

Profile Image

## PROF. DR. BACHOK BIN M.TAIB

FELO AKADEMIK

### CONTACT

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**Faculty:** Fakulti Sains  
Dan Teknologi

### SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 0,  
Ongoing: 0

## AREAS OF EXPERTISE

Numerical Analysis

## ACADEMIC QUALIFICATION

PhD in Analisis Berangka (1986)

Master in Analisis Berangka (1977)

Bachelor in Matematik (1974)

## RESEARCH

### 1. EFFECTIVE HYBRID METHOD FOR CAUCHY TYPE SINGULAR DOUBLE INTEGRALS

2019 GERAN KPT ON GOING CO-RESEARCHER

### 2. NEWTON-KANTOROVