industrial Management.....	39
Embedding Entrepreneurial Learning in Virtual Reality Project 1 MVR3003.....	40
Embedding Entrepreneurial Learning Through Consumer Law Projects.....	41
Innovative AI Solutions Towards Solving Challenges in the New Normal.....	42
Online Platform/System/Website for Small Business Owner.....	43
Embedding Entrepreneurial Learning Revitalisation of Cultural Heritage Businesses:.....	44
Challenges and Opportunities in the New Normal	

ACKNOWLEDGEMENT	45
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FOREWORD

Vice President, RICES 2020

RICES 2020 is one of the numerous publications, including journals that MMU Press takes pride in. I am truly pleased that MMU Press have embarked on the initiative to publish this book.

Despite the global pandemic, the event RICES 2020 was successfully organised virtually, showcasing a multitude of exhibits reflecting research, innovation, commercialization and entrepreneurship activities and achievements. The RICES 2020 book is an extended compilation of MMU's researchers and entrepreneurs' fascinating insights on research ventures and idea creation for commercialising research output as well entrepreneurship. RICES is an excellent platform for MMU to interact with internal and external stakeholders. These interactions enable researchers to realise potentials for collaborations, IP exploitations, commercialisation and further research. It allows for industrial related viable research and feasible output. This RICES 2020 publication extends the present interactions even further, allowing for post-event interactions to materialise beyond the existing valued stakeholders.

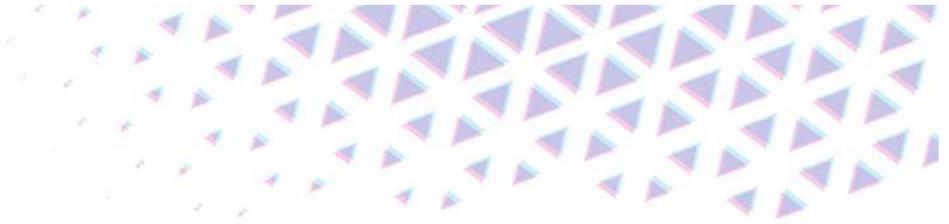
RICES 2020 is evidence of the excellent effort by the RICES 2020 organisers and MMU Press. Their commitment and dedication have paid out with another hallmark achievement reflecting the division's synergy in the development of Research-Innovation- Commercialisation-Entrepreneurship (R-I-C-E) nexus in all research activities. I look forward to RICES 2020 publication.

Thank you.

Prof. Ir. Dr. Hairul Azhar bin Abdul Rashid

Vice President, Research and Industrial Collaboration and Engagement

Multimedia University



FOREWORD

Director, RICES 2020

On behalf of the Committee, it is my great pleasure to welcome you to RICES 2020, the fourth Research, Innovation, Commercialization, Entrepreneurship, Showcase. RICES is an annual event organized by Multimedia University to showcase research innovations, commercialization and entrepreneurship. RICES 2020, with the overarching theme of “Humanizing Innovation,” is being held virtually on December 9-10, 2020, allowing for a borderless audience and safe interaction among inventors, venture capitalists, and industries in the midst of COVID-19. It is about ensuring that the results of research and innovation contribute to positive changes in people’s lives, society, industry, and the country as a whole.

RICES 2020 pioneered the use of Virtual Reality technology to elevate the virtual exhibition experience by transforming in-person perspectives into an interactive and immersive virtual experience. For the first time, RICES 2020 hosted a virtual conference, disseminating the most recent research results and findings for researchers and academics to discuss. This year, 194 projects were accepted for presentation at RICES 2020, distributed across Project Showcase (Research Project, Social Innovation Project, and Startups), Embedding Entrepreneurial Learning, and Conference. Both internal and external judges who evaluated the showcases had used the judging criteria similar to those set for international exhibitions such as International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA) and International Invention, Innovation & Technology Exhibition (ITEX).

I would like to express my heartfelt gratitude to the organizing committee and everyone who helped make RICES 2020 a success in various ways. Last but not the least, I would like to thank everyone who submitted work and participated in RICES 2020.

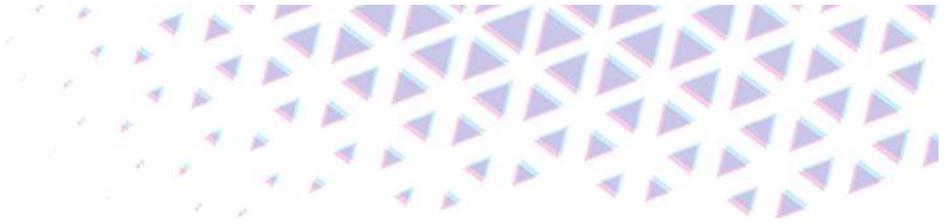
Thank you all for contributing!

Mr. Cheong Soon Nyeon

Director of RICES 2020

Deputy Director, Technology Transfer Office

Multimedia University



FOREWORD

**Deputy Director, RMC
(Head, MMU PRESS)**

I would like to humbly thank various people who made MMU Press publications a success especially in its RICES publications 2020. Congratulations to Mr. Cheong Soon Nyeon, Director of RICES 2020 who has successfully organized the event despite the Covid-19 pandemic. The RICES 2020 hosted the Virtual Reality technology to ensure all participants and visitors immerse into this virtual experience and making the participation almost possible for everyone.

On top of that, RICES showcases the best technology, research innovation, R&I commercialization, receives valuable feedback and develops new partnerships that bring great value to society. MMU Press is proud to have produced a total of 5 publications in 2021 namely research on (i) Engineering, (ii) ICT and Multimedia (iii) Social Science, (iv) Entrepreneurship & Social innovation projects as well as (v) RICES Conference Extended Abstract.

It is our utmost hope that MMU Press mission will be an internationally recognized academic press. Its spirit is to connect Multimedia University (MMU) with the larger communities and institution through innovative and inspiring writings. We welcome all contributors to publish with MMU Press to better equip ourselves and the community at large with various new ideas and technologies.

Finally, all these achievements are made possible due to strong commitment by all especially the Coordinator of Special Publication – Dr. Tan Yi Fei, chief editors, editorial team members and the project leaders, who have contributed to the publication of RICES 2020. Kudos to all of you! Thank you and let's make MMU Press be the beacon of knowledge.

Assoc. Prof. Dr. Tan Siow Hooi

Deputy Director, Research Management Centre (Head, MMU Press)
Multimedia University

ENTREPRENEURSHIP & SOCIAL INNOVATION

AUGMENTED REALITY IN BUSINESS CARD

Jun-Xian Liew and Kok-Why Ng

Faculty of Computing and Informatics, Multimedia University

Abstract

Business card is an important document to tie a customer to a business. However, it is of limited size and an uninteresting document in general. With the advancement of mobile devices, Augmented Reality (AR) which is an enhanced version of the real physical world through audio, visual and other sensory stimuli has motivated us to develop a mobile application cum AR in business cards. This project can enhance a person's insight of reality, able to experience the view of different virtual elements, sounds and scenarios via their mobile devices. Virtual digital information and functionalities are combined with the physical world and instantly offering real-time feedback to the users when a business card is placed in front of our apps namely ARCards. It is undoubtedly outstanding from the other traditional business card and can energetically boost up the reputation of a trader brand awareness.

Introduction

With the evolution of technology, Augmented Reality (AR) -- a blend of both physical and virtual world, to render an immersive experience for the users. Multiple AR devices such as Microsoft Hololens 2, Magic Leap One, Google Glass Enterprise Edition and Vuzix Blade AR are created to address the business structures and requirements in a better way.

A regular business card is essential for individuals across all industry sectors as it represents their business identity. However, a regular card size is small and with limited space. AR can be applied once the camera captured the limited content from the card. There will be unlimited information/images/graphics to be portrayed on the device screen including the animated elements. The primary goal of our ARCards is to change the users' perception, not just with a surprised "wow" feeling, but ultimately to deliver more precious experiences and good values when one scans a business card with our developed mobile apps. One will stand out from the others and bring more valuable contents such as voice or recorded scenes, which we could not possibly fit them onto a normal business card.



Methods & Materials

Our ARCards is a mobile AR application for Android platform. It does not require any internet connection (offline application). No specific environment is required.

Before AR is displayed, a license key is generated in Vuforia Engine for deployment of an application and a business card image in JPG format will be uploaded and stored in Vuforia cloud database. The features detected on the business card are marked as markers (shown in yellow color of Fig.3). Then, AR Camera and Image Target from Vuforia Engine are added to the scene for the detection by the device's camera. AR elements such as videos, images, words and logos will be displayed at their predefined positions. Multiple resources such as audios, videos, images, logos, words and AR objects are added into the Image Target with specific functionalities.



Fig 1: Original card

Fig 2: Captured image

Fig 3: Features detected

Results & Discussion

When a user scan the card via our ARCards app, the device's screen will show the complete profile of the user, all his social contacts and the user's company products in the form of audio and visual effects. This indirectly free to promote a company products in a pretty interesting manner. Furthermore, this scanning is feasible via the Internet (without physical contact to the card). Fig 4 and Fig 5 show the AR effects next to the card holding by a hand.



Fig 4: Videos, user profile and all social contacts are available

Fig 5: Slideshows of different company products are shown

Conclusions

"Leave someone with a card that looks great, feels great and clearly defines what your business does - and you and your card won't soon be forgotten." – Patricia Schaefer.

With additional features and functions available in ARCards, it will stir the curiosity of the users, and this is how the connection of the owner is broadened and how his business would grow exponentially.

Developing Shariah Compliant Equity-Based Crowdfund Model for Solar Energy in Malaysia



Assoc Prof Dr Rafia Afroz, Mohammad Niaz Morshed, Prof Dr Jarita Duasa,
 Assoc Prof Dr Maya Puspa
 Department of Economics, Kulliyah of Economics and Management Sciences,
 International Islamic University Malaysia

Background of the Study

Recently, Malaysian government has intended many green policies such as Feed in Tariff (FiT) and New energy Metering (NEM) to promote the development of cleaner energy sources. Figure 1 explains how NEM works. Traditional source of finance might fail to support these green policies during this COVID-19 financial crisis. Hence, a significant gap will be created between supply and demand of financial resources for solar energy projects across many countries as both governmental funding and bank financing shrank.

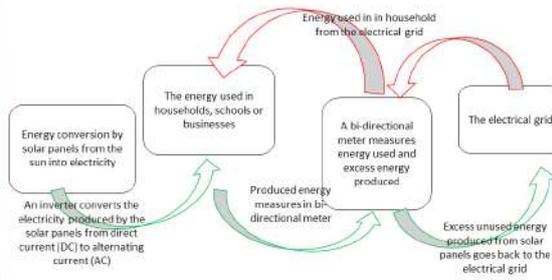


Figure 1. How Net Metering Works for Solar PV Technology
 Source: SEDA, 2020

In this context, Shariah Compliant Equity Based Crowdfunding(SCF) could be an alternative approach which will support NEM and will finance the start-up solar farms who might face the shortage of fund. SCF provides an opportunity for investors, donors, and entrepreneurs for the socioeconomic development of the micro and small enterprises sector in Islamic countries. Furthermore, crowdfunding is not only a mean to finance a project, but also a way to enact a more inclusive and democratized society.

Hence, SCF model will support the NEM program, reduce the barriers and risks faced by the solar farms, increase Gross Domestic Product (GDP) , create job opportunity and develop a low carbon society.

Description of the Proposed Model

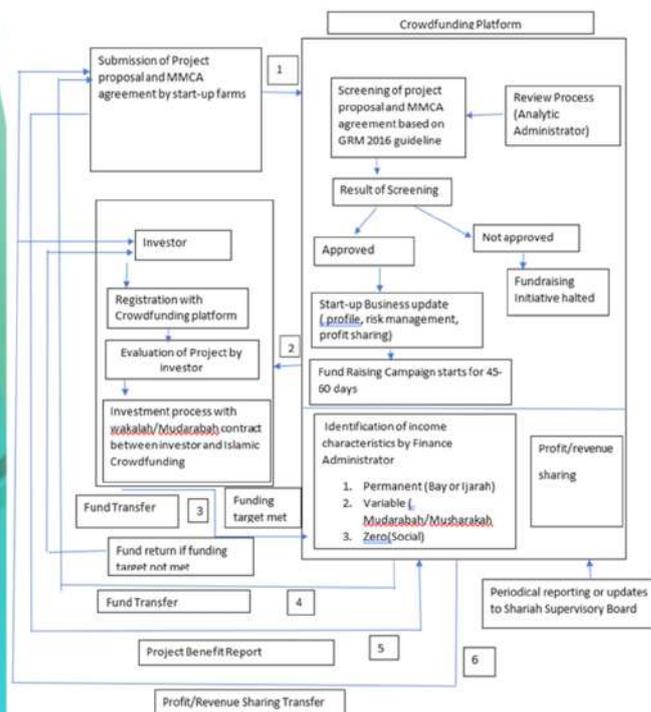


Figure 2. Shariah Compliant Equity Based Crowdfunding Model for Solar Farms

- ❑ In this model (Figure 2), solar farms will prepare a wakalah agreement known as the Master Mudarabah Crowdfunding Agreement (MMCA) and send their innovative project ideas to the SCF platform.
- ❑ The SCF platform will screen all documents in accordance with the requirements of Guidelines on Recognised Markets 2016 (GRM 2016) and the Shariah opinion prior to the approval of the documents.
- ❑ Then, the crowdfunder or investor enters into the MMCA with the solar farms where the SCF platform acts as an agent to manage the whole process of collection of funds.
- ❑ Crowdfunders consist of the individuals in the society, firms even non-government organisations who choose to invest funds. They will receive profit or loss based on their investment according to a Mudarabah Shariah-compliant contract.
- ❑ Once the funding goal is met, and after the expiration of the fixed date, the funds are released to the solar farms subject to the applicable conditions stipulated in the GRM 2016. The solar producing farms can install solar panels at a lower price on the roofs of the buildings of the households due to available crowdfunding investment under the NEM program provided by SEDA.
- ❑ A focus group survey on expert people related to solar energy, the Shariah-compliant, and crowdfunding will be conducted to validate the proposed model of the study.

