

PROF. MADYA DR. AZNI HASLIZAN BINTI AB HALIM

PENSYARAH UNIVERSITI DS14

CONTACT

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FACULTY

Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	6	7
Master	4	2

AREAS OF EXPERTISE

- Cryptography And Cryptanalysis (including Key Management And Random Number Generation)
- Data Security Data And Digital Security And Privacy
- Cybersecurity And Cyberwarfare Preparedness

ACADEMIC QUALIFICATION

- 2014 **PhD** - Computer Science
- 2002 **Master** - Digital Communication
- 1998 **Bachelor** - Sistem Teknologi Maklumat

RESEARCH

1. **ENHANCING INTEROPERABILITY IN THE CERTIFICATE AUTHORITY: NEW TRUST MODEL FOR PUBLIC KEY INFRASTRUCTURE USING CRYPTO-AGILITY**
   2024 | GERAN KPT | ON GOING | MAIN RESEARCHER

2. **DEVELOPMENT OF AN ARABIC EXAM QUESTION GENERATOR UTILIZING ADVANCED NATURAL LANGUAGE PROCESSING TECHNIQUES WITH ARABIC CORPUS**
   2024 | GERAN PENYELIDIKAN USIM | ON GOING | MAIN RESEARCHER

3. **A STUDY ON MALAYSIAN DIGITAL SIGNATURE (DS) MARKET DEMAND AND FEASIBILITY OF CERTIFICATION AUTHORITY (CA) INTEROPERABILITY**
   2023 | GERAN PENYELIDIKAN AGENSI KERAJAAN | COMPLETED | MAIN RESEARCHER

4. **LIGHTWEIGHT CRYPTOSYSTEM BY ADOPTING THE 3D FEATURE**
   2019 | GERAN KPT | COMPLETED | MAIN RESEARCHER

5. **AN ENHANCEMENT OF CORRELATED CLUSTERING APPROACH FOR IMPROVING WIRELESS ADHOC NETWORK PERFORMANCE.**
   2014 | GERAN KPT | COMPLETED | MAIN RESEARCHER

PUBLICATION

1. EVALUATION OF USER-CENTRED DESIGN IN THE USER INTERFACE (UI) AND USER EXPERIENCE (UX) OF A GAMIFIED EDUTAINMENT APPLICATION ON DISASTER PREPAREDNESS

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY (MJOSHT)

2026 JOURNAL OTHER DATABASE MAIN AUTHOR

2. DIGITAL CERTIFICATE-BASED AUTHENTICATION MODEL FOR ENHANCED SMARTPHONE SECURITY

JOURNAL OF COMPUTING RESEARCH AND INNOVATION (JCRINN)

2025 JOURNAL OTHER DATABASE MAIN AUTHOR

3. BEYOND THE BOARD: CYBERPOLY AS A MULTIDIMENSIONAL GAMIFIED LEARNING TOOL FOR CYBERSECURITY AWARENESS

JOURNAL OF ADVANCED RESEARCH IN COMPUTING AND APPLICATIONS

2025 JOURNAL MYCITE MAIN AUTHOR

4. SWINDLERT: DEVELOPMENT OF AUGMENTED REALITY GAME-BASED INTERACTIVITY FOR ENHANCING CYBERCRIME AWARENESS

JOURNAL OF COMPUTING RESEARCH AND INNOVATION (JCRINN)

2025 JOURNAL MYCITE MAIN AUTHOR

5. A STUDY ON MALAYSIAN DIGITAL SIGNATURE MARKET DEMAND AND FEASIBILITY OF CERTIFICATION AUTHORITY INTEROPERABILITY

MEDIA MATTERS-DIGITAL SOCIETY RESEARCH REPORT

2025 CHAPTER IN BOOK MAIN AUTHOR

6. SAKTI&#65533;: SECURED CHATTING TOOL THROUGH FORWARD SECRECY

JOURNAL OF ADVANCE RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2024 JOURNAL OTHER DATABASE MAIN AUTHOR

7. DISASTERPREP: GAMIFIED MOBILE EDUTAINMENT FOR FUTURE DISASTER PREPAREDNESS AND RESILIENCE

ASEAN JOURNAL OF TEACHING AND LEARNING IN HIGHER EDUCATION (AJTLHE)

