Profile Image

PROF. MADYA TS. DR. M NORAZIZI SHAM BIN MOHD SAYUTI

PENSYARAH UNIVERSITI DS14

CONTACT

Phone: 88730
E-mail: azizi@usim.edu.my
Faculty: Fakulti Kejuruteraan Dan Alam Bina

AREAS OF EXPERTISE

Industrial Optimisation And Control

System-on-chip (soc)

Embedded Systems

Neural, Evolutionary And Fuzzy Computation

Mathematical Programming And Optimisation

Machine Learning

ACADEMIC QUALIFICATION

PhD (2015)

Master in Software Engineering (2004)

Bachelor in Electronic Engineering (2001)

RESEARCH

1. UNCERTAINTY MODELLING WITH STOCHASTIC PROCESS FOR ROBUST REAL-TIME SCHEDULABLILTIY ANALYSIS

2023   GERAN PENYELIDIKAN USIM   ON GOING   MAIN RESEARCHER

2. DEVELOPMENT OF MOBILE APPLICATION FOR WOMEN'S "PRELOVED" BUSINESS PLATFORM: FASHION ARCHADE (FACADE)

2022   GERAN PENYELIDIKAN AGENSI KERAJAAN   COMPLETED   CO-RESEARCHER

3. AI-BASED STUDENT ATTENDANCE AND ENGAGEMENT ALGORITHM IN SOC-FPGA

2022   BIDUNI MIZANNIYAH   COMPLETED   MAIN RESEARCHER

4. AUTONOMOUS HUMAN DETECTION AND LOCALIZATION USING MACHINE LEARNING

2021   GERAN KPT (KKP)   COMPLETED   CO-RESEARCHER

5. BALANCED COVER AUDIO SUGGESTION FOR AUDIO STEGANOGRAPHY ALGORITHM BASED ON NSGA-II, SEGMENTATION AND CHAOTIC MAP

2020   GERAN KPT   COMPLETED   CO-RESEARCHER

SUPERVISION

PhD - Completed: 2, Ongoing: 1

Master - Completed: 0, Ongoing: 1

RESEARCH

6. MODELLING AND CONTROL OF AN AERIAL TRANSPORTATION SYSTEM CARRYING SUSPENDED PAYLOAD

`2020` `GERAN PENYELIDIKAN USIM RACER` `COMPLETED` `CO-RESEARCHER`

7. MODELLING AND ANALYSIS OF COVID-19 SPREADING PROCESS ON COMPLEX NETWORKS

`2020` `GERAN PENYELIDIKAN COVID-19` `COMPLETED` `MAIN RESEARCHER`

8. DEVELOPMENT OF HOME LELECTROCARDIOGRAM ASSESMENT REALIABLE TOOL (HEART) : A CLOUD BASED, WEARABLE, WIRELESS, SINGLE-LEAD ELECTROCARDIOGRAM