Achievements

Projects

FRGS grant, Phase 1, 2019. Developing Shariah Compliant equity-based crowdfund Model towards Malaysian low carbon society-A Case of Kuala Lumpur.

Publications

1. Afroz Rafia, Rabaah Tudin, Niaz Morshed, Jarita Duasa (2019). *Developing a shariah-compliant equity-based crowdfunding model towards a Malaysian low-carbon consumer society. Malaysian Journal of Consumer and Family Economics*, 22 (2). , 0 pp. 185-202. ISSN 1511-2802.
2. *Willingness to pay of the households for solar energy-a case study in Kuala Lumpur Malaysia [Public acceptance and willingness to pay for solar energy- a case study in Kuala Lumpur, Malaysia]. The International Conference on Economics, Entrepreneurship and Management 2019 (ICEEM 2019).*

Edcraft Gamified Learning (EGL) – An Online Recycling Workshop

Members: Cheng Kin Meng, Koo Ah Choo, Junita Shariza

Introduction

Problems

1 PEOPLE THROWS
1 TON OF GARBAGE FOR THE YEAR

Municipal waste is increasing due to unethical and Unaware waste disposal.

AIR POLLUTION
Unethical waste disposal cause pollution to the air and water around our environment

WATER POLLUTION

Unethical waste disposal cause pollution to the air and water around our environment



This increase of waste disposal has increased the pollution rate of the world

PLASTICS 40%
MEGACITIES AT ABOUT 12% of pollution at the world

"Half of that plastic is used for disposable items that will only be used once. As a result, more than 8 million tons of discarded plastic ends up in our oceans every single year"
<https://thelocal.com/>



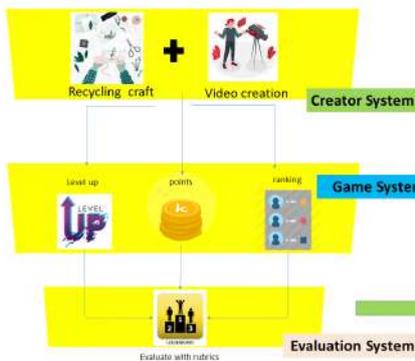
Overview of Edcraft

Edcraft is a **green project** to spread the awareness throughout Malaysia and hopefully to the world by online "recycling item" crafting **classroom**. This is to achieve the United Nation's Sustainable Development Goals (SDG) number 11 – To make cities inclusive, safe and sustainable.



Using smart cloud technology services/apps to provide green education to reduce pollution, and increase disaster resilience city

Method



This Green research is to cultivate public awareness and impart knowledge on waste management through smart gamification learning methodology, together with mobile application and content that creates intention that **MOTIVATES** by **GAME MECHANICS**. (Eg. level up, points and leaderboard)

REWARD SYSTEM



Craft -> Learn -> Play -> Get rewarded

A sustainable environment for our future



Results and feedback from research

- Interviews**: Participants substantially agree with edcraft's effectiveness on recycling
- Questionnaire/ knowledge test**: Participants significantly improve their knowledge after edcraft; Gamified learning lead to attitude and behavioral intention change.

Commercialization

- Centralized learning in one platform – (SELL AS A MOBILE APP)**
Edcraft Gamified learning can be applied into to the app platform – Google store, App store
- A learning space for recycling awareness and youtube – (VIDEO CREATION PLATFORM FOR LEARNER)**
A platform for **video creation/training** through unused item crafting- become a recycle crafting youtuber. **Youtuber training center**
- Enrolment for open learning in MOOC or Online learning platform**
Online workshop can be uploaded to **Coursera, skillshare or EdX** for certification
- Ecommerce platform to sell crafts or exchange token with partnered merchant**
Productions from craft can be sold on **Lazada, Shopee** and other online platforms
Partner merchant will enable participants to redeem **food, groceries and usable items** that successfully completed Edcraft

QR codes:



website: <https://edcraft.my/>



Instagram



Facebook

Mobile app prototype

Android prototype apps to centralise the workshop



Acknowledgement

Partnership with



Edcraft Evaluation team

Tan Kim Geok, Nekhat Sultana Binti Tarique Azam, Wei Hui Suan, Elyna Binti Amir Sajir, Wong Shen Yuong, Forest Lim Yan Peng, Tan Choon Hong

Edcraft workshop Assistant:

Gaby Vania Fallin, Lim Kim Lun

msu mySOLAR

Project Leader

Assoc Prof Dr Muhammad Irsyad bin Abdullah

Team Members

Dr Norazliani Md Sapari

Dr Ahmad Sukri Ahmad

FACULTY OF INFORMATION SCIENCES & ENGINEERING



COLLABORATION WITH



Solar for all. All for solar.

SUSTAINABLE DEVELOPMENT GOALS

7 AFFORDABLE AND CLEAN ENERGY



- 1 NO POVERTY
- 3 GOOD HEALTH AND WELL-BEING
- 5 GENDER EQUALITY
- 4 QUALITY EDUCATION
- 13 CLIMATE ACTION

Objective

MSU mySolar is a series of renewable energy projects dedicated to resolving the energy-related needs of rural and indigenous communities across Malaysia by providing small-scale solar solutions. The project aim is to make a direct impact on the communities involved so the project doesn't just provide an engineering solution, but is actually improving lives.

mySOLAR 1.0



mySOLAR 2.0



Redesigning Design Thinking: An Online Delivery Mode Experience

Dr Sharmini Gopinathan, Ms Anisha Haveena Kaur
Multimedia University

ABSTRACT

The Covid-19 pandemic has forced learning institutions to fully embrace online learning due to the compulsory closure of campuses nationwide. Learning institutions had to think quick and redesign their lessons to accommodate online classes. Online platforms such as Google Meet and Zoom were used as virtual classrooms.

For this study, a Design Thinking class conducted via Google Meet was observed. The lesson plan was redesigned to fit the online learning mode as it was initially planned to be conducted in a physical classroom. The behaviors of the participants were observed. Towards the end of the Design Thinking class, they were encouraged to provide honest feedback pertaining to the session.

COMMUNITY IMPACTED

- ✦ Yayasan Telekom Malaysia (YTM) ELITE participants.
- ✦ 23 participants undertaking Design Thinking classes.
- ✦ Session from 9am to 5pm via Google Meet.



DISCUSSION

At the end of the class, participants were encouraged to submit their feedback using Padlet. Below are some of the feedback:

- ✦ Enjoyable and fun experience.
- ✦ Engaging interactive activities.
- ✦ Really interactive despite not having face-to-face sessions.
- ✦ Was very focused as there were lots of discussion.
- ✦ Two-way communication at its best!
- ✦ Brings out our creative side.
- ✦ 10/10 would think critically again!

INTRODUCTION

The Malaysian government implemented a Movement Control Order (MCO) in March 2020 as a response to curb the spread of Covid-19. Malaysians were required to strictly stay at home. That being said, many day to day routines have to be conducted online and this includes having classes or lectures online.

Since March 2020, classes have been conducted via platforms such as Google Meet and Zoom. This step forward in online learning also serves as a space for collaboration and sharing among educators and students. Educators are encouraged to come up with activities that are interesting for students. At the same time, these activities should be able to test their thinking skills, creativity and ability to work in groups from their respective computer screens.

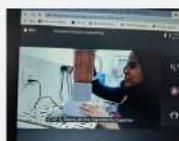
ONLINE LEARNING ACTIVITIES

The Design Thinking class on Google Meet had an array of activities such as:

- ✦ Breakout Room sessions.
- ✦ Virtual Tower Challenge.
- ✦ Gathering simple household items, coming up with creative ideas based on the items and presenting it on Google Meet.
- ✦ Preparing presentation materials for Prototypes using Google Docs and Google Slides.
- ✦ Recording videos and preparing animations to explain about Prototypes.
- ✦ Verbally sharing opinions on Design Thinking on camera.
- ✦ Sharing sessions.

CONCLUSION

- ✦ Redesigning learning should constantly be done to add variability, especially now that lessons are conducted online.
- ✦ It is important to have interesting activities incorporated into the lessons in order for the students to feel engaged and participative.
- ✦ Students should be allowed to express their ideas and discussion findings using their own creativity (*i.e.* the use of other online platforms).



SCALABLE AQUACULTURE MONITORING SYSTEM

Tan Wooi Haw, Ahmad Nabil Bin Nasrudin and Ooi Chee Pun
Faculty of Engineering, Multimedia University

Introduction

In Malaysia, aquaculture is a vital instrument to increase local production for food security.

Problem statement

Unmonitored farming is one of the major causes of failure in aquaculture production.

Objectives

- To implement a low-power wide-area network (LPWAN) architecture for communications among IoT edge devices.
- To develop a real-time web-based monitoring application that enables monitoring in a scalable aquaculture operation.

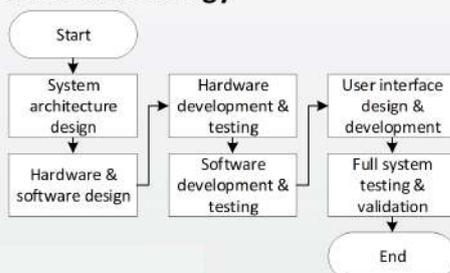
Literature Review

Three existing systems have been reviewed:

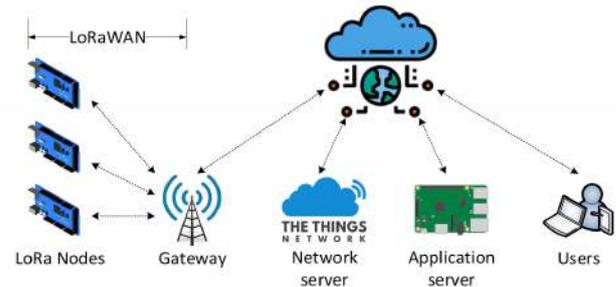
Existing System	Drawbacks
WSN via Wi-Fi [1]	Scalability dependent on the Wi-Fi access point capability.
WSN via GPRS [2]	Limited communication range and high energy consumption.
WSN via Zigbee [3]	Data visualization is accessible through to mobile application only.

This project employed Long Range Wide Area Network (LoRaWAN) technology due to its long-range communication and power-efficiency.

Research Methodology



The system architecture is illustrated below:



Results and Discussions

An experiment to measure propagation path loss has been conducted with the results below:

Distance (meter)	Received Signal Strength	
	SNR (dB)	RSSI (dBm)
100	9	-83
300	3	-92
500	-1	-97
700	-3	-98
800	No signal	

It was found that the signal range achieved was 700m. The single channel gateway used in this project can also support up to 60 LoRa nodes.

Conclusion

As a proof of concept, this was a successful project where the result obtained is satisfactory. A higher gain and directional antenna may be used to achieve a further signal range. The configuration of LoRa radio communication can also be further investigated for the system to scale better.

References

- [1] F. A. Saparudin, T. C. Chee, A. S. Ab Ghafar, H. A. Majid, N. Katiran, "Wireless water quality monitoring system for high density aquaculture application", Indonesian Journal of Electrical Engineering and Computer Science, 13(2), pp. 507-513, 2019.
- [2] B. Shi, V. Sreeram, D. Zhao, S. Duan, J. Jiang, "A wireless sensor network-based monitoring system for freshwater fishpond aquaculture", Biosystems engineering, 172, pp. 57-66, 2018.
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SIT2ORDER FOOD ORDERING SYSTEM

Project Leader: Fahmi Mikail Bin Fahrid
Member 1: Muhammad Farris Hirzan Bin Noor Zamrie
Member 2: Jeremiah De Howard Chai
Supervisor: Madam Nurasma' Binti Shamsuddin



Scan to start order

Abstract

QR Code Food Ordering System, a simple system that can make food ordering easier for restaurants, food trucks, roadside stall customers, and if possible, making the system a new solution for food ordering. By using this system, customers can order on their own at the venue.

Problem Statement

- Restaurant Management sometimes have problems such as misunderstanding during taking orders.
- Employees in food outlet such as restaurant have to handle many types of customers.
- In this new technological era, reading menus and taking orders by writing on piece of paper sure is becoming obsolete.

Objectives

- To provide QR code for customer to scan in order to order foods.
- To provide rating and comment function for the user.
- To provide a platform for restaurant to manage their menu and food order.

System Features

Restaurant management:

- Able to manage their products/menu.
- Record order invoice in the database.
- Ability to add and delete products from the website.
- Receive order details from the customer straight to the counter.

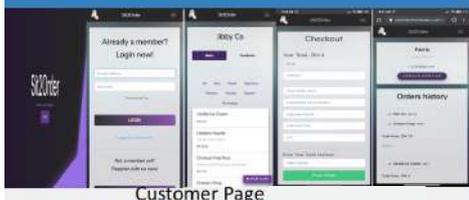
Customer:

- Scan Qr code to be directed to a website that enables the user to order food from the restaurant.
- Manage their profile to view order history and payment information.
- Give rating or feedback to the restaurant.

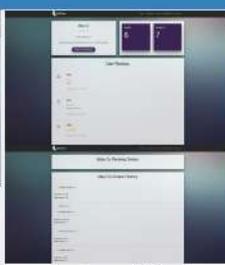
Admin:

- Able to view total of users, restaurants and orders.
- Admin able to manage user and restaurant list.

