



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Razak Faculty of Technology
and Informatics



RRW2022

RAZAK RESEARCH WEEK 2022

<https://razak.utm.my/researchweek/>

RAZAK ANNUAL TECHNOLOGY, INFORMATICS AND POLICY SEMINAR (RATIPS) 2022 PROGRAM BOOKLET

9 November 2022 (Wednesday)

*“Knowledge Transformation from Multidisciplinary
Perspective in Engineering, Technology, Policy and Social
Science”*

**Organized by:
Razak Faculty of Technology and Informatics**

Table of Contents

| CONTENT | PAGE |
|------------------------------------|-------------|
| Information about RATIPS | 3 |
| Keynote Speaker | 4-7 |
| RATIPS Schedule | 8 |
| Parallel Session Schedule | 9-15 |
| RATIPS Organizing Committee | 16 |

Information about RATIPS

Razak Annual Technology, Informatics and Policy Seminar 2022 (RATIPS 2022) is one of the activity in conjunction with Razak Research Week 2022. This seminar is an event, organized to provide a platform for academicians, researchers, managers, industrial participants and students to share their research findings with experts. All full paper submissions are peer-reviewed and evaluated based on originality, technical and/or research depth, accuracy and relevance to the conference call for papers. RATIPS is divided into two main tracks covering on Science and Technology and Social Science which are done both physically and online.

Keynote Speaker



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Razak Faculty of Technology
and Informatics



RRW 2022

RAZAK RESEARCH WEEK 2022

<https://razak.utm.my/researchweek/>

RAZAK ANNUAL TECHNOLOGY, INFORMATICS & POLICY SEMINAR (RATIPS 2022)

KEYNOTE SPEAKER



"KNOWLEDGE TRANSFORMATION PROCESSES FROM MULTIDISCIPLINARY
PERSPECTIVES: A CASE OF METAVERSE SYSTEM APPROACH"

PROF. TS. DR. RUSLI HAJI ABDULLAH

PROFESSOR, UNIVERSITI PUTRA MALAYSIA

9:30AM - 10:30AM | **BATC, UTM KL**



"ENVIRONMENTAL MANAGEMENT OF PEATLAND ECOSYSTEMS BASED ON
VEGETATION BIODIVERSITY IN KAMPAR WATERSHED, RIAU PROVINCE, SUMATRA"

DR. WIRDATI IRMA, S.PD., M.SI

DEPUTY RECTOR 1 (ACADEMIC AFFAIRS), UNIVERSITAS MUHAMMADIYAH RIAU, INDONESIA

10:30AM - 11:30AM | **LIVE** www.facebook.com/utmrazak



OPEN TO ALL

UTM Researchers, Staff,
Students & Public

"5G NETWORK AND TECHNOLOGY"
EN. AFIZULAZHA ABDULLAH

CHIEF OPERATING OFFICER (TECHNOLOGY), CHIEF ENTERPRISE BUSINESS OFFICER,
CELCOM AXIATA BERHAD

2:00PM - 3:00PM | **BATC, UTM KL**



Organized by:
Research & Innovation Office,
Razak Faculty of Technology and Informatics



