

PROF. MADYA DR. NURFADHLINA BINTI ABDUL HALIM

PENSYARAH UNIVERSITI DS14

CONTACT

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nurfadhlina@usim.edu.my

FACULTY

Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	0	1
Master	0	1

AREAS OF EXPERTISE

- Financial Mathematics
- Other Computational Statistics N.e.c
- Business Portfolio Optimization

ACADEMIC QUALIFICATION

- 2013 **PhD** - Mathematics
- 2005 **Master** - Mathematics
- 2003 **Bachelor** - Finance Mathematics

RESEARCH

1. NEW THEORETICAL FRAMEWORKS OF PEER TUTORING PROGRAMS FOR ENHANCING FOUNDATION STUDENTS' ACADEMIC SUCCESS BY USING A NONLINEAR CONJUGATE GRADIENT METHOD

2024 | GERAN KPT | ON GOING | CO-RESEARCHER

2. NEW FUNDAMENTAL FRAMEWORK FOR FORECASTING OF ECONOMIC BUBBLE RUPTURE AND ITS IMPACT ON B40 GROUPS

2020 | GERAN KPT | COMPLETED | MAIN RESEARCHER

3. NEW THEORETICAL FORMULATION OF QUANTO OPTIONS PRICE IN ENERGY MARKETS

2020 | GERAN KPT | COMPLETED | CO-RESEARCHER

4. MODELLING THE MULTI-SCALE CURRENCY EXPOSURE USING WAVELET TECHNIQUE FOR OPTIMAL HEDGING STRATEGIES AMONG NON-FINANCIAL FIRMS IN MALAYSIA

2020 | GERAN KPT | COMPLETED | CO-RESEARCHER

PUBLICATION

1. EVALUATING MULTIVARIATE NORMALITY IN MEDICAL DATASETS: A CASE STUDY WITH R

INTERNATIONAL JOURNAL ON EMERGING TECHNOLOGIES

2025 JOURNAL SCOPUS CO-AUTHOR

2. PREDICTIVE BIOSTATISTICAL MODELING OF URIC ACID LEVELS BASED ON HIGH-DENSITY LIPOPROTEIN AND ALANINE AMINOTRANSFERASE USING R

JP JOURNAL OF BIOSTATISTICS

2025 JOURNAL OTHER DATABASE CO-AUTHOR

3. HYBRID METHODOLOGY FOR PREDICTING HYPERTENSION IN PATIENTS WITH DYSLIPIDEMIA AND TYPE 2 DIABETES MELLITUS

ADVANCES AND APPLICATIONS IN STATISTICS

2025 JOURNAL WOS CO-AUTHOR

4. EMPIRICAL TESTING TOWARDS FIXED EFFECT METHOD ON INTRINSIC VALUE VARIABLES OF ECONOMIC BUBBLES

THE 4TH INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN SCIENCE AND TECHNOLOGY (ICORAST2023)

2025 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

5. EMPIRICAL TEST TOWARDS POOLED ORDINARY LEAST SQUARE METHOD ON PARAMETER OF INSTRISIC VALUE OF ECONOMIC BUBBLES

THE 4TH INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN SCIENCE AND TECHNOLOGY (ICORAST2023)

2025 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

6. DECOMPOSITION OF DISASTER REGION USING EARTHQUAKE PARAMETER AND STDM DISTANCE: CATASTROPHE BOND PRICING SINGLE PERIOD

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2024 JOURNAL SCOPUS CO-AUTHOR

7. ROBUST PORTFOLIO MEAN-VARIANCE OPTIMIZATION FOR CAPITAL ALLOCATION IN STOCK INVESTMENT USING THE GENETIC ALGORITHM: A SYSTEMATIC LITERATURE REVIEW

COMPUTATION

2024 JOURNAL SCOPUS CO-AUTHOR

8. DETERMINANTS OF ISLAMIC BANK?S PROFITABILITY PERFORMANCE IN MALAYSIA DURING COVID-19 USING PANEL DATA ANALYSIS

MENEMUI MATEMATIK (DISCOVERING MATHEMATICS)

