







KULLIYYAH OF INFORMATION AND COMMUNICATION TECHNOLOGY

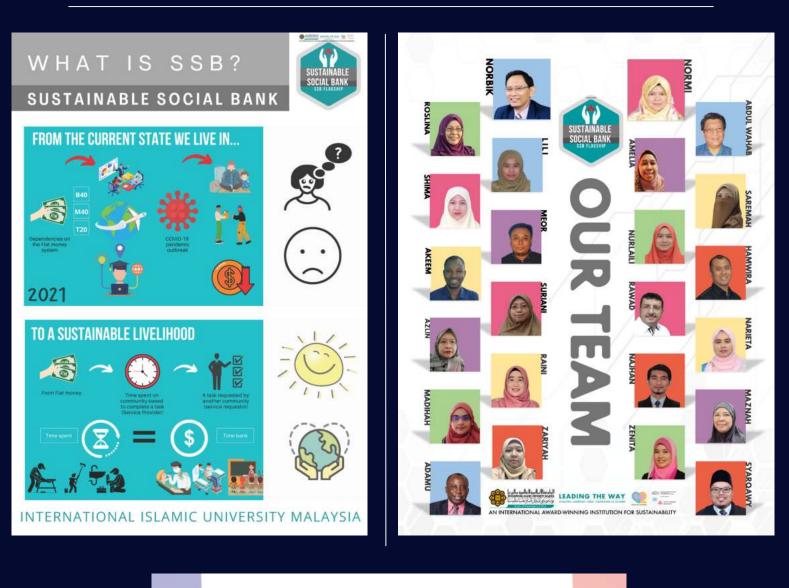
Newsletter

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SUSTAINABLE SOCIAL BANK FLAGSHIP



GRANTS 2020 - 2021



AMOUNT RM20,000

DURATION 2021 - 2023

SUSTAINABLE SOCIAL BANK SYSTEM FUNDER OFFICE OF THE RECTOR GRANT AMOUNT RM35,000 DURATION 2021 THE ADOP

THE ESTABLISHMENT OF A ROBUST

FRAMEWORK FOR THE ISSUANCE OF

CENTRAL BANK DIGITAL CURRENCY (CBDC) IN MALAYSIA

المهوسيق ستتعاد عيتانا

UNIVERSITI

Teknologi Mara

FUNDER UNIVERSITI TEKNOLOGI MARA

THE ADOPTION OF SOCIAL SUSTAINABLE BANK FRAMEWORK IN PERLIS



FUNDER MAJLIS AGAMA ISLAM DAN ADAT ISTIADAT PERLIS (JAMALULLAIL CHAIR GRANT) AMOUNT RM10,000 DURATION 2021 - 2022

WAQAF TIME SYSTEM

Interested In Doi VOLUNTARY WORK?



WAQAFTIME SYSTEM OWNER -- STUDENT AFFAIRS & DEVELOPMENT DIVISION (STADD)

PUBLICATIONS



Blockchain & Cryptocurrency



Factors Influencing Adoption of Cryptocurrency-based Transaction from an Islamic Perspective

Abstract: This paper presents a user study of "perception of the cryptocurrency-based transaction from the Islamic views". The motivation lies with the fact that some users of cryptocurrency-based transaction raised concern on the nature of transactions with Bitcoin. Specifically, some argued that Bitcoin can be easily used for illegal purposes. Therefore, "Technological Acceptance Model" was adopted and quantitative research methodology was utilized, to formulate and test some hypothesis that will lead to an establishment of a model. Sample of 306 participants was used in the study. The result of the hypothesis testing indicates that "Behavioral Intention to Use Cryptocurrency from the Islamic perspective" is influenced directly by Shari'ah Compliance, Perceived Ease of Use, Emotionality, Perceived Usefulness, and Financial Concern. As evident from the analysis, Emotionality is influenced directly by Financial concern and Shari'ah Compliance. Whereas, Behavioral Intention is influenced indirectly by Financial Concern. The sample is general and does not specify a specific group of study. This study has contributed to understanding the Islamic issues behind the implementation of Cryptocurrency. This study adopted.



