



## FARRAH MASYITAH BINTI MOHD SHUIB

PENSYARAH UNIVERSITI DS11

### CONTACT

**Phone:** 8730

**E-mail:**  
farrah@usim.edu.my

**Faculty:** Fakulti  
Kejuruteraan Dan Alam  
Bina

### SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 1,  
Ongoing: 0

### AREAS OF EXPERTISE

Image Processing And Computer Vision

Ic Design

Information, Computer And Communication Technologies

### ACADEMIC QUALIFICATION

Master in Electronic (2010)

Bachelor in Elektrik (intrumentasi) (2007)

Diploma in Elektrik (intrumentasi) (2003)

### RESEARCH

**1. A NOVEL WATER QUALITY ANOMALIES SENSING AND FORECASTING METHOD USING TIME SERIES REGRESSION FOREST (TSRF) FOR SUSTAINABLE MODERN AGRICULTURE.**

2024 GERAN KPT ON GOING CO-RESEARCHER

**2. DEVELOPMENT AND APPLICATION OF LSTM AND GRU METHODS TO RECOGNIZE HAND MOVEMENTS, POSE AND FACE BASED ON REAL-TIME INTERPRETATION OF INDONESIAN - MALAYSIA SIGN LANGUAGE**

2023 GERAN ANTARABANGSA ON GOING CO-RESEARCHER

**3. TAARIQ: DESIGN AND DEVELOPMENT OF AN AI-BASED HUMANOID ROBOT**

2023 GERAN PENYELIDIKAN KHAS ON GOING CO-RESEARCHER

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

2022 GERAN PENYELIDIKAN AGENSI KERAJAAN COMPLETED CO-RESEARCHER

## 5. NEW POLYNOMIAL FOR LINEAR FEEDBACK SHIFT REGISTERS (LFSRS)-BASED A5/1 STREAM CIPHERS FOR GSM COMMUNICATIONS

2013

GERAN KPT

COMPLETED

MAIN RESEARCHER

# PUBLICATION

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## 1. INSULATED PIERCING CONNECTOR (IPC) TORQUE PREDICTION USING RANDOM FOREST (RF) MODEL AND CLUSTERING USING K-MEANS MODEL FOR LOW VOLATGE OVERHEAD DISTRIBUTION NETWORKS

2025 INTERNATIONAL CONFERENCE ON SCIENCE, BUILT ENVIRONMENT AND ENGINEERING

2025 PROCEEDING NON-INDEX MAIN AUTHOR

## 2. INSULATED PIERCING CONNECTOR (IPC) TORQUE PREDICTION USING RANDOM FOREST (RF) MODEL AND ANAMOLY DETECTION USING ISOLATION FOREST FOR LOW VOLTAGE OVERHEAD NETWORK

