AN INTERNATIONAL AWARD-WINNING INSTITUTION FOR SUSTAINABILITY

LEADING THE WAY
KHALIFAH · AMANAH · IQRA' · RAHMATAN LIL-ALAMIN

Premier Digital Tech University ™

KICT

NEWSLETTER

Issues No.1/2022

January 2022

KULLIYYAH OF INFORMATION AND COMMUNICATION TECHNOLOGY
RESEARCH UNIT

Table of Content

KICT RESEARCH UNIT 1

Perceptive and Sentiment Computing

Head of Research Unit

Asst. Prof. Dr. Muna Azuddin

List of members

1. Prof. Dr. Abdul Wahab bin Abdul Rahman
2. Assoc. Prof. Dr. Murni Mahmud
3. Assoc. Prof. Dr. Lili Marziana Abdullah
4. Asst. Prof Dr Atikah Balqis Binti Basri
5. Asst. Prof. Dr. Nurazlin Zainal Azmi
6. Asst. Prof. Dr. Suhaila Samsuri
7. Asst. Prof. Dr. Madihah S Abd Aziz
8. Asst. Prof. Dr. Aznan Zuhid
9. Asst. Prof. Dr. Nor Saadah Binti Md Nor
10. Asst. Prof. Dr. Hazwani Mohd Mohadis
11. Asst. Prof. Ts. Dr. Muhamad Sadry Abu Seman
12. Asst. Prof. Dr. Marini Binti Othman
13. Asst. Prof. Dr. Asmarani Binti Ahmad Puzi
14. Asst. Prof. Dr. Sharifah Nur Amirah Binti Sarif
15. Asst. Prof. Dr. Adamu Abubakar Ibrahim
16. Asst. Prof. Dr. Elin Eliana Abdul Rahim
17. Asst. Prof. Dr. Ahmad Fatzilah Misman
18. Asst. Prof. Dr. Dini Oktarina Dwi Handayani
19. Br. Muhd Rosydi bin Muhammad
20. Br. Jamaludin Ibrahim

Summary

This research area attempts to develop understanding of human perception and provides insight through sentiment analysis in computing. It includes developments of theories, methodologies, techniques and practices. It is inspired through understanding and intuition in the use of natural language processing, context analysis, and computational linguistic to identify and extract subjective information in source materials. Research may explore into profiling and modeling user behavior based on context analysis in the technology such as social media e.g use of text and emoticon in facebook and twitter. Research conducted in this area deals with human behavior and cognition, Socio-technical issues, Affection, human centered design, social media and interaction.

Objectives

1. To promote high quality research in the area of perceptive and sentiment computing centered towards psychological and sociological concerns.
2. To facilitate and support research, publications, innovation, communication and dissemination of knowledge in the area of perceptive and sentiment computing.
3. To support and uphold the vision and mission of IIUM research objectives i.e. inculcate Islamization of human knowledge, produce outstanding researchers

RESEARCH UNIT 1:
PERCEPTIVE AND SENTIMENT COMPUTING
OCTOBER, NOVEMBER AND DECEMBER 2021

A. BOOK CHAPTER

1.   Book Chapter "The Cleanliness: The Epitome of our faith."

Completed a book chapter for KIRKHS book project for the public entitled "A Muslim's Guide to Cleanliness for Everyday Life", due for publication in 2021

Author: Prof. Dr. Murni Mahmud.   Co-author: Dr. Aznan Zuhid Saidin

Chapter title: 'Digital Hygiene and Responsible Use of Technology', covering practices to minimise cyber risks, cybersecurity and privacy tips, as well as using technology in a safe and responsible manner'.

Content of the chapter was presented in a seminar for all chapter authors organized by KIRKHS

Seminar title: "Seminar on Cleanliness: The Epitome of Our Faith"
Date: 15 October 2021
Time: 9:00am – 12:00pm
Keynote address by Hon. Rector of IIUM

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Deanery KIRKHS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

Seminar on

CLEANLINESS: THE EPITOME OF OUR FAITH
An integration of knowledge initiative featuring speakers from various domains of knowledge

Keynote by Prof. Emeritus Tan Sri Dato' Dzulkifli Abdul Razak, *Rector of IIUM*

**FRIDAY,
OCT 15, 2021
9.00AM-1.00 PM

ON ZOOM**

Dr. Zahid Zamri
KIRKHS
Uncleanliness at the Larger Scale: The Problems of Global Capitalism

Prof. Dr. Luqman Zakariyah
Federal Uni of Kashere, Nigeria
Holistic Approach to Mosque Cleanliness in the Wake of Pandemic:

Dr. Ungaran Rashid
KIRKHS
The Concept of Cleanliness in the Hebrew Bible

Prof. Dr. Samsul Draman
KOM
Gender Dysphoria: Is There Still Hope?

Dr. Intan Aidura Alias
KIRKHS
Mindful Wudhu': A Cleaning Action towards Achieving Mental Health

Prof. Dr. Salina Kassim
IIiBF
Cleansing the Wealth, Purifying the Soul

AP Dr. Salizar Mohamed Ludin
KON
Cleanliness from the Perspective of Clinical Fiqh in Nursing

Dr. Fatimah Karim
KIRKHS
Zakat: Wealth Cleanliness

Dr. Wirawani Kamarulzaman
KOED
Cleanliness in the Thoughts and Speech

AP Dr. Khairul Azami Sidek
KOE
Islam and Waste Management

Dr. Mohd Noh Abdul Jalil
KIRKHS
Al-Raniri's Discourse on Cleanliness and Religions Other than Islam

Dr. Sayyed Mohamed Muhsin
KIRKHS
Fiqh al-Ṭahārah: The Islamic Hygienical Jurisprudence

Dr. Ramzi Bendebka
KIRKHS
Social Benefits from Cleanliness

AP Dr. Abdul Razak Kasmuri
KOP
Cleanliness and Bacterial Infection

AP Dr. Wan Azdie Mohd Abu Bakar
KAHS
Food Cleanliness and Health

AP. Dr. Murni Mahmud
KICT
Digital Hygiene and Responsible use of Technology

Dr. Nor Faiza Mohd Tohit
KOM
Cultivating Personal Hygiene in Children

Dr. Sh Fatimah AlZahrah Syed Hussien Al-Attas
KIRKHS
Menstrual Hygiene Management: A Guide.

Dr. Wan Norshira Wan Mohd Ghazali
KIRKHS
The Road to Non-Prejudicial and Clean Understanding on Vaccination

Dr. Siti Nurnadilla Mohamad Jamil
KIRKHS
Verbal hygiene: Mind your language!

Dr. Sobrina bt Mohamed Khazin,
KOD
Good Oral Hygiene for a Healthy Smile

Dr. Zunaidah Mohd Marzuki
KIRKHS
1.Cleanliness in the Qur'an: The Emphasis, Concept and Type
2. Means for Tangible and Intangible Cleanliness in the Qur'an

Dr. Nurulwahida Saad
KAHS
Good Health is in Your Hands

Prof. Dr. Shukran Abd Rahman
KIRKHS
Cleanliness is Part of Religion

Dr. Bachar Bakour
KIRKHS
Al-Sakandari on the Purification of the Heart

Dr. Aznan Zuhid
KICT
Digital Hygiene and Responsible use of Technology

Dr. Mohd Firdaus Mohd Ismail
KON
Cleanliness from the Perspective of Clinical Fiqh in Nursing

Dr. Siti Zubaidah Shahadan
KON
Cleanliness from the Perspective of Clinical Fiqh in Nursing

3

1. Talk on Computer Assisted Technology for Dyslexia (Basic) for Special Need Children

Penawar Special Learning Centre (PSLC) Taman Melawati organized an event Get Together with special needs children (ex. Autism, adhd, dyslexia etc.). The event was attended by parents with special needs children and representatives from Yayasan Warisan Anak Selangor (YAWAS).

Title: Computer Assisted Technology for Dyslexia (Basic)
Speaker: Dr. Muna Azuddin
Summary: The talk is to reveal learning disabilities status in Malaysia. Currently the statistics showed that more than 200,000 of learning disability people have registered under Jabatan Kebajikan Malaysia in the year 2018. Majority of them are children and teenagers. There are several symptoms of learning disabilities which can be identified by the parents at home, and they may refer to specialist for further validation and therapy sessions. IIUM and Penawar hospital (PSLC) have working together to develop a platform – IIUM Penawar Dyslexia Lab (IPDL). Research and development in this field aims to create computer assisted technology (CAT), including digital intervention and inclusive designs, for innovative and independent learning of learning disability (LD) children. The research focuses on development of CAT and learning modules in the aspects of health and educational. Currently IIUM has developed one mobile application to assist therapist to teach learning disability children (dyslexia and speech delay).

Itenary

"GET TOGETHER WITH SPECIAL NEEDS CHILDREN!
PSLC TAMAN MELAWATI
27 November 2021 , Saturday

8.30 - 9am - Registration
- Send child to Therapist for event / care

9.00 am - 10.00 am : Autism Talk
What you need to know about your Kids?
By Ms Ruwinah binti Abdul Karim
Head Clinical Therapist
Penawar Special Learning Centre
Hospital Penawar

10.00 am - 11.00 Noon : Computer Assisted Technology for Dyslexia (Basic)
By Dr Muna Binti Azuddin, Head of IIUM Penawar Dyslexia Lab

9.30am - 11.00am : Play Activity
- Puppet Show by Speech Therapist
- Junior Master Chef by Occupational Therapist
- Lets Learn Math in a Easy Way by Interventionist