2024 JOURNAL OTHER DATABASE MAIN AUTHOR

9. ANALYZING THE RESULT OF RATIONAL SPECULATIVE BUBBLE SIZE IN THE STOCK MARKET WITH GENERALIZED JOHANSEN-LEDOIT-SORNETTE

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-29 (SKSM29)

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

10. FORECASTING WORLD GOLD PRICE IN YEAR 2022 USING GEOMETRIC BROWNIAN MOTION MODEL

29TH NATIONAL SYMPOSIUM ON MATHEMATICAL SCIENCES (SKSM29)

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

PUBLICATION

11. A NEW INTRINSIC VALUE FORMULATION FOR FINANCIAL BUBBLE: THE CASE OF UNITED STATES, CHINA & GERMANY

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-30 (SKSM30)

2024 PROCEEDING NON-INDEX CO-AUTHOR

12. MEAN-VARIANCE ANALYSIS OF SHARIAH AND NON-SHARIAH STOCKS MARKET IN MALAYSIA DURING THE PANDEMIC OF COVID-19

29TH NATIONAL SYMPOSIUM ON MATHEMATICAL SCIENCES (SKSM29)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

13. PENGANGGARAN SAIZ GELEMBUNG SPEKULATIF RASIONAL MENGGUNAKAN PENDEKATAN JOHANSEN-LEDOIT-SORNETTE UMUM

2024 BOOK CO-AUTHOR

14. SINGLE EARTHQUAKE BOND PRICING FRAMEWORK WITH DOUBLE TRIGGER PARAMETERS BASED ON MULTI REGIONAL SEISMIC INFORMATION

MATHEMATICS

2023 JOURNAL WOS CO-AUTHOR

15. PROFITABILITY PERFORMANCE OF FULL-FLEDGED ISLAMIC BANKS AND ECONOMIC GROWTH IN MALAYSIA: A PANEL DATA APPROACH

JOURNAL OF NUMERICAL OPTIMIZATION AND TECHNOLOGY MANAGEMENT

2023 JOURNAL OTHER DATABASE MAIN AUTHOR

16. MODELING CHOLESTEROL LEVELS IN PATIENTS WITH DYSLIPIDEMIA AND TYPE 2 DIABETES MELLITUS USING AN INTEGRATED STATISTICAL METHOD

TEC EMPRESARIAL JOURNAL

2023 JOURNAL OTHER DATABASE CO-AUTHOR

17. CATASTROPHE BOND DIVERSIFICATION STRATEGY USING PROBABILISTIC?POSSIBILISTIC BIJECTIVE TRANSFORMATION AND CREDIBILITY MEASURES IN FUZZY ENVIRONMENT

MATHEMATICS

2023 JOURNAL OTHER DATABASE CO-AUTHOR

18. GRAPHICAL PLOT AND CORRELATION ANALYSIS FOR ESTABLISHING AN ACCEPTANCE OF FUTURE INTENTION OF EXCLUSIVE BREASTFEEDING AMONG MEDICAL AND DENTAL STUDENTS: A STUDY FROM HOSPITAL UNIVERSITI SAINS MALAYSIA

JOURNAL OF COASTAL LIFE MEDICINE

2023 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

19. A GEOMETRIC BROWNIAN MOTION OF ASEAN-5 STOCK INDEXES

AI AND BUSINESS, AND INNOVATION RESEARCH: UNDERSTANDING THE POTENTIAL AND RISKS OF AI FOR MODERN ENTERPRISES

2023 CHAPTER IN BOOK CO-AUTHOR

PUBLICATION

20. ANALYZING ECONOMIC DOWNTURN WITH THE GLOBAL PANDEMIC TIMELINE IN ORDER TO IMPROVE THE SUSTAINABILITY OF B40 AND M40 GROUPS

JOURNAL OF SUSTAINABILITY SCIENCE AND MANAGEMENT

2022 | JOURNAL | SCOPUS | MAIN AUTHOR / CONTACT PERSON IN USIM

21. MAXILLOFACIAL FRACTURE TRAUMA: ORBITAL WALLS FRACTURE AND THEIR ASSOCIATION USING MULTILAYER NEURAL NETWORK PERSPECTIVES