SEMINAR ANTARABANGSA ISLAM DAN SAINS 2025

2025 PROCEEDING NON-INDEX MAIN AUTHOR

## 3. SENSING OIL IN WATER BASED ON OPTICAL METHOD

2025 BOOK

## 4. TORQUE ASSESSMENT FOR LOW VOLTAGE AERIAL BUNDLE CABLE (ABC) INSULATED PIERCING CONNECTOR (IPC) USING AI ANALYSIS.

2024 IEEE INTERNATIONAL CONFERENCE ON APPLIED ELECTRONICS AND ENGINEERING (ICAEE)

2024 PROCEEDING SCOPUS CO-AUTHOR

## 5. SURFACE PLASMON RESONANCE BASED PCF SENSOR FOR DOM DETECTION

2024 IEEE INTERNATIONAL CONFERENCE ON APPLIED ELECTRONICS AND ENGINEERING (ICAEE)

2024 PROCEEDING SCOPUS CO-AUTHOR

## 6. SINGLE MODE FIBER BASED SPR SENSOR FOR THE DETECTION OF AIR CONTAMINANTS.

SEMINAR ANTARABANGSA ISLAM DAN SAINS

2024 PROCEEDING ERA CO-AUTHOR

## 7. SURFACE PLASMON RESONANCE BASED PCF SENSOR FOR DOM DETECTION

2024 IEEE INTERNATIONAL CONFERENCE ON APPLIED ELECTRONICS AND ENGINEERING

2024 PROCEEDING NON-INDEX MAIN AUTHOR

## 8. TORQUE ASSESSMENT FOR LOW VOLTAGE AERIAL BUNDLE CABLE (ABC) INSULATED PIERCING CONNECTOR (IPC) USING AI ANALYSIS

2024 IEEE INTERNATIONAL CONFERENCE ON APPLIED ELECTRONICS AND ENGINEERING

2024 PROCEEDING SCOPUS CO-AUTHOR

## 9. SINGLE MODE FIBER BASED SPR SENSOR FOR THE DETECTION OF AIR CONTAMINANTS

SEMINAR ANTARABANGSA ISLAM DAN SAINS 2024

2024 PROCEEDING OTHER DATABASE MAIN AUTHOR

## 10. PRELIMINARY DESIGN FOR A REDESIGNED LASER WARNING SYSTEM FOR MILITARY APPLICATIONS

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK CO-AUTHOR

## 11. A5/1 STREAM CIPHER IN GSM (EMPIRICAL PERSPECTIVES)

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK MAIN AUTHOR

## 12. TEMPERATURE DEPENDENT GAIN AND NOISE ANALYSIS OF AN ERBIUM DOPED FIBER AMPLIFIER WITH DIFFERENT PUMPING CONFIGURATIONS.

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK CO-AUTHOR

## 13. TEMPERATURE DEPENDENT GAIN AND NOISE ANALYSIS OF AN ERBIUM DOPED FIBER AMPLIFIER WITH DIFFERENT PUMPING CONFIGURATIONS

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK CO-AUTHOR

# PUBLICATION

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## 14. CRYPTOGRAPHY (STREAM CIPHER) IN HARDWARE IMPLEMENTATION

TECHNOLOGIES IN SCIENCE AND ENGINEERING : A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK MAIN AUTHOR

## 15. TEMPERATURE DEPENDENT GAIN AND NOISE ANALYSIS OF AN ERBIUM DOPED FIBER AMPLIFIER WITH DIFFERENT PUMPING CONFIGURATIONS

TECHNOLOGIES IN SCIENCE AND ENGINEERING : A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

## 16. THE SMART GRASS-CUTTING ROBOT WITH UPCYCLING SOLAR MODULE

TECHNOLOGIES IN SCIENCE AND ENGINEERING : A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

## 17. THE SMART GRASS-CUTTING ROBOT WITH UPCYCLING SOLAR MODULE

TECHNOLOGIES IN SCIENCE AND ENGINEERING: A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

## 18. EFFECT OF THE NUMBER OF TAPPING BITS OF THE A5/1 STREAM CIPHER TOWARDS HARDWARE PERFORMANCE

AUSTRALIAN JOURNAL OF BASIC AND APPLIED SCIENCES

2016 JOURNAL WOS CO-AUTHOR & CO-EDITOR

## 19. RANDOMNESS EVALUATION OF MODIFIED A5/1 STREAM CIPHER FOR GLOBAL SYSTEM FOR MOBILE COMMUNICATION

KOSIST 2016

2016 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 20. HARDWARE PERFORMANCE ANALYSIS ON MODIFIED A5/1 STREAM CIPHER

1ST WORLD INTERNATIONAL CONFERENCE ON ISLAMIC SCIENCES 2016 (WICOIS'16)

2016 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 21. HARDWARE IMPLEMENTATION OF MODIFIED A5/1 STREAM CIPHER

2016 INTERNATIONAL CONFERENCE ON COMMUNICATION AND INFORMATION SYSTEMS (ICCIS 2016)

2016 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 22. IMPROVING GSM SECURITY BY ENHANCING RANDOMNESS PROPERTY OF A5/1 DESIGN (ICITA)

AUSTRALIAN JOURNAL BASIC AND APPLIED SCIENCES

2015 JOURNAL WOS CO-AUTHOR & CO-EDITOR

## 23. ENHANCED A5/1 STREAM CIPHER FOR GSM SECURITY

KOLOKIUW SISWAZAH SAINS & TEKNOLOGI (KOSIST)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 24. ENHANCED A5/1 STREAM CIPHER FOR GSM SECURITY

KOLOKIUW SISWAZAH SAINS & TEKNOLOGI (KOSIST)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 25. ENHANCED A5/1 STREAM CIPHER FOR GSM SECURITY

KOLOKIUW SISWAZAH SAINS & TEKNOLOGI (KOSIST)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 26. RANDOMNESS ANALYSIS OF MODIFIED A5/1 STREAM CIPHER FOR GSM SECURITY