2024 JOURNAL OTHER DATABASE MAIN AUTHOR

8. ARABIC EXAM QUESTION GENERATION: AN NLP AND CORPUS-DRIVEN APPROACH

INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND SUSTAINABILITY (ICETS)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

9. DIGITAL CERTIFICATE-BASED AUTHENTICATION MODEL FOR ENHANCED SMARTPHONE SECURITY

SYMPOSIUM ON COMPUTER SCIENCE AND MATHEMATICS (SCOMATICS 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

10. CRYPTOLEARN: AI-DRIVEN ADAPTIVE CRYPTOGRAPHY LEARNING

INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE (SAIS 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

11. DESIGN AND IMPLEMENTATION OF A GENETIC ALGORITHM-BASED BLOCK CIPHER FOR ENHANCED CRYPTOGRAPHIC SECURITY

SEMINAR ANTARABANGSA ISLAM DAN SAINS (SAIS) 2024

2024 PROCEEDING NON-INDEX MAIN AUTHOR

12. BIG DATA-DRIVEN INFORMATION SECURITY BEHAVIOURAL PROFILING FOR ORGANISATIONAL RESILIENCE

THE INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND SUSTAINABILITY (ICETS 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

13. INTEROPERABILITY CHALLENGES AMONG CERTIFICATION AUTHORITIES IN MALAYSIA: AN IN-DEPTH ANALYSIS

INTERNATIONAL CONFERENCE ON CYBER SECURITY, PRIVACY IN COMMUNICATION NETWORKS

2024 PROCEEDING NON-INDEX MAIN AUTHOR

14. ASSESSING FEATURES FOR MALAYSIAN UNIVERSITIES EXPERT DIRECTORY

2ND INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND SUSTAINABILITY

2024 PROCEEDING NON-INDEX MAIN AUTHOR

15. GLOBALIZING CYBER HASANAT: CULTIVATING DIGITAL LITERACY AND ETHICAL RESPONSIBILITY FOR THE RESILIENCE COMMUNITY

INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE (SAIS 2024) - 7TH EDITION

2024 PROCEEDING NON-INDEX MAIN AUTHOR

16. DISASTERPREP: DISASTER PREPAREDNESS AND RESILIENCE THROUGH A MOBILE EDUTAINMENT

INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND SUSTAINABILITY (ICETS)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

17. SWINDLERT&#65533;: DEVELOPMENT OF AUGMENTED REALITY GAME-BASED INTERACTIVITY FOR ENHANCING CYBERCRIME AWARENESS

INTERNATIONAL SYMPOSIUM ON COMPUTER SCIENCES AND MATHEMATICS 2024 (I-SCOMATICS)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

18. CERTIFICATE AUTHORITY CAPACITY AND DIGITAL SIGNATURE MARKET DEMAND IN PROMOTING INTEROPERABILITY IN MALAYSIA.

1ST INTERNATIONAL CONFERENCE ON ADVANCES IN MACHINE INTELLIGENCE, AND CYBERSECURITY TECHNOLOGIES (AMICT2023)