End Product



Customer Page



Restaurant Page

Conclusion

To sum up, the objectives that were set at the start has been achieved with the time given. In addition to that, the system still needs better optimizations and updates to include more advanced features and responsive UI design that will allow hassle free navigation for users and restaurants. We hope that the system we built can contribute to the betterment of ordering food and management of food order.

THREE DIMENSIONAL (3D) PRINTED FACE SHIELD DURING COVID19: A COMMUNITY RESPONSE.

Muhammad Asyraf Bin Mhd Pauzi (asyraf.pauzi@mmu.edu.my)

Dr. Khong Chee Weng - Zainudin Bin Siran - Ku Ahmad Adzam Bin Ku Saud - Bostami Bin Ahmad - Mazlan bin Mahadzir

This paper aims to discuss the process of 3D printer shield production, the work flow of distribution and the contribution of face shield in order to overcome the shortage of personal protective equipment (PPE) among front-liners. It involves a use of fused deposition modelling (FDM) 3D Printer, Poly(lactic-acid) (PLA) as material for frame and a transparent Poly(vinyl chloride) (PVC) rigid sheet as shield. This movement joined by various entity such as non-governmental organization (NGO), private sector, higher education bodies and 3D printer enthusiast is the community respond to the COVID-19 pandemic.

COVID-19

On 12 December 2019, a continuous occurrence of an unknown acute respiratory tract infection originating from the Huanan South China Seafood Market was reported in Wuhan City, Hubei Province, China (Guo Yu et al. 2019). It became an outbreak and starts to spread to the whole world. On 11 March 2020, the World Health Organization declared the "coronavirus disease 2019" (Covid-19) a global pandemic. As of 20 November 2020, a total of 57,385,072 cases of COVID-19 and 1,368,510 deaths have been reported throughout the world (worldometers.info/coronavirus/).

In Malaysia, the first case of COVID-19 was detected on 25 January 2020. It was traced back to three Chinese nationals previously had close contact with an infected person in Singapore (The Borneo Post, 2020). On 4 February, a 41 years old man was the first Malaysian who was confirmed COVID-19 positive. 17th March 2020, Malaysia confirmed 2 COVID-19-related deaths, a 60-year-old man from Kuching, Sarawak, and a 34-year-old man from Johor Bahru, Johor, (Jing, 2020 and Elengco, 2020). To this date 20 November 2020, a total of 52,638 cases detected with 329 death was reported by Ministry of Health (MOH). Number of cases which was going down at one time now is rising.

ISSUE

Doremalen in 2020 indicate that aerosol and fomite transmission of COVID-19 is plausible, since the virus can remain viable and infectious in aerosols for three hours and on surfaces up to 72 hours which make wearing a personal protective equipment (PPE) compulsory to every medical staff in the field. The rising cases lead to the shortage of PPE worldwide. In Malaysia, the shortage of PPE has been reported as early as April 2020 base on online survey by Dr Timothy Cheng and team (Lim, 2020). 83 percent of the respondents in the survey reported having experienced shortage of PPE supplies at their workplace resulting 60 of the respondents opt to using their Do-It-yourself (DIY) PPE.

3D PRINTING MOVEMENT IN MALAYSIA

In Malaysia the awareness to find an alternative way to produce parts for PPE already spark as early as March 2020. Lim has report that on 19 March 2020, a Facebook user name Nurfaiz Fozil has created group to coordinate his idea in which to mobilize Malaysians to print the plastic face shield using 3d printer for distribution to frontlines On 25 March 2020, Adnan Wong has launch the Facebook group TeaMa for COVID-19 together with the official website <https://faceshield.steel> with the aim not just printing the face shield but also other medical equipment as parts such as connector for intubation box and Omask.

TeaMa consist of 143 entities coming from various background such 3d printer enthusiast, business owner and higher education body. TeaMa offer a platform where everybody can contribute; donating money or materials, becoming a volunteer as runner or printer team or even to request for PPE parts and medical equipment. To date, TeaMa has received a RM 42,865.00 sum of donation in order to cater 43,839 orders of face shields. Even though TeaMa overseeing the whole process of accepting donations, delegating the order among the satellite printers, every state group is in touch with their respective Covid-19 screening Hospitals. They have their own chapter where it consists of fulfilling supply and demand with a state lead, state team of printers, runners and Health Care Workers (HCW) (TeaMa, 2020). However, the communication between each chapter is crucial as it helps to cover the face shield distribution seamlessly.



Figure 2 Face shield by TeaMa for Covid-19.



Figure 4 Ultimaker 2+ and Ultimaker 2+ Extended

PRINTER

For this initiative, we are printing using Ultimaker 2+ and Ultimaker 2+ Extended. These printers currently hosted in Interface Design 3D Printing Workshop in the Faculty of Creative Multimedia, Multimedia University.

The build volume for this printer is 223 x 223 x 205 mm for Ultimaker 2+ and 223 x 223 x 305 mm for Ultimaker 2+ Extended+. This printer is using a Fused Filament Fabrication (FFF) technology or well-known as Fused Deposition Modelling (FDM) a term coined by Stratys. Contrary with subtractive manufacturing, this material extrusion technology is an additive manufacturing where layer over layer of melted polymer producing a 3d object. The process was described as:

"A spool of filament is loaded into the printer and fed through to the extrusion head. Once the printer nozzle has reached the desired temperature, a motor drives the filament through the heated nozzle melting it. The printer then moves the extrusion head around, laying down melted material at a precise location, where it cools down and solidifies. Once a layer is complete, the build platform moves down and the process repeats building up the part layer-by-layer (essentially resembling a very precise hot glue gun)."

(Redwood et al., 2017)

DISTRIBUTION WORKFLOW

The distribution of the face shield is being administrated by TeaMa admin. The request is being made to the TeaMa Face Shield official website and being cascade to the satellite printers nearby the requester. The volunteers who tasked as a runner will pick up the face shield from the satellite printers and delivered them to the requester. As our 3d printing workshop is located in Cyberjaya, we respond to the request from any entity around Cyberjaya such as Hospital Putrajaya, Pejabat Kesihatan Putrajaya and Klinik Kesihatan Seri Kembangan. If the requester is far from the printers or in remote area, or the closes printers are unable to full fill the request due to any reason (out of materials or printer's down time), support will be delivered from the nearest printer. Runner also will collect the face shield, repacked and courier the face shield to the remote area or the area where no satellite printer is available. The satellite printers also sometime will deliver the face shield directly to the requester.

Apart from that, other parties such as Yayasan Universiti Multimedia (YUM) and IX Telecom did contribute to distribute the face shield MERCY Malaysia.

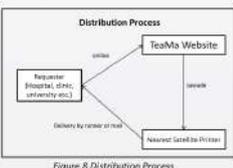


Figure 8 Distribution Process



Figure 9 YUM at MERCY Malaysia COVID-19-HUB for face shield handover ceremony

Table 1 Equipment, material and cost

Material	Preparation	Cost
Printers	Na	Na
PLA	Na	RM120 per spool
Transparent PVC rigid sheet	4 punched holes, 2 round corners	RM0.28 per pieces
Plyer, art clipper and paper puncher	Na	Na



Figure 3 Face shield in stl file, view in Tinkercad software

PRODUCTION PROCESS

These face shields require 4 phases.

1. Digital file acquisition. We acquired the face shield 3d file in Standard Triangle Language (STL) format from online portal. Created and shared by team.

2. Digital conversion. The stl file was digitally converted to Gcode format in order to print. Gcode is the language that being use by computer to communicate with the 3d printer (Amin, 2020). This stl file was sliced and converted to gcode file using Ultimaker native slicer software; Cura. In Cura, the nozzle size is set to 0.8mm to make printing process faster. The layer height is set to 0.03mm as a draft quality as this model is simple and no detailing or intricate parts. The wall thickness is set to 2.1mm with the infill of the model being set as 10% of the density. This set up to make sure that the material can be saving but at the same time providing strength required. With the size of the build plate, we are able to place two pieces of the face shield together and later will be printed as a pair. For this set up, no adhesion or support structure is required. As per figure 4, after the software has sliced the face shield 3d file the printing time is 1 hour 1 minute and 30 gram or 3.80m of material.

We also prepare another set of Gcode file which we stack the face shield to 10 pieces with 2 mm distance from each other. The support structure is required in order to fill the gap between the face shields. This stack of face shield being place on a build plate in pair resulting 13 hours printing and 366g or 46.26m material.

These Gcode file is saved into the secured digital (SD) card which contain information such as printer setting (nozzle diameter, nozzle and build plate position), print setting (layer height, support structure and printing) and filament setting (type, diameter and density). These Gcode file is transferred from the computer to the 3d printer via SD card.



Figure 4 Ultimaker Cura, the position of the face shield.

Figure 5 Face shields are stack together

3. Printing. The poly lactic acid (PLA) is used as a material for the face shield. The PLA is punch through the feeder and the feeder will rolled the PLA to the heated nozzle. The nozzle and the build plate are heated to 200 Celsius and 60 Celsius respectively. The heated nozzle will melt the PLA and lay melted PLA on top build plate while being cooling off by side fan until it's hardened. A new layer of melted PLA later being lay on top of the hardened PLA again and again forming a face shield. To increase the production speed, the printing time is being double to from 80 mm/s to 80mm/s. This however only being applied when printing a pair of face shield, the 20 pieces printing hour still remain the same as the support structure will be compromise if using higher speed. During day time, we are able to print 10 pieces per printer given the time to remove the face shield from the build plate, heating up and cooling down the nozzle and the build plate. 20 pieces at the night time thus accumulate as 30 pieces of face shield per 24 hours. Even the printer able to much more face shield at night, we need to spend time to separate the stacks, and clean up the support structure using plyers and art clippers. So during day time, we spend time to clean up all the support structure from the night's print while observing the day time printing.

4. Assemble. Two corner of the transparent PVC rigid sheet is cut into round to avoid the pointy end. Four holes are punched through the transparent sheet using the paper puncher. Each hole is 7-8 centimetre a part base on the hook at the face shield. The transparent sheet later is attached to the face shield. This process however only being done base on request. Some of the recipient already has the transparent sheet. They will attach the transparent sheet rite before they wear the face shield.



Figure 6 Plyer, art clippers and paper puncher



Figure 7 Stack of face shield and the process of removing the support structure.

DISCUSSION AND CONCLUSION

Covid 19 pandemic is still a treat to our live. We are struggling to flatten the curve and to break the chain despite the cases daily have gone down at one point. Unfortunately, the cases have been indling for that past few weeks. During this pandemic, a lot of medical devices and PPE part can be printed using 3d printer such as D mask and incubators chamber's connector. However not every parts of this printed device will provide the same fluid barrier and air filtration protection as Food and Drug Administration (FDA)-cleared PPE (Amin, 2020). But FDA did relaxed the guide line as long as the face shield do not creating the "undue risk" (FDA, 2020).

These face shields have been sent to various front liner stations and the feed back have been positive cite Wong. Wong also mention that these face shield is good enough to be used at low risk areas or operations/screening areas at hospitals/clinics, normal clinics, quarantine stations, or as extra protection at normal wards which are non-COVID related. This will ensure that the high-grade PPEs that are coming in from the government can be fully utilized at high risk areas such as wards that house COVID-19 positive patients.

Using our printers, we are able to 1500 pieces of face shield to date and distribute it to hospital, clinic, non-governmental organization and kindergarten. We will continue to print as long as there is a request and support from everybody.

As a conclusion, our quickly fabricated and low-cost solution face shield proved to be feasible to be used for Malaysian front liners in combating the pandemic. The easy to use 3d printer, low cost material (refer to Table 1) and a nationwide support, we believe to our small effort may able to flatten the curve and to break the chain. We hope that this paper will help and guide any parties that have an access to 3d printer and willing to contribute in this fight over Covid 19 pandemic.