2ND INTERNATIONAL CONFERENCE ON MECHATRONICS, MATERIALS AND MANUFACTURING (ICMMM)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

# PUBLICATION

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## 27. RANDOMNESS ANALYSIS OF MODIFIED A5/1 STREAM CIPHER FOR GSM SECURITY

2ND INTERNATIONAL CONFERENCE ON MATERIAL, MECHATRONICS, MANUFACTURING AND MECHANICAL ENGINEERING

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 28. RANDOMNESS ANALYSIS OF MODIFIED A5/1 STREAM CIPHER FOR GSM SECURITY

2ND INTERNATIONAL CONFERENCE ON MATERIAL, MECHATRONICS, MANUFACTURING AND MECHANICAL ENGINEERING

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 29. MODIFIED A5/1 STREAM CIPHER FOR SECURED GLOBAL SYSTEM FOR MOBILE (GSM) COMMUNICATION

3RD INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND COMPUTER SCIENCE (AICS 2015)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 30. MODIFIED A5/1 STREAM CIPHER FOR SECURED GLOBAL SYSTEM FOR MOBILE (GSM) COMMUNICATION

3RD INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND COMPUTER SCIENCE (AICS2015)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 31. MODIFIED A5/1 STREAM CIPHER FOR SECURED GLOBAL SYSTEM FOR MOBILE (GSM) COMMUNICATION

3RD INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND COMPUTER SCIENCE (AICS2015)

2015 PROCEEDING NON-INDEX CO-AUTHOR & CO-EDITOR

## 32. ON MEGNOMETER HEADING UPDATES FOR INTERVAL PEDESTRIAN NAVIGATION SYSTEM

JOURNAL OF GYROSCOPY AND NAVIGATION

2014 JOURNAL SCOPUS CO-AUTHOR

## 33. FST 10 YEARS - PIONEERING ISLAMIC SCIENCE SPEARHEADING KNOWLEDGE

2014 BOOK CO-AUTHOR

## 34. FST 10 YEARS - PIONEERING ISLAMIC SCIENCE SPEARHEADING KNOWLEDGE

2014 BOOK CO-AUTHOR

## 35. TECHNOLOGY ON HUMAN VISION LIMITATION AIDE IN CATERING BREAST CANCER DISEASE FROM ISLAMIC PERSPECTIVES

FST 10 YEARS BOOK

2014 CHAPTER IN BOOK CO-AUTHOR

## 36. ISLAMIC PERSPECTIVE ON THE POTENTIAL OF ELECTRIC POWER TRANSMISSION USING HIGH TEMPERATURE SUPERCONDUCTING WIRES

FST 10 YEARS BOOK

2014 CHAPTER IN BOOK CO-AUTHOR

## 37. ANALYSIS OF MOTION DETECTION OF BREAST TUMOR BASED ON TISSUE ELASTICITY FROM B MODE ULTRASOUND IMAGES USING GRADIENT METHOD OPTICAL FLOW ALGORITHM

IEEE ARTIFICIAL AND INTELLIGENT MODELLING AND SIMULATION

2013 PROCEEDING NON-INDEX MAIN AUTHOR

## 38. ANALYSIS OF MOTION DETECTION OF BREAST TUMOR BASED ON TISSUE ELASTICITY FROM B MODE ULTRASOUND IMAGES USING GRADIENT METHOD OPTICAL FLOW ALGORITHM

IEEE ARTIFICIAL AND INTELLIGENT MODELLING AND SIMULATION

2013 PROCEEDING NON-INDEX MAIN AUTHOR

## 39. ANALYSIS OF MOTION DETECTION OF BREAST TUMOR BASED ON TISSUE ELASTICITY FROM B MODE ULTRASOUND IMAGES USING GRADIENT METHOD OPTICAL FLOW ALGORITHM

IEEE ARTIFICIAL AND INTELLIGENT MODELLING AND SIMULATION

2013 PROCEEDING NON-INDEX MAIN AUTHOR

# PUBLICATION

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## 40. PREDICTION AND ESTIMATION OF DISSIPATION IN HIGH TEMPERATURE SUPERCONDUCTING TAPES

27TH REGIONAL CONFERENCE ON SOLID STATE SCIENCE AND TECHNOLOGY.