JOURNAL OF ALGEBRAIC STATISTICS

2022 | JOURNAL | WOS | MAIN AUTHOR / CONTACT PERSON IN USIM

22. THE MOST COMMON TREATMENT UNDER GENERAL ANAESTHESIA IN HOSPITAL USM: A PAEDIATRIC CASE STUDY FROM 2015 TO 2018

JOURNAL OF ALGEBRAIC STATISTICS

2022 | JOURNAL | WOS | MAIN AUTHOR / CONTACT PERSON IN USIM

23. EARTHQUAKE CATASTROPHE BOND PRICING USING EXTREME VALUE THEORY: A MINI-REVIEW APPROACH

MATHEMATICS

2022 | JOURNAL | WOS | MAIN AUTHOR / CONTACT PERSON IN USIM

24. MODELING MULTIPLE-EVENT CATASTROPHE BOND PRICES INVOLVING THE TRIGGER EVENT CORRELATION, INTEREST, AND INFLATION RATES

MATHEMATICS

2022 | JOURNAL | OTHER DATABASE | CO-AUTHOR

25. ESTIMATION ON RATIONAL SPECULATIVE BUBBLES IN STOCK MARKET BY USING GENERALISED JOHANSEN-LEDOIT-SORNETTE MODEL

MALAYSIAN JOURNAL OF MATHEMATICAL SCIENCES

2022 | JOURNAL | OTHER DATABASE | CO-AUTHOR

26. MEAN-VARIANCE ANALYSIS OF SHARIAH AND NON- SHARIAH STOCKS MARKET IN MALAYSIA DURING THE PANDEMIC OF COVID-19

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-29 (SKSM29)

2022 | PROCEEDING | SCOPUS | CORRESPONDING AUTHOR

27. RELATIONSHIP BETWEEN RATIONAL SPECULATIVE BUBBLES IN STOCK MARKET AND GROSS DOMESTIC PRODUCT

MENEMUI MATEMATIK (DISCOVERING MATHEMATICS)

2021 | JOURNAL | MYCITE | MAIN AUTHOR / CONTACT PERSON IN USIM

28. TIME SERIES MODELING USING BOX-JENKINS MODEL FOR SHARIAH COMPLIANT HEALTHCARE SECTOR IN MALAYSIA

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-28 (SKSM28)

2021 | PROCEEDING | NON-INDEX | CO-AUTHOR

PUBLICATION

29. ASSESSING THE FINANCIAL PERFORMANCE OF TAKAFUL OPERATORS IN MALAYSIA THROUGH RETURN ON ASSETS AND RETURN ON EQUITY

5TH ASIA INTERNATIONAL MULTIDISCIPLINARY CONFERENCE 2021 (AIMC2021)

2021 | PROCEEDING | NON-INDEX | CO-AUTHOR

30. SEWA BELI ISLAM : IMPAK TERHADAP UNTUNG DAN RUGI

2021 | BOOK | MAIN AUTHOR

31. VALIDATE THEFACTOR FROM MULTIPLE LOGISTIC REGRESSION USING ARTIFICIAL NEURAL NETWORKS (ANNS) MODEL: A CASE STUDY OF AN ELDERLY HEALTH STATUS AT RECEIVING HOME CARE

SAPPORO MEDICAL JOURNAL

2020 | JOURNAL | SCOPUS | MAIN AUTHOR / CONTACT PERSON IN USIM

32. ORDERED LOGISTIC REGRESSION WITH ARTIFICIAL NEURAL NETWORK MODELS FOR VARIABLE SELECTION FOR PREDICTION OF HYPERTENSION PATIENT OUTCOMES

SAPPORO MEDICAL JOURNAL

2020 | JOURNAL | SCOPUS | MAIN AUTHOR / CONTACT PERSON IN USIM

33. OPTIMIZATION OF THE MEAN-VARIANCE INVESTMENT PORTFOLIO OF SOME STOCKS UNDER MARKET SENTIMENT AND THE ARMAX-GARCH MODEL

INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY

2020 | JOURNAL | SCOPUS | CORRESPONDING AUTHOR

34. ESTIMATION OF THE VALUE-AT-RISK (VAR) USING THE TARCH MODEL BY CONSIDERING THE EFFECTS OF LONG MEMORY IN STOCK INVESTMENTS

