



## DR. NURUL FARIHAN BINTI MOHAMED

PENSYARAH UNIVERSITI DS13

### CONTACT

**Phone:** 80139

**E-mail:**

farihan@usim.edu.my

**Faculty:** Kolej Permata  
Insan

### SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 0,  
Ongoing: 0

## AREAS OF EXPERTISE

Operations Research In Transportation

## ACADEMIC QUALIFICATION

PhD in Matematik (2017)

Bachelor in Industrial Mathematics (2010)

## RESEARCH

### 1. CONCEPT OF MATHEMATICAL TRANSFORMATION IN QURANIC ARABIC WRITING: ANALYSIS ON MUSHAF FORM NASYRUL QURAN COMPLEX PUTRAJAYA

2025 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING  
CO-RESEARCHER

### 2. ENHANCING LOGICAL REASONING AND IDENTIFYING TALENTS THROUGH GEOMETRY CONTESTS: A STUDY ON UNDERREPRESENTED STUDENTS IN MALAYSIA

2025 GERAN ANTARABANGSA ON GOING CO-RESEARCHER

### 3. MATHEMATICS CASE STUDY: SPM TRIAL AND SPM AMONG GIFTED AND TALENTED STUDENTS IN KOLEJ PERMATA INSAN

2024 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING  
CO-RESEARCHER

### 4. NAQLI APPROACHES ON MATHEMATICAL THINKING AMONG GIFTED AND TALENTED MUSLIM STUDENTS

2024 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING  
CO-RESEARCHER

### 5. A HOLISTIC APPROACH TO INTEGRATED ASSESSMENT FOR ACCELERATED, ENRICHED AND COMPACTED NATIONAL STANDARD SECONDARY CURRICULUM (KSSM) IN FOUR YEARS FOR INTEGRATED NAQLI AND AQLI GIFTED STUDENTS IN KOLEJ

2021 GERAN PENYELIDIKAN KHAS ON GOING CO-RESEARCHER

# RESEARCH

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## 6. NUMERICAL CODES OF HYBRID METHODS FOR INTEGRATED MODEL IN TRANSPORTATION OPERATION PLANNING

2019

GERAN PENYELIDIKAN USIM

COMPLETED

MAIN RESEARCHER

# PUBLICATION

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## 1. RELATIONSHIP BETWEEN MOTIVATION LEVEL AND MATHEMATICS ACHIEVEMENT LEVEL FOR FORM FOUR STUDENTS

JURNAL PENDIDIKAN SAINS DAN MATEMATIK MALAYSIA (JPSMM)

2025 JOURNAL OTHER DATABASE CO-AUTHOR

## 2. ENHANCING MATHEMATICS LEARNING THROUGH EMI-PERLU: AN INTERACTIVE E-MODULE ON PERIMETER AND AREA

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN EDUCATION AND SOCIETY

2025 JOURNAL OTHER DATABASE CO-AUTHOR

## 3. INTEGRATING NAQLI AND AQLI KNOWLEDGE IN MATHEMATICS EDUCATION: QIBLA DETERMINATION USING TONGKAT ISTIWA'

7TH INTERNATIONAL RESEARCH CONFERENCE ON HUMANITIES, SOCIAL SCIENCES AND TECHNOLOGY 2025 (7TH IRCHST 2025)

2025 PROCEEDING NON-INDEX MAIN AUTHOR

## 4. 6TH INTERNATIONAL CONFERENCE & INNOVATION 2025 (IJURECON 2025) STREAM FOR A BETTER FUTURE

6TH INTERNATIONAL CONFERENCE & INNOVATION 2025 (IJURECON 2025) STREAM FOR A BETTER FUTURE

2025 PROCEEDING NON-INDEX MAIN AUTHOR

## 5. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR SUBWAYS? SETS MENU IN MALAYSIA

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

## 6. THE DIET PROBLEM OF FOOD MENU FOR STARBUCKS IN MALAYSIA: LINEAR PROGRAMMING PROBLEM

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

## 7. OPTIMIZATION OF EXTRACTION TEMPERATURE AND TIME FOR ANTIOXIDANT LENTINUS EDODES USING RESPONSE SURFACE METHODOLOGY

SEMARAK INTERNATIONAL JOURNAL OF PETROLEUM AND CHEMICAL

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

## 8. OPTIMIZATION OF EXTRACTION TEMPERATURE AND TIME FOR ANTIOXIDANT LENTINUS EDODES USING RESPONSE SURFACE METHODOLOGY (RSM)

SCIENCE AND TECHNOLOGY GRADUATES COLLOQUIUM

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

## 9. OPTIMIZATION OF EXTRACTION TEMPERATURE AND TIME FOR CARBOHYDRATE CONTENT, DPPH SCAVENGING ACTIVITY AND FLAVONOID CONTENT OF SHIITAKE MUSHROOM (LENTINUS EDODES) USING RESPONSE SURFACE METHODOLOGY (RSM)