2013

PROCEEDING

NON-INDEX

CO-AUTHOR

## 41. ARTICLE REVIEWER (SAINS TEKNOLOGI)

IINOVA 2013

2013

PROCEEDING

NON-INDEX

CO-EDITOR

## 42. CIVIL AND STRUCTURE DESIGN MODELLING

IEEE ARTIFICIAL AND INTELLIGENCE MODELLING AND SIMULATION

2013

PROCEEDING

NON-INDEX

CO-EDITOR

## 43. HIGH FREQUENCY AND RADIO TRANSMISSION ANTENA DESIGN

IEEE ARTIFICIAL INTELLIGENCE MODELLING AND SIMULATION

2013

PROCEEDING

NON-INDEX

CO-EDITOR

# CONSULTATION

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## 1. PANEL PENILAI THESIS

USIM

2017 UNIVERSITY

## 2. PROPOSAL DEFEND FYP EE

USIM

2017 UNIVERSITY

## 3. DESIGN AND HARDWARE IMPLEMENTATION OF MODIFIED A5/1 STREAM CIPHER

USIM

2017 UNIVERSITY

## 4. PANEL PENILAI LATIHAN INDUSTRI EE

USIM

2017 UNIVERSITY

## 5. JURI YOUNG INNOVATION 2016

PIJIM USIM & PERMATA

2016 UNIVERSITY

## 6. PENASIHAT FYP EE

USIM

2016 OTHERS

## 7. PENASIHAT LATIHAN INDUSTRI FIZIK GUNAAN 2015

2015 UNIVERSITY

## 8. AHLI JAWATANKUASA PENERBITAN EE

2015 UNIVERSITY

## 9. PENASIHAT BENGKEL VERILOG

RAGS KPT

2015 UNIVERSITY

## 10. HAKIM TUNAS CIPTA IINOVA 2014

2014 NATIONAL

## 11. PENASIHAT CO-SUPERVISOR MASTER THESIS 2014-2016

RAGS KPT

2014 UNIVERSITY

## 12. PENASIHAT FINAL YEAR PROJECT 2014

2014 UNIVERSITY

## 13. PANEL PENILAI LATIHAN INDUSTRI FIZIK GUNAAN 2014

2014 UNIVERSITY

## 14. PENASIHAT PROGRAM SEKOLAH ANAK ANGKAT USIM; SEKOLAH MENENGAH AGAMA LABU

2014 UNIVERSITY

# CONSULTATION

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## 15. PANEL PENILAI PROPOSAL DEFEND PERINGKAT DOKTOR FALSAFAH (PHD)

2014 UNIVERSITY

## 16. PNEL PENILAI PROPOSAL DEFEND FIZIK GUNAAN 2014

2014 UNIVERSITY

## 17. AHLI JAWATANKUASA PENSTRUKTURAN SEMULA SYLLIBUS PROGRAM KEJURUTERAAN ELEKTRONIK

2014 UNIVERSITY

## 18. PENASIHAT WIRELESS SYSTEM USING POWER LINE DI KOLEJ KEDIAMAN USIM

2013 UNIVERSITY

## 19. PENASIHAT PERTANDINGAN ROBOCON 2013

2013 NATIONAL

## 20. PENASIHAT FINAL YEAR PROJECT 2013 APPLIED PHYSICS

2013 UNIVERSITY

# AWARDS/RECOGNITION

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## 1. PHD POST FOR IOT SYSTEM FOR DIALYSIS MACHINE IMEN UKM

2017 NATIONAL

## 2. SILVER MEDAL BOLA TAMPAR SUFAST 2016

2016 UNIVERSITY

## 3. ANUGERAH INOVASI IINOVA 2013, ANALYSIS OF MOTION DETECTION OF BREAST TUMOR USING OPTICAL FLOW ALGORITHM USING B MODE ULTRASOUND IMAGES (SILVER MEDAL)

2013 INTERNATIONAL

## 4. SILVER MEDAL BOLA TAMPAR SUFAST 2013

2013 UNIVERSITY

## 5. MOTION DETECTION OF BREAST TUMORS BASED ON TISSUE ELASTICITY FROM B MODE ULTRASOUND IMAGES USING GRA

4TH EXPOSITION ON ISLAMIC INNOVATION 2013 (I-INOVA"13)

2013 KEBANGSAAN BRONZE

## 6. SKIM LATIHAN AKADEMIK BUMIPUTRA (SLAB)

2008 NATIONAL