www.utm.my



Keynote Speaker



**“KNOWLEDGE TRANSFORMATION PROCESSES FROM MULTIDISCIPLINARY
PERSPECTIVES: A CASE OF METAVERSE SYSTEM APPROACH”**

PROF. DR. RUSLI ABDULLAH

**PROFESSOR, FACULTY OF COMPUTER SCIENCE AND INFORMATION
TECHNOLOGY**

UNIVERSITI PUTRA MALAYSIA

Professor Rusli Abdullah is currently a Professor at Software Engineering and Information System Department, as well as the former Dean of Faculty of Computer Science and Information Technology, University Putra Malaysia (UPM). Specialized in Knowledge Management, he has completed his PhD in Computer Science at University Teknologi Malaysia (UTM), Johor, Malaysia in 2006. Starting his career as a lecturer since 1996, after served as System Analyst for 8 years at UPM. He has published over 14 books and over 150 journal papers, conference publications and other academic research publications. He has also received numerous awards and recognitions throughout his career that includes Silver Medal for University Research Invention in 2008 and 2009, Gold Medal for University Research Invention 2005, Silver Medal for Invention of Technology and Exposition I-TEX (2009), Silver Medal for Malaysian Research Invention and Exposition – MTE (2010, 2012 & 2014) and Certification of University Excellent Services based on Lecturer Services for many years since 1999 up to now. He has been appointed as Head of Lab for Institute of Software Development, UPM in 2007, Deputy of Chief Information Officer for IDeC, UPM in an early of 2008, and Head of Information System Department of Computer Science and Information Technology Faculty (FKSTM), at the end of year 2008. He was become a Deputy Dean of KSKTM, UPM from 2009 to 2014. In the years of 2018 to 2019, he was appointed as Deputy Dean of School of Graduate Studies (SGS) UPM. And then, the most recent, he was appointed as the Dean of FSKTM, UPM from 2019 to 2021 and a senate member currently. Along of his service, he has received over 12 research grants as principal investigator (PI) and also been involved as a chairman as well as a committee members for many conferences at national and international levels.

Keynote Speaker



**"ENVIRONMENTAL MANAGEMENT OF PEATLAND ECOSYSTEMS BASED
ON VEGETATION BIODIVERSITY IN KAMPAR WATERSHED, RIAU PROVINCE,
SUMATRA"**

**DR. WIRDATI IRMA, S.PD., M.SI
DEPUTY RECTOR 1 (ACADEMIC AFFAIRS)
UNIVERSITAS MUHAMMADIYAH RIAU, INDONESIA**

Dr. Wirdati Irma, S.Pd., M.Si is a lecturer at Biology Study Program, and also a Deputy Rector in Academic Affairs at Universitas Muhammadiyah Riau, Indonesia. She received her Bachelor's degree in Biology from Universitas Muhammadiyah Surakarta, Indonesia in 1999. Her Master's degree in Environmental Management and Doctoral degree in Environmental Science were obtained from Gadjah Mada University, Indonesia in 2003 and 2018, respectively. Her research interest is in the area of Biodiversity of Vegetation. In addition to her roles at the university, she is currently the Chairman of the Institute for the Environment and Disaster Management, Regional Leader of Aisyiah Riau.

Keynote Speaker



"5 G NETWORK AND TECHNOLOGY"

EN. AFIZULAZHA ABDULLAH

CHIEF OPERATING OFFICER (TECHNOLOGY),

CHIEF ENTERPRISE BUSINESS OFFICER, CELCOM AXIATA BERHAD

Afiz brings with him over 30 years of experience and accomplishments in the Information Technology and Telecommunication industry with hands-on experience in managing end to end business operations, developing high performing teams, driving business strategy, effective execution and operational excellence. Mr Afiz is responsible to provide overall leadership to Celcom Technology Group, namely; Network, IT and Cyber Security. Afiz also has responsibility for Enterprise Business, Regulatory, USP and Enterprise DataGovernance. In Maxis Berhad - Mr Afiz last position was Vice President, Maxis Home Services. As VP of the Maxis Home Services Division, Afiz is responsible for providing leadership and guidance for the business which spans across sales, marketing, product development, pricing, operations and customer service. Prior to that Afiz was the Senior GM and Head of Broadband. Afiz build and developed wireless broadband business from its infancy to a core business, with responsibility spanning sales, marketing, commercial, product development, operations and customer service. Previously in IBM Malaysia Sdn Bhd - Afiz held numerous leadership position in his 14 year career with IBM Malaysia. Afiz last position was General Manager, Public Sector. During his tenure as the General Manager, Afiz almost double the size of the business during his tenure. Afiz received numerous awards and recognition during his tenure with IBM such as invitation to the Golden Circle, which marked one of highest recognition of sales achievement. He was also part of the ASEAN/SA Leadership Team (ALT), a program that earmarked the top 100 individuals with high potential in IBM ASEAN/SA.