Intrusion Detection System for the Internet of Things Based on Blockchain and Multi-Agent Systems

Abstract: With the popularity of Internet of Things (IoT) technology, the security of the IoT network has become an important issue. Traditional intrusion detection systems have their limitations when applied to the IoT network due to resource constraints and the complexity. This research focusses on the design, implementation and testing of an intrusion detection system which uses a hybrid placement strategy based on a multi-agent system, blockchain and deep learning algorithms. The system consists of the following modules: data collection, data management, analysis, and response. The National security lab–knowledge discovery and data mining NSL-KDD dataset is used to test the system. The results demonstrate the efficiency of deep learning algorithms are suitable for intrusion detection in IoT network environment.



ISLAMIC APPROACH TOWARD PURIFICATION OF TRANSACTION WITH CRYPTOCURRENCY

Abstract: This paper presents a qualitative study that examine the perception of users on Islamic approach toward purification of transaction with cryptocurrency. Bitcoin is has been used as a case study which is one of the type of cryptocurrency. There are huge discrepancies from many Islamic school of thought about transaction with bitcoin. Specifically, some school of thought viewed it as a tool used for illegal purposes and that the global public already uses Bitcoin mostly for illegal and non-Shari'ah-compliant purposes under Islamic perceptions. As a result, this study developed an interview-qualitative research approach in order to examine how the negative perceptions of cryptocurrency from Islamic views cnd be purify. Sample of Eight informant were used in the study. The finding of this study indicated that the use of cryptocurrency as a legitimate as any payment method. It is also argued that it facilitated transactions and cut the normal cost of international money transfer, and some Muslim countries are actively encouraging the use of cryptocurrency due to its easy use and transparency. This has been also supported by "hadith". Finally, the analysis also confirmed that from the Shari'ah point of view, cryptocurrencies are as compliant as fiat money and ought to be accepted as another mode of payment that can be used in transaction as its value can be measured and quantified. Therefore, this study has contributed in understanding the Islamic views behind the implementation of cryptocurrency.



Blockchain-based Zakat Collection to Overcome the Trust Issues of Zakat Payers

Abstract: Zakat is one of the five pillars in Islamic principles, subject to all qualified Muslims which requires them to contribute a proportion of one of their income or the wealth possession for the welfare of the Muslim community. In Malaysia, Lembaga Zakat is the organization appointed by each state government to manage the zakat transactions. The zakat transactions can be done either through online transactions or over the counter. However, there are issues related to zakat management such as the zakat payers are not satisfied with the zakat distribution, and there are claims for lack of transparency in the zakat management which lead to trust issues among zakat payers to contribute their zakat through Lembaga Zakat. One way to respond to the issues is by having transparency in the zakat transaction by applying a trust model such as blockchain in zakat management. Thus, this project aims to use blockchain technology and its main component, smart contract, as the base of the zakat collection and utilize Ethereum as the platform.

SUSTAINABLE SOCIAL BANK

The economic impact of Covid-19 has hit many industries, in particular, the aviation industry, tourism, businesses, and education. The dependencies on the fiat money has made it difficult for the underprivileged group in the society to recover economically from the Covid-19 impact. Due to the worsened economic situation, many people have lost jobs, which brings out the issues of the survivability of the affected group. Thus, alternative solutions need to be urgently formulated to ensure that the livelihood of the affected people can be improved.

In order to contribute to the effort to lessen the predicament caused by this pandemic, we propose a new economic framework which does not include monetary components to sustain the economy of the affected groups of people by using a concept that we call Sustainable Social Bank (SSB), which underlying concept equals the timebank concept. Time banking is a bartering system for services, where people exchange services for labor-time based credits, rather than money. In our approach, time is the currency, where the community members shall use the time they spend on completing a task to exchange for another task provided by other members of the community.

The innovation component contributed by the SSB ecosystem is the elimination of fiat money as the method of payment. Alternatively, the currency used in this system is the time spent by a member of the community (service provider) to complete a task requested by another member of the community (service requestor). The time can be deposited into SSB and later, can be withdrawn to request for any task provided by other members of the community. For example, a member can offer a carpentry service and deposit the time spent to the SSB system and later, he/she can request for a dentistry service and pay using the time deposited in the timebank.