2023 PROCEEDING NON-INDEX MAIN AUTHOR

19. SECURE CYBERCITIZENSHIP (SET): A GAMIFICATION LEARNING TOOL FOR CYBERSECURITY AWARENESS

ACADEMIA PRESS SOLUTIONS (APS) PROCEEDINGS VOLUME 6

2023 PROCEEDING NON-INDEX MAIN AUTHOR

20. ENHANCING CYBER-ATTACKS AWARENESS VIA MOBILE GAMIFICATION TECHNIQUES

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN TECHNOLOGY AND INNOVATION

2022 JOURNAL OTHER DATABASE MAIN AUTHOR

PUBLICATION

21. SYSTEMATIC LITERATURE REVIEW ON CURRENT IMPLEMENTATION OF ADVANCED ENCRYPTION STANDARD (AES) S-BOX

QURANIC ACOUSTIC-AN ANALYSIS FOR CRYPTOGRAPHIC APPLICATION

2022 CHAPTER IN BOOK MAIN AUTHOR

22. KNOWLEDGE IMPACT ON INFORMATION QUALITY, SERVICE QUALITY AND SYSTEM QUALITY FOR SECURITY OF 1GOVUC

OIC-CERT JOURNAL OF CYBER SECURITY

2020 JOURNAL OTHER DATABASE MAIN AUTHOR

23. EXTENDED RECTANGLE ALGORITHM USING 3D BIT ROTATION TO PROPOSE A NEW LIGHTWEIGHT BLOCK CIPHER FOR IOT

IEEE ACCESS

2020 JOURNAL ISI MAIN AUTHOR

24. LIGHTWEIGHT CRYPTOGRAPHY TECHNIQUES FOR MHEALTH CYBERSECURITY

2019 ASIA PACIFIC INFORMATION TECHNOLOGY CONFERENCE

2019 PROCEEDING NON-INDEX MAIN AUTHOR

25. EXPERIMENTAL RESEARCH TESTBED FOR INTERNET OF THINGS: A SURVEY FROM SECURITY SERVICES PERSPECTIVES

JOURNAL OF FUNDAMENTAL AND APPLIED SCIENCES

2017 JOURNAL SCOPUS MAIN AUTHOR

26. FORMULATION OF FUZZY CORRELATED SYSTEM FOR NODE BEHAVIOR DETECTION IN WSN

JOURNAL OF TELECOMMUNICATION, ELECTRONIC AND COMPUTER ENGINEERING (JTEC)

2017 JOURNAL SCOPUS MAIN AUTHOR

27. SYSTEMATIC LITERATURE REVIEW: CORRELATED FUZZY LOGIC RULES FOR NODE BEHAVIOR DETECTION IN WIRELESS SENSOR NETWORK

JOURNAL OF TELECOMMUNICATION, ELECTRONIC AND COMPUTER ENGINEERING (JTEC)

2017 JOURNAL SCOPUS MAIN AUTHOR

28. MEASURING SENSOR TO CLOUD ENERGY CONSUMPTION

SECOND INTERNATIONAL CONFERENCE ON INTERNET OF THINGS AND CLOUD COMPUTING

2017 PROCEEDING NON-INDEX MAIN AUTHOR

29. EXPERIMENTAL RESEARCH TESTBED FOR INTERNET OF THINGS: A SURVEY FROM SECURITY SERVICES PERSPECTIVES

3RD INTERNATIONAL CONFERENCE ON DEFENCE AND SECURITY TECHNOLOGY (DSTC2016)

2016 PROCEEDING NON-INDEX MAIN AUTHOR

30. SYSTEMATIC REVIEW FOR NETWORK SURVIVABILITY ANALYSIS IN MANETS

PROCEDIA-SOCIAL AND BEHAVIORAL SCIENCES

2015 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

31. CORRELATED TOPOLOGY CONTROL ALGORITHM FOR SURVIVAL NETWORK IN MANETS

ADVANCED COMPUTER AND COMMUNICATION ENGINEERING TECHNOLOGY

2015 | CHAPTER IN BOOK | MAIN AUTHOR

32. NETWORK SURVIVABILITY ANALYSIS MODELING APPROACH FOR MANETS : A SYSTEMATIC REVIEW

THE 4TH WORLD CONGRESS ON INFORMATION AND COMMUNICATION TECHNOLOGIES (WICT ⍰14)