10.00am - 12.30pm : Free Screening

12.30pm- 12.30pm : End

IIUM, Penawar Hospital team (PSLC) and YAWAS representatives.
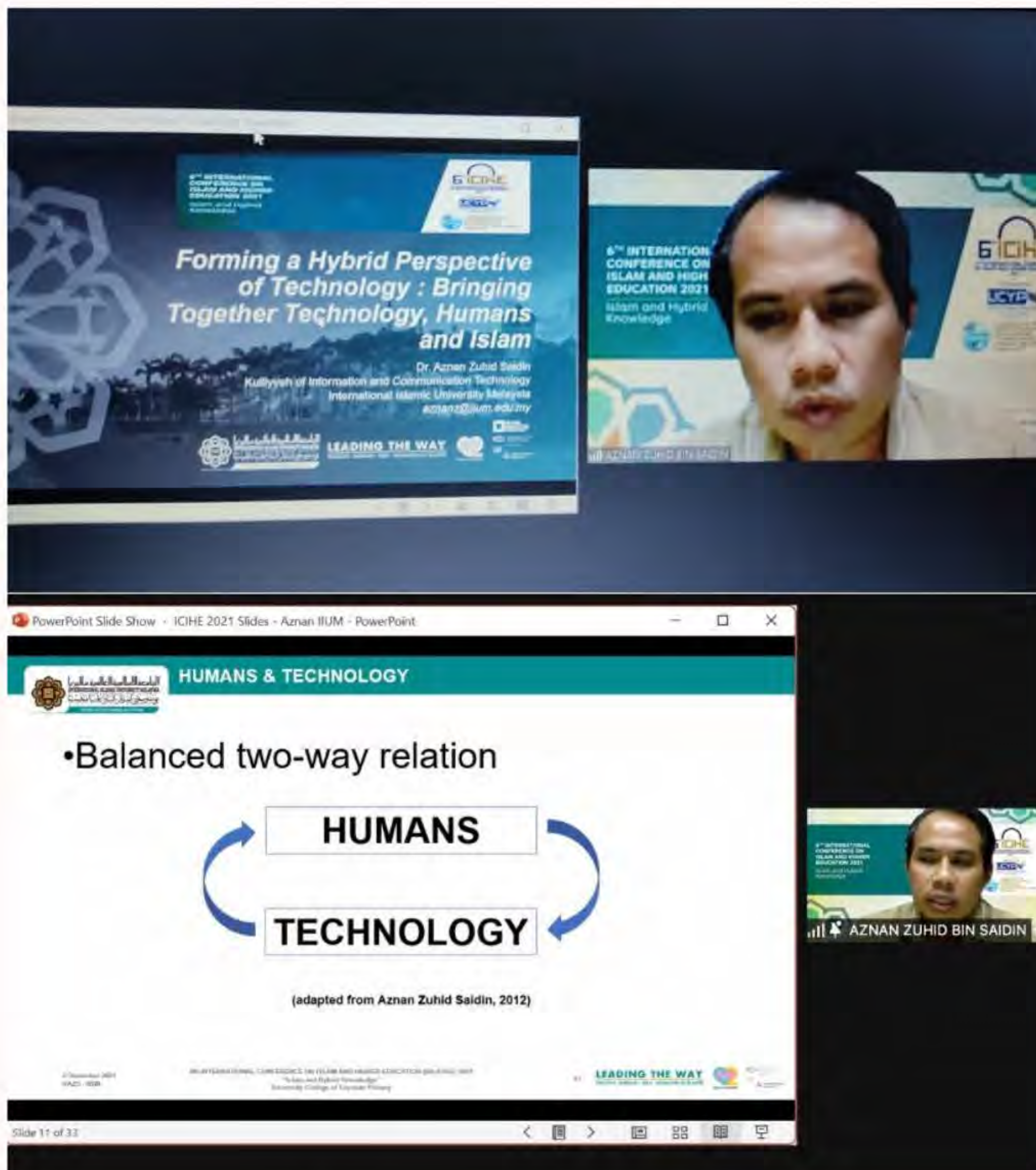
Dr. Aznan during the presentation

2. Participate in 9th International Conference in Islamic Applications in Computer Science and Technologies 2021.

PSC members, Assoc. Prof. Dr Murni Mahmud has presented a paper in IMAN Conference on 4-5 December 2021. This paper is co-authored with Dr Suhaila Samsuri and their students, Sr Nahreen Zannat and Sr Nadia Nowshin. The paper is entitled "Mental Health Mobile Apps Review: Islamic Design and Content Features in Digital Therapeutics". This paper reports a brief review of selected Digital Therapeutics (DTx) for mental health issues. The research seeks for understanding if there are Islamic Design and content features in DTx. Findings indicate, the features are avalailable and more research on user behaviour should be conducted for further understanding. DTx may compliment treatments from psychiatrists, psychologists or counsellors therefor they must be used responsible: to encourage users to do good and refrain from doing bad. It is proud to mention, one of KICT Academic, Prof. Dr. Akram M. Zeki has served as the program chair for the conference. The detail can be accessed at https://dsr.edu.my/iman/index.html#

1. Participate in 6th International Conference on Islam and Higher Education (6th ICIHE) 2021

Asst. Prof. Dr Aznan Zuhid has presented a paper in ICIHE Conference on 2 December 2021. The paper entitled " Forming a hybrid perspective of technology: bringing together technology, humans and Islam". The conference was organized by University College of Yayasan Pahang , and theme of the conference is "Islam and Hybrid Knowledge".

IMAN

9th International Conference
on Islamic Applications in Computer
Science and Technologies
(IMAN 2021)

4 – 5 December 2021

Online

Committees

General Chair: Prof. Dr. Mohammed Zeki Khedher, (Jordan University/ Mosul University previously)
Publicity Chair: Prof Mohd Helmy Bin Abd Wahab, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia
Program Chair: Dr. Akram M. Zeki, International Islamic University Malaysia, Malaysia
Dr. Mustafa Abuzaraida, Universiti Utara Malaysia, Malaysia

9th International Conference on Islamic Applications in Computer Science and Technologies (IMAN 2021)

Mental Health Mobile Apps Review: Islamic Design and Content Features in Digital Therapeutics

Authors: Murni Mahmud, Suhaila Samsuri, Nahren Zannat, Nadia Nowshin

Affiliation- Kulliyyah of Information and Communication Technology, International Islamic University Malaysia

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KICT RESEARCH UNIT 2

Pervasive Computing for Brain Development Group (PCBDG)

Head of Research Unit

Asst. Prof. Dr. Norzaliza Md Nor

List of members

1. Prof. Dr. Abdul Wahab bin Abdul Rahman
2. Assoc. Prof. Dr. Murni Mahmud
3. Asst. Prof. Dr. Noor Azura Zakaria
4. Asst. Prof. Dr. Muna Azuddin
5. Asst. Prof. Dr. Asmarani binti Ahmad Puzi
6. Asst. Prof. Dr. Takumi Sase
7. Asst. Prof. Ts. Dr. Hamwira Yaacob
8. Asst. Prof. Dr. Maznah Ahmad
9. Asst. Prof. Dr. Nurhafizah Mahri
10. Asst. Prof. Dr. Raini Hassan
11. Asst. Prof. Dr. Marini binti Othman
12. Asst. Prof. Dr. Amir Aatieff Bin Amir Hussin
13. Asst. Prof. Dr. Norlia Md Yusof
14. Asst. Prof. Dr. Akeem Olowolayemo
15. Asst. Prof. Dr. Mohd Khairul Azmi B Hassan
16. Asst. Prof. Dr. Rafiez bin Abdul Raziff
17. Asst. Prof. Dr. Nurul Liyana Mohamad Zulkufli
18. Asst. Prof. Dr. Dini Oktarina Dwi Handayani

Objectives

1. To promote research in the area of cognitive and biosignal processing.
2. To facilitate and support research, publications, and innovation in the area of cognitive and biosignal processing.
3. To produce and support outstanding researchers who are responsible, mindful and Collaborative, as guided by IIUM core values.
4. To support and uphold the vision and mission of IIUM research objectives.

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Message from Head of PCBDG

Asst Prof. Dr. Norzaliza Md Nor
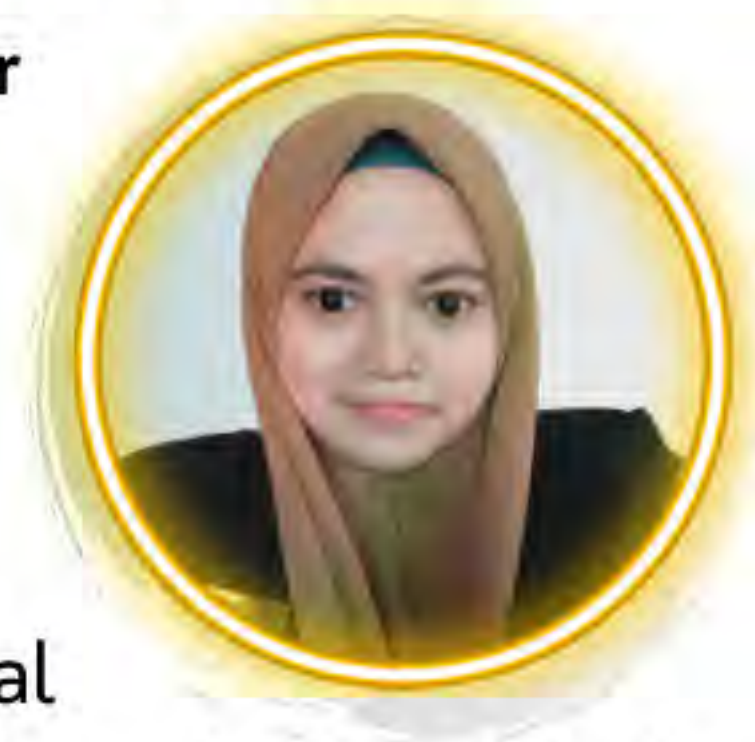
Assalamualaikum w.b.t

First, I would like to express my gratitude to Almighty Allah S.W.T for this oppurtunity. A special thanks to all PCBDG members and collaborators who has work together to ensure the effectiveness of the research unit towards society. With a team of outstanding computer scientist and experts in multidisciplinary area, alhamdulillah PCBDG manage to provide an excellent platform for brain development. Thank you everyone.

PERVASIVE COMPUTING FOR BRAIN DEVELOPMENT RESEARCH GROUP

PCBDG ORGANIZATIONAL CHART

DR. NORZALIZA MD NOR
Head of Research Unit

DR. NURUL LIYANA
Secretary

DR. HAMWIRA
Financial Coordinator

DR. MARINI
Website Coordinator

KICT PCBDG MEMBERS

DR. RAINI HASSSAN

PROF DR. ABDUL WAHAB

DR. MURNI

DR. MAZNAH

DR. NOOR AZURA

DR. TAKUMI

DR. NURHAFIZAH

DR. ASMARANI

DR. AKEEM

DR. MUNA

DR. AMIR'AATIEFF

DR. NORLIA

DR. KHAIRUL

DR. RAFIEZ

EXTERNAL PCBDG COLLABORATERS

DR. MARIAM ADAWIAH
IRKHS, IIUM

DR. NORHASLINDA KAMARUDDIN
UiTM Shah Alam

DR. DINI HANDAYANI
Taylor's University

DR. ADNAN SULAIMAN
Penawar Hospital

BJORN CRUTS
Brainmarker, Germany

DR. CAPT. MANIVANNAN
ALAM

PCBDG Activities

MoA with Penawar Hospital

EEG Data Collection

Forum & Talk

Open Day IIUM Penawar at Penawar Special Learning Center

Brain Signal Workshop

Secured Research Grants 2019-2021

Year 2020

KICT RESEARCH INITIATIVE GRANT SCHEME - 2020 (RM16,000) with research title: Extraction of Real-time Features for Mental Fatigue Detection During Virtual Learning Activities through Brain Computer Interface (BCI)

Year 2021

FRGS - 2021 (RM58,000) with research title: A Framework for Personalized Mental Fatigue Intervention through Brain Computer Interface (BCI)

IIUM PENAWAR activities

EEG Data collection

Data collection on driver mental fatigue

Data Collection: Learning disabilities, Healthy life style, Intrinsic Motivation, Gamers

KICT RESEARCH UNIT 3

Smart Data Analytics

Head of Research Unit

Prof. Ts. Dr. Mira Kartiwi

List of members

1. Prof. Dr. Asadullah Shah
2. Assoc. Prof. Dr. Lili Marziana Abdullah
3. Asst. Prof. Ts. Dr. Mohd Izzuddin Mohd Tamrin
4. Asst. Prof. Dr. Atikah Balqis Binti Basri
5. Asst. Prof. Dr. Najhan Bin Muhamad Ibrahim
6. Asst. Prof. Dr. Mohd Khairul Azmi B Hassan
7. Asst. Prof. Dr. Suhaila Samsuri
8. Asst. Prof. Dr. Mohd Syarqawy Hamzah
9. Asst. Prof. Dr. Akeem Olowolayemo
10. Asst. Prof. Dr. Siti Asma Mohammed
11. Asst. Prof. Ts. Dr. Muhamad Sadry Abu Seman
12. Asst. Prof. Dr. Rafiez bin Abdul Raziff
13. Asst. Prof. Dr. Mior Nasir Mior Nazri
14. Asst. Prof. Dr. Zainatul Shima Abdullah
15. Br. Jamaludin Ibrahim

Objectives

1. To understand students' behaviours and cognitive processes in learning, and design effective learning tools.
2. To engage students in Information technology by enhancing learning environment through the latest development of instructional technologies such as visual aid, robotic applications, multimedia learning tools and games.
3. To promote multidisciplinary research collaboration through knowledge exchange and training sessions.