Another innovation in the implementation of SSB is the application of the Blockchain technology to manage the integrity of the records of the service exchanges among the community members. The SSB system will manage the records of transactions between the service providers and service requesters.



WEBINAR



SIBER SEJAHTERA FLAGSHIP 2.0

Siber Sejahtera Flagship 2.0

Leader: Dr. Nurul Nuha Abdul Molok

- mmunication Technology

Objectives

To promote:

Cyber well-being among the IIUM Community, surrounding neighbourhood and other communities. Practising resilient in cyber is pertinent to real world well-being

Cybersecurity as a career option for SPM students and graduates from the field of ICT. It can also be extended to graduates from other fields

Cyber literacy among the digital natives as having exposure to digital technology early in life does not guarantee they comply with ethical practices in the cyber world

Cybersecurity professionals as a chosen career

To help schools to guide secondary school students to choose cybersecurity as their career path

Cyber literacy –

empowering online teaching & learning

S Assist teachers to prepare for online teaching S Assist students to participate in online learning Satisf parents to monitor their children's online

Sexpanding the TTT program Pendekar Siber

ogram at schools

The Siber Sejahtera Flagship 2.0 project is spearheaded by a team of academics, administrative staff, and students in collaboration with public and private sector agencies to contribute to the local, national and global communities. We aim to lead the way in advocating the importance of being cyber-literate, ethical, safe, and secure, to make the cyberspace a better place.

Key Challenges

- Cyber attacks are on the rise Children, youth, adults & senior citizens are becoming victims of cyber-attacks and cybercrimes, such as cyber-bullying, sexual grooming, gaming addictions, financial frauds (for e.g. Macau scam, mule accounts), love or romance scams, cyber extortions, etc
- ✓ Cyber illiteracy Lack of ICT skills in a world that is heavily relying on the Internet and computing technologies

 - Freachers are incapable of maximizing the value of online teaching Students are facing difficulties while participating in online learnin Parents are not computer savvy and/or do not monitor their childr
- ✓ Unfamiliar with cybersecurity professions Students, teachers (including school career guidance counsellors) and parents are not aware about cybersecurity specialists as one of the professions or career options

Activities

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Protection of Faith

3 Protection of Intellect

4 Protection of

5 Protection of Wealth

SCAN

QR

CODE

- To ensure the sustainability of the project
- Personalized TTT programs and tailored to the participants' personality and learning behavioral styles
- Apply their knowledge and interact with students at primary and secondary schools
- ✓ Identify the participants who are interested to become digital leaders and sustaining the TTT programs

In line with the following IIUM Missions:

Supporting the Maqasid Shariah

Video

97. 🗉

To undertake the special and greatly needed task of reforming the contemporary Muslim mentality and integrating Islamic Revealed Knowledge and Human Sciences To (Ø) in a positive manner students

Avoid cyber propaganda that may affect our Islamic faith

Educate each other about the personal cybersafety, mental health & national security

Avoid fake news, always check the validity of the info before sharing them (Surah Al Hujurat:6)

Educate our children about cyberethics, cybersafety & cybersecurity

Website

Avoid monetary losses due to cybersecurity attacks and financial frauds

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Awareness

Campaigns

On cyberethics, cybersafety and cybersecurity (C3), cyberparenting

Targeted audience: Parent-Teacher Association or PIBG, primary and secondary school students, university

students, employees, organizations, & senior citizens

cybersecurit and privacy

develop an envir To develop an environment that instills commitment for life-long learning and a deep sense of social responsibility among staff and

S.

To produce better quality intellectuals, professionals and scholars by integrating the qualities of faith (iman), knowledge ("lim), and good character (akhlaq) to serve as agents of comprehensive and balanced progress as well as sustainable development in Molaysia and in the Muslim world

Supporting the United Nation's SDG

learning

A 000017 **SDG 4 Quality Education**



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Target 4.4: Substantially increase the number of youth and adults have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.4.1 Proportion of youth and adults with ICT skills, by type of skills

SDG 8 Decent Work and Economic Growth

Target 8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

Target 8.6: Substantially reduce the proportion of youth not in employment, education or training.