`2019` `GERAN SEPADAN INDUSTRI` `ON GOING` `CO-RESEARCHER`

9. SECURITY-HARDENED DESIGN SPACE EXPLORATION FOR HARD REAL-TIME EMBEDDED NOC IN CYBER-PHYSICAL SYSTEMS

`2018` `GERAN PENYELIDIKAN USIM` `COMPLETED` `CO-RESEARCHER`

10. EVOLUTIONARY MULTI-OBJECTIVE OPTIMIZATION FOR COVER AUDIO SELECTION IN AUDIO STEGANOGRAPHY

`2017` `GERAN KPT` `COMPLETED` `CO-RESEARCHER`

11. A NEW MODEL FOR CONTENT UNDERSTANDING AND KNOWLEDGE DISSEMINATION OF THE QURAN USING INTELLIGENT DATA MODEL

`2016` `GERAN KPT` `COMPLETED` `CO-RESEARCHER`

12. A NEW CRYPTOGRAPHHY ALGORITHM DERIVED FROM QURANIC MAQAMAT FOR PREVENTING ACCOUSTIC ATTACKS.

`2016` `GERAN KPT` `COMPLETED` `CO-RESEARCHER`

13. ANALYSIS OF ACOUSTIC EMANATION BEHAVIOURAL CHARACTERISTICS AND QURANIC MAQAMAT ON AES-BASED BLOCK CIPHER

`2016` `GERAN KPT` `COMPLETED` `MAIN RESEARCHER`

14. SIMULANEOUS EXPLORATION OF MAPPING AND ROUTING ON HARD REAL-TIME EMBEDDED NETWORKS-ON-CHIP

`2016` `GERAN JANGKA PENDEK FASA 1` `COMPLETED` `MAIN RESEARCHER`

15. THE DESIGN AND EVALUATION OF AN INTERACTIVE QIRAAT MOBILE APPLICATION

`2015` `GERAN PENYELIDIKAN JANGKA PENDEK` `COMPLETED` `CO-RESEARCHER`

16. A NEW MULTI-RELATIONAL LATENT SEMANTIC ANALYSIS MODEL FOR EXTRACTING PROPHETIC HADITH CONCEPT

`2014` `GERAN KPT` `COMPLETED` `CO-RESEARCHER`

17. SECURING CRYPTOGRAPHIC KEY USING FINGER VEIN BASED FUZZY VAULT

`2011` `GERAN PENYELIDIKAN FUNDAMENTAL` `COMPLETED` `CO-RESEARCHER`

18. SEGEMENTATION OF MALARIA PARASITES ON STAINED BLOOD FILMS

`2011` `GERAN PENYELIDIKAN FUNDAMENTAL` `COMPLETED` `CO-RESEARCHER`

19. DESIGN OF AN IMPROVED SECURE KEY MANAGEMENT PROTOCOL IN MULTICAST COMMUNICATION

`2011` `GERAN PENYELIDIKAN FUNDAMENTAL` `COMPLETED` `CO-RESEARCHER`

20. COMPARISON STUDY BETWEEN EXPECTATION & EXPERIENCE OF ICT PROVISION IN UNIVERSITY

`2009` `GERAN PENYELIDIKAN PANTAS BAWAH SETAHUN` `COMPLETED` `MAIN RESEARCHER`

21. KAJIAN PEMBANGUNAN KANDUNGAN PROJEK SISTEM PENGURUSAN FATWA (FMS) INFAD

`2008` `GERAN KPT` `COMPLETED` `CO-RESEARCHER`

PUBLICATION

1. A CNN PLASTIC DETECTION MODEL FOR EMBEDDED PLATFORM OF ROV

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

`2024` `PROCEEDING` `WOS` `CO-AUTHOR`

2. IMPROVING DYNAMIC SECURITY OF THE LEAST SIGNIFICANT BIT USING BLOCK-BASED CHAOTIC MULTI-LEVEL LSB (BCM-LSB)

THE 9TH INTERNATIONAL CONFERENCE ON CYBER SECURITY, PRIVACY IN COMMUNICATION NETWORKS (ICCS 2023)