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KICT RESEARCH UNIT 4
Social Media Platforms, E-Learning & Education

Head of Research Unit

Prof. Dr. Asadullah Shah

List of members

1. Asst. Prof. Dr. Akeem Olowolayemo
2. Asst. Prof. Dr. Aidrina Binti Mohamed Sofiadin
3. Asst. Prof. Dr. Noor Azizah Binti Mohamadali
4. Asst. Prof. Dr. Mohd Syarqawy Hamzah
5. Asst. Prof. Dr. Nurazlin Zainal Azmi
6. Asst. Prof. Ts. Dr. Muhamad Sadry Abu Seman
7. Asst. Prof. Dr. Nur Leyni Nilam Putri Junurham
8. Asst. Prof. Dr. Madihah S Abd Aziz
9. Asst. Prof. Dr. Atikah Balqis Binti Basri
10. Asst. Prof. Dr. Nor Saadah binti Md Nor
11. Asst. Prof. Dr. Hazwani Mohd Mohadis
12. Asst. Prof. Ts. Dr. Noor Hayani Abd Rahim
13. Asst. Prof. Ts. Dr. Zahidah Zulkifli
14. Asst. Prof. Dr. Sharyar Wani
15. Asst. Prof. Dr. Shuhaili Talib
16. Asst. Prof. Dr. Elin Eliana Abdul Rahim
17. Asst. Prof. Dr. Ahmad Fatzilah Misman
18. Asst. Prof. Dr. Zainatul Shima Abdullah

Summary

The rise of new media channels (such as the Internet, mobile devices, and social networking sites) has created opportunities as well as challenges to individuals, organizations, and the society at large. Individuals use and engage with social media for diverse purposes such as co-creation, entertainment, mentoring, networking, friendship, career advancement, learning, collective action and civic engagement. Organizations also experiment with various social platforms to improve performance through crowdsourcing, online collaboration and communication, online communities, mobile computing and social media services.

These challenges and changes give rise to novel and important research questions, which attract a strong interest among scholars. A wide range of research methods, such as qualitative and quantitative approaches, social network analysis, data mining, sentiment analysis or design research have been applied to explore and explain social media related phenomena. Further, social media facilitate users to create, cooperate, and share content.Through capturing social media data and applying novel methods such as decision making models, design frameworks, group behavior elicitation (e.g. herding effects), and opinion/sentiment mining, business intelligence and actionable decision making can be obtained.

The major aim of this research unit is to support and facilitate scholars to validate research ideas related to social media. It also aims to raise awareness in terms of the latest development in social technologies, to address the opportunities and challenges associated with the use of social media by individuals, organizations, and the contemporary society. This unit is open to all types of research, conceptual or empirical.

KICT RESEARCH UNIT 5 / UNIVERSITY RU 52

Semantic Body of Knowledge and Technology

Head of Research Unit

Prof. Dr. Roslina Othman

List of members

1. Prof. Dr. Mohamad Fauzan Noordin
2. Prof. Dr. Akram M Z M Khedher
3. Asst. Prof. Ts. Dr. Zahidah Zulkifli
4. Asst. Prof. Dr. Hafizah Mansor
5. Asst. Prof. Dr. Ahmad Fatzilah Misman
6. Asst. Prof. Ts. Dr. Mohd Izzuddin Mohd Tamrin
7. Asst. Prof. Dr. Nurul Liyana Mohamad Zulkufli

Objectives

1. To carry out research projects and consultancy services on Semantic Body of Knowledge and Technology involving Islamic content knowledge-base or pool.
2. To offer trainings, workshops and consultancy series on Semantic and Knowledge Technologies and Islamic Knowledge base.
3. To address critical issues related to wisdom and semantic based search engine, QA system, KM portal, Islamic Knowledge base.
4. To construct ontology and develop methods and tools unique to Islamic Knowledge Base, opinion mining and social network analysis over the cloud and grid computing.

KICT RESEARCH UNIT 6
ICT & Islam

Head of Research Unit

Prof. Dr. Mohamad Fauzan Noordin

List of members

1. Prof. Dr. Roslina Othman
2. Prof. Dr. Imad Fakhri Taha Alyaseen
3. Prof. Dr. Mohammad Ridza Wahiddin
4. Prof Dr. Akram M Z M Khedher
5. Asst. Prof. Dr. Aznan Zuhid Bin Saidin
6. Asst. Prof. Dr. Hazwani Mohd Mohadis
7. Asst. Prof. Dr. Najhan Bin Muhamad Ibrahim
8. Asst. Prof. Dr. Aidrina Binti Mohamed Sofiadin
9. Asst. Prof. Dr. Adamu Abubakar Ibrahim
10. Asst. Prof. Dr. Noor Hasrul Nizan bin Mohammad Nor
11. Br. Muhd Rosydi Bin Muhammad

Summary

This research group focus on ICT & Islam that promote the philosophy of ICT and Islam, the Qur'an and the Hadith as the guiding principles of ICT ethics, security and privacy, the Qalaam as the infostructure, peopleware, heartware, knowledge workers to wisdom workers, knowledge society and wisdom society in ICT, the e-government: the trust, transparency and accountability, and the ICT and Islam as the way forward. Ultimately, ICT and Islam not only explains the relationship between ICT and Islam, but also provides the solution to the ummah and the world

Objectives

1. This group aims to integrate the efforts of the individuals in exploring the following areas:
2. To promote the Philosophy of ICT and Islam and develop the policy in ICT from Islamic Perspective
3. To establish the standards and Islamic fundamentals in the various fields of ICT (i.e. Theories & Fundamentals). The main Islamic principles should be taken as guidelines for laying the foundation of an Islamic code of practice in Software Development.
4. The use of ICT for the benefit of Muslim Ummah and entire humankinds. Thus, to ensure that the Applications will promote Maslahah not Mafsadah. This ICT and Islam will open new doors for Da'wah, and help researchers, students and users to be able to link the Islamic values with ICT fundamentals and applications.

KICT RESEARCH UNIT 7
Digital Humanities

Head of Research Unit

Asst. Prof. Ts. Dr. Muhamad Sadry Abu Seman

List of members

1. Prof. Dr. Abdul Wahab bin Abdul Rahman
2. Assoc. Prof. Dr. Murni Mahmud
3. Asst. Prof. Dr. Sharifah Nur Amirah Binti Sarif Abdullah
4. Asst. Prof. Dr. Muna Azuddin
5. Asst. Prof. Dr. Nor Saadah Binti Md Nor
6. Asst. Prof. Dr. Nur Leyni Nilam Putri Junurham
7. Asst. Prof. Dr. Amir Aatieff Bin Amir Hussin
8. Asst. Prof. Dr. Norlia Md Yusof
9. Asst. Prof. Dr. Nurhafizah Mahri
10. Asst. Prof. Dr. Marini Binti Othman
11. Asst. Prof. Dr. Mohd Khairul Azmi B Hassan
12. Asst. Prof. Ts. Dr. Mohd Izzuddin Mohd Tamrin
13. Asst. Prof. Dr. Norzaliza Md Nor
14. Asst. Prof. Dr. Hazwani Mohd Mohadis
15. Asst. Prof. Dr. Noor Hasrul Nizan bin Mohammad Nor
16. Asst. Prof. Dr. Shuhaili Talib
17. Br. Muhd Rosydi Bin Muhammad
18. Mdm Noor Azian Mohamad Ali

Summary

Digital Humanities (DH) research group is focusing on humanities related research by using technology and different types of computational tools to inspire the new forms of interaction such as data management, data mining, mapping, and modelling of various types of data (texts, graphics, web-based data and mobile platforms) and creating innovations in teaching and learning. The outcomes of the research works will enhance the digital data in terms of corpus linguistics and digital archival; promote and develop understanding of digital data and environment; expand access to knowledge and scholarly work on humanities related research.

Objectives

1. To employ the different types of technology tools and computing processes to humanities research
2. To expand the research in different languages from various theoretical perspectives and research paradigms
3. To bridge the gap between the needs of the humanities scholars and the potential digital content and services
4. To support digital humanities data presentation, discovery, preservation, and provenance

Message from Head of Research Unit 7

Assalamualaikum wbt,

Digital Humanities research unit was established in early 2021 to support the Digital Humanities flagship in IIUM. We started with a few key members, led by Prof. Abdul Wahab Abdul Rahman, the former Dean of KICT, and assisted by Dr. Sharifah Amirah Sarif Abdullah. We are now expanding our main research on machine translation into several key research areas, including corpus linguistics, digital archival, and Malay manuscript. Developing these key areas will help our research unit to enhance research on the use of digital data for innovative application development. We believe computational tools such as machine translation and various types of data will offer a new opportunity for researchers to assist and facilitate our community in terms of teaching and learning.

We are looking forward to more collaboration internally and externally in the future. At the moment, one of our members Dr. Nor Saadah Md Nor is enhancing her expertise in the area by pursuing a post-doctorate programme at Kulliyyah of Languages and Management (KLM). She is currently involved in building language taxonomy (Arabic-to-English) for our machine translation project under the Digital Humanities flagship. Additionally, we are also working with the Centre for Languages and Pre-University Academic Development (CELPAD) and IIUM Academy on a collaborative project to develop an app for teaching and learning Arabic language using machine translation.

With the establishment of the Digital Humanities Research Unit, we hope to enhance future research, encourage collaboration, as well engage in projects that will facilitate teaching and learning for our community.

Thank you and *wassalam*.