SDG 12 Ensure sustainable consumption and production patterns

Target 12.8: To ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

SIBER SEJAHTERA FLAGSHIP 2.0 ACTIVITIES













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HUMANISING DIGITAL EDUCATION FLAGSHIP





HUMANISING DIGITAL EDUCATION FLAGSHIP

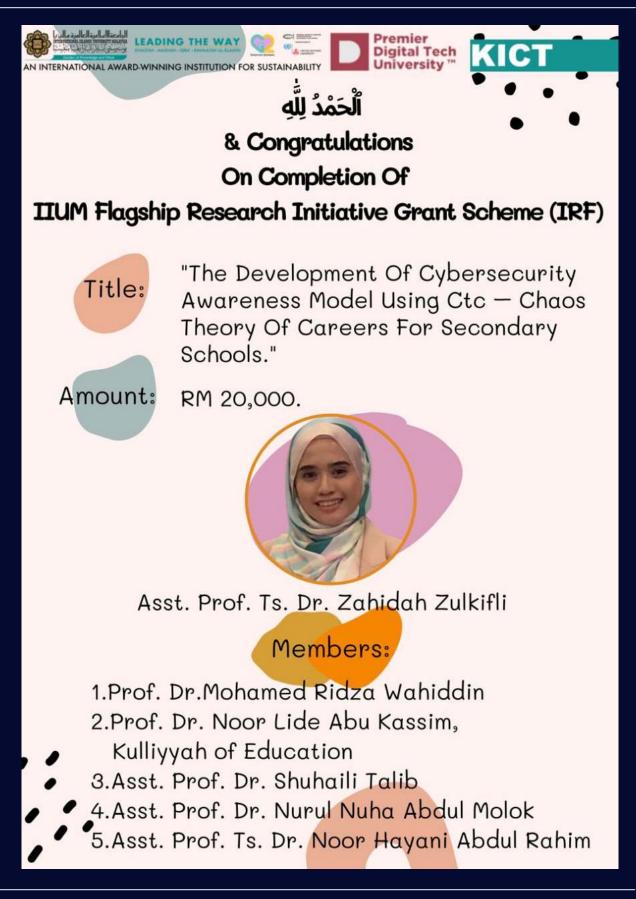
PROJECT OVERVIEW

Humanising Digital Education flagship advocates for making the transfer of knowledge through the delivery of Intelligent Language Translation Framework (ILTF)

This flagship will be developing an engine for accurate and ethical representation of different languages



COMPLETION OF RESEARCH GRANT



A RESEARCH COLLABORATION VISIT IN IIUM KUANTAN CAMPUS ON 25 JANUARY 2022



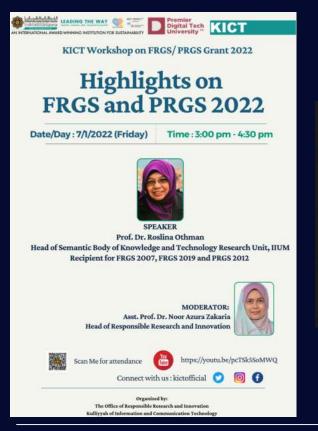


A RESEARCH COLLABORATION VISIT IN IIUM KUANTAN CAMPUS ON 25 JANUARY 2022





KULLIYYAH SEMINAR/TALK IN JANUARY 2022





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Organized by : Grant initiatives unit





INNOVATION

Date / Day: 24 JANUARY 2022/ MONDAY Time: 11 am to 1 pm Venue: Zoom Meeting

Ts Dr Muhammad Hanafi Azami Department of Mechanical & Aerospace Engineering KULLIYAH OF ENGINEERING

Contraction of the local

WORKSHOP ON WRITING WINNING PROPOSALS FOR THE PROTOTYPE RESEARCH GRANTS SCHEME (PRGS) 2022



Expert Speaker: Professor Ir. Dr. Ismail Musirin MOHE EVALUATOR Professor of Power System School of Electrical Engineering College of Engineering Universiti Teknologi MARA (UiTM)