`2024` `PROCEEDING` `SCOPUS` `CORRESPONDING AUTHOR`

3. OPTIMISED COVER SELECTION FOR AUDIO STEGANOGRAPHY USING MULTI-OBJECTIVE EVOLUTIONARY ALGORITHM

JOURNAL OF INFORMATION AND COMMUNICATION TECHNOLOGY

`2023` `JOURNAL` `SCOPUS` `CO-AUTHOR`

4. A METHOD OF COVER AUDIO SELECTION FOR EMBEDDING BASED ON VARIOUS CRITERIA

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

`2023` `PROCEEDING` `NON-INDEX` `CORRESPONDING AUTHOR`

5. REAL-TIME NETWORKS-ON-CHIP SYSTEM-LEVEL DESIGN SPACE EXPLORATION

`2023` `BOOK` `MAIN AUTHOR`

6. INTEGRATED CIRCUIT CHIP FABRICATION

TECHNOLOGIES IN SCIENCE AND ENGINEERING A MULTIDISCIPLINARY APPROACH

`2023` `CHAPTER IN BOOK` `MAIN AUTHOR`

7. A NEW METHOD TO ESTIMATE PEAK SIGNAL TO NOISE RATIO FOR LEAST SIGNIFICANT BIT MODIFICATION AUDIO STEGANOGRAPHY

PERTANIKA JOURNAL OF SCIENCE AND TECHNOLOGY

`2022` `JOURNAL` `ISI, SCOPUS AND ERA` `CO-AUTHOR`

8. QURANIC ACOUSTIC AN ANALYIS FOR CRYTOGRAPHIC APPLICATION

`2022` `BOOK` `EDITOR`

9. PROFILING OF QURANIC MAQAMAT USING AN ENHANCED AUDIO FEATURE EXTRACTION METHOD

QURANIC ACOUSTIC AN ANALYIS FOR CRYTOGRAPHIC APPLICATION

`2022` `CHAPTER IN BOOK` `CORRESPONDING AUTHOR`

10. INTRODUCTION

QURANIC ACOUSTIC AN ANALYIS FOR CRYTOGRAPHIC APPLICATION

`2022` `CHAPTER IN BOOK` `MAIN AUTHOR`

11. FAULT CRYPTANALYSIS ON ADVANCED ENCRYPTION STANDARD

QURANIC ACOUSTIC AN ANALYIS FOR CRYTOGRAPHIC APPLICATION

`2022` `CHAPTER IN BOOK` `CORRESPONDING AUTHOR`

12. ESTABLISHING A CORRELATION BETWEEN ACOUSTICAL PROPERTIES IN MAQAMAT RECITATION AND MEANING OF SURAHS IN JUZ? AMMA USING AUDIO FEATURE EXTRACTION METHOD

QURANIC ACOUSTIC AN ANALYIS FOR CRYTOGRAPHIC APPLICATION

`2022` `CHAPTER IN BOOK` `CORRESPONDING AUTHOR`

13. CELSIUS TRACKER: A MOBILE APPLICATION TO EASE MOVEMENT CONTROL ORDER PROCEDURE DURING COVID-19 PANDEMIC

15TH INTERNATIONAL CONFERENCE ON OPEN SOURCE SYSTEMS AND TECHNOLOGIES (ICOSST)

`2021` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

PUBLICATION

14. A NEW METHOD TO ESTIMATE PEAK SIGNAL TO NOISE RATIO FOR LEAST SIGNIFICANT BIT MODIFICATION AUDIO STEGANOGRAPHY

INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS OF SCIENCE AND TECHNOLOGY

`2020` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

15. ON SELECTED ISSUES OF BOOLEAN FUNCTION APPLICATION IN SYMMETRIC KEY CRYPTOGRAPHY AGAINST SIDE CHANNEL ATTACKS

JOURNAL OF PHYSICS: CONFERENCE SERIES

`2019` `JOURNAL` `SCOPUS` `CO-AUTHOR`

16. TASK MAPPING AND ROUTING OPTIMIZATION FOR HARD REAL-TIME NETWORKS-ON-CHIP

BULLETIN OF ELECTRICAL ENGINEERING AND INFORMATICS

`2019` `JOURNAL` `SCOPUS` `MAIN AUTHOR`

17. SUBSTITUTION BOX DESIGN BASED FROM SYMMETRIC GROUP COMPOSITION

JOURNAL OF PHYSICS: CONFERENCE SERIES

`2019` `JOURNAL` `SCOPUS` `CO-AUTHOR`

18. BALANCING THE TRADE-OFF BETWEEN CAPACITY AND IMPERCEPTIBILITY FOR LEAST SIGNIFICANT BIT AUDIO STEGANOGRAPHY METHOD: A NEW PARAMETER