2014 | PROCEEDING | NON-INDEX | MAIN AUTHOR

33. MULTIVARIATE SURVIVAL ANALYSIS FOR CORRELATED NODE BEHAVIOR IN MANETS

2014 INTERNATIONAL CONFERENCE ON INFORMATION SCIENCE AND APPLICATIONS (ICISA)

2014 | PROCEEDING | NON-INDEX | MAIN AUTHOR

34. CORRELATED NODE BEHVAIOR MODELING IN MANETS

SEMINAR MATEMATIK DALAM INDUSTRI

2014 | PROCEEDING | NON-INDEX | MAIN AUTHOR

35. SURVIVABILITY MODELING AND ANALYSIS OF MOBILE AD HOC NETWORK WITH CORRELATED NODE BEHAVIOR

PROCEDIA ENGINEERING

2013 | JOURNAL | SCOPUS | MAIN AUTHOR

36. EPIDEMIC MODELING FOR CORRELATED NODE BEHAVIOR IN AD HOC NETWORKS

INTERNATIONAL JOURNAL OF CHAOTIC COMPUTING (IJCC)

2013 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

37. MERGING OF EPIDEMIC SIR MODEL AND SEMI MARKOV FOR CORRELATED NODE BEHAVIOR IN MANETS

INTERNATIONAL CONFERENCE ON APPLIED MATHEMATICS AND COMPUTATIONAL METHODS

2013 | PROCEEDING | NON-INDEX | MAIN AUTHOR

38. CORRELATED NODE BEHAVIOR MODEL BASED ON SEMI MARKOV PROCESS FOR MANETS

INTERNATIONAL JOURNAL OF COMPUTER SCIENCE ISSUES (IJCSI)

2012 | JOURNAL | SCOPUS | MAIN AUTHOR

39. MODELING STOCHASTIC CORRELATED NODE BEHAVIOR FOR SURVIVABILITY IN AD HOC NETWORKS

INTERNATIONAL JOURNAL OF CRYPTOLOGY RESEARCH

2012 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

40. CORRELATED NODE BEHAVIOR MODELING APPROACH FOR EVALUATING SURVIVABILITY IN AD HOC NETWORKS

PROCEEDINGS OF THE 3RD INTERNATIONAL CONFERENCE ON CRYPTOLOGY & COMPUTER SECURITY 2012 (CRYPTOLOGY2012)

2012 | PROCEEDING | NON-INDEX | MAIN AUTHOR

41. CORRELATED NODE BEHAVIOR IN WIRELESS AD HOC NETWORKS: AN EPIDEMIC MODEL

IEEE THE 7TH INTERNATIONAL CONFERENCE FOR INTERNET TECHNOLOGY AND SECURED TRANSACTIONS (ICITST-2012)

2012 | PROCEEDING | NON-INDEX | MAIN AUTHOR

PUBLICATION

42. A 3-D MARKOV CHAIN CORRELATED ALGORITHM FOR MANETS

IEEE INTERNATIONAL CONFERENCE ON COMPUTER AND INFORMATION SCIENCE, ICCIS2012

2012 PROCEEDING NON-INDEX MAIN AUTHOR

43. RESILIENCE AND SURVIVABILITY IN MANETS: DISCIPLINE, ISSUES AND CHALLANGES

3RD INTERNATIONAL CONFERENCE ON COMPUTING AND INFORMATICS, ICOCI 2011

2011 PROCEEDING NON-INDEX MAIN AUTHOR

44. FACTORS INFLUENCING KNOWLEDGE SHARING IN HIGHER LEARNING

INTERNATIONAL SYMPOSIUM ON IN FORMATION TECHNOLOGY 2010

2010 PROCEEDING NON-INDEX MAIN AUTHOR

45. PERFORMANCE ANALYSIS OF ROUTING PROTOCOL IN WSN

INTERNATIONAL JOURNAL OF ELECTRICAL AND ELECTRONIC

2009 JOURNAL WOS MAIN AUTHOR

46. ANALYSIS OF PACKET ABNORMALITIES IN WIRELESS SENSOR NETWORK

5TH INTERNATIONAL CONFERENCE ON INFORMATION AND COMMUNICATION TECHNOLOGY AND SYSTEMS (ICTS)