9 NOVEMBER 2022 BATC, UTM KUALA LUMPUR

| TIME | ACTIVITIES |
|---------------------|--|
| 8:30 am - 9:00 am | Registration |
| 9:00 am - 9:05 am | Opening (Doa Recitation) |
| 9:05 am – 9:20 am | Welcoming Speech Associate Professor Dr. Roslina Ibrahim Deputy Dean (Research and Innovation), Razak Faculty of Technology and Informatics Universiti Teknologi Malaysia |
| 9:20 am -10:20 am | Sharing Session : Keynote Speaker 1 “KNOWLEDGE TRANSFORMATION PROCESSES FROM MULTIDISCIPLINARY PERSPECTIVES: A CASE OF METAVERSE SYSTEM APPROACH” Prof. Dr. Rusli Abdullah Professor, Faculty of Computer Science and Information Technology Universiti Putra Malaysia Bilik Seminar 1 dan 2 |
| 10:30 am – 11:30 am | Sharing Session : Keynote Speaker 2 "ENVIRONMENTAL MANAGEMENT OF PEATLAND ECOSYSTEMS BASED ON VEGETATION BIODIVERSITY IN KAMPAR WATERSHED, RIAU PROVINCE, SUMATRA" Dr. Wirdati Irma, S.Pd., M.Si Deputy Rector 1 (Academic Affairs) Universitas Muhammadiyah Riau, Indonesia |
| 11:45 am – 1:00 pm | Parallel Session 1 (Track : Science and Technology 1) Bilik Seminar 1 |
| | Parallel Session 1 (Track : Social Science/ Science and Technology) Bilik Seminar 3 |
| | Parallel Session 1(Track : Online Session) Online Webex : https://bit.ly/utmratips22 |
| BREAK | |
| 2:00 pm – 3:00 pm | Sharing Session : Keynote Speaker 3 “5G NETWORK AND TECHNOLOGY” En. Afizulazha Abdullah Chief Operating Officer (Technology), Chief Enterprise Business Officer, Celcom Axiata Berhad Bilik Seminar 1 dan 2 |
| 3:00 pm – 5:00 pm | Parallel Session 2 (Track 1: Science and Technology 1) Bilik Seminar 1 |
| | Parallel Session 2 (Track 2: Science and Technology 2) Bilik Seminar 3 |
| | Parallel Session 2 (Track 3 : Science and Technology 3) Bilik Seminar 4 |
| | Parallel Session 2 (Track 4: Science and Technology 4) Online Webex : https://bit.ly/utmratips22 |
| 5:00 pm | Adjourn |

PARALLEL SESSION 1

9 November 2022 | 11:45am – 1:15pm

Track: Science and Technology 1

Location: Bilik Seminar 1, BATC, UTM KL

Chairperson: Assoc. Prof. Sallehudin Muhamad

Assistant Chair: : Dr. Ganthan A/L Narayana Samy

| Time | Authors |
|---------------|---|
| 11:45 – 12:00 | Mechanicals Properties of Woven Intra-Ply Hybridization Natural and Synthetic Fibre Composite: A Review <i>Muhammad Luqman, Mohamed Azlan Suhot</i> |
| 12:00 – 12:15 | Real-Time Facial Recognition System using Feature-based Models <i>Noraimi Shafie, Bahaa Salim Abdulameer, Mohamad Zulkefli Adam, Azizul Azizan, Hafiza Abas</i> |
| 12:15 – 12:30 | Enhanced Recurrent Neural Network (RNN) For Heart Disease Risk Prediction Using Framingham Datasets <i>Surenthiran Krishnan, Pritheega Magalingam, Roslina Ibrahim</i> |
| 12:30 – 12:45 | Current Advances in 3D Bioprinting Technology for Cartilage Engineering and Repair <i>Aufa Adlia Nazari, Mohamad Zaki Hassan, Zarini Ismail; Abu 'Ubaidah Amir Norazmi</i> |
| 12:45 – 1:00 | A New Trend in Development: 4D Printing of Hydrogels in the Medical Field <i>Aufa Adlia Nazari, Mohamad Zaki Hassan, Zarini Ismail</i> |
| 1:00 – 1:15 | The Application of Enterprise Architecture in the Investment Industry Sector <i>Amna Sakinah Azmi, Nur Azaliah Abu Bakar, Surya Sumarni Hussien</i> |