2019 IEEE CONFERENCE ON APPLICATION, INFORMATION AND NETWORK SECURITY (AINS)

`2019` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

19. OUTCOME-BASED EDUCATION FOR ENGINEERING PROGRAMME A CASE STUDY OF USIM

`2019` `BOOK` `CO-AUTHOR`

20. HARD REAL-TIME EMBEDDED NOC DESIGN SPACE EXPLORATION

ADVANCES IN SUSTAINABLE LIVING ENGINEERING & BUILT ENVIRONMENT

`2019` `CHAPTER IN BOOK` `MAIN AUTHOR`

21. A SYSTEMATIC REVIEW ON SEMANTIC-BASED ONTOLOGY FOR QURANIC KNOWLEDGE

INTERNATIONAL JOURNAL OF ENGINEERING AND TECHNOLOGY(UAE)

`2018` `JOURNAL` `SCOPUS` `CO-AUTHOR`

22. FORMATIVE EVALUATION OF AN EDUCATIONAL MOBILE APPLICATION: AN INTERACTIVE MYQIRAAT APPLICATION

INTERNATIONAL JOURNAL OF ENGINEERING AND TECHNOLOGY(UAE)

`2018` `JOURNAL` `SCOPUS` `CO-AUTHOR`

23. SIMULTANEOUS MULTI-OBJECTIVE OPTIMISATION FOR LOW-POWER REAL-TIME NETWORKS-ON-CHIP

4TH INTERNATIONAL CONFERENCE ON ELECTRICAL, ELECTRONICS AND SYSTEM ENGINEERING (ICEESE2018)

`2018` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

24. SIMULTANEOUS TASK MAPPING AND ROUTING OPTIMIZATION FOR SCHEDULING HARD REAL-TIMEEMBEDDED NOCS

THE 4TH INTERNATIONAL CONFERENCE ON ELECTRONIC DESIGN (ICED 2018)

`2018` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

25. COMPACT U-SHAPED SLOTTED ANTENNA WITH CONDUCTOR-BACKED PLANE FOR ULTRA-WIDEBAND (UWB) APPLICATIONS

3RD INTERNATIONAL CONFERENCE ON ELECTRICAL, ELECTRONIC, COMMUNICATION AND CONTROL ENGINEERING (ICEECC 2018)

`2018` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

26. THE DESIGN EVALUATION OF AN INTERACTIVE QIRAAT MOBILE APPLICATION

ADVANCED SCIENCE LETTERS

`2017` `JOURNAL` `SCOPUS` `CO-AUTHOR`

PUBLICATION

27. CURRENT IMPLEMENTATION OF ADVANCE ENCRYPTION STANDARD (AES) S-BOX

JOURNAL OF FUNDAMENTAL AND APPLIED SCIENCES

`2017` `JOURNAL` `SCOPUS` `CO-AUTHOR`

28. THE QURANIC PHILOSOPHY ON SUPERIORITY OF AUDIO SENSE AGAINST VISUAL SENSE BASED ON THE BOOK OF EXEGESIS AND SCIENCE REPORTS

ADVANCED SCIENCE LETTERS

`2017` `JOURNAL` `SCOPUS` `CO-AUTHOR`

29. A SYSTEMATIC REVIEW ON SEMANTIC-BASED ONTOLOGY FOR QURANIC KNOWLEDGE

INTERNATIONAL CONFERENCE ON INFORMATION SYSTEMS & SECURITY (ICOISS)

`2017` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

30. FORMATIVE EVALUATION OF AN EDUCATIONAL MOBILE APPLICATION: AN INTERACTIVE MYQIRAAT APPLICATION

INTERNATIONAL CONFERENCE ON INFORMATION SYSTEMS & SECURITY (ICOISS)

`2017` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

31. THE DESIGN EVALUATION OF AN INTERACTIVE QIRAAT MOBILE APPLICATION

WORLD INTERNATIONAL CONFERENCE ON ISLAMIC SCIENCES (WICOIS)