SCIENCE AND TECHNOLOGY GRADUATES COLLOQUIUM (KOSIST)

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

## 10. COMPUTATION OF NEUMANN LOCALISED BOUNDARY DOMAIN INTEGRAL EQUATIONS

ASM SCIENCE JOURNAL

2023 JOURNAL SCOPUS CO-AUTHOR

## 11. PENTAKSIRAN MASA HADAPAN: PELAKSANAAN PENTAKSIRAN BERSEPADU UNTUK MURID PINTAR BERBAKAT MUSLIM DI KOLEJ GENIUS INSAN, UNIVERSITI SAINS ISLAM MALAYSIA

MAJLIS DEKAN PENDIDIKAN, UNIVERSITI AWAM MALAYSIA 2023

2023 PROCEEDING NON-INDEX CO-AUTHOR

## 12. APPLICATION OF THE SIMPLEX METHOD ON PROFIT MAXIMIZATION IN BAKER'S COTTAGE

INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

2022 JOURNAL SCOPUS MAIN AUTHOR

## 13. MATHEMATICS

MODUL PENGAJARAN DAN PEMBELAJARAN SERTA PENTAKSIRAN BERSEPADU KURIKULUM PENDIDIKAN PINTAR BERBAKAT INTEGRASI NAQLI DAN AQLI (IGED) TAHAP 1

2022 CHAPTER IN BOOK MAIN AUTHOR

# PUBLICATION

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## 14. POLISI AKADEMIK KOLEJ GENIUS INSAN 2022

2022 POLICY

## 15. THE BEHAVIOR OF THE INSTANTANEOUS SPEED RATIO AT MERGING AREA OF TRAFFIC FLOWING ON FEDERAL HIGHWAY

CIVIL ENGINEERING AND ARCHITECTURE

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

## 16. AN INTEGER LINEAR PROGRAMMING MODEL FOR A DIET PROBLEM OF MCDONALD'S SETS MENU IN MALAYSIA

EUROPEAN JOURNAL OF MOLECULAR & CLINICAL MEDICINE

2021 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

## 17. THE SPECTRUM OF DISCRETIZED BVIDES WITH REDUCED NUMBER OF COLLOCATION POINTS

EUROPEAN JOURNAL OF MOLECULAR & CLINICAL MEDICINE

2021 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

## 18. THE EFFECTIVENESS OF FLIPPED CLASSROOM IN TEACHING MATHEMATICS FOR STUDENTS: A REVIEW OF LITERATURE

ACTIVE LEARNING IN EDUCATION 4.0 STUDENTS AS OWNERS OF LEARNING

2021 CHAPTER IN BOOK MAIN AUTHOR

## 19. INSTANTANEOUS SPEED RATIO OF TRAFFIC FLOWING THROUGH A MERGING AREA AT KILOMETER 31.6 ON THE HIGHWAY FROM SHAH ALAM TO KUALA LUMPUR

PERTANIKA JOURNAL OF SCIENCE AND TECHNOLOGY

2020 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR

## 20. COMPARISON OF TWO HYBRID ALGORITHMS ON INCORPORATED AIRCRAFT ROUTING AND CREW PAIRING PROBLEMS

INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

2020 JOURNAL SCOPUS MAIN AUTHOR

## 21. THE DIET PROBLEM ON MINIMIZING VITAMIN A: LINEAR PROGRAMMING PROBLEM

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 JOURNAL OTHERS DATABASE CORRESPONDING AUTHOR

## 22. SYNERGIZING INNOVATION AND RESEARCH THROUGH SCIENCE AND TECHNOLOGY

POSTGRADUATE SEMINAR FACULTY OF SCIENCE AND TECHNOLOGY

2020 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

## 23. SPECTRUM OF DIRICHLET BVIDE OPERATOR

MALAYSIAN JOURNAL OF MATHEMATICAL SCIENCES

2019 JOURNAL SCOPUS CO-AUTHOR

## 24. SELECTION OF MALAYSIA SCHOOL YOUTH CADET CORPS LEADER BY USING ANALYTICAL HIERARCHY PROCESS: A CASE STUDY AT SMK AHMAD BOESTAMAM

CONFERENCE PROCEEDING: THE INTERNATIONAL CONFERENCE ON EDUCATION, MATHEMATICS AND SCIENCE 2016 (ICEMS2016) IN CONJUNCTION WITH 4TH INTERNATIONAL POSTGRADUATE CONFERENCE ON SCIENCE AND MATHEMATICS 2016 (IPCSM2016)

2017 JOURNAL SCOPUS CO-AUTHOR

## 25. THE INTEGRATED AIRCRAFT ROUTING AND CREW PAIRING PROBLEM: ILP BASED FORMULATION

JURNAL TEKNOLOGI

2016 JOURNAL SCOPUS MAIN AUTHOR

## 26. A HEURISTIC AND EXACT METHOD: INTEGRATED AIRCRAFT ROUTING AND CREW PAIRING PROBLEM

MODERN APPLIED SCIENCE

2016 JOURNAL ERA MAIN AUTHOR

# PUBLICATION

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## 27. IMPLEMENTATIONS OF BOUNDARY-DOMAIN INTEGRO-DIFFERENTIAL EQUATION FOR DIRICHLET BVP WITH VARIABLE COEFFICIENT