Asst. Prof. Ts. Dr. Muhamad Sadry Abu Seman

KICT RESEARCH UNIT 8

Information Systems, Internet and Governance

Head of Research Unit

Prof. Ts. Dr. Abd Rahman Ahlan

List of members

1. Asst. Prof. Ts. Dr. Mohd Izzuddin Mohd Tamrin
2. Asst. Prof. Dr. Nor Saadah Binti Md Nor
3. Asst. Prof. Dr. Aznan Zuhid Bin Saidin
4. Asst. Prof. Dr. Nurul Nuha Abdul Molok
5. Asst. Prof. Dr. Najhan Bin Muhamad Ibrahim
6. Asst. Prof. Dr. Aidrina Binti Mohamed Sofiadin
7. Asst. Prof. Dr. Siti Asma Mohammed
8. Asst. Prof. Ts. Dr. Noor Hayani Abd Rahim
9. Asst. Prof. Ts. Dr. Zahidah Zulkifli
10. Asst. Prof. Dr. Ahmad Fatzilah Misman
11. Asst. Prof. Dr. Noor Hasrul Nizan bin Mohammad Nor
12. Asst. Prof. Dr. Mior Nasir Mior Nazri
13. Asst. Prof. Dr. Zainatul Shima Abdullah
14. Br. Muhd Rosydi Bin Muhammad

Summary

Information systems continue to be a major force in the management of organizations, with the potential to transform the very nature of human activity. With the growth in the usage of the Internet and the impact of globalization, major new challenges are opening up which have the potential to create new ways of tackling established approaches to management.

This research group aims to coordinate all research work in the area of IT and organizational applications and its management, as well as the use and impact of IT at the country & societal level. The research themes include (though not exhaustive): IT Governance, Strategic Information Systems, IT Policies, E-commerce/E-Business, E-Government, IT Outsourcing & Cloud Computing, IT and SMEs, E-Learning, E-Health, IT Education & Workforce, IT Ethics and Islam.

KICT RESEARCH UNIT 9

Computational Intelligence

Head of Research Unit

Assoc. Prof. Ts. Dr. Amelia Ritahani Ismail

List of members

1. Prof. Dr. Abdul Wahab bin Abdul Rahman
2. Prof. Dr. Asadullah Shah
3. Prof. Dr. Imad Fakhri Taha Alyaseen
4. Assoc. Prof Dr. Normaziah Binti Abdul Aziz
5. Asst. Prof. Dr. Suriani Sulaiman
6. Asst. Prof. Dr. Sharyar Wani
7. Asst. Prof. Dr. Ahsiah Binti Ismail
8. Asst. Prof. Dr. Najhan Bin Muhamad Ibrahim
9. Asst. Prof. Dr. Amir Aatieff Bin Amir Hussin
10. Asst. Prof. Dr. Norlia Md Yusof
11. Asst. Prof. Dr. Raini Hassan
12. Asst. Prof. Dr. Mohd Khairul Azmi B Hassan
13. Asst. Prof. Dr. Rawad Abdulkhaleq Abdulmolla Abdulghafor
14. Asst. Prof. Dr. Asmarani Binti Ahmad Puzi
15. Asst. Prof. Dr. Akeem Olowolayemo
16. Asst. Prof. Dr. Norzaliza Md Nor
17. Asst. Prof. Ts. Dr. Mohd Izzuddin Mohd Tamrin
18. Asst. Prof. Dr. Adamu Abubakar Ibrahim
19. Asst. Prof. Dr. Rafiez bin Abdul Raziff
20. Asst. Prof. Dr. Nurul Liyana Mohamad Zulkufli
21. Br. Jamaludin Ibrahim

Summary

The group is addressing the challenges in intelligent systems arising from the computational interpretation of complex data, focusing on solutions using computational modelling techniques and machine learning algorithms.

Objectives

1. To advance research in Computational intelligence concepts, methods and algorithms.
2. to study, analyze and develop better computational techniques and systems through incorporating biologically based, naturally occurring and neural techniques for intelligent computing to cover a wide range of researches in Computational Intelligence including nature-inspired computing, natural language processing, genetic algorithm,swarm intelligence and Computational modelling.

KICT RESEARCH UNIT 10

IIUM Software Engineering Research Group (ISERG)

Head of Research Unit

Assoc. Prof. Dr. Norsaremah Salleh

List of members

1. Prof. Dr. Asadullah Shah
2. Assoc. Prof. Ts. Dr. Normi Sham Awang Abu Bakar
3. Asst. Prof. Dr. Noor Azura Zakaria
4. Asst. Prof. Dr. Norzariyah Yahya
5. Asst. Prof. Dr. Azlin Nordin
6. Asst. Prof. Dr. Siti Asma Mohammed
7. Assoc. Prof. Dr. Lili Marziana Abdullah
8. Asst. Prof. Dr. Asmarani Binti Ahmad Puzi
9. Asst. Prof. Dr. Norzaliza Md Nor
10. Asst. Prof. Dr. Zainatul Shima Abdullah

Summary

This Research Unit aims to develop a fundamental understanding of how software developers build and evolve software systems. This includes developing novel methods, techniques, and tools to advancing the way software is developed for the benefits of humanity. Our research focus on these major areas: Empirical software engineering, software and systems modeling, human-aspect software engineering, evidence-based and software engineering education.

Objectives

1. To be the center of excellence in the area of Software Engineering and its interdisciplinary in KICT, IIUM.
2. To provide consultancy, research and training services in the field of Software Engineering that complements the academic goals of KICT.
3. To facilitate research and collaborations with other national governments, private organizations, and Higher Institutions abroad.
4. To conduct fundamental and applied research in the areas of empirical software enginering and measurement, software systems modeling, human-aspect in software engineering, evidence-based, and software engineering education.
5. To bridge the gap between software engineering academia and industry through development of new methods, techniques and tools for industry practitioners.

IIUM SOFTWARE ENGINEERING RESEARCH GROUP (ISERG)

Research Grants (2019-2021)

Fundamental Research Grant Scheme (2019-ongoing)
Syntactic Ambiguity Detection Framework in Software Requirements Specification - RM70,400
Asst. Prof. Dr. Azlin, Assoc. Prof. Dr. Amelia Ritahani, Asst. Prof. Dr. Suriani, Dr. Ng Keng Yap, Assoc. Prof. Dr. Nurul Akmar

Fundamental Research Grant Scheme (2019-ongoing)
Secure Hybrid Agile Software Development Lifecycle Framework for Software Engineering Process - RM55,200
Asst. Prof. Dr. Norzariyah, Assoc. Prof. Dr. Normi Sham, Assoc. Prof. Dr. Normaziah, Dr. Siti Sarah

Fundamental Research Grant Scheme– RACER (2019 – ongoing)
A Fuzzy Multi-Criteria Decision Analysis Model for Decision Support in Diabetes Mellitus - RM39,300
Asst. Prof. Dr. Noor Azura, Assoc. Prof. Dr. Amelia Ritahani, Asst. Prof. Dr. Abdul Hadi, Asst. Prof. Dr. Mohd Adli

Sponsored Project (2021 - ongoing)
The Study on the Implementation of Biometric-Computer-on-Card - RM15,000
Assoc. Prof. Dr. Normi Sham, Assoc. Prof. Dr. Lili Marziana, Asst. Prof. Dr. Norzariyah, Asst. Prof. Dr. Madihah

Sultan Ahmad Shah Medical Centre @ IIUM Research Grant (2021 - ongoing)
Development of Shariah Compliance Monitoring System for Implementation in Shariah Compliant Hospital Framework - RM20,000
Prof. Aminudin, Prof. Norbik Bashah, Prof. Abdul Wahab, Assoc. Prof. Dr. Normi Sham, Asst. Prof. Dr. Norzariyah, Asst. Prof, Dr. Azlin, Asst. Prof. Dr. Madihah, Dr. Mustakim

IIUM SOFTWARE ENGINEERING RESEARCH GROUP (ISERG)

Awards (2019-2021)

BEST INVENTION (ACADEMIA) & GOLD MEDAL
International Counselling Innovation and Showcase 2021 (i-COUNNOVAS 2.0)
IIUM Sejahtera Profiling (ISP) Web-Based App – A Screening Tool for Early Detection of Mental Health Issues

GOLD MEDAL
International Counselling Innovation and Showcase 2021 (i-COUNNOVAS 2.0)
IIUM Sejahtera Profiling (ISP) Web-Based App – A Screening Tool for Early Detection of Mental Health Issues

SILVER MEDAL
International Innovation, Technology and Research Exhibition and Conference 2021 (ITREXC 2021)
iTherapy: A Recommender System for Learning Disability Therapy Plan

BRONZE MEDAL
eCarnival Research & Innovation 2020 (eCRI2020)
P-REST ESTIMATOR – An Optimised Software Project Effort Estimation System

IIUM SOFTWARE ENGINEERING RESEARCH GROUP (ISERG)

Activities (2019-2021)

MoA IIUM and Linkdood Technologies Sdn Bhd (2019-2020)

POC for MASACHAIN in KICT (2019)

Special Meeting with Chaintope CEO from Japan (2019)

Test Design Competition Sunway University (July 2019)

PSLC Open Day, Taman Melawati, Kuala Lumpur (February 2021)
In Collaboration with PCBDG and PSC Research group

KICT Takrim 2021 - DCS Seminar

KICT Takrim 2021
KICT Intellectual Talk Series 6/2021

Research and Publication Skills 2021

KICT RESEARCH UNIT 11

Blockchain/ Distributed Ledger Technology (DLT) & Applications

Head of Research Unit

Assoc. Prof. Ts. Dr. Normi Sham Awang Abu Bakar

List of members

1. Prof. Dato' Dr. Norbik Bashah Idris
2. Prof. Dr. Imad Fakhri Taha Alyaseen
3. Prof. Ts. Dr. Mira Kartiwi
4. Asst. Prof. Dr. Norzariyah Yahya
5. Asst. Prof. Dr. Maznah Ahmad
6. Asst. Prof. Dr. Adamu Abubakar Ibrahim
7. Asst. Prof. Dr. Madihah S Abd Aziz
8. Asst. Prof Dr. Zainab Senan Mahmod
9. Asst. Prof. Dr. Dini Oktarina Dwi Handayani

Summary

This research unit focuses on fundamental and applied research in the field of blockchain and distributed ledger technologies. Current projects explore the secure execution of smart contracts, Central Bank Digital Currency (CBDC), cross-chain interoperability, testing blockchain systems and application of blockchain in multiple domain.

Objectives

1. To investigate fundamental and applied research in blockchain and DLT applications
2. To collaborate with blockchain industry players
3. To explore the networking possibilities with other academic institutions in blockchain research
4. To provide education and training for blockchain enthusiasts

Highlights for RU11 (2019-2021)
AND

AND
eScroll Flagship

PUBLICATION:

1. Liang, C., Shanmugam, B., Azam, S., Karim, A., Islam, A., Zamani, M., Kavianpour, S., & Idris, N. B. (2020). Intrusion detection system for the internet of things based on blockchain and multi-agent systems. Electronics, 9(7), 1120.
2. Saleh, A. H. A. I., Ibrahim, A. A., Noordin, M. F., & Mohadis, H. M. (2020). Islamic Approach toward Purification of Transaction with Cryptocurrency. Journal of Theoretical and Applied Information Technology, 98(06).
3. Saleh, A. H. A. I., Ibrahim, A. A., Noordin, M. F., & Mohadis, H. M. (2020). Factors Influencing Adoption of Cryptocurrency-Based Transaction from an Islamic Perspective. Global Journal of Computer Science and Technology.
4. Khatiman, M. N. A., Ismail, M. S., & Yahya, N. (2021). Blockchain-based Zakat Collection to Overcome the Trust Issues of Zakat Payers. International Journal on Perceptive and Cognitive Computing, 7(1), 53-58.