OPERATIONS RESEARCH: INTERNATIONAL CONFERENCE SERIES

2020 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

35. MARKOWITZ MODEL INVESTMENT PORTFOLIO OPTIMIZATION: A REVIEW THEORY

INTERNATIONAL JOURNAL OF RESEARCH IN COMMUNITY SERVICE

2020 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

36. A GARCH APPROACH TO VAR CALCULATION IN FINANCIAL MARKET

INTERNATIONAL JOURNAL OF QUANTITATIVE RESEARCH AND MODELING

2020 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

37. A LITERATURE REVIEW OF ISLAMIC TRANSACTIONS PROFIT

THE 5TH NA INTERNATIONAL CONFERENCE ON INDUSTRIAL ENGINEERING AND OPERATIONS MANAGEMENT

2020 | PROCEEDING | NON-INDEX | CO-AUTHOR

38. SHARI?AH PERSPECTIVE RATIO OF ISLAMIC FINANCING: BASE PROFIT RATE VS RULE 78

INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND ENGINEERING (IJRTE)

2019 | JOURNAL | SCOPUS | MAIN AUTHOR

PUBLICATION

39. FORECASTING ON THE COLLAPSE OF RATIONAL SPECULATIVE BUBBLE IN HANG SENG, NIKKEI 225 AND S&P 500 IN 2018

ASM SCIENCE JOURNAL

2019 JOURNAL SCOPUS MAIN AUTHOR

40. A STATISTICAL APPLICATION ON DETERMINING THE PROGNOSTIC FACTORS OF ORAL SQUAMOUS CELL CARCINOMAS (OSCC) IN MALAYSIA

INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND ENGINEERING (IJRTE)

2019 JOURNAL SCOPUS CO-AUTHOR

41. EFFICIENCY TESTING OF MALAYSIAN TAKAFUL FUND USING TREYNOR?S AND SHARPE?S RATIO

SKSM27

2019 PROCEEDING NON-INDEX MAIN AUTHOR

42. CORRELATION AND REGRESSION

BASIC CONCEPTS IN BIOSTATISTICS WITH STEP BY STEP IN SPSS

2019 CHAPTER IN BOOK CO-AUTHOR

CONSULTATION

1. BENGKEL SPSS SIRI 1 & 2

FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM, UNPAD

2019 INTERNATIONAL

AWARDS/RECOGNITION

1. ANUGERAH PENERBITAN JURNAL BERINDEKS WOS-SCOPUS-MYCITE 2024

2025 UNIVERSITY

2. ANUGERAH PENERBITAN JURNAL BERINDEKS WOS-SCOPUS-MYCITE 2024

2025 UNIVERSITY

3. ANUGERAH PENCAPAIAN RPI TERTINGGI (10 TERBAIK 2024

2025 UNIVERSITY

4. ANUGERAH PENERBITAN BAB DALAM BUKU 2024

2025 UNIVERSITY

5. ANUGERAH PENERBITAN BUKU 2024

2025 UNIVERSITY

6. ANUGERAH PENERBITAN BERINDEKS WOS-SCOPUS 2024

2025 UNIVERSITY

AWARDS/RECOGNITION

7. ANUGERAH LIBATSAMA KOMUNITI 2024

2025 UNIVERSITY

8. VISITING SCHOLAR

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (IIUM)

2025 NATIONAL

9. VISITING LECTURER (PENSYARAH PELAWAT)

UNIVERSITAS PADJADJARAN, INDONESIA

2025 INTERNATIONAL

10. THE COMPARISON OF THE GEOMETRIC BROWNIAN MOTION MODEL AND BOX-JENKINS METHODOLOGY IN GOLD PRICE FORECASTING

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-31 (SKSM31)

2024 KEBANGSAAN CERTIFICATE OF APPRECIATION

11. VISITING RESEARCHER

UNIVERSITAS PADJAJARAN, INDONESIA

2022 INTERNATIONAL

12. ACADEMIC ADVISOR

KEMENTERIAN PENDIDIKAN MALAYSIA

2019 NATIONAL

13. ACADEMIC ADVISOR

KEMENTERIAN PENDIDIKAN MALAYSIA

2019 NATIONAL