ACKNOWLEDGMENT

TeaMa For COVID 19
Yayasan Universiti Multimedia (YUM)
IX Telecom

ALEX SNOW SCHOOL



**Myanmar Times Journal, 2020*

55% of population under 30 years of age

26% of the unemployed youth hold university degrees

Graduates



2017 - 2018

2. Engineering and Architecture**	23,150	23,396	18,884	26,773	35,379	327
B.Tech	13,927	12,540	9,642	17,482	14,274	139
B.E & B. Arch	9,023	10,708	8,664	9,018	20,715	180
M.E & M. Arch	153	135	508	153	343	8
Ph. D	47	13	70	120	47	
Engineering Science	347	323	392	359	431	257
Diploma	254	241	294	220	326	142
B.Sc	2	2	2	20	13	9
B.Sc (Hons.)	84	80	89	113	92	106
Ph. D	7		7	6		
Myanmar Mercantile Marine College	214	156	156	133	124	126
Dip.N.S	102	71	83	64	64	56
Dip.Mar.Tech	112	85	73	69	60	70
3. Computer Science and Technology®	2,505	532	986	2,205	2,709	
Computer Science®	2,046	399	821	1,956	2,251	
Post Graduate Diploma			419	441	107	
B.C.Sc	1,666			1,434	2,009	
B.C.Sc (Hons.)	340	361	364			
M.C.Sc	40	38	38	81	135	
Ph.D						
Information Science®	13	29	61	11	10	
M.I.Sc				1	2	
Ph.D(IT)	13	29	60	11	8	
Computer Technology®	446	104	104	238	365	
B.C. Tech	403			223	337	
B.C. Tech (Hons.)	41	99	99			
M.C.Tech	2	5	5	15	28	
Ph.D						

Lack of practical skill-sets development resources

10660
out of 41K
still
unemployed

Employers



41K fresh graduates in STEM fields

Lack of practical skill-sets and relevant work experience

**Myanmar Times Journal, 2020*

ALEX SNOW SCHOOL



Collective Peer-to-Peer Online Learning Community

- Peer to peer knowledge exchange platform
- Solving social impactful problems together



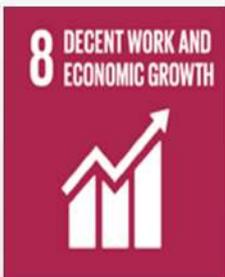
<https://www.alexsnowschool.org/>



Targeted skill-sets for Industrial Revolution 4.0

(Coursera Financial Aid Program)

- Big Data and Analytics
- AI and Machine Learning
- Finance and Economics
- Project Management



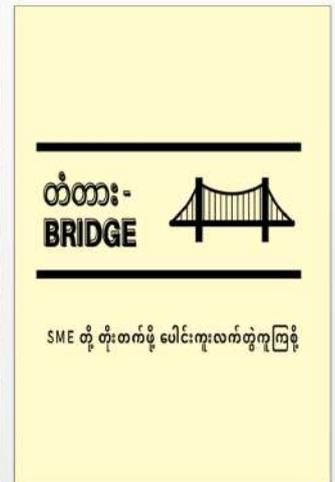
Footprints to date

- 3635 learners
- 136 coursera certifications
- 2 social impact projects

AI-powered face mask detection for fighting Covid-19

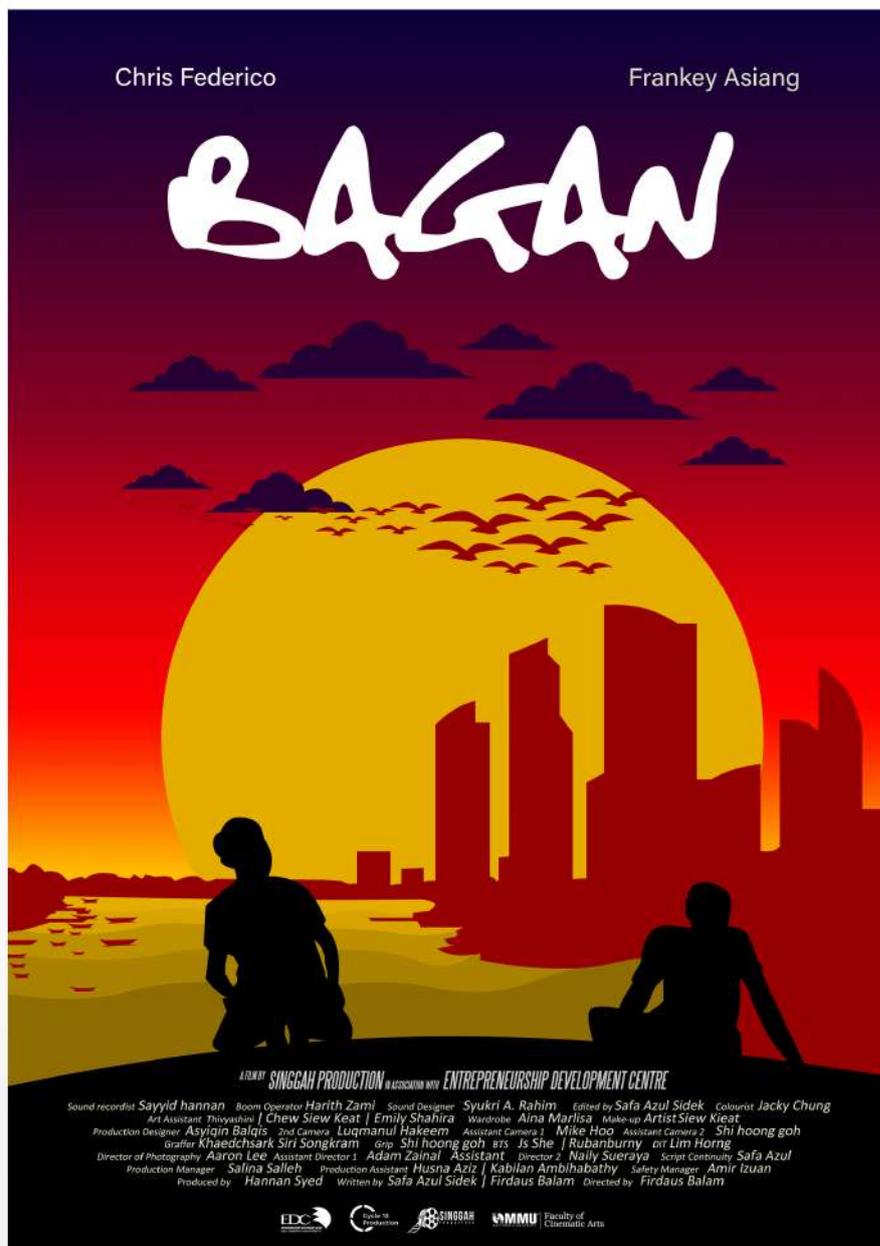


Platform for helping local SMEs growth



BAGAN BY SINGGAH PRODUCTION

ABDULLAH HANNAN
MUHAMMAD FIRDAUS BIN KAMALRUZAMAN
SAFA BINTI AZUL SIDEK
LEE YI HUA
NURUL ASYIQIN BALQIS BINTI MOHD KHAIRUL ANUAR

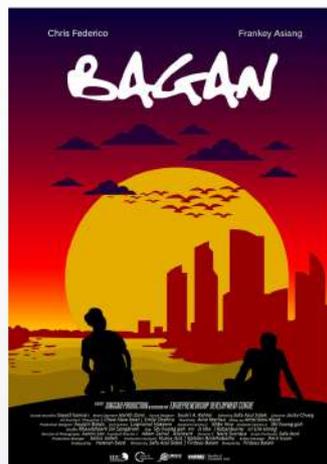


A Brief Description of the Project

About Singgah Production



This company established in 2019 with their first project, 'Anak Seletar.' It focuses on the humanitarian film and Malaysia society studies. Recently, this company get supported by National Film Development Corporation Malaysia for recent project. Bagan is the third project that developed since the first film.



Upcoming Project:

Honey's Serum Advertisement, Progressive Media Series Two Episode, Claudiaa Tan Music Video

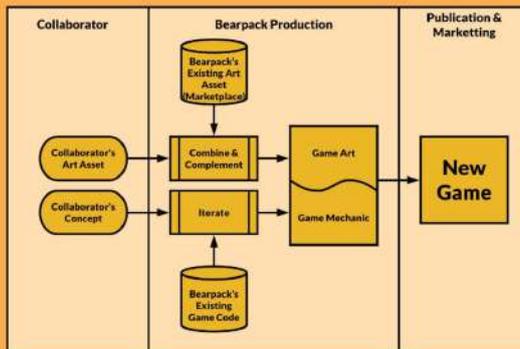
ALTERNATE GAME PRODUCTION PIPELINE

Chu Hong Yang & Tan Ingemm Niccus



BEARPACK P R O D U C T I O N

Bearpack Production explores these technologies and works to discover a newer and better way to make game that allows creative ideas to flourish.



Bearpack's method of game creation enables the production of creative mobile game within a short amount of time.

By collaborating with artists, we will be able to complement their artwork with our existing assets and codes to create games quickly while maintaining its originality

MARKET

In the collaboration with the artist, Bearpack will also be able to serve the collaborator's existing followers and bring them into our playerbase.

Working with more collaborators will also help grow Bearpack's playerbase at the same time.



TRIPIN' PANEL

Chu Hong Yang & Tan Ingemm Niccus

A UNIQUE COMIC STRIP EXPERIENCE AWAITS



NOW AVAILABLE ON



BEARPACK INSTAGRAM



WASABI INSTAGRAM



CLEEKPAY

NUR IMANINA BINTI ZULKARNAIN
 NUR ZAKIRAH BINTI MOHAMAD HISHAM
 NURUL SHAFIQAH BINTI NAZARUDIN SHAH



BUY NOW PAY LATER

NEW PAYMENT SOLUTION

- 3 months installment payment

HIGHER CONVERSION RATE

- increase e-commerce visitors

BIGGER PURCHASE

- escalate payable customer
- reduce abundant cart

**FACILITATED PAYMENT
STRUCTURE**

- simple, secure and reliable

E - WALLET

SAFER CASHLESS ENVIRONMENT

- Prevent payment fraud

HASSLE FREE AND SAVES TIME

- Unexacting process and operation

HIGHER STORE COVERAGE

- More E-wallet accessible outlets

BENEFICIAL REWARDS PROGRAM

- valuable and calibre recompense



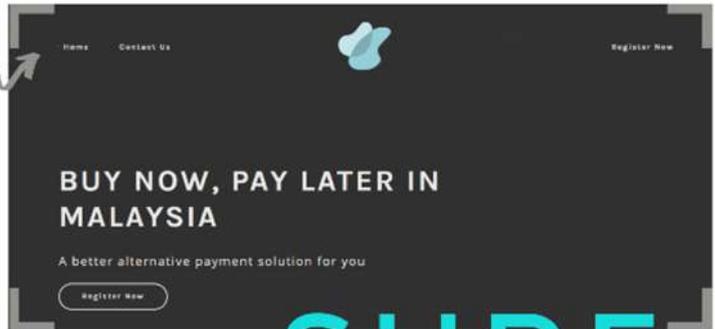
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CLEEKPAY

NUR IMANINA BINTI ZULKARNAIN
NUR ZAKIRAH BINTI MOHAMAD HISHAM
NURUL SHAFIQAH BINTI NAZARUDIN SHAH

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- ✉️ CLEEKPAY@GMAIL.COM

1st. visit
CLEEKPAY.COM
to register



SURF.

GET.



CLOTHING
ELECTRONICS
FURNITURE
BEAUTY



2nd. get your
desired item at our
authorized shop

3rd. choose CleekPay at
checkout as your payment
method and you are done!

OR

Scan our QR code to
use instalment plan

OR

Reload and purchase to enjoy rewards

ONLINE
IN STORE
E - WALLET

PAY.



DRIVING SIMULATOR FOR DRIVING EDUCATION

VRISE: TYLER CHENG

INTRODUCTION

This venture is started through the Spin-Off Scheme by MMU and aims to develop and commercialise a driving simulator for driving education. Currently consisting of 2 members: Tyler Cheng as lead and Dr. Chin Ji-Jian as Mentor and Supervisor. Our project aim is to develop a driving simulator for driving education that adheres to Malaysian Ministry of Transport's Standardised License Exam syllabus. It is in our projection that we attempt to get endorsement from the Ministry of Transport to implement such a system to complement the current syllabus. We are attempting to tackle these 3 issues we found to help students learn effectively and safely.

Issue 1

Increasing driving time means increasing accident risks. As increasing driving can be beneficial to learning effectiveness but it also exposes the inexperience students to the outside world which could significantly increases accident risks.

Issue 2

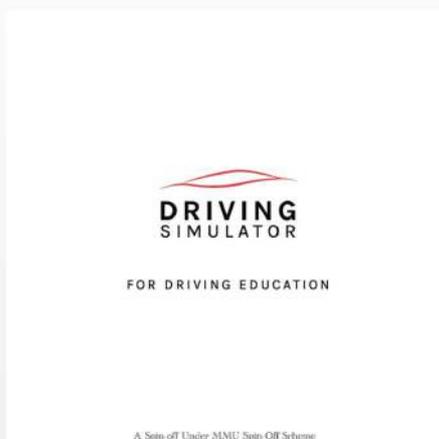
Increasing driving time means increasing costs. Fuel, Car maintenance and Tutor fees all require costs. Increasing the driving time will cause these costs to increase.

Issue 3

Increasing driving time means increasing carbon footprint. Malaysian driving institutes generally will use petrol driven cars. Increasing driving time will increase carbon footprint generated by these cars and is generally damaging to the environment.

THE SOLUTION

The driving simulator will provide the students a safer learning environment while reducing costs and carbon footprint. We also aim to give students an engaging learning experience to help them retain the knowledge they learnt.



DRIVING SIMULATOR FOR DRIVING EDUCATION

VRISE: TYLER CHENG

INTRODUCTION

The driving simulator consists of 2 modes, 7 tracks and a steering wheel set integration. These two modes are practice and test modes, the difference are that test has a time limit. The 7 tracks are based on the Ministry of Transport syllabus, consisting of 5 tracks that are based on the Real Evaluation Tests in the Standardised License Test and 2 On-The-Road Theory Test.



DIFFERENT MODES

The product consists of two modes. The difference between the two is test mode has a time limit.

COCKPIT VIEW

This is a refined view of the cockpit of the user.



VR READY

The project is VR ready. Currently it is still in progress.

PRODUCT STATUS

The product status is currently at Minimal Viable Product/ Prototyping Stage that has basic working features that are core to the product.

It is also been tested and validated with normal participants.

The product is under copyright filing as well. It is undergoing software refinement currently.

The photo below shows the driving simulator used by a normal participant



HIPSTRIKE APPAREL

Founder : Muhammad Haikal Bin Ahmad Najib



A Startup Under MMU Startup Scheme

Product :

Exclusive and high quality printed shirt known as sublimation shirt for casual.



What is sublimation shirt?

Sublimation is the process of transferring dye to a fabric using heat. The images and graphics are printed on special paper placed on the garment and heat is applied, allowing the ink to become part of the fabric. This will leave you with a more breathable, soft-hand feel to the fabric. The best part is that the numbers, letters and graphics do not peel, wear off, or come out in the wash! Sublimation is a great process that allows for vibrant, full color, all-over prints.

Target Market:

The target market is composed of men and women, 15-30 years of age, with mid-range incomes.

Value Offered:

- Selected high quality fabric.
- Outstanding and up-to-date design.
- Exclusive packaging.
- Free gift merchandise.
- Affordable price.