`2016` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

32. INDUSTRIAL TRAINING HANDBOOK FOR ENGINEERING PROGRAM

`2016` `BOOK` `MAIN AUTHOR`

33. SIMULTANEOUS OPTIMISATION OF TASK MAPPING AND PRIORITY ASSIGNMENT FOR REAL-TIME EMBEDDED NOCS

23RD EUROMICRO INTERNATIONAL CONFERENCE ON PARALLEL, DISTRIBUTED AND NETWORK-BASED PROCESSING

`2015` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

34. A FUNCTION FOR HARD REAL-TIME SYSTEM SEARCH-BASED TASK MAPPING OPTIMISATION

REAL-TIME DISTRIBUTED COMPUTING (ISORC), 2015 IEEE 18TH INTERNATIONAL SYMPOSIUM ON

`2015` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

35. A CONSTRUCTIVE TASK MAPPING ALGORITHM FOR HARD REAL-TIME EMBEDDED NOCS

IEEE CONFERENCE ON SYSTEM, PROCESS & CONTROL (ICSPC2015)

`2015` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

36. INEXACT END-TO-END RESPONSE TIME ANALYSIS AS FITNESS FUNCTION IN SEARCH-BASED TASK ALLOCATION HEURISTICS FOR HARD REAL-TIME NETWORK-ON-CHIPS

9TH INTERNATIONAL SYMPOSIUM ON RECONFIGURABLE AND COMMUNICATION-CENTRIC SYSTEMS-ON-CHIP (RECOSOC)

`2014` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

37. FINGER VEIN MINUTIAE POINTS EXTRACTION BASED ON MAXIMUM CURVATURE POINTS IN IMAGE PROFILE AND FINGER PRINT APPLICATION METHODS

AUSTRALIAN JOURNAL OF BASIC AND APPLIED SCIENCES

`2013` `JOURNAL` `WOS` `CO-AUTHOR`

38. AN OPTIMISATION ALGORITHM FOR MINIMISING ENERGY DISSIPATION IN NOC-BASED HARD REAL-TIME EMBEDDED SYSTEMS

21ST INTERNATIONAL CONFERENCE ON REAL-TIME NETWORKS AND SYSTEMS

`2013` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

39. REAL-TIME LOW-POWER TASK MAPPING IN NETWORKS-ON-CHIP

IEEE COMPUTER SOCIETY ANNUAL SYMPOSIUM ON VLSI (ISVLSI)

`2013` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

PUBLICATION

40. DESIGN OF IMPROVEMENT SECURE KEY MANAGEMENT IN MULTICAST COMMUNICATION

1ST AKEPT YOUNG RESEARCHERS CONFERENCE AND EXHIBITION

`2011` `PROCEEDING` `NON-INDEX` `CO-AUTHOR`

41. A DESIGN OF GRID SUPPORTED SERVICES FOR MOBILE LEARNING SYSTEM

2ND INTERNATIONAL CONFERENCE ON COMPUTER RESEARCH AND DEVELOPMENT

`2010` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

42. EXPECTATION & EXPERIENCE OF ICT IN UNIVERSITY: A COMPARATIVE STUDY

18TH INTERNATIONAL CONFERENCE ON COMPUTERS IN EDUCATION

`2010` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

43. IMPROVING SOFTWARE MAINTENANCE PROCESS USING INTERRELATED SET FROM FOSS

3RD INTERNATIONAL CONFERENCE ON INFORMATICS AND TECHNOLOGY

`2009` `PROCEEDING` `NON-INDEX` `MAIN AUTHOR`

CONSULTATION

1. INDKOM ENGINEERING ERP PROJECT

INDKOM ENGINEERING SDN. BHD.