2009 PROCEEDING NON-INDEX MAIN AUTHOR

47. MEASURING SECURITY AWARENESS IN ORGANISATION : USIM CASE STUDY

INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING & COMPUTER SYSTEMS

2009 PROCEEDING NON-INDEX MAIN AUTHOR

48. MAC PROTOCOL TO REDUCE PACKET COLLISION IN WIRELESS SENSOR NETWORK

INTERNATIONAL CONFERENCE ON COMPUTER AND COMMUNICATION ENGINEERING (ICCCE 2008),

2008 PROCEEDING NON-INDEX MAIN AUTHOR

49. AN EFFICIENT NETWORK SECURITY SYSTEM THROUGH ONTOLOGY APPROACH

5TH INTERNATIONAL CONFERENCE ON INNOVATION IN IT (INNOVATION 08)

2008 PROCEEDING NON-INDEX MAIN AUTHOR

50. BLUETOOTH MOBILE ADVERTISING SYSTEM USING PULL-BASED APPROACH

3RD INTERNATIONAL SYMPOSIUM ON INFORMATION TECHNOLOGY, IEEE,

2008 PROCEEDING NON-INDEX MAIN AUTHOR

51. THREATS IN WIRELESS SENSORS NETWORK: AN OVERVIEW

4TH MALAYSIAN SOFTWARE ENGINEERING CONFERENCE

2008 PROCEEDING NON-INDEX MAIN AUTHOR

52. USER AUTHENTICATION IN BLUETOOTH DEVICES

2ND INTERNATIONAL CONFERENCE ON INFORMATIC (INFORMATICS 07),

2007 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

53. USER AUTHENTICATION IN MOBILE FINANCE APPLICATION (MFS) IN BLUETOOTH TECHNOLOGY USING SSL

PROCEEDINGS OF THE 1ST INTERNATIONAL CONFERENCE ON E-COMMERCE 2005

2005 PROCEEDING NON-INDEX MAIN AUTHOR

54. INTEGRATING WORDNET TO ENHANCE PLAGIARISM DETECTION SYSTEM

PROCEEDING OF THE 3RD INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY AND MULTIMEDIA 2005

2005 PROCEEDING NON-INDEX MAIN AUTHOR

55. PLAGIARISM DETECTING SYSTEM WITHIN DOCUMENT COLLECTION FOR TEACHING AND LEARNING

PROCEEDINGS OF THE 7TH INTERNATIONAL CONFERENCE ON WORK WITH COMPUTING SYSTEMS 2004 (WWCS2004)

2004 PROCEEDING NON-INDEX MAIN AUTHOR

CONSULTATION

1. PANEL PAKAR PENILAI KRIPTOGRAFI SEDIA ADA (AKSA) - MYSEAL 2023

CYBERSECURITYI MALAYSIA

2023 NATIONAL

2. MEMBANGUNKAN KERJA-KERJA PENGATURCARAAN SISTEM BAGI PIHAK KIPLEYPAY SDN BHD

KIPLEPAY SDN BHD

2019 NATIONAL

3. PANEL PENILAI UITM BAGI PROGRAM&#xfffd;DEEMED ACCREDITED PROGRAM BACHELOR OF INFORMATION TECHNOLOGY,BACHELOR OF INFORMATION TECHNOLOGY (HONS) INTELLIGENT SYSTEM ENGINEERING, BACHELOR OF COMPUTER SCIENCE UITM,

UITM

2018 UNIVERSITY

4. DEVELOPMENT OF THE CONCEPTUAL FRAMEWORK PRELIMINARY DESIGN OF MOBILE INTERNET OF THINGS (IOT) SECURITY TEST LAB.

CYBERSECURITY

2015 NATIONAL

5. DEVELOPMENT OF INTERGRATED SYSTEM FOR RPM FOR INDKOM

INDKOM SDN BHD.

2015 NATIONAL

AWARDS/RECOGNITION

1. ANUGERAH PENERIMA GERAN PENYELIDIKAN

2025 OTHERS

AWARDS/RECOGNITION

2. ANUGERAH PERUNDINGAN

2025 OTHERS

3. ANUGERAH PENYELIA POPULAR

2025 OTHERS

4. ANUGERAH PENYELIA TERBILANG

2025 OTHERS

5. FINALIS AKRI 2025- IMMERSIF BERSEMUKA

2025 NATIONAL