HIPSTRIKE APPAREL

Founder : Muhammad Haikal Bin Ahmad Najib



A Startup Under MMU Startup Scheme

About Venture:

In Hipstrike Apparel, we provide exclusive and high quality printed shirt known as sublimation shirt which specially designed for a casual yet trendy style.

Location:

East & West Malaysia for the earlier stage.

Market size:

Reachable audience: Approx. 74k-2mil (Based on the budget given for advertisement)

Marketing Platform:

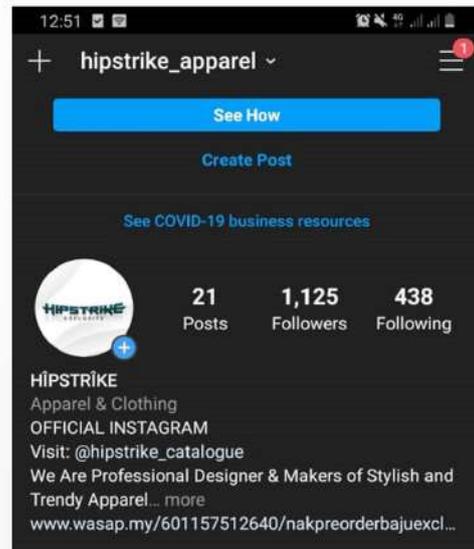
- Instagram
- Facebook
- Website (Long term plan)

Funding:

Multimedia University (MMU) Start-up Scheme
2020

Market Penetration Strategy:

- Instagram as the main focus platform followed by Facebook.
- FB & IG ads service.
- Influencer marketing.



KONDIS GREEN AQUAPONICS GREENHOUSE

Christylyn Leikson

Our Products

Kondis Green produces two category of products:-

1. Organic Vegetables & Tilapia Fishes
2. Aquaponic System

What We Grow?

Bak Choy, Basil, Romaine Lettuce, Coral Lettuce

Condominium Houses

Landed Houses

Garage etc.

What We Design?

Aquaponic System for your Home

Our Services?

Aquaponic System Installation, Short Classes, and Greenhouse Tour



KONDIS GREEN AQUAPONICS GREENHOUSE

Christylyn Leikson

What Is Kondis Green?

Kondis Green is an Aquaponic Farm in Kiulu, Sabah. Our business venture into Agricultural and Agrotourism sector which is supported by EDC, Multimedia University Malaysia. Kondis Green is a registered enterprise in Sabah to do business in Breeding and Selling Freshwater Fish, Planting and Selling Vegetables, Nursery Seeds, Hold any Agro Tourism Activities, Organizing Course and Skills Training, and Selling Agriculture and Breeding System.

Our Mission is to develop agricultural and agro tourism sector while providing a platform for people to learn and acquired essential materials for Aquaponic Farming.

Whereby, our Vision is to provide a solution to increase food security around rural areas, agricultural challenges, promote sustainable agriculture practices, and organic products to our customers. Other than that, we strive to educate people about agriculture in Sabah and provide our customer educational tour about aquaponics.

Introduction to Aquaponics

What Is Aquaponics?

Aquaponic is a system that raises fish and plants at the same time. Fish will produce waste which will act as fertilizers for our plants . While our plants live in a soil-less media. Water is continuously recirculated through the system. It mimics the natural ecosystem where every individual components exchange its by products and exist just like our mother nature does.

Why Did We Choose Aquaponics?

Four of the main advantages in aquaponic farming are reasons why we chose aquaponic techniques. **Efficient, Versatile, and Minimal, and Organic.** It is efficient as it uses less water compared to a traditional farming and can be design and planted vertically which increases crop production. As the system recycles water and can be used anywhere especially indoors or limited resources area, it is safely said to be a versatile growing system. It does not require farmlands with fertile soil and can be done anywhere without soil. With our limited space to start a farm, with a minimal space, our proprietary system design will grow at least four times more per square feet than traditional farming. Last but not least, our vegetables and product will be grown 100% organic! No bad chemicals for your body.

MADE by Radw

Founder: Ewuradwoa Ahwoi



A Startup Under MMU Startup Scheme

Online beauty brand that provides solutions to various hair and skin concerns.

Mission: To boost self esteem of females by solving their various skin & hair problems

Vision: To be one of the leading cosmetic brands worldwide

Products offered: African black soap and shea butter



- 100% plant based, organic, antibacterial and antifungal

- African black soap is made from cocoa pod and palm tree leaf ash

- Shea butter is made from the shea nut, both from Ghana

- For all skin and hair types, esp. curly or chemically processed hair

- Contains vit A & E, is anti-aging, moisturises skin and hair
- Is a natural sunscreen, treats eczema, dermatitis, psoriasis, etc.

3 variations each:

- 100% pure & unrefined
- Infused with lavender essential oil
- Infused with peppermint essential oil



- Solves various hair & skin concerns: acne, wrinkles, scarring, dandruff, spots, etc.

BEFORE AFTER



MADE by Radw

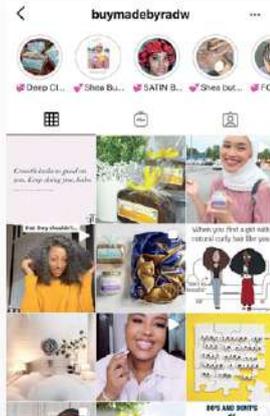
Founder: Ewuradwoa Ahwoi



A Startup Under MMU Startup Scheme

Target market segment

- Female beauty / health enthusiasts aged 24-34 living in urban areas in Malaysia
- Interests in self care, overall wellbeing
- Problems with skin and hair
- Low confidence
- Desire to save money and time
- Wavy, curly, coily haired individuals



Market entry strategies:

- Instagram is the current main sales channel
- Sales finalised through WhatsApp business app
- Website & e-commerce to follow

Market potential:

- Approx. RM900k
- Market size 4.3m people
- Reachable market 1.6m people
- Target segment 900k people

Building a steady online community



Market validation:

- Improved sales channel and Instagram feed

September 2020:	October 2020:
- 33 product sales	- 25 product sales
- RM2,019 revenue	- RM1,382 revenue

Funding:

Recipient of Multimedia University (MMU) Start-up Scheme 2020.

Future funds to be sought through start up funding agencies.

ELECTRONIC WHEEL SECURITY

Founder : Umi Ally
Co-founder : Ismarzaie

ELECTRONIC WHEEL SECURITY

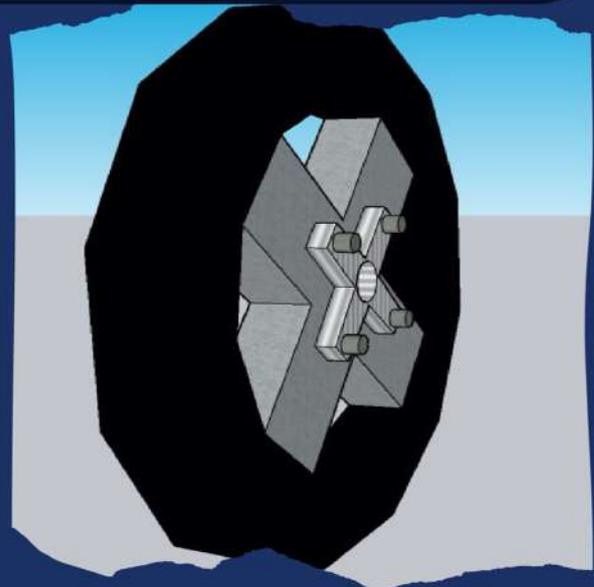
LET'S SECURE YOUR WHEEL
SAVE YOUR TIME AND MONEY



- HELP THE CAR OWNERS SECURE THEIR RIM TYRES
- KNOW THEIR TYRE CONDITION BY ADVANCED FEATURES
- ALERT MESSAGES BEEN SENT TO THEIR DEVICES.

**TOGETHER WE CAN
PREVENT YOUR
WHEEL FROM BEING
STOLEN.**

**SECURE WITH
MASTERTXCH**



Electronic Wheel Security

MASTERTXCH

FOUNDER: UMI ALLY BINTI ROSDI

CO-FOUNDER: ISMARZANIE BIN S. MARDI

WHO WE ARE ?

As the world of innovation makes our life easier, at MasterTxch, we provide products and services that would help your daily activities hustle-free.

EXISTING PROJECT

Electronic Wheel Security (EWS) device that will guarantee your wheel safety comes with extra features not just by lock



WHAT WE PROVIDE?

- New Invention
- Consultation
- Maintenance

"WE PROVIDE NEW TECH
FOR EASIER LIFE"

NEXHEALTH

Founder: Soo Pei Earn

<p>Flower Tea</p> 	 <p>OEM skin care and cosmetic products such as Cleanser, Toner, Moisturizer, Day cream, Sunscreen, Serum, Essence, Night cream, Eye cream, Make-up cleanser (water and oil based), C Cream, Foundation, Lipstick and etc.</p>	<p>Planting Herbs</p> 
<p>Ginger Products</p> 		<p>Product Labtest</p> 
<p>Propolis</p> 	<p>Herbal Business Development</p> 	
<p>Herbal Raw Material</p> 	<p>OEM</p> 	

Products & Services

 <p>HERBAL PRODUCT</p>	 <p>OEM SKIN CARE</p>	 <p>HERBAL BUSINESS CONSULTING</p>
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Contact us
 0177289133
 nexhealth.cottage@gmail.com
 www.nexhealth-cottage.com



NEXHEALTH
The next step to greater health

NEXHEALTH

Founder: Soo Pei Earn



Contact us

☎ 0177289133
✉ nexhealth.cottage@gmail.com



www.nexhealth-cottage.com

One Stop Herbal Center

One stop herbal solution to help you in herbal business. Besides, we also provides herbal products to helping people with healthier choices.



**HERBAL
PRODUCT**



**OEM
SKIN CARE**



**HERBAL
BUSINESS
CONSULTING**

HERBAL PRODUCTS

Flower Tea, Herbal Tea, Herbal Raw Material, Ginger, Agarwood,
Herbal Planting

*"The next step
to greater
health"*

OEM SKIN CARE

OEM skin care and cosmetic products such as Cleanser, Toner, Moisturizer,
Day cream, Sunscreen, Serum, Essence, Night cream, Eye cream, Make-up cleanser (water
and oil based), C Cream, Foundation Lipstick
and etc.

HERBAL BUSINESS CONSULTING

This ambitious path is designed for those who want to venture into product development and
launch an herbal business.

SEHATY

Founder: Ummu Sulaimah Binti Agung Biyadi
Co-founder 1: Siti Nadzirah Binti Saiful Bahri
Co-founder 2: Nor Farisha Irwayu Binti Azizul

Spices &
seasonings



**Premix
No MSG
Suitable for
healthy meals**

Sihat, Sedap, Senang Hati.

**Traditional
Nusantara**

**Tasty
Italia**

**Hot & Spicy
Kick**

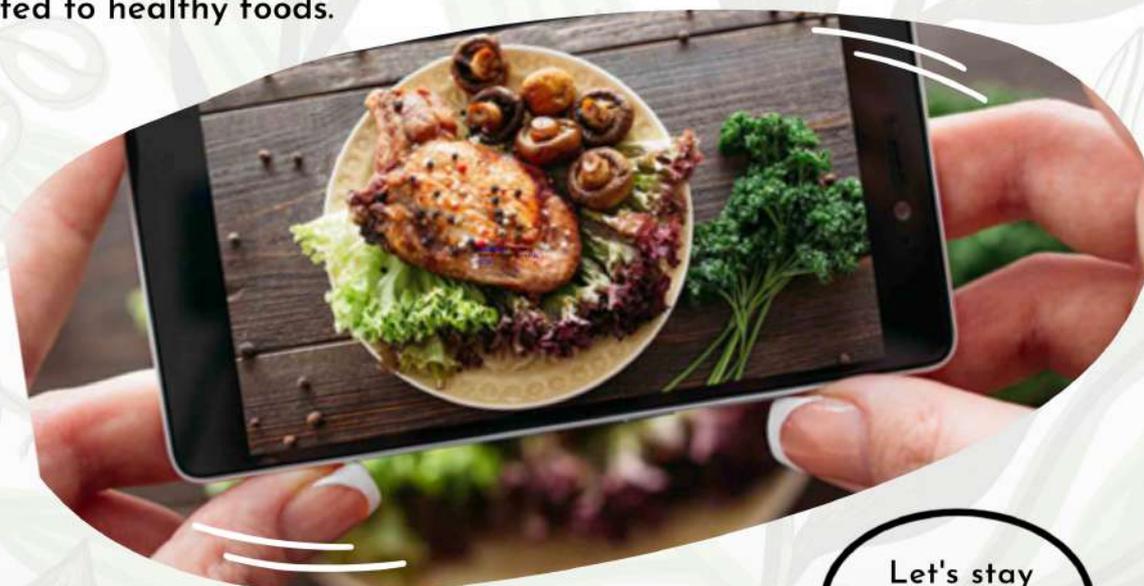
**Furikake
Seaweed**

SEHATY

Founder: Ummu Sulaimah Binti Agung Biyadi
Co-founder 1: Siti Nadzirah Binti Saiful Bahri
Co-founder 2: Nor Farisha Irwayu Binti Azizul

Sehaty is an online platform that aims to educate, guide and inspire people who struggle in changing their lifestyle into a healthier one, especially for beginners through cooking videos, info and tips related to healthy foods.

sehaty
A Startup Under MMU Startup Scheme



We also provide alternative healthy spices and seasonings as an organic enhancer for healthy meals to make preparing it easier, faster and tastier.

Let's stay healthy with Sehaty!