PARALLEL SESSION 1

9 November 2022 | 11:45am – 1:00pm

Track: Social Science / Science and Technology

Location: Bilik Seminar 3, BATC, UTM KL

Chairperson: Assoc. Prof. Dr. Wan Normeza Wan Zakaria

Assistant Chair: Dr. Norshaliza Kamaruddin

| Time | Authors |
|---------------|---|
| 11:45 – 12:00 | User Experience on The Efficiency of Digital Library <i>Rasimah Che Mohd Yusoff, Vatsala Pushparaja, Norziha Megat, Istars Fahrurrazi Nusyirwan, Nurazean Maarop</i> |
| 12:00 – 12:15 | Systematic Review on Data Collection Methods for Teaching and Learning IoT Programming <i>Rasimah Che Mohd Yusoff, Salbiah Zainal, Hafiza Abas, Roslina Ibrahim, Nor Zairah Ab. Rahim</i> |
| 12:15 – 12:30 | The Moderating Effect of Gender and Education Level on the Use of Social Networking Sites <i>Yazriwati Yahya, Nor Zairah Ab. Rahim; Roslina Ibrahim, Haslina Md Sarkan, Suriyati Chuprat</i> |
| 12:30 – 12:45 | IR 4.0 Occupational Safety and Health Management Critical Factors in Construction Industry: A Pilot Study <i>Noraziera Mohd Zain, Sa'ardin Abdul Aziz</i> |
| 12:45 – 1:00 | Analysing The Factors Influencing DevOps Adoption in The Existing DevOps Adoption Models: A Systematic View <i>Zalehah Muyet, Shamsul Sahibuddin</i> |

PARALLEL SESSION 1

9 November 2022 | 11:45am – 1:15pm

Location: ONLINE SESSION

Chairperson: Dr. Pritheega A/P Magalingam

Assistant Chair: Dr. Nurazeen Maarop

| Time | Authors |
|---------------|--|
| 11:45 – 12:00 | Policy and Mental Health Issues In Malaysia : A Review <i>Nurul Amirah Hamzah; Nooraini Othman</i> |
| 12:00 – 12:15 | Classification of Location Economy Activity by Geohashes using Machine Learning <i>Ahmad Fairuz Ali; Saifuladli Ismail</i> |
| 12:15 – 12:30 | Enterprise Architecture on Hadoop Eco-System Development for Political Tendency Support Analytics in Malaysia <i>Izardy Amiruddin, Nur Azaliah Abu Bakar</i> |
| 12:30 – 12:45 | Gender Differences in Computer and Internet Ethics Among University Students in Malaysia <i>Noor Afifah Saifullah, Wan Normeza Wan Zakaria, Maslin Masrom, Nor Raihana Mohd Ali, Noorlizawati Abd Rahim</i> |
| 12:45 – 1:00 | A Comparative Study on Plant Disease Detection Using Machine Learning Algorithm <i>Muhammad Solihin Kadir, Syahid Anuar</i> |
| 1:00 – 1:15 | Employability Skills Of Tvet Graduates For Future Resilience In The Hospitality Industry <i>Dziahatul Nadiyah Dziah-Uddin, Asnul Dahar Minghat, Wan Normeza Wan Zakaria</i> |
| 1:15 – 1:30 | Opening the Policy Window to Survey-accurate and Accessible Underground Utility Data <i>Juzaila Abd Satar, Siti Hasliah Salleh, Nor Ashikin Mohamed Yusof, Zamri Mohamed, Shadiya Mohamed Saleh Ba Qutayan, Intan Sazrina Saimy</i> |