JURNAL TEKNOLOGI

2016

JOURNAL

SCOPUS

CO-AUTHOR

## 28. DEVELOPMENT OF HYBRID ALGORITHM FOR INTEGRATED AIRCRAFT ROUTING PROBLEM AND CREW PAIRING PROBLEM

INDIAN JOURNAL OF SCIENCE & TECHNOLOGY

2016

JOURNAL

ERA

MAIN AUTHOR

## 29. NUMERICAL SOLUTION OF DIRICHLET BOUNDARY-DOMAIN INTEGRO-DIFFERENTIAL EQUATION WITH LESS NUMBER OF COLLOCATION POINTS

APPLIED MATHEMATICAL SCIENCES

2016

JOURNAL

SCOPUS

CO-AUTHOR

# CONSULTATION

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## 1. MALAYSIAN RESEARCH AND DEVELOPMENT CLASSIFICATION SYSTEM (MRDCS) 7TH EDITION

MOSTI

2021

NATIONAL

# AWARDS/RECOGNITION

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## 1. WRITER OF THE MONTH

2025 UNIVERSITY

## 2. STAF CONTOH (KATEGORI AKADEMIK)

2025 UNIVERSITY

## 3. WRITER OF THE MONTH

2025 UNIVERSITY

## 4. WRITER OF THE MONTH

2025 UNIVERSITY

## 5. WRITER OF THE MONTH

2025 UNIVERSITY

## 6. INTEGRATING MATHEMATICAL PROBLEM SOLVING INTO TACTILE GAMEPLAY: NUMBLOCKS

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

## 7. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR MARY BROWNS SETS MENU

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA SILVER

## 8. FAITH-BASED MENTAL HEALTH SUPPORT FOR MUSLIM STUDENTS USING QURANIC GUIDANCE

VIRTUAL INNOVATION COMPETITION 2025

2025 ANTARABANGSA SILVER

## 9. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR MARY BROWNS SETS MENU

VIRTUAL INNOVATION COMPETITION 2025

2025 ANTARABANGSA BRONZE

## 10. ANUGERAH INOVASI PEMBELAJARAN TERBAIK

2024 OTHERS

## 11. ANUGERAH PENULIS BUKU CEMERLANG

2024 UNIVERSITY

## 12. ANUGERAH PENULIS CEMERLANG BULANAN MAC 2024

2024 UNIVERSITY

## 13. EDITOR'S CHOICE ARTICLE

2024 UNIVERSITY

## 14. OPTIMIZATION OF EXTRACTION TEMPERATURE AND TIME FOR ANTIOXIDANT LENTINUS EDODES USING RESPONSE SURFACE METHODOLOGY (RSM)

Semarak International Research Article Competition 2024 (SIRAC 2024)

2024 ANTARABANGSA BRONZE

# AWARDS/RECOGNITION

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## 15. THE DEVELOPMENT OF A MATHEMATICAL MODELLING A DIET PROBLEM FOR BURGER KING SETS MENU IN MALAYSIA

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITI BRONZE

## 16. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR MARRYBROWN SETS MENU IN MALAYSIA

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE (IJURECON 2024)

2024 ANTARABANGSA GOLD

## 17. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR BURGER KING'S SETS MENU IN MALAYSIA

Insan Junior Researchers International Conference (IJURECON 2023)

2023 ANTARABANGSA GOLD

## 18. APPLICATIONS OF LINEAR PROGRAMMING ON DIET PROBLEM FOR A&W SETS MENU IN MALAYSIA

Insan Junior Researchers International Conference (IJURECON 2023)

2023 ANTARABANGSA GOLD

## 19. MATHEMATICS IN QURAN

INTERNATIONAL UNIVERSITY CARNIVAL ON E-LEARNING (IUCEL 2022)

2022 ANTARABANGSA BRONZE

## 20. MATHS-Q WEB-BASED LEARNING FOR STREAM APPROACH

The Virtual International e-Content Development Competiiton 2022 (ECONDEV)

2022 ANTARABANGSA SILVER

## 21. MATHEMATICS IN QURAN: BUILDING A SYSTEMATIC ONLINE IGED RESOURCE CENTER

THE VIRTUAL INTERNATIONAL E-CONTENT DEVELOPMENT COMPETITION 2021 ( ECONDEV )

2021 ANTARABANGSA BRONZE

## 22. BRONZE AWARD FOR MOOC ENTITLED MATHEMATICS IN QURAN

2020 NATIONAL

## 23. MATHEMATICS IN QURAN

National e-Content Development Competition (eConDev 2020)

2020 KEBANGSAAN BRONZE

## 24. BEST PAPER AWARD

2019 INTERNATIONAL