CONFERENCES:

Awang Abu Bakar,N. S, Yahya,N., KhairuddinI. E., Zainal Abidin A.F., Mohamad Zain,J., IdrisN. B. and Engku AliE. R. A, (2021) The Central Bank Digital Currency In Malaysia: A Literature Review in ICBT 2021 Conference, Lecture Notes in Networks and Systems.

GRANTS:

1. Fundamental Research Grant Scheme (FRGS21-196-0805): A Software Testing Framework for Assessing the Quality of Blockchain Systems: 2021-2023: Amount: RM66,000
2. Jamalullail Research Grant Scheme (JRGS21-003-0003): THE ADOPTION OF SOCIAL SUSTAINABLE BANK FRAMEWORK IN THE STATE OF PERLIS: 2021-2023: Amount RM10,000
3. Office of the Rector (SPU21-003-0003): Flagship proposal on Sustainable Social Bank (SSB): 2021-2022: Amount RM35,000
4. SRCG20-050-0050: The establishment of a Robust Framework for the Issuance of Central Bank Digital Currency (CBDC) in Malaysia: 2020-2022: Amount RM20,000
5. Office of the Rector:Developing an Evaluation Framework to Evaluate the Impact/Outcome of IIUM Flagship Projects using Blockchain Technology (Masachain): 2019-2020: Amount RM10,000.
6. NTIS Sandbox (MTDC): Commercialisation of eScroll Platform using Blockchain for University Graduands: 2021-2026: Amount: RM2,386,800.00

Final Year Project

a) FYP Award Gold Medal (Development)

- Student: Abubakar Yagoub Ibrahim Omer
- Supervisor: Dr. Rawad Abdulkhaleq Abdulmolla Abdulghafor

b) FYP Award Silver Medal (Research)

- Student: Nur Shairah Binti Muhd Affendy
- Supervisor: Assoc. Prof. Dr. Amelia Ritahani Bt. Ismail

c) FYP Award Silver Medal (Development)

- Student: Wan Huzaifah Bin Wan Azhar
- Supervisor: Dr. Suriani Sulaiman

d) FYP Award Bronze (Development)

- Students: Nurul Anisah Binti Mohamad Asri and Nur AliahtulAizan Binti Alizar,
- Supervisor: Dr Norzariyah Yahya

- Students: Nur 'Atikah Binti Abdul Hafiz and Wan Ahmad Akmal Bin Wan Aziz
- Supervisor: Dr Norzariyah Yahya

- Student: Jaki Fayek Alvi Rahman
- Supervisor: Dr. Suriani Sulaiman

ACHIEVEMENTS:

Sustainable Social Bank Application presentation on 3 September 2021. Presented to Tan Sri Rector and IIUM Top Management.

ACTIVITIES

1. e-Takrim 2021 SSB Flagship Virtual Booth, August 2021.

2. KICT Webinar series

a)Webinar title: Sustainable Social Bank: Volunteerism with Rewards

b)Speaker:
i. Prof. Dr. Abdul Wahab Abdul Rahman
ii. Assoc. Prof. Dr. Normi Sham Awang Abu Bakar

c)Moderator: Dr. Maznah Ahmad

d)Date: 11 August 2021

KICT RESEARCH UNIT 12

Information Assurance & Security (IAS)

Head of Research Unit

Asst. Prof. Dr. Nurul Nuha Abdul Molok

List of members

1. Prof. Dr. Mohammad Ridza Wahiddin
2. Prof. Dato' Dr. Norbik Bashah Idris
3. Prof. Dr. Akram M Z M Khedher
4. Prof. Ts. Dr. Abd Rahman Ahlan
5. Prof. Ts. Dr. Mira Kartiwi
6. Assoc. Prof. Ts. Dr. Zulkefli Muhammed Yusof
7. Asst. Prof. Ts. Dr. Noor Hayani Abd Rahim
8. Asst. Prof. Ts. Dr. Zahidah Zulkifli
9. Asst. Prof. Dr. Aidrina binti Mohamed Sofiadin
10. Asst. Prof. Dr. Suhaila Samsuri
11. Asst. Prof. Dr. Shuhaili Talib
12. Asst. Prof Dr. Zainab Senan Mahmod

Summary

This research unit (RU) was established in August 2017 and approved in September 2017 under CyberSecurity Centre of Excellence. We named our research unit "Information Assurance and Security", in line with the naming convention used in ACM and IEEE curricula for information technology (IT). Currently, we have 12 members from Kulliyyah of Information and Communication Technology (KICT), and 2 members from Ahmad Ibrahim Kulliyyah of Laws, (AIKOL)

According to U.S. Department of Defense (2017), Information Assurance refers to the managerial and technical measures designed to ensure the confidentiality, integrity, availability, authenticity, and utility of information and information systems. This term, which has spread from the U.S. Government use into common parlance, is sometimes synonymous with information security. Information Assurance is a multidisciplinary area of study and professional activity which aims to protect business by reducing risks associated with information and information systems by means of a comprehensive and systematic management of security countermeasures, which is driven by risk analysis and cost-effectiveness (Cherdantseva & Hilton, 2013).

Our research unit organizes research activities in areas within the definitions given above. To date, apart from ongoing information security research supervision, and teaching and learning activities, we had organized information security research retreats, malware analysis training sessions, cybersecurity competitions and share research findings with the security industry, to name a few. We look forward to perform more impactful research, to empower our students and to collaborate with the industry considering the importance of information security education, training and awareness to everyone.

Objectives

1. To apply, analyze, evaluate and/or develop best practices and effective procedures to current and relevant information assurance and security problems and challenges.
2. To apply, analyze, evaluate and/or develop a comprehensive and systematic management of security countermeasures to protect business or organizations and society by addressing risks associated with information and information systems
3. To promote information assurance and security to multidisciplinary research community and industry through research collaborations and knowledge exchange.

Information Assurance & Security

GRANTS SECURED

1. IIUM Research Initiative Grant Scheme (Flagship) (2019-2021) – RM20,000: The Development of CyberSecurity Awareness Model using Chaos Theory of Careers for Secondary Schools.

2. International Institute of Islamic Thought (IIIT) ESEA Teaching Material Project (2021-2022) – RM10,000: Cybersecurity Risk Management from the Islamic Perspectives.

3. Jabatan Kemajuan Islam Malaysia (JAKIM) (2020-2022) - RM68,850: *Kajian Hukum Mengenai Kesan Permainan Digital Terhadap Masyarakat*

4. IIUM (2008-present) - RM50,000: Intelligent Cyberspace Security

I A S

GRANTS SECURED

1. International Institute of Islamic Thought (IIIT) ESEA Teaching Material Project (2021 – 2022) – RM10,000: Cybersecurity Risk Management from the Islamic Perspectives.

2. Jabatan Kemajuan Islam Malaysia (JAKIM) (2020-2022) - RM68,850: *Kajian Hukum Mengenai Kesan Permainan Digital Terhadap Masyarakat.*

3. IIUM Research Initiative Grant Scheme (Flagship) (2019 - 2021) – RM20,000: The Development of CyberSecurity Awareness Model using Chaos Theory of Careers for Secondary Schools.

4. IIUM (2008-present) - RM50,000: Intelligent Cyberspace Security.

I A S

GRANTS SECURED

1. IIUM Research Initiative Grant Scheme (Flagship) (2019 - 2021) – RM20,000: The Development of CyberSecurity Awareness Model using Chaos Theory of Careers for Secondary Schools

2. Universiti Malaya Research Grant (UMRG) (2017 - 2019) – RM36,000: Sub-Programme 3: Social enterprise security governance: Developing an information security framework for the social entrepreneurs

3. Jabatan Kemajuan Islam Malaysia (JAKIM) (2020-2022) - RM68,850: *Kajian Hukum Mengenai Kesan Permainan Digital Terhadap Masyarakat*

4. IIUM (2008-present) - RM50,000: Intelligent Cyberspace Security

I A S

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LEADING THE WAY
KHALIFAH · AMANAH · IQRA' · RAHMATAN LIL ALAMIN

Premier Digital Tech University™ **KICT**

PUBLICATIONS

1. Jafri, Azma Melia and Jamaluddin, Nur' Ain Zulaikha and Zulkifli, Zahidah (2021). Cybersecurity awareness mobile apps for secondary school students: Letsecure. *Journal of Information Systems and Digital Technologies*, 3 (2). pp. 94-108. E-ISSN 2682-8790

2. Nurul Nuha Abdul Molok and Zahidah Zulkifli (2021). *Parents' Roles in Mitigating Cyber Threats to Children in the New Norm*. Presented at Persidangan Kependudukan Kebangsaan (PERKKS 21), 16-17 Nov 2021, Malaysia.

3. Nurul Nuha Abdul Molok, Narisha Aziz and Nurin Sharzana Sharudin (2021). *Secure SMEs: Cyber Security User Incidents Reporting System for SMEs*. Presented at 8th International Conference on ICT for the Muslim World (ICT4M 2021), 4-6 June 2021, Malaysia.

4. Mohammed Abdullah Bawazir, Murni Mahmud and Nurul Nuha Abdul Molok (2021). *The Effects of Persuasive Technology on End-Users' Information Security Awareness*. Presented at 8th International Conference on ICT for the Muslim World (ICT4M 2021), 4-6 June 2021, Malaysia.

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PUBLICATIONS

5. Tuan Ahmad Bazzli Tuan Abdullah, Mohd Faris Mohd Yussof & Nurul Nuha Abdul Molok (2021). *Cyber Generation: An Interactive Digital Storytelling on Digital Citizenship*. Presented at 8th International Conference on ICT for the Muslim World (ICT4M 2021), 4-6 June 2021, Malaysia.

6. Muhammad Faris Ahmad Sabri, Muhammad Luqmanulhakim Sa'Ari and Nurul Nuha Abdul Molok (2021). *Secure Expense Manager: A Mobile Application for Managing Expenses*. Presented at 8th International Conference on ICT for the Muslim World (ICT4M 2021), 4-6 June 2021, Malaysia.

7. Aimi Nadrah Maseri, Azah Anir Norman, Christopher Ifeanyi Eke, Atif Ahmad, Nurul Nuha Abdul Molok (2020). Socio-technical mitigation effort to combat cyber propaganda: a systematic literature mapping. *IEEE Access*, 8, pp. 92929-92944. ISSN 2169-3536 (Q1)

I A S

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PUBLICATIONS

8. Zahidah Zulkifli, Nurul Nuha Abdul Molok, Noor Hayani Abd Rahim, Shuhaili Talib (2020). Cyber security awareness among secondary school students in Malaysia. *Journal of Information Systems and Digital Technologies*, 2 (2), pp. 28-41.