PARALLEL SESSION 2

9 November 2022 | 3:00 pm – 5:00pm

Track: Science and Technology 1

Location: Bilik Seminar 1

Chairperson: Assoc. Prof. Dr. Mohamad Zaki Hassan

Assistant Chair: Dr. Yazriwati Yahya

| Time | Authors |
|-------------|---|
| 3:00 - 3:15 | Security Risk Management in Transportation Industry <i>Muhammad Syahreem Zulkifli, Nur Azaliah Abu Bakar</i> |
| 3:15 - 3:30 | Patient Engagement Through Remote Patient Monitoring in Healthcare Services: A Review of Literature <i>Khalad Agali , Maslin Masrom</i> |
| 3:30 - 3:45 | Enterprise Architecture: Enabling Digital Transformation for Healthcare Organization <i>Nur Izwani Mohd Rahimi, Syukriah Mat Yatya, Nur Azaliah Abu Bakar, Suraya Yaacob</i> |
| 3:45 - 4:00 | Reviews of Cyber Harassment Model for Social Media User <i>Anis Najati Abd Razak, Ganthan Narayana Samy</i> |
| 4:00 – 4:15 | Assessment of Measurement Indicators of Success Factors of Facebook Use for Flash Flood Disaster Management <i>Nur Hasniza Illias, Nurazeen Maarop, Noor Hafizah Hassan, Ganthan Narayana Samy, Norziha Megat, Pritheega Magalingam Doris Wong Hooi Ten</i> |
| 4:15 – 4:30 | Success Model of National Kidney Foundation Malaysia (NKF) Website: A Pilot Study <i>Nurazeen Maarop, Ganthan Narayana Samy, Norziha Megat, Rasimah Che Mohd Yusoff, Noor Hafizah Hassan, Pritheega Magalingam</i> |

PARALLEL SESSION 2

9 November 2022 | 3:00 pm – 5:00pm

Track: Science and Technology 2

Location: Bilik Seminar 3

Chairperson: Assoc. Prof. Dr. Mohd Yusof Daud

Assistant Chair: Dr. Mohamed Azlan Suhot

| Time | Authors |
|-------------|--|
| 3:00 - 3:15 | Digitalization of Road Safety Assessment and Audit: A Review <i>Mohamad Syazli Fathi, Nur Edura Abdul Halim</i> |
| 3:15 - 3:30 | Significant Role in 4D Printing of Hydrogel for Tissue Engineering Applications <i>Aufa Adlia Nazari, Mohamad Zaki Hassan, Zarini Ismai</i> |
| 3:30 - 3:45 | An Improved Object Detection Model based on Optimised CNN <i>Senthil Kumar Jayapalan; Syahid Anuar</i> |
| 3:45 - 4:00 | A Review of DDoS Attacks and Defenses in IoT <i>Suriani Mohd Sam, Wasif Islam, Hafiza Binti Abas, Noraimi Shafie, Norliza Mohamed</i> |
| 4:00 – 4:15 | Effect of Energy-director in Ultrasonic Welding Technology for Joining Composite Materials <i>Aufa Adlia Nazari, Mohamad Zaki Hassan, Azlan Suhot; Roslina Mohammad, Mohd Yusof Daud, Sa'ardin Abd Aziz, Nicholas Kuan Hoo Tien</i> |
| 4:15 – 4:30 | Challenges and Issues for Adoption of Blockchain in Healthcare <i>Miza Shazwani Kamarulzaman, Noor Hafizah Hassan, Fiza Abdul Rahim, Sahnius Usman, Abdul Ghafar Jaafar</i> |