Nadzirah

Ummu

Farisha



@sehatykitchen



Life Made Easier™ **TM** Group

TUKANG.MY - Digital Instant Solution for Households and Fixers

Manivanan Sehgar, Wan Izyan A'qila, Cheah Wei Chee, Vincent Chan, Siti Jamila Syuhada

What is Tukang.My App?

Book Service



Direct Bookings

You are one tap away from everything



Electrical



Plumbing



Air Condition

Other Benefits



Home



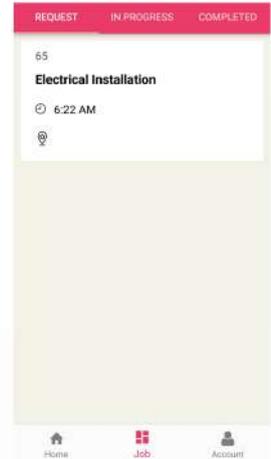
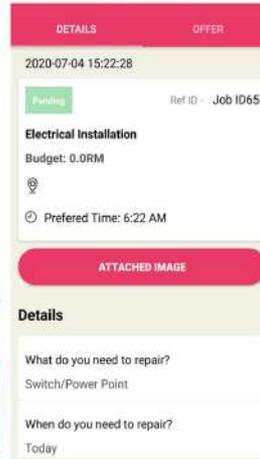
Job



Account

Tukang.My is an user friendly mobile app for households to seek for fixing services & a platforms for fixers to market the skills.

Fixers able to view the details of job and households' location on "Job" page.



iFix feature

Hi, welcome to iFix
How may I help you?
Kindly choose which problem are you facing.

Air-Conditioner

Air-Conditioning
Do you need installation or servicing?

Servicing

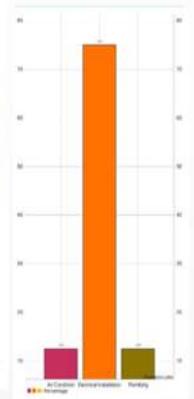
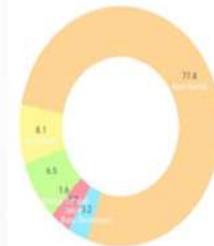
Sure I will provide you the steps on how to clean the air-conditioner.

A 24 hours smart chatbot that guides households to solve simple fixing issue such as cleaning air-conditioner

iFix provides **step-by-step guide** for all simple fixing issues faced by households.



Visualization Trends Data & Geolocation



Provide **visualization trends data** where fixers can locate the nearest potential customers with the help of **geolocation**.

TUKANG.MY - Digital Instant Solution for Households

Manivanan Sehgar, Wan Izyan A'qila, Cheah Wei Chee, Vincent Chan, Siti Jamila Syuhada

Problem Statements



97.6% HOUSEHOLDS faced problems on solving home-fixing issues during MCO period. (Source: survey conducted by Tukang)



610,500 were unemployed due to COVID-19 outbreak. (Source: The Star, 8 May 2020)



Information on website are **scattered around** hence **time consuming**

What is our solution?



Recruit independent fixers such as TVET graduates to market their skills in Tukang's platform.



Match fixers with households through geolocation feature



Provide instant fixing solution to households in front of their doorstep!

Our Expertise



Geolocation feature

display the nearest fixer available within households region



Visualization trends

data helps fixer to decide the current high demand job that suits their skills and location.



iFix feature

is an automated smart self-fixing feature for households to fix simple home-fixing issues.

Our Services



Electrical wiring



Air-conditioner repairing & servicing



Plumbing

ANIMATION AND VISUAL EFFECTS PRODUCTION PROJECT

TS HJ AZHAR BIN HJ AHMAD @ SALLEH

THE PROJECT BRIEF

Animation & Visual Effects Design Project | AFX Design Project is a final year course. The AFX Design Project 1 course takes students through the pre-production stage of a short 3D Animation and Digital Visual Effects production. In this course, students will look to develop a short character-centric story, complete with research, references, concept designs, and conclude with completing the **digital animatic** storyboard for a proposed short story. *(Students will have to construct a pre-visualized animatic complete with visual and audio, based on precise animation pre-production practices.)*

*AN ANIMATIC IS DEFINED AS: A SERIES OF IMAGES PLAYED IN SEQUENCE WITH A SOUNDTRACK | AN ANIMATED STORYBOARD.

THE OBJECTIVES

To **aspire to become the content creator | content-preneur | E-preneur.** This project intends to produce students with entrepreneurial behaviours, skills and attitudes, as well as highly motivated towards entrepreneurial career.

THE COMMUNITY | BENEFICIARY

The General Public: The general public would benefit from these initiatives. Community Benefit: **Edutainment | Creative content education and entertainment.**

THE DIGITAL ANIMATICS

The Theme for AFX Design Project (2020):

'LIFE WITH THE PANDEMIC'

There are 8 titles of short stories presented by 8 groups of 28 students involved in this project.

*THE FULL 3D ANIMATION | VFX FINAL PRODUCTION IS EXPECTED TO BE FULLY COMPLETED BY THE END OF FEBRUARY 2021

THE PROJECT DESCRIPTION

An average TV show in Malaysia (mostly around the globe) is **22 minutes** long which allows for 8 minutes of commercials per half-hour. The average video length of the **top 10 YouTube videos is about 3 minutes | The ideal video length on YouTube is between 3 minutes and 3 and-a-half minutes.**

AFX PRODUCTION BRIEF

The ideal video length on AFX FYP is between 3 minutes and 3 and-a-half minutes. All Groups need to prepare and present a full season proposal ideas of an animated series based on the standard TV programme – **13 episodes of 22 minutes.** Each episode will contain **6 titles of 3 minutes to 3 and-a-half minutes** short animation | VFX production. The complete proposal ideas for the entire season will be a total of **78 titles including the brief synopsis or loglines.**

1 episode = 22 min = 6 titles x (=3.5min)
1 season = 13 x 6 = 78 titles

One of the titles will be chosen as the pilot product for FYP Project.

THE IMPACT MEASURES

Presentation & Crit Session; Ideation, Concept and Production Design, Storytelling, and Storyboard Design – with new add in values; Project Positioning and Branding. *(Use of Panels; To provide comments on certain issues about which the panels have relevant experience.)*

Product Market Test; Project designs & digital animatics to be tested with target audience.



NOVA ESCAPEDE



CLAUSTROPHOBIA



SAKTI BAND



MORTAL SUMBAT



LITTLE APPRENTICES



THE DAY I LEFT



LAPIS



ANKURU MUTHU

FCA FINAL YEAR PROJECT 1 “ASRAMA”

Lim Horng Unn (**Producer**), Aina Marlisa (**Director**), Anas Jasni (**Cinematographer**), Ruban Raj (**Production Designer**), Heng Shuen Yi (**Art Director**), Muhd. Muddaththir Aminuddin (**Writer & Editor**), Amir Shahlan Amiruddin (**Supervisor**)



Project Brief

“Asrama” is a Final Year Project Short Film by Sinema Awan Mendung, a group of film students from the Faculty of Cinematic Arts. A drama with hints of comedy, this story is set in a life of survival in an ‘Asrama’ or Boarding school.

Whats the story about?

When the school Queen Bee appoints Nik as a mule to send contraband over to the boy’s dorm, Nik take sthe opportunity to prove Fatin her worth. When things don’t go as plan, she must decide if the chase is worth the blame.

Highlights of the Project

We’re in the midst of preparation for the film shoot. We’ve embark on crowd funding campaign as a way to help fund the film. Besides collaborating and discovering new talent from the industry, th eproject will also help generate economy by hiring caterers, renting spaces while promoting business in the areas where the film production will take place. Our intention once the short film is made is to submit to international film festival to further promote our production company and also share Malaysian stories with global audience. End of the day, we hope the short film will be a kind of story all youth can enjoy and be proud of.



Challenges and Opportunities in #NewNormal: RISK MANAGEMENT & COVID 19 PANDEMIC

DR. YANG CHIK BINTI ADAM

LAM HONG ZE, LIM LI KEN, LOH WEI AN, SIM ZHONG SHENG & TONG MIN JIE



RmF of Tekun Asas Sdn. Bhd. amidst COVID-19 Pandemic

Introduction

What is CSR?

- Self- regulating business model- socially accountable to itself, stakeholders and public

What is RMF?

- Structured process used to identify potential threats to an organization and to define strategy for eliminating or minimizing impact of those risks

Background

Management

- Only allowing 50% workers to return once MCO was lifted
- limited number of passengers in their transportation for their workers

Risk Information

- posted posters and banners regarding SOP's to educate and remind employees to follow them
- send out memos - if a person is caught without a face mask, they will be punished with a penalty of RM100

To adopt approach to mitigate

- A rescheduling of working hours had been switched to 8am – 4pm
- Some departments were allowed to work from home

Communicate effectively to stakeholders

- Appointments had to be made prior to the visit. During visitation, one member of the staff should be accompanying the visitor
- Company had also verbally informed the employees that there are probabilities in delay of salary of up to 5 days.

Methods or Process

WHY Tekun Asas Sdn Bhd?

- Metal Stamping Business.
- Biggest Client : Sony

Interview Session:

- current status
- factors
- ways to mitigate

Conclusion

HOW good is the RMF?

Good Governance

- Flexibility (sub-contract workers)
- Maintain the high quality & low cost of their services (reduce rental, material cost)

Corporate Social Responsibility

- no retrenchment (Wages Subsidy Programme WSP)
- active participation in the Screening Test from Prihatin Screening Programme (PSP)

List of Reference

- 1 Ellie Collier, 'The Importance of Corporate Social Responsibility for Your Business' (HighSpeedTraining, 26 Jan 2018) <<https://www.highspeedtraining.co.uk/hub/importance-of-corporate-social-responsibility/>> accessed 22 September 2020
- 2 Jagg Xaxx, 'Recommendations on Corporate Social Responsibility' (Bizfluent, 26 Sep 2017)

e-Bazaar: THE CHALLENGES AND OPPORTUNITIES IN THE NEW NORMAL

#reboundfromcovid19



Suhana Mohamed Salleh (Project Leader)
Nur Syazana Lyana Mohd Zubil
Raja Razana Raja Razali

Introduction

eBazaar was the event designed to help local entrepreneurs bounce back from the recent pandemic while at the same time allowing the researchers to learn about the struggles and hardships that these entrepreneurs went through during these tough times. This project is a production from tasks given to 88 students of the Faculty of Applied Communication. With the aim of helping entrepreneurs affected by Covid-19, the tasks embeds the entrepreneurial learning of EL3: Empathy with the life-world of the entrepreneurs, where students are required to complete the tasks given through the application of knowledge and skills that are aligned with the Course Learning Outcomes (CLOs) of each course.

Key Features of invention

Teaching and Learning (T&L) Innovation

- Borderless education
- Cross course, programmes and cross sector collaboration during crisis
- Integration of project management with new skills set of production and technical skills

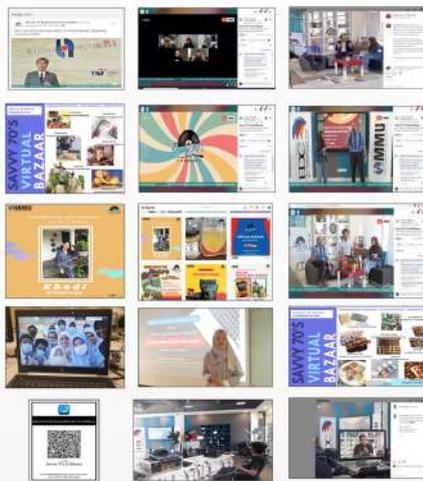


Acknowledgement

Thank you to the Entrepreneurial Development Centre (EDC) for choosing us as one the recipients of EEL Scheme 2020. With this scheme, we were able to fulfil the university's agenda to nurture entrepreneurial students and help them to engage with the community and be part of knowledge transfer programme (KTP)

Originality/value

Embedding Entrepreneurial Learning (EEL), this project is among the first to suggest how this change has taken place and what it means for entrepreneurs, thereby eBazaar provides a unique approach to affected entrepreneurs. It is about time how this pandemic crisis has altered in positive ways the changing of business strategy from traditional approach to the digital platform.



Purpose

Covid-19 pandemic has significantly affected the small and medium-sized enterprises (SMEs) in terms of their ability to maintain their home-grown businesses. The widespread of pandemic had seen the closing of stores and home-grown businesses due to the coronavirus. eBazaar was an event designed to help local entrepreneurs to bounce back from the recent pandemic and at the same time allows us to learn the struggles and hardships that these entrepreneurs went through during these tough times.

Design

This project is a reflection of tasks given to the final year Bachelor students for Event Planning and Management (LEP3017) together with Diploma students for Intercultural Communication (DIC5117) and Foundation students in Academic Writing (LAW0015) of Faculty of Applied Communication (FAC) in helping entrepreneurs affected by Covid-19 pandemic. By choosing the EL3, Empathy with the life-world of the entrepreneur students are required to complete the tasks given by testing them through the Course Learning Outcomes (CLOs) of each courses.

Methodology/Approach

Environmental scanning, background research, online interviews, review of literature on Covid-19 pandemic and entrepreneurship, review of writing samples and error analysis for writing competition, online interviews and online discussions were used to gather information to make the even a success

Findings

The project finds that managing home-grown brands and businesses during this tough time is difficult due to social distancing, current economic situation and Standard Operating Procedure (SOP) imposed by the Malaysian government and authorities. Lack of skills in managing social media strategies, poor knowledge of marketing products/brands and understanding audiences were the factors why some of entrepreneurs lost their income. This means that the new innovative way of promoting products and brands through e-Bazaar is needed to simulate good practice of being an entrepreneur. This will enable a more community-oriented approach, not only for entrepreneurs but for others too, in helping all the entrepreneurs get back to their businesses and practice of good entrepreneurship.