9. Amirah Fatin Zahari, Zahidah Zulkifli, Nurul Nuha Abdul Molok (2020). A systematic literature review of cyber security education models' implementations. *Malaysian Journal of Youth Studies*, Edisi Khas 1 (1), pp. 1-20. ISSN 2180-1649

10. Taslim Taher, Mohd Adam Suhaimi, and Nurul Nuha Abdul Molok (2020). Underlying Structure of Online Risks and Harm among Bangladeshi Teenagers. *Applied Information Systems and Management*, 3(1), pp. 7-14. P-ISSN: 2621-2536; E-ISSN: 2621-2544

I A S

PUBLICATIONS

1. Fauzi, M.M.A, Ibrahim, M.A.Y, Abd Rahim, N. H., Abdul Molok, N.N. (2019). Assessing the risks of social media and profiling the behavior of potential victims among youth.Status: Accepted for publication in *Malaysian Journal of Youth Studies*.

2. Abd Rahim, N. H., Hamid, S. & Mat Kiah, M.L. (2019). Enhancement of cybersecurity awareness program on personal data protection among youngsters in Malaysia: An assessment. *Malaysian Journal of Computer Sciences*, 32(3) (ISI Indexed)

3. Zahari, A.F., Zulkifli, Z. & Abdul Molok, N.N. (2019). A systematic literature review of cybersecurity education model's implementation. Accepted for publication in *Malaysian Journal of Youth Studies*.

4. Abualadas, F.E. Zeki, A.M., Al-Ani, M.S., Messikh, A.-E. (2019). Speaker identification based on hybrid feature extraction techniques. International Journal of Advanced Computer Science and Applications. Vol10(3), pp.322-327

I A S

PUBLICATION

5. Barzak, O., Abdul Molok, N.N., Mahmud, M. & Talib, S. (2019). Incorporating Islamic principles in information security behavior: A conceptual framework. Journal of Information Systems and Digital Technologies, Vol. 1(2), pp.24-39.

6. Iriqat, Y.M., Ahlan, A.R. & Abdul Molok, N.N. (2019). Information security policy perceived compliance among staff in Palestine universities: An empirical pilot study. IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) Proceedings 8717438, pp. 580-585. (Scopus indexed)

7. Iriqat, Y.M., Ahlan, A.R., Abdul Molok, N.N. & Abd Rahim, N. (2019). Exploring staff perception of information security policy compliance: Palestine universities empirical study, 1st International Conference Intelligence Computing and Engineering, 15-16 December 2019, Hadhramout University, Mukalla, Yemen.

8. Zainudin, Z.S. & Abdul Molok, N.N. (2019). Advanced Persistent Threats Awareness and Readiness: A Case Study in Malaysian Financial Institutions, Proceedings of Cyber Resilience Conference, CRC 2018. (Scopus indexed)

I A S

PUBLICATION

9. Sidi Ahmed, S.M. and Zulhuda, S. (2019). Data protection challenges in the internet of things era: an assessment of protection offered by PDPA 2010. *International Journal of Law, Government and Communication*, 4 (17) pp.1-12

10. Daud, Mahyuddin (2019). Combating fake news online: exploring Australian co-regulatory framework for Malaysia. Presented at MCMC Research Symposium 2019 - Malaysia on the Cusp of Hyper-connectivity :, Putrajaya.

11. Abdul Molok, Nurul Nuha (2019). Mitigating Leakage of Organizational Information in the Hyper-Connected Era: From the Perspectives of Managers and Employees. Presented at MCMC Research Symposium 2019 - Malaysia on the Cusp of Hyper-connectivity, Putrajaya.

I A S

ACHIEVEMENTS IN 2021

- Cyber Generation - Silver Award for Final Year Project Category, Research & Innovation Poster Competition
- Secure Expense Manager - Bronze Medal for 4th Digitalised International Invention, Innovation & Design Johor
- Cybersecurity Awareness Mobile App for Secondary Schools - Bronze Medal for 4th Digitalised International Invention, Innovation & Design Johor

ACTIVITIES & ACHIEVEMENTS IN 2021

- Seminar Kesan Media Sosial di kalangan Kanak-Kanak dan Peranan Ibubapa, PUSPANITA Ministry of Transport (MOT), 19/11/2021
- Kursus Revolusi Perindustrian Keempat (4IR) Dan Ekonomi Digital Siri 2/2021. Tajuk ceramah "Emerging Technologies as the Drivers of Digital Economy", INTAN, 27/11/2021
- Kursus Revolusi Perindustrian Keempat (4IR) Dan Ekonomi Digital Siri 1/2021. Tajuk ceramah "Emerging Technologies as the Drivers of Digital Economy", INTAN, 7/4/2021
- Webinar for IIUM Staff during IIUM Takrim 2021: Addressing the Challenges in the Cyber World during the Pandemic, 16/8/2021
- Webinar for IIUM Researchers during IIUM Takrim 2021 : Understanding the Modern Cyber Threat Landscape. Speaker: Assoc. Prof. Dr. Atif Ahmad, Deputy Director of the Academic Centre of Cyber Security Excellence, University of Melbourne, 24/8/2021

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UNIVERSITY RESEARCH UNIT 23

Centre of Excellence for Cybersecurity (CoExCyS)

Head of Research Unit
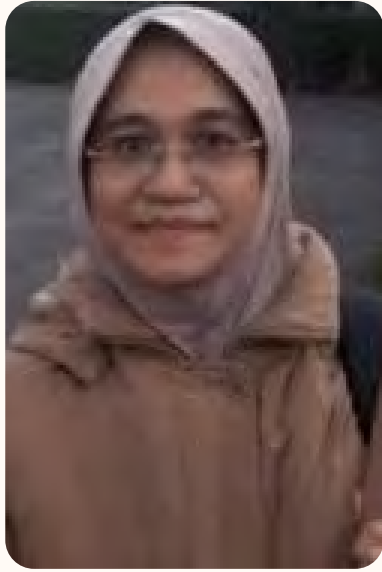
Assoc. Prof. Dr. Normaziah Abdul Aziz

List of members

1. Prof. Dr Mohamed Ridza Wahiddin
2. Prof. Dr. Akram M Z M Khedher
3. Prof. Dr. Imad Fakhri Taha Alyaseen
4. Asst. Prof. Dr. Rizal Mohd Nor
5. Asst. Prof. Dr. Hafizah Mansor
6. Asst. Prof. Dr. Nurul Nuha Abdul Molok
7. Asst. Prof. Dr. Sharyar Wani
8. Asst. Prof. Dr. Shuhaili Talib
9. Asst. Prof. Dr. Aznan Zuhid
10. Asst. Prof. Dr. Andi Fitriah Abdul Kadir
11. Asst.Prof.Dr.Mohd Khairul Azmi Bin Hassan
12. Br. Jamaludin Bin Ibrahim

Objectives

1. Implement research activities related to the field of Quantum information.
2. Investigate and develop protocols in quantum cryptography
3. Consolodate research activities through offering postgraduate programmes

CENTER OF EXCELLENCE FOR CYBERSECURITY (CoExCyS)

MESSAGE FROM THE HEAD OF CoExCyS

Centre of Excellence for Cyber Security (CoExCyS) [read: co-exist] is a research lab that works on securing computing environment and platforms - computers, servers, mobile devices, network, software codes, applications, and importantly data itself, from malicious attacks related to security, privacy, and safety. This center is founded by Prof. Dr. Mohamed Ridza Wahiddin, who now remains with us as our Patron and Advisor, despite his commitment in another institution. Continuing his aspiration, our team strives to secure present and emerging technology solutions through research, development and innovation, and we offer security-related capacity building, consultation and outreach programs.

Our present active research areas are Malware analysis - Dr. Andi Fitriah; Vehicle systems security - Dr. Hafizah; Network and digital forensics - Dr. Andi & Dr. Normaziah; Secure coding - Dr. Normaziah; Blockchain & IoT security - Dr. Rizal; Applications of AI in security - Dr. Amir 'Aatief & Dr. Sharyar Wani; Cryptography - Prof. Imad and Privacy engineering - Dr. Normaziah & Dr Andi. At the same time, we are continuously active in Cyber Security Awareness initiatives and supporting closely our students' Cyber Security SIG activities, led by Dr. Hafizah.

We have experienced and contributed our expertise with the Canadian Institute for Cybersecurity (CIC), Academy of Sciences Malaysia (ASM), Microsoft Malaysia, the Ministry of Work (KKR), Cyber Security Malaysia (CSM), International Council of Islamic Finance Educators (ICIFE), R&IS Consultancy, Cyber Intelligence Sdn. Bhd, Juah Corporation Sdn. Bhd., Bina Provo Data Intelligence Sdn. Bhd., among others.

We welcome collaboration from government agencies, industry and academia, and also applications for Postgraduate and Post Doctorate placements - to be part of our team. Do visit our website and social media for more information.

Stay safe, stay secure,
Assoc. Prof. Dr. Normaziah Abdul Aziz

cybersec-coe@iium.edu.my   coexcys   coexcys1

ACTIVITIES (2019 - 2021)

Research Webinar: 21 July 2021

Research Webinar: 18 Sept 2021

Research Webinar: 8 Dec 2020

IIUM signs MoA with Juah Corporation on flood alert system: 6 March 2020

Cyber Safe and Awareness Posters During Covid-19 MCO

Cyber Safe and Awareness Programs

AWARDS (2019 - 2021)

IEEE Best Paper Award

S. Sharmin, H. Mansor," Intrusion Detection on the In-Vehicle Network Using Machine Learning", 3rd International Conference on Cyber Resilience Conference (CRC2021), Jan 2021, IEEE

DNS attack mitigation Using OpenStack Isolation, Hassnain Hassan, Rizal Mohd Nor, Md Amiruzzaman and Sharyar Wani (2020, Dec) In 2020 IEEE 7th International Conference on Engineering Technologies and Applied Sciences (ICETAS), IEEE

Dynamic Android Malware Category Classification Using Semi-Supervised Deep Learning, Mahdavifar, S., Kadir, A. F. A., Fatemi, R., Alhadidi, D., & Ghorbani, A. A. (2020, August) In 2020 IEEE Intl Conf on Dependable, Autonomic and Secure Computing,
(pp. 515-522), IEEE

Gold Medal

2019 International Exhibition of Research, Idea & Innovation on Creative and Humanizing
- Sensei No Kuruma Car Advising System
- Secure Software Development Life Cycle

Silver Medal

2021 Minggu Penyelidikan Inovasi. Reinventing PTPTN study loan with Blockchain and Smart Contract

Bronze Medal

2019 International Conference And Exposition on Inventions By Institutions of Higher Learning (PECIPTA)
- Maqasid Al-Shariah Cyber Security Barometer
- Securing Aquaculture Monitoring System

Best Innovation

2019 International Exhibition of Research, Idea & Innovation on Creative and Humanizing.
Sensei No Kuruma Car Advising System

GRANTS & CONSULTANCY
(2019 - 2021)

Secure Water Monitoring and Management (SWaM) System - RM 39, 400
KPT Private Public Research Network (PPRN)
Dr. Normaziah, Dr. Amir, Dr. Rizal, Dr. Andi Fitriah, Dr. Hafizah.