`2015` `NATIONAL`

AWARDS/RECOGNITION

1. ANUGERAH SUKAN DAN REKREASI

`2024` `UNIVERSITY`

2. ANUGERAH BUKU ILMIAH TERBAIK

`2024` `UNIVERSITY`

3. ANUGERAH PERKHIDMATAN SETIA

`2024` `UNIVERSITY`

4. ANUGERAH BUKU ILMIAH TERBAIK

`2024` `UNIVERSITY`

5. ANUGERAH STAF CONTOH DISEMBER 2023

`2024` `UNIVERSITY`

6. SELF DIAGNOSIS ALGORITHMS: LEVERAGING MACHINE LEARNING FOR PERSONALIZED HEALTHCARE SOLUTIONS
4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

`2024` `UNIVERSITI` `SILVER`

7. ANUGERAH IKON SUKAN FKAB

`2023` `UNIVERSITY`

8. A NEW CRYPTOGRAPHY ALGORITHM DERIVED FROM QURANIC MAQAMAT FOR PREVENTING DIFFERENTIAL FAULT ANALYSIS
INNOVATION BANK CHALLENGE 2023 (IBC2023)

`2023` `UNIVERSITI` `SILVER`

9. A METHOD OF COVER AUDIO SELECTION FOR EMBEDDING BASED ON VARIOUS CRITERIA
International Conference on Advances in Machine Intelligence and Cybersecurity Technologies (AMICT)

`2023` `ANTARABANGSA` `BEST PAPER AWARD`

10. UTILIZING MULTI-CHARACTERISTIC-BASED COVER AUDIO SELECTION (MCAS) FOR SECURE COMMUNICATION
FINAL YEAR PROJECT & POSTGRADUATE: RESEARCH & INNOVATION POSTER COMPETITION (RIPC) SERIES 2/2022

`2022` `UNIVERSITI` `BRONZE`

11. SMART BI-CAR
NATIONAL INNOVATION AND INVENTION COMPETITION 2022 (NIICE 2022)

`2022` `KEBANGSAAN` `SILVER`

12. SMART BI-CAR
INTEGRATED DESIGN PROJECT SHORT VIDEO COMPETITION 2022

`2022` `KEBANGSAAN` `SILVER`

13. COVER-SELECTION-BASED AUDIO STEGANOGRAPHY (CAS) BASED ON LEAST SIGNIFICANT BIT (LSB) FOR BALANCED PERFORMANCE
INNOVATION BANK CHALLENGE (IBC 2022)

`2022` `UNIVERSITI` `GOLD`

14. VISITING SCHOLAR
MOHE INTEL ELITE INTERNSHIP PROGRAM

`2021` `INTERNATIONAL`

AWARDS/RECOGNITION

15. COVID-19 BODY TEMPERATURE TRACKER: A MOBILE APPLICATION TO EASE MOVEMENT CONTROL ORDER
PERTANDINGAN REKACIPTA INOVASI NASIONAL (PRIN) 2021

`2021` `ANTARABANGSA` `BRONZE`

16. CELSIUS TRACKER
INNOVATION BANK CHALLENGE (IBC 2021)

`2021` `UNIVERSITI` `BRONZE`

17. PENCAPAIAN PRESTASI CEMERLANG TAHUN 2018

`2019` `UNIVERSITY`

18. STUDY OF PERFOMANCES OF ANTENNA DESIGN FOR ULTRA-WIDEBAND APPLICATIONS
INVENTION, INNOVATION & DESIGN EXPOSITION 2019 (iidex2019)

`2019` `ANTARABANGSA` `BRONZE`

19. ANUGERAH PERKHIDMATAN CEMERLANG 2017

`2018` `UNIVERSITY`

20. PENCAPAIAN PRESTASI CEMERLANG TAHUN 2017

`2018` `UNIVERSITY`

21. VISITING SCHOLAR
ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS (ICTP)

`2018` `INTERNATIONAL`

22. STAF CONTOH SEPTEMBER 2017

`2017` `UNIVERSITY`

23. THE K. M. STOTT PRIZE

`2015` `UNIVERSITY`

24. MALAYSIAN GOVERNMENT SCHOLARSHIP AWARD

`2011` `NATIONAL`

25. MALAYSIAN GOVERNMENT SCHOLARSHIP AWARD

`2000` `NATIONAL`