References:

Bacı, S., Geoghegan, W., Josefy, M., Stevenson, R. and Williams, T. (2020). "The COVID-19 virtual idea blitz: marshalling social entrepreneurship to rapidly respond to urgent grand challenges". *Business Horizons*. In Press

The impact of COVID-19 on small business owners: Evidence from the first three months after widespread social-distancing restrictions Robert Fairlie First published: 27 August 2020

Anggadwita, G., Lututlean, B., Ramadani, V. and Ratten, V. (2017a). "Socio-cultural environments and emerging economy entrepreneurship: women entrepreneurs in Indonesia". *Journal of Entrepreneurship in Emerging Economies*, Vol. 9 No. 1, pp. 85-96.

Nair, V. (2020, April 14). *Hawkers Venture Into a Virtual Bazaar*. *TheStar*. Retrieved from: <https://www.thestar.com.my/metro/metro-news/2020/04/14/hawker-venture-into-virtual-bazaar>

Cham, D. (2020, April 15). *S'gar Inniches Ramadan e-Bazaar called PagiPagi Selangor*. *NewStraitsTimes*. Retrieved from: <https://www.stn.com.my/news/metro/2020-04-15-sgar-inniches-ramadan-e-bazaar-called-pagi-pagi-selangor>

EEL 2020: Digital Advertising & Branding : Identity Recast for Entrepreneurs

DABIRE 2020

Muhammad Nizam Zainuddin & Abdullah Al Mamun Sarwar

MMU FACULTY OF MANAGEMENT
MULTIMEDIA UNIVERSITY

INTRODUCTION

PROBLEM

- Covid-19 Pandemic change our world
- The digital ecosystem become the preferred way of communication
- Traditional business operators need to embrace the latest business tool as soon as possible.

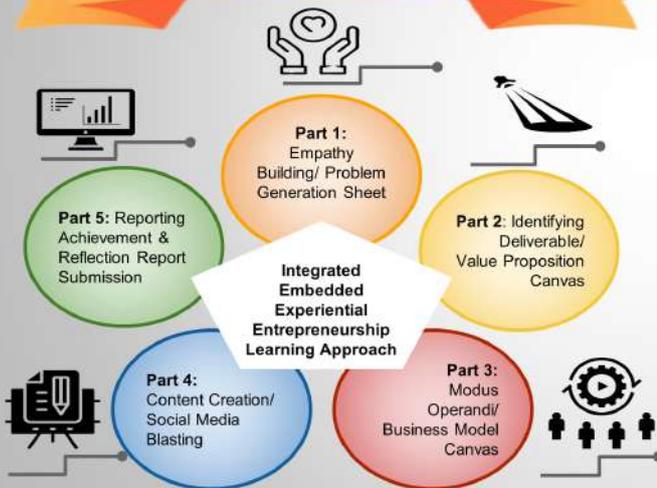


SOLUTION

- By switching to the digital advertising and branding platform, the affected traditional business operators would be able to remind their existing customers about their business operation or to reach out to new customers at this challenging time.
- Therefore, DABIRE 2020 project aims to spread the positive message across to the traditional business operators who had an inactive social media account to start to leverage on digital advertising and branding platform.
- DABIRE 2020 combines the contemporary theories and practices of the new venture creation discipline as well as collaborates with the subject matter experts and high-flying MMU alumni to deliver the impactful, integrated knowledge sharing contents to students of BEN2074 subject.

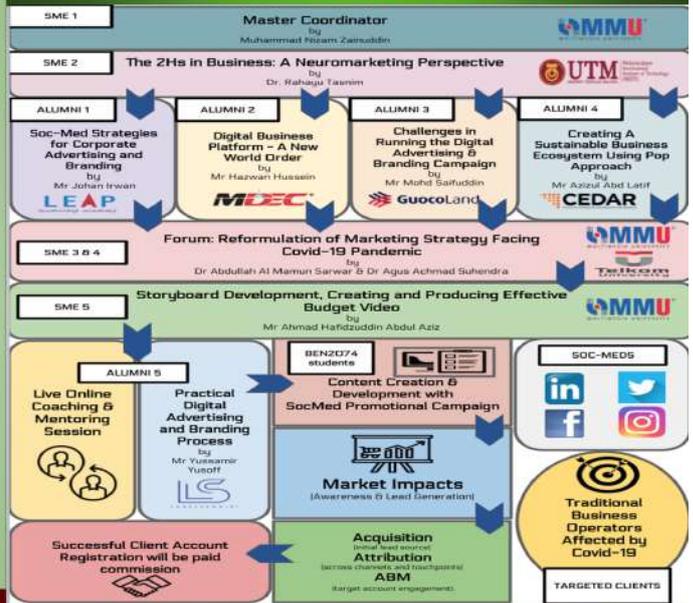
SUBJECT DESIGN

COURSEWORK ASSIGNMENT (40%)



BUDGET ALLOCATION : RM 2850 FROM EDC

PROJECT DESIGN



KEY FINDINGS & DISCUSSION

EEL 2020 — BEN2074 Entrepreneurship

5 weeks | 5 SMEs | 3 Universities | 5 Alumni |
8 groups @ 80 students | 4 Business Sectors | 28,111 Hits |
1,029 Likes | 3,209 Follow-up Interactions

Effectiveness of Knowledge Transfer Programme	Achievement of Entrepreneurial Learning Outcomes & Pedagogies		
Neuro-marketing strategy	100%	Take-up rate of engagement in digital advertising & branding platform	✓
Technical skills and knowledge in producing online video	100%	Understanding about aesthetics element in design & advertising	✓
Fine-tuning knowledge in posting video effectively (e.g. using boost method)	100%	Acceptance of neuro-marketing knowledge in developing effective marketing material	✓
		Engagement with successful alumni from the industry increase their confidence about entrepreneurial journey	✓
		Empathy and solidarity with affected business owners due to Covid-19 pandemic and provide potential solution	✓



Embedding Entrepreneurial learning in ECE3086 Multimedia Technology And Application

Lecturer: Mohd Haris Lye Abdullah (Faculty of Engineering)

➤ INTRODUCTION

MMU Entrepreneurship Development Center (EDC) has embarked on a program to embed the entrepreneurial learning in all faculties. The subject ECE3086 Multimedia Technology and Application has been chosen for this initiative. The main focus area adopted is in minimum viable product development to meet the need of university to deter student from cheating during online test. In addition, student are requested to engage in product marketing via video and website design. This project is implemented as part of students assignment. Students has successfully developed software prototype that meet the market requirements and one of the project has been selected to be showcased in RICE 2020.

➤ SUBJECT DESIGN

- One group assignment with 40% course contribution
- One group consist of 4-5 students with a total of 37 students and 9 groups
- Assignment project runs for 12 weeks from 6 July till 27 Sept 2020 and final presentation on 5 Oct 2020
- Each student assigned to different role that include software development, marketing product video creation and website design
- Project delivery is divided into 5 milestones and each student assessed for each milestone achievement based on rubric approach. This is to ensure student complete the project in timely incremental steps rather than last minute rushing. Each milestone is spaced 2-3 weeks apart.
- Student submit video demonstration as proof of milestone achievement.
- To build the required background for software development, student takes Python programming course at <https://www.coursera.com>
- To inculcate teamwork, the team is assessed on the submission on meeting minutes

➤ ASSESSMENT CRITERIA

- Idea feasibility
- Timely completion of software that meets project requirement
- Software usability testing with end user via survey
- Completion of online programming course
- Project and product video quality
- Project report
- Group meetings documentation.

Sponsored and Supported by



➤ PROJECTS RESULT

The sample results from various students project



Interesting Software Features Developed

- Prototype software shows various functions needed to detect student performing cheating during online test
- Computer vision and artificial intelligence techniques are used
- Software functions include person, face, hand, book and cell phone detection with the use of web camera
- In addition, feature that detect the use of communication software such as Whats app, Facebook are demonstrated
- Detection of student talking during online test
- Website to showcase the software product

➤ KEY FINDINGS

Achievement of Entrepreneurial Outcome

- The result of the assignment achievements shows evidences of entrepreneurship skill attained by the students
- This is measured from the demonstrated minimum viable product (MVP)
- Marketing of the product is done through video demonstration and promotion website. A sample video demonstration shows one the successful project done by the student
- Students engage with potential end user through surveys and hands on software testing

EMBEDDING ENTREPRENEURIAL LEARNING IN EME 3066 INDUSTRIAL MANAGEMENT

Norhidayah Mohamad and Chan Wai Ti
Faculty Engineering Technology (FET)

Multimedia University, Jalan Ayer Keroh Lama, Bukit Beruang, 75450 Melaka

DESCRIPTION OF THE PROJECT

- ❖ The subject Industrial Management is intended to impart skills that students need in order to plan for and enact engineering-related business projects.
- ❖ The curriculum includes an assessment method that has students coming up with a comprehensive business idea focus on technology can be used pandemic.

PROJECT THEME AND BENEFICIARY

- ❖ Logistic/transportation industry
- ❖ Supply chain linkage
- ❖ Storage/warehouse distributor
- ❖ End-user/Customer

Roles of Lecture

-  Facilitate the students to understand the concept and assignment requirement.
-  Help the student to theory of project management, economics in engineering environment.
-  Supervise the execution of the project

ASSESSMENT METHODS

- ❖ The assessment method has an extensive rubrics schema that include 17 major criteria
- ❖ About the practical aspects of their business plan, and 5 criteria about its presentation and conciseness.
- ❖ Each aspect in turn has 4 levels of achievement, each with own description. 40% for the assignment
- ❖ Mark and 5% evaluation for presentation assessment

Findings



OBJECTIVES

- ❖ Develop entrepreneur skills among students before they graduates
- ❖ To educate and train the students do such critical thinking by identify problem solution along the line with the market need
- ❖ Students used the engineering management skill to think, create and commercialize the business idea

Achievement of Entrepreneurial Learning Outcome

-  (LO2) Identify the problems situated by the people/community during pandemic COVID19.
-  (PO13) Demonstrate skill at project management, finance and entrepreneurship in industrial engineering environment. Entrepreneurial behavior, attitude and skill development.

Key Activities

- ❖ Brainstorming the concept and suitability with other group member
- ❖ Design business idea
- ❖ Pitch & Report presentation

EMBEDDING ENTREPRENEURIAL LEARNING IN VIRTUAL REALITY PROJECT 1 MVR3003

Erwin Abd Jabbar, Dr. Roopesh Sitharan

INTRODUCTION

Virtual Reality Design Project 01 | MVR3003

Course Description :

To lead students full potential to identify, manage and develop VR content, in meeting social / industrial needs through creative positioning by capitalizing VR technologies. (VR, AR, MR)

Students taking undergraduate degree in Virtual Reality (VR) under the Faculty of Creative Multimedia carry out a substantial individual or group projects as part of their final year thesis. This year the VR department decided to adapt an initiative by the University through the 'embedded entrepreneurial learning scheme' (EELS 2020) for the development phase of the final year projects (FYP) by fostering entrepreneurial mindset in developing VR based application through FYP.

Rationale

The final-year project is considered as an essential part of Creative Multimedia degree. Especially for Virtual Reality majoring, the project plays a key role in preparing students to meet the demands of creative industry. For this reason, the EELS adapted to be part of FYP - in order to capitalize the VR platform so that it could be effectively deployed to solve and confront many of the issues caused by the Covid-19 pandemic. The industry today is actively seeking the utilization of creative technologies such as VR to fight the pandemic and to prepare for the new norm through virtual based communication. The ability for an immersive and fantastical virtual world by VR technologies delivers an alternative form of communication for audiences.

The benefit of VR technologies also abides in its versatility of embedding itself within existing services in order to provide safe and accessible experience without actually requiring the audience to learn anything new. This cruciality has increased people's adaptation of new technologies such as VR in their daily lives.

Given the prolonging situation with Covid-19, there is a real chance that the demands for VR to surge as it becomes a necessity to operate in the new normal. With this in mind, the EELS 2020 provides students with an entrepreneurial mindset to grasp the opportunity and expand their creative resources by being critical as well as innovative so that they will have an edge in their competitive, future career prospect. The students are expected to generate possible ideas through key focused stream :

VRproject stream



EELS 2020 AIMS

TWO (2) Entrepreneurial Learning Outcomes and Pedagogies:

- Gain knowledge of the phases and stages involved of going into business.
- Nurture skills and competencies in managing the relationship with different stakeholders, as well as cultivation of entrepreneurial traits and competencies among the students.

SUBJECT DESIGN

Theme :



Assignment 1 (25%)

Part 1: Business Model Canvas (10%)
+ align with VR Project proposal
Embed entrepreneurship values in Final Year Project Proposal in developing practical application dealing with real-world issues.

Part 2: Proposal Development (10%)
Students are required to assess, identify and act on opportunity by proposing 3 potential solution addressing new normal by capitalizing VR capability.

Part 3: Pitching (5%)
Evaluate and refine feedbacks



Assignment 2 (30%)

Part 1: Research Background (10%)
Manage research, data finding and analysis to further understands the addressing issue from stakeholders / collaborative partnership, inherent knowledge and provides possible simulation solution through VR platform

Part 2: Content Development (10%)
Adapting design thinking approach in conceptualize strategic informational system to articulate between stakeholders/collaborative partnerships

Part 3: Sharing and Reflection (10%)
Emphasize and consider user requirements and usability consideration



Assignment 3 (35%)

Part 1: Prototype Development (25%)
Develop impression proof of concept to final prototype application.

Part 2: Prototype Walkthrough and Testing (10%)
Gather, evaluate and refine feedbacks gathered from panels and subject experts.