PARALLEL SESSION 2

9 November 2022 | 3:00 pm – 5:00pm

Track: Science and Technology 3

Location: Bilik Seminar 4

Chairperson: Assoc. Prof. Dr Sa'ardin Abdul Aziz

Assistant Chair: Dr. Abdul Ghafar Jaafar

| Time | Authors |
|-------------|--|
| 3:00 - 3:15 | Effect of Single-Use Plastics (SUPs) on Malaysia Marine Ecosystem: A review <i>Mohamad Firdhaus Ramli</i> |
| 3:15 - 3:30 | Air Pollution Index Forecasting Model using AutoML <i>Hanafi Majid; Syahid Anuar; Noor Hafizah Hassan</i> |
| 3:30 - 3:45 | Modern Web Automation with Cypress.io <i>Jyolsna Thekkan Othayoth; Syahid Anuar</i> |
| 3:45 - 4:00 | Implementing Cybersecurity In Deftech Sdn Bhd Using DODAF <i>Yunnyzar Mohd Zain Nur Sabrina Syazwani Mazlan, Nur Azaliah Abu Bakar; Surya Sumarni Hussein</i> |
| 4:00 – 4:15 | A Survey Of Legal Text Datasets Structure And Design For Natural Language Processing Investigations <i>Wahida Mohamed</i> |
| 4:15 – 4:30 | A Review Of Cybersecurity Framework For Cyberattack Detection <i>Roslaily Muhammad, Saifuladli Ismail, Noor Hafizah Hassan</i> |

PARALLEL SESSION 2

9 November 2022 | 3:00 pm – 5:00pm

Location: ONLINE SESSION

Bilik Mesyuarat 2 Aras 1

Chairperson: Dr. Ganthan A/I Narayana Samy

Assistant Chair: Dr. Abd Yasser Abd Fatah

| Time | Authors |
|-------------|--|
| 3:15 - 3:30 | How 5D BIM Could Enhance the Way Stakeholders Disseminate Project Information <i>Azura Ahmad, Mohd Syazli Fathi</i> |
| 3:30- 3:45 | Project Cost Overruns in Plant Change Project <i>Azura Ahmad, Mohd Syazli Fathi</i> |
| 3:45 - 4:00 | Small and Medium Enterprise Family Business Succession Plan: A Review <i>Siti Noor Kamariah MRS. Yaakop ; Nooraini Othman</i> |
| 4:00 - 4:15 | Performance of Adaptive Thresholding Pre-processing for Vehicle Counting <i>Azizul Azizan ; Muhammad Bilal Qureshi , Noraimi Shafie, Hafiza Abas, Siti Sophiayati Yuhaniz, Suriani Mohd Sam</i> |
| 4:15 - 4:30 | Review Of The Implementation Of Enterprise Architecture For The Transportation Sector <i>Maisa Ms Alkharbushi, Mahmoud Zohdi, Nur Azaliah Abu Bakar</i> |
| 4:30 - 4:45 | Real-Time Temperature And Humidity Monitoring Testing Approach In Poultry Farm <i>Noraimi Shafie, Nik Azimah Zainab Nik Mohd Rahimi, Suriani Mohd Sam, Mohamad Zulkefli Adam, Azizul Azizan</i> |

ORGANIZING COMMITTEE

(Head of RATIPS 2022 Taskforce)

Dr. Noor Hafizah Hassan

(Assistant Head of RATIPS 2022 Taskforce)

Dr. Suriani Mohd Sam

(Secretariat)

Madam Siti Salim

Madam Nurul Atikah Iskandar

(Technical)

Dr. Nurazean Maarop

Dr. Nik Nadzirah Nik Mohamed

(Registration, Protocol, Local Arrangement)

Dr. Ganthan Narayana Samy

Dr. Norshaliza Kamaruddin

(Publication)

Associate Professor Dr. Roslina Mohammad

Associate Professor Dr. Mohd Yusof Daud

Dr. Rasheed Mohamed Kutty

Associate Professor Dr. Sa'ardin Abdul Aziz

Associate Professor Sallehuddin Muhamad

(Publicity for Science and Technology Track)

Associate Professor Dr. Mohammad Zaki Hassan

Dr. Pritheega A/P Magalingam

(Publicity for Social Science Track)

Associate Professor Dr. Wan Normeza Wan Zakaria

Associate Professor Dr. Maslin Masrom

Dr. Nor Raihana Mohd Ali

Dr. Mazlan Ali

Dr Abdelgadir Mohamed Mahmoud

(Technical Programme Committee)

Dr. Abdul Yasser Abd Fatah

Dr. Mohamed Azlan Suhot