KULLIYYAH SEMINAR/TALK IN JANUARY 2022









PUBLICATION IN JANUARY 2022 (SUBMISSION IN IREP FOR JAN 2022)

PUBLICATION IN JANUARY 2022

- Ahmad Dahlan, Abdul Rahman and Alias, Majdan and Ibrahim, Jamaludin and Mhd. Sarif, Suhaimi and Jaapar, Ghazali and Man, Saupi and Abdul Razak, Dzuljastri and Mohd Ali, Noor Azian and Abdul Aziz, Normaziah and Mohamadali, Noor Azizah and Mahri, Nurhafizah and Ismail, Amelia Ritahani and Abdul Kadir, Andi Fitriah and Mansor, Hafizah and Mohd Nor, Rizal (2021) <u>Budi Mkitchen for flood victims.</u> mKitchen, Gombak. ISBN 978-967-26569-1-3
- Nanang, Herlino and Durachman, Yusuf and Misman, Ahmad Fatzilah and Zulkifli, Zahidah and Sukmana, Husni Teja (2021) <u>Public key encryption in the cloud computing</u> <u>environments: trust and untrust.</u> In: 2021 9th International Conference on Cyber and IT Service Management (CITSM), 22-23 September 2021, Bengkulu, Indonesia (Virtual).
- Mohamed Najid, Mohamad Hafizuddin and Zulkifli, Zahidah and Othman, Roslina and Rokis, Rohaiza and Salahuddin, Ashraf Ali and UNSPECIFIED (2021) <u>Identifying the ethical</u> <u>issues in Twitter: a knowledge acquisition for ontology.</u> Malaysian Journal of Computer Science, 2021 (Special Issue 2). pp. 101-115. ISSN <u>0127-9084</u>
- Abu Bakar, Elistina and Draman, Nur Jannah and Saidin, Aznan Zuhid (2021) <u>The</u> <u>determinants of users' behaviour on social media: the role of religion and personal</u> <u>values.</u> International Journal of Academic Research in Business and Social Sciences, 11 (12). pp. 2019-2032. ISSN 2222-6990
- Liaw, Mitchelle Ai Wei and Olowolayemo, Akeem Koye and Gulfam Tanni, Maymuna and Omar Ba Khadher, Mohammed Abdullah (2021) <u>Undergraduate</u> <u>students' mental health remote monitoring system: end-user usability testing</u> <u>study.</u> International Journal on Perceptive and Cognitive Computing (IJPCC). E-ISSN 2462-229X (In Press)
- Jasim Abdullah, Maryam and Ismail, Amelia Ritahani and Abubakar, Adamu (2022) <u>The</u> <u>trade-off</u> <u>between</u> robustness and <u>imperceptibility</u> <u>performance</u> <u>of</u> <u>watermarking</u> <u>technique</u> <u>with</u> <u>DWT</u> <u>and</u> <u>SCHUR</u> <u>decomposition</u> <u>for</u> <u>medical</u> <u>images</u>. Journal of Theoretical and Applied Information Technology, 100 (1). pp. 81-88. ISSN 1992-8645 E-ISSN 1817-3195
- Zakaria, Noor Azura and Abdul Rahman, Nur'Izzah and Abdul Malek, Muhammad Naim (2022) <u>iTherapy: an automated web-based therapy plan for learning disability</u> <u>children.</u> International Journal on Perceptive and Cognitive Computing (IJPCC), 8 (1). pp. 80-85. E-ISSN 2462-229X
- Abdul Rahman, Nor Irwani and Abdul Rahman, Rozailin and Mahmud, Murni (2022) <u>Applying theory to empirical phenomena: love-hate relationship of e-hailing</u> <u>driver-platform provider in the sharing-economy services.</u> International Journal of Business and Technology Management, 3 (4). pp. 103-116. E-ISSN 2682-7646

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1. Title: Cybersecurity Awareness Mobile Apps for Secondary School Students: LetSecure. Author: Asst. Prof. Ts. Dr. Zahidah Zulkifli