PROJECT DESIGN

BOOTCAMP 25/06/2020

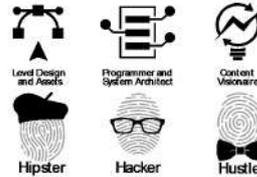
PROJECT KICKSTART 01/07/2020

Formation of Team

Number of students: 16
Number of Team formed: 4
Number of members in a Team: 4

Entrepreneurial Quotient Profiling Test

Objectives:
To determine the EQ of the students and the role each member plays in the Team to meet VR production skillset requirements.



Brainstorming Session

Objectives:
To develop possible ideas and application to address the #NewNormal through VR project stream

Part 1: Participation in Industrial Talks

LEVEL UP KL 2020 - EIZ DAY
Objectives: 12-15/10/2020
To expose students with knowledge and practice on developing VR application, discuss on potential avenues and revenues as VR developer.

Part 2: EDC Programme

05/10/2020 - 06/11/2020
Entrepreneur Development Programme
Objectives:
To equip students with entrepreneurial mindset and knowledge needed. Prepare students with pitching skillsets.

Challenges and Opportunities in the #NewNormal



Highlight 1 : Walkthrough Presentation



21/10/2020 Number of Panels : 7
During the assessment process, each team has presented their proposal to panel and subject matter experts based on the criteria below.

10%	Content / Solution / Application Ability to identify a compelling solution and address contextual issue capitalizing VR approach
10%	Audience Ability to identify the focused group needs, expectation and problems addressed.
5%	Technical Ability to project a solution with a reasonable competencies and resources.
5%	Poster, Walkthrough and Pitch Ideas presented well prepared with clarity, focus and confidence
5%	Overall Impression Assessment Team objectivity and chemistry, Validation of ideas proposed.

Highlight 2 : VR Gameday, FCM



VR Department Game Day held yearly in Faculty of Creative Multimedia giving students the opportunity to engage, exhibit, apply user testing and gather feedbacks on their working projects whilst exposing themselves to gamification content, and exchange knowledge and establish collaborative partnerships - postponed due to MCO

Community Involves	Invited and participating Schools, VR and Game design students, VR and Content developer
Activities	VR projects booth set up and demo, Knowledge sharing by subject experts, Invited industrial speakers, Game competition.

LEARNING OUTCOMES & PEDAGOGIES

Ability to comprehend and act through the phases and stages involved of going into business

Acquire skillsets in building relationship with different stakeholders

Established entrepreneurial traits and competencies

EMBEDDING ENTREPRENEURIAL LEARNING THROUGH CONSUMER LAW PROJECTS

Putri Syaidatul Akma Mohd Adzmi
Faculty of Law, Multimedia University

INTRODUCTION

#UCS2612

PROJECT CHALLENGE 2020

Theme: Challenges & Opportunities in the New Normal



The Project is designed to develop entrepreneurial competencies and traits amongst students within Consumer Law context.

Students in teams are expected to propose and implement a project designed to protect consumers and businesses from the effects of COVID-19 Pandemic

The teams are to consider these rights :

- The Right to Be Informed
- The Right to Choose
- The Right to Safety
- The Right to Be Heard
- The Right to Have Problems Corrected
- The Right to Consumer Education
- The Right to Service



PEDAGOGIES

20%

20%

Pitch & Deck Poster & Report

8-week Project

- 💡 Week 1 : Briefing
- 👁️ Week 2 : Brainstorming
- 📄 Week 4 : Progress Report
- ⚙️ Week 7 : Showcase
- 📈 Week 8 : End of Project



CONCLUSION : IMPACT AREA

- Knowledge Transfer
- Knowledge Creation
- Community / User Engagement
- Entrepreneurial Learning Outcome

SELECTED PROJECTS



Website for people to purchase their medicines and daily needs. *Avoid close contact in pharmacies & dont have to go out*



Providing Awareness on cyber attacks & platform to showcase MMU student's product



Innovative AI Solutions towards Solving Challenges in the New Normal

DR. TEE CONNIE, DR. NEO HAN FOON & MR. LIEW TZE HUI
FACULTY OF INFORMATION SCIENCE AND TECHNOLOGY, MULTIMEDIA UNIVERSITY

Project Description

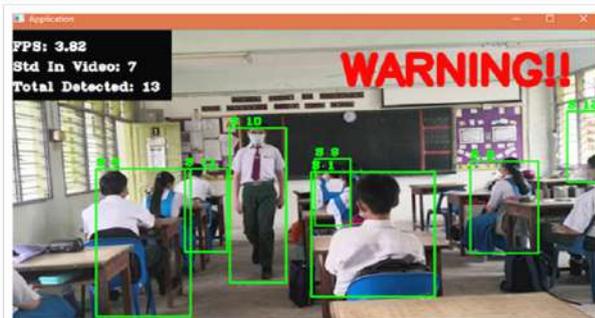
Social distancing has become a new normal which every individual must be aware of and practice it. This project aims to create innovative AI solutions during the New Normal through nurturing entrepreneurial learning concepts amongst the students. Various computer vision systems have been developed to address different challenges in the New Normal.

Objectives

- To develop AI solutions to address challenges in the new normal
- To nurture collaborative working as part of entrepreneurial skills among the students

Technologies

- Social distance monitoring using people detection algorithms
- Face mask detection using machine learning techniques



Communities Involved

Tadika Sinar Kluang, Desaru Seafood Corner, Sekolah Menengah Chung Hua (PD), D'Five Coffee House, Katzlander World, MICHAEL MUSIC STUDIO, SMK Tong Hua (Bintangor), Restoran Jit Jit Sheng, Dima Restaurant

Photos



From left to right: Fun with kindergarten children, Interviewing school principal and restaurant/café owners

ONLINE PLATFORM/SYSTEM/WEBSITE FOR SMALL BUSINESS OWNER

Nurasma' Shamsuddin and Khairil Imran Ghauth

Introduction

Participant: Faculty of Computing and Informatics (FCI):DWP 5431 Internet and Web Publishing

In conjunction with the theme by Entrepreneur Development Center(EDC), Challenges and Opportunities in #NewNormal, **student need to come out with an online system/website/platform for those affected people/business.**

WHY: Because many people especially small business owner affected during MCO.



WHAT: To help the business owner that does not have online platform to sell their products.



How does it fit the theme?

People need to adapt with the using of online platform in

the new normal.

Entrepreneurship Objective :

EL 2 : Entrepreneurial behaviours, skills and attitude.

Learners will be able to

- initiative taking
- Commitment to see things through

Assessment Methods

Group Project: 30%

i. Business Model Canvas: **7.5%**



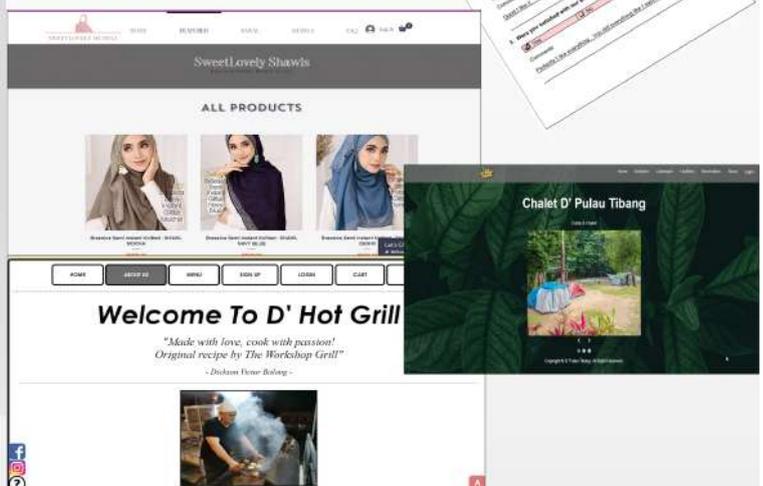
ii. Website/ Online Platform: **22.5%**

Students need to engage with the business owner before they develop the website.



Key findings and Discussion

- **Knowledge Transfer:** The business owner satisfied with the end product and already/would like to use it.
- **Knowledge Creation:** Student build a website/online platform by incorporating client-side scripting language and using web editing tools.



EMBEDDING ENTREPRENEURIAL LEARNING REVITALISATION OF CULTURAL HERITAGE BUSINESSES: CHALLENGES AND OPPORTUNITIES IN NEW NORMAL

Tan Gek Siang
Faculty of Business

INTRODUCTION

The **COVID-19 pandemic** has pushed many businesses to go online to respond to the changes in consumer buying behaviour. The new normal could be a permanent normal which is shaping the future business landscape.

However, many **heritage businesses** which are **operated by silver-hair generation lack of IT skills and competencies to go online**, thus affecting the **business survival**, especially during the post-pandemic period.

Cultural and heritage tourism plays a pivotal role in sustaining a balance development in economic, social and cultural for many countries, like Malaysia. So, the sustainability of heritage business is deemed important in building a strong backbone to support the tourism sector in Malaysia, as well as intensifying its branding as a top notch cultural heritage tourist destination among the global travelers.

BMR3184 Social Media and Digital Marketing requires the students to identify the problem currently faced by the heritage businesses which are adversely affected by the COVID-19 pandemic, which has put the tourism at a standstill due to any forms of touristic activities are prohibited.

The effect is compounded when the heritage business owners lack of IT skills and competencies to promote their products online. So, this subject requires the students to **identify a heritage business with no online presence** to develop a website and Facebook Business Page for them.

With **MMU Embedding Entrepreneurial Learning Scheme (EELS)**, this subject aimed to achieve the **Entrepreneurial Learning Outcome (ELO 3)** to allow students to have a **sense of empathy with the life-world of an entrepreneur**.

To achieve the **ELO3**, the students are required to conduct an **interview with the heritage business owner** and create a video to introduce the business and the **heritage business owner's life-world as an entrepreneur**.

SUBJECT DESIGN

Assignment 1 (40%)

Part 1: Website Development (10%)
To develop a website using wix.com to promote the selected heritage business

Part 2: Video Creation (20%)
To create a video that encapsulates the entrepreneurial journey of the heritage business owner, promote the business on Youtube channel, and achieve desired interaction and engagement outcomes (500 views and 250 likes) within 14 days.

Part 3: EEL 2020 Virtual Showcase (10%)

To create a poster of the EEL Project and participate in the EEL 2020 Virtual Showcase from 21st Sept - Oct 2020
<https://www.mmu.edu.my/edc/eel/>

Assignment 2 (30%)

Part 1: Facebook Analytics and Insights (10%)

To open and manage a Facebook Business Page to promote the selected heritage business for a minimum of 28 days, and achieve desired interaction and engagement outcomes (100 followers, 200 likes, 10 posts)



Part 2: Sharing & Reflection (10%)

1. Entrepreneurial values learned from the heritage business owner and experiences gained during the EEL Project
2. Digital Transformation of Heritage Businesses: Challenges and Opportunities in the Post-Covid-19 World

PROJECT DESIGN

13th July - 20th Sept 2020 (Week 2 - Week 13)

Stage 1:
Select a heritage business with no online presence



Stage 2:
Interview the heritage business owner



Stage 3:
Create a video for the heritage business



Stage 4:
Develop an online presence for the heritage business



Stage 5:
Participate in EEL 2020 Virtual Showcase



The 16 Heritage Businesses Selected for the EEL Project

Melaka

- Restaurant Nyonya Sayang
- Tak Hin Company
- Kuih Nyonya Kim Batu Berednam
- Shin Siang Traditional Costume Tailor
- Grandpa's Curry Puff
- Kalpa One Nyonya Cendol
- Capitol Nasi Lemak
- Fwu Chang Art Gallery
- Sjn Lee Seng Traditional Chinese Lantern

- Heng Kee Herbal Tea
- Red Handicrafts
- Christina Ee Nyonya Cendol
- Auntie Yeo Nyonya Laksa
- Juan Lai Chicken Rice Ball

Selangor

- Nasi Lemak Pandan Indah

Johor

- Man Tang Yuan Dessert

7th Oct 2020 (Week 14)

MARKETING WEBINAR

7 October 2020
WEDNESDAY
2.30 p.m. - 4.00 p.m.

Digital Transformation in Business: Challenges and Opportunities in the Post Covid-19 World

Guest Speaker: **Jason Low**

- Partner & Director of Cap360 Ventures
- Digital Transformation Consultant to Fortune 500 Companies & SMEs
- Regular contributor for BFM 89.9 Digital Transformation Series
- Graduate of Alibaba Hometown Training Programme and AXAWA Young CEO Development Programme



Scan to Register

The webinar received an overwhelming participation from around **100 attendees** who were students and academicians from both public and private universities in Malaysia, as well as corporate executives and owners of Small and Medium Enterprises (SMEs). Another highlight of the webinar was the guest speaker shared his **entrepreneurial journey and challenges** faced.

KEY FINDINGS AND DISCUSSION

Achievement of Subject Learning Outcomes

- Website with easy-to-navigate high-quality content ensures the success of digital marketing strategy
- Video is effective in digital marketing as the content is easy to share across multiple platforms that optimizes search engine.
- Facebook allows businesses to create, support and build relationship with virtual community.

Achievement of Entrepreneurial Learning Outcomes and Pedagogies

- A sense of empathy with the life-world of an entrepreneur
- Knowledge of the phases and stages involved of going into business
- Skills and competencies in managing relationships with different stakeholders
- Entrepreneurial traits and competencies

ACKNOWLEDGEMENT

RICES 2020 Organising Committee

Units related:

All MMU Faculties
Entrepreneur Development Centre (EDC)
President's Office
VP Marketing & Communication Office
Corporate Communications Unit
IT Services Division (ITSD)
MMU Production Team
Multimedia Product Innovation Unit
Media Support Unit
Facilities Management Department
Procurement Unit
MMU Staff Development Committee



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