Secure Cloud Flood Alert System (SCARLET) - RM 20, 000
Contract Research from Juah Sdn Bhd
Dr. Hafizah, Dr. Rizal, Dr. Amir, Andi Fitriah, Dr, Normaziah

Smart Door Access - RM 20, 000
Kulliyyah of ICT (KICT)
Dr. Rizal, D. Amir, Dr. Normaziah, Dr. Hafizah, Andi Fitriah

Face Detection Attendance System - RM 15, 350
Kulliyyah of ICT (KICT)
Dr. Amir, Dr. Rizal, Dr. Normaziah, Andi Fitriah, Dr. Hafizah

Secure framework for digital forensics of vehicle maintenance - RM 40, 000
FRGS RACER
Dr. Hafizah, Dr. Normaziah

International Council of Islamic Finance Educators (ICIFE)
New Website Development - RM 10, 000
ICIFE
Dr. Amir, Dr. Rizal, Dr. Andi Fitriah

Development of Data Privacy Management Framework for
ICT/IoT Products and Applications - RM 22, 400
R&IS Consulting
Dr. Normaziah, Dr. Andi Fitriah

cybersec-coe@iium.edu.my   coexcys   coexcys1

UNIVERSITY RESEARCH UNIT 27

IT For Development & e-Government (ITDEG)

Head of Research Unit

Prof. Ts. Dr. Abdul Rahman Ahlan

List of members

1. Prof. Ts. Dr. Abd Rahman Ahlan
2. Assoc. Prof. Ts. Dr. Normi Sham Awang Abu Bakar
3. Assoc. Prof. Dr. Murni Mahmud
4. Asst. Prof. Dr. Sharifah Nur Amirah Binti Sarif Abdullah
5. Asst. Prof. Dr. Muna Azuddin
6. Asst. Prof. Dr. Noor Azura Zakaria

SUMMARY

ICT for development (society and IT security, ICT development and policy in Muslim countries, e-government and digital divide, Information and IT literacy).

1. To serve as platform for research, discourse and interdisciplinary teaching in the area of ICT for development and e-government
2. To encourage collaboration and research culture among faculty members at the kulliyyah and university level
3. To offer consultancy work and act as a source of reference to the government it industries, and other non-government agencies on ICT policies, issues and

Congratulations!

ON COMPLETION OF RESEARCH PROJECT

ٱلْحَمْدُ لِلَّٰهِ

**& CONGRATULATIONS
ON COMPLETION OF KICT RESEARCH
INITIATIVES GRANT 2020**

TITLE

PREDICTING SPATIAL DISPLACEMENT BASED ON INTRAOCULAR
IMAGE DESIGN USING CONVOLUTION NEURAL NETWORK

AMOUNT RM 6, 000

ASST. PROF. TS. DR . MOHD. IZZUDDIN BIN MOHD. TAMRIN

TEAM MEMBERS

1. ASSOC. PROF. DR. MOHD. ZULFAEZAL BIN CHE AZEMIN, KULLIYYAH OF ALLIED HEALTH SCIENCES.
2. ASST. PROF. DR. MOHD HAZIMIN BIN MOHD SALLEH, KULLIYYAH OF SCIENCE
3. ASST. PROF. DR. MOHD RADZI BIN HILMI, KULLIYYAH OF ALLIED HEALTH SCIENCES.
4. ASSOC. PROF. DR. ALI A. ALWAN ALJUBOORI, RAMAPO COLLEGE OF NEW JERSEY
5. BR. NOOR FAWAZI MD NOOR RUDIN, UTM

OFFICE OF RESPONSIBLE RESEARCH AND INNOVATION

ٱلْحَمْدُ لِلَّٰهِ

**& CONGRATULATIONS
ON COMPLETION OF
SPONSORED PROJECT (INTERNATIONAL)**

**TITLE:
REAPING THE BENEFITS OF DIGITAL ECONOMY
"THE IMPACT OF E-COMMERCE ON FORMALIZING BUSINESS:
THE CASE OF SOUTHEAST ASIA**

**AMOUNT
RM 33,000**

**FUNDER
ECONOMIC RESEARCH INSTITUTE FOR ASEAN AND EAST ASIA**

PROF. TS. DR MIRA KARTIWI

OFFICE OF RESPONSIBLE RESEARCH AND INNOVATION

ٱلْحَمْدُ لِلَّٰهِ

**& CONGRATULATIONS
ON COMPLETION OF
RESEARCH INITIATIVE GRANT SCHEME (RIGS)**

Project Title

INVESTIGATION OF THE BEST
INFORMATION QUALITY MANAGEMENT
FRAMEWORK FOR HEALTH
INFORMATION SYSTEMS BIG DATA

Amount

RM 20,000.

ASST. PROF. DR. SITI ASMA BINTI MOHAMMED

Team Members

1. ASST. PROF. DR. NOOR AZIZAH BT. MOHAMADALI
2. ASST. PROF. DR. MAZNAH BT AHMAD

OFFICE OF RESPONSIBLE RESEARCH AND INNOVATION

ٱلْحَمْدُ لِلَّٰهِ

**& CONGRATULATIONS
ON COMPLETION OF
RESEARCH INITIATIVE GRANT SCHEME (RIGS)**

**PROJECT TITLE:
SECURE MAINTENANCE SERVICES LOGGING SYSTEM
FOR AUTOMOTIVE SYSTEMS**

AMOUNT : RM 20,0000.

ASST. PROF. DR. HAFIZAH BINTI MANSOR

**TEAM MEMBERS
ASSOC. PROF. DR. NORMAZIAH BINTI ABDUL AZIZ**

OFFICE OF RESPONSIBLE RESEARCH AND INNOVATION

Congratulations!

ON COMPLETION OF CONSULTANCY PROJECT

ٱلْحَمْدُ لِلَّٰهِ

& CONGRATULATIONS ON COMPLETION OF CONSULTANCY PROJECT SPONSORED BY R&IS CONSULTING

Project Title:
Development of Data Privacy Management Framework for ICT/ IoT Products and Applications

AMOUNT : RM22,400

Consultant Team

Assoc. Prof. Dr. Normaziah Abdul Aziz

Asst. Prof. Dr. Andi Fitriah Abdul Kadir

OFFICE OF RESPONSIBLE RESEARCH AND INNOVATION

KULLIYYAH SEMINAR/TALK

NOVEMBER 2021

SUKSESS - Supervision Skills Enhancement Series :

"Brute Force Method to PhD Supervision"

19 NOV 2021
FRIDAY
10.00AM-11.00AM

PROF. DR. ABD WAHAB BIN ABDUL RAHMAN
SPEAKER

ALL ARE INVITED!!

Youtube Link :
https://youtu.be/kB7dcK9PNzU

ASST. PROF. DR. MAZNAH AHMAD
MODERATOR

Organised by: Office of DDPGR   In collaboration with: CPS

KICT PG Seekknowledge Session:

Stuck with your Thesis? Ways to keep going

29TH NOV 2021
MONDAY
3.00PM-4.00PM

SCAN ME

PROF. DR. MOHAMED RAZI MOHAMED JALALDEEN
SPEAKER

ASST PROF. DR. MOHD IZZUDDIN BIN MOHD TAMRIN
MODERATOR

Youtube Link : https://youtu.be/B-4QS5JoWuk

Organised by: Office of DDPGR   In Collaboration with: ALUMNI RELATIONS DIVISION   PGSS   DDSDC   CPS

THE FRGS SERIES TALK 2: ACKNOWLEDGE, UNDERSTAND, AND RESPOND TO THE ASSESSMENT CRITERIA

Date / Day: 29 NOVEMBER 2021, Monday
Time : 10 am to 11.30 am
Venue: via ZOOM

Expert Speaker:

PROF. IR. TS. DR. AHMAD FADZIL ISMAIL, OFFICE OF DEPUTY RECTOR (RESPONSIBLE, RESEARCH & INNOVATION)

Moderator:

ASST. PROF. DR. IZZAT SUFIAN KULLIYYAH OF PHARMACY

Organized by : Grant initiatives unit

DECEMBER 2021

RESEARCH AND PUBLICATION SKILLS

HOW TO CONDUCT A SYSTEMATIC REVIEW?

DATE/DAY: 3 DECEMBER 2021/ FRIDAY
TIME: 10.00 AM – 11.00 AM

Speaker: Assoc. Prof. Dr. Norsaremah Salleh
Head of IIUM Software Engineering Research Group

Moderator: Asst. Prof. Dr. Zainatul Shima Abdullah
Member of IIUM Software Engineering Research Group

Scan Me for attendance

https://youtu.be/XuFzLAFmxNA

In Collaboration between:
The Office of Head of Research and Innovation, KICT and KICT Promotion Committee
Kulliyyah of Information and Communication Technology

KICT INTELLECTUAL TALK SERIES 7/2021

THE POTENTIAL OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE – EXAMPLES FROM OUR RESEARCH PROJECT

DATE/DAY: 17 DECEMBER 2021/FRIDAY
TIME: 10.30 AM – 11.30 AM

SPEAKER: ASST. PROF. TS. DR. MOHD. IZZUDDIN MOHD. TAMRIN.
MEMBER OF SMART DATA ANALYTICS RESEARCH UNIT

MODERATOR: ASST. PROF. DR. ABDUL RAFIEZ ABDUL RAZIF.
MEMBER OF SMART DATA ANALYTICS RESEARCH UNIT

Scan Me for attendance

https://youtu.be/Ij7dMtCgqjY

Connect with us : kictofficial

In Collaboration between:
The Office of Head of Research and Innovation, KICT and KICT Promotion Committee
Kulliyyah of Information and Communication Technology

WORKSHOP ON PATENT SEARCH USING LENS.ORG

Date / Day: 17 DECEMBER 2021 / FRIDAY
Time : 3.00 pm to 5.00 pm
Venue: Zoom Meeting

Moderator :
DR SYAZWANI BT MOHD. ZAKI
Department of Manufacturing and Materials Engineering
KOE, IIUM

By Expert Speaker:
PROF. DR. MOHD SHAHIR SHAMSIR BIN OMAR,
DEPUTY VICE CHANCELLOR,
UNIVERSITI TUN HUSSEIN ONN MALAYSIA (UTHM)

RESEARCH MANAGEMENT CENTRE

Organized by : Grant initiatives unit

KICT PG Seekknowledge Session

Create your own Event:

Ways to Combat Loneliness and Isolation

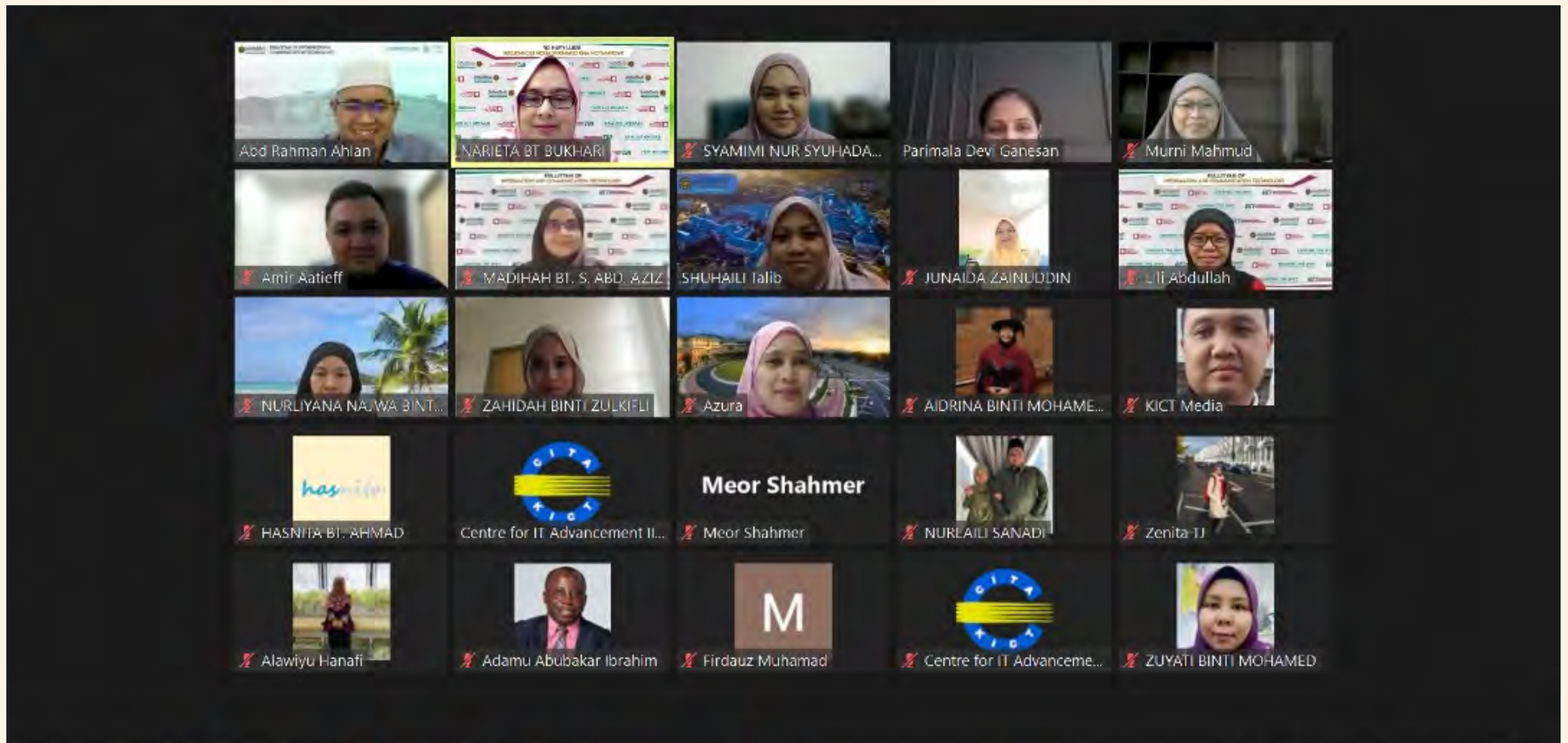DATE : 30TH DEC 2021
DAY : THURSDAY
TIME : 2.30PM-3.30PM

SPEAKER
Dr. Muharman Lubis (Lecturer at Telkom University Indonesia/ IIUM AlUMNI

MODERATOR
Dr. Akeem Olowolayemo

Youtube Link : https://youtu.be/BllC2F8Rj1Y

Organised by: Office of DDPGR

ISO 9001:2015 RECERTIFICATION AUDIT -
KULLIYYAH OF INFORMATION & COMMUNICATION TECHNOLOGY (KICT)
24 & 25 NOV 2021

PUBLICATION IN NOVEMBER 2021

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2. Azizan, Nur Fatinhieyah and Wan Abdul Razak, Wan Alia Izzati and Awang Abu Bakar, Normi Sham and Yahya, Norzariyah and Sheikh Abdul Aziz, Madihah and Abdullah, Lili Marziana (2021) The study of the applications of biometrics systems: a literature review. Journal of Engineering Science and Technology (Special Issue on ACSAT). pp. 111-119. ISSN 1823-4690

3. Alawadhi, Nayef and Alshaikhli, Imad Fakhri Taha and Alkandari, Abdulrahman (2021) High-level transportation framework for outdoor context-aware recommender. Journal of Engineering Science and Technology- JESTEC, 16 (4). pp. 15-31. ISSN 1823-4690

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5. Farajalla Ali, Nawafil Abdulwahab and Alshaikhli, Imad Fakhri Taha (2021) *Filling and restoration of cracked digitized paintings based on preserved neighbourhood pixels.* Journal of Engineering Science and Technology- JESTEC, 16 (4). pp. 32-40. ISSN 1823-4690

1. Ahmad Dahlan, Abdul Rahman and Alias, Majdan and Ibrahim, Jamaludin and Ahmad H.Osman, Rahmah and Mhd. Sarif, Suhaimi and Jaapar, Ghazali and Man, Saupi and Abdul Razak, Dzuljastri and Mohd Ali, Noor Azian and Mohamadali, Noor Azizah and Abdul Aziz, Normaziah and Mahri, Nurhafizah and Ismail, Amelia Ritahani and Abdul Kadir, Andi Fitriah and Mansor, Hafizah and Mohd. Nor, Rizal (2021) Budiman Mahallah kitchen. mKitchen, IIUM Gombak. ISBN 9789672656906.

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3. Al-Fahim, Nabil Hussein and Abdulghafor, Rawad Abdulkhaleq Abdulmolla and Qaid, Edres Hamood (2021) Determinants of banks' costumer's intention to adopt internet banking services in Yemen: using the Unified Theory of Acceptance and Use of Technology (UTAUT). In: 2021 International Congress of Advanced Technology and Engineering, ICOTEN 2021, 4-5 July 2021, Virtual.

4. Che Mohd Salleh, Marhanum and Mohd Nor, Rizal (2021) Proposing an intelligent information retrieval (IIR) framework for shariah sources retrieval in Islamic financial industry. TIJARI International Journal of Islamic Economics, Business, and Entrepreneurship, 1 (1). pp. 57-70. E-ISSN 2785-8960

5. Mohd Hanafi, Mohamad Faris Fitri and Md. Nasir, Mohammad Sukri Faiz and Wani, Sharyar and Abdulghafor, Rawad Abdulkhaleq Abdulmolla and Gulzar, Yonis and Hamid, Yasir (2021) A real time deep learning based driver monitoring system. International Journal on Perceptive and Cognitive Computing (IJPCC), 7 (1). pp. 79-84. ISSN 2462-229X

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7. Muhamad Ibrahim, Najhan and Idris, Norbik Bashah and Hassan, Mohd Khairul Azmi and Breathnach, Ciara and Amir Hussin, Amir 'Aatieff (2021) Big data processing using Hadoop HDFS and map-reduce for Public Open Data (POD). Journal of Engineering Science and Technology, 16 (Special Issue on ACSAT, December 2021). pp. 1-11. ISSN 1823-4690 (In Press)

8. Muhammad, Aisha and Ali, Mohammed A. H. and Turaev, Sherzod and Shanono, Ibrahim Haruna and Hujainah, Fadhl and Mohd Zubir, Mohd Nashrul and Faiz, Muhammad Khairi and Mohd Faizal, Erma Rahayu and Abdulghafor, Rawad Abdulkhaleq Abdulmolla (2021) Novel algorithm for mobile robot path planning in constrained environment. CMC-Computers, Materials & Continua, 71 (2). pp. 2697-2719. ISSN 15462218 E-ISSN 1546-2226

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12. Seraje, Nasheed Hossain and Mannan, Saad and Abdulghafor, Rawad Abdulkhaleq Abdulmolla and Wani, Sharyar and Abubakar, Adamu and Olowolayemo, Akeem(2021) Breast cancer prediction using machine learning. International Journal on Perceptive and Cognitive Computing (IJPCC). pp. 1-5. E-ISSN 2462-229X (In Press)

13. Abdullahi, Husein Osman and Abi Hassan, Abdikarim and Mahmud, Murni and Farah Ali, Abdifatah (2021) Determinants of ICT adoption among small scale agribusiness enterprises in Somalia. International Journal of Engineering Trends and Technology, 69 (2). pp. 68-76. ISSN 2231 – 5381

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15. Ahmed Mohamed, Fatima and Sheikh Abdul Aziz, Madihah and Zulkifli, Zahidah (2021) Cues to deception in Islamic websites text-based content and design: a systematic literature review. International Journal on Perceptive and Cognitive Computing (IJPCC), 7 (1). pp. 118-124. E-ISSN 2462-229X

16. Arifin, Viva and Kartiwi, Mira and Abdullah, Lili Marziana (2021) Predicting Sources of Self-Efficacy as Factors of IT Student Learning Behavior in Improving IT Competence. In: 9th International Conference on Cyber and IT Service Management (CITSM 2021), Bengkulu, Indonesia.

17. Bahjat, Munjid and Zeki, Akram M. (2021) الرسائل الجامعية المتصلة بالقرآن الكريم واللغة العربية فيما قدم في كليتي تقنية المعلومات والاتصالات والهندسة في الجامعة الإسلامية العالمية بماليزيا. المجلة الدولية للتطبيقات الإسلامية في علم الحاسب والتقنية, 9 (2). pp. 13-37. E-ISSN 2289-4020

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19. Kartiwi, Mira and Gunawan, Teddy Surya and Ab Rahman, Jamalludin (2021) Perceived risk and benefits of online health information among parents in Malaysia. In: Springer's Advances in Intelligent Systems and Computing (AISC). Springer, pp. 91-97. ISBN 978-303070916-7

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21. Mohd Zanan, Muhammad Faris Basheer and Sheikh Abdul Aziz, Madihah (2021) Personality differences and user preferences in visual design styles for data storytelling: a work in progress. In: 3rd National Symposium on Human Computer Interaction (FUSION 2021), 19th August 2021, Kuala Lumpur, Malaysia.

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23. Ungku Mohd Zam, Ungku Mohammad Alhady and Saidin, Aznan Zuhid and Kartiwi, Mira and Mahmud, Murni (2021) Big data analytics in the government: issues concerning public sector auditing. Journal of Engineering Science and Technology (Special Issue on ACSAT). pp. 58-68. ISSN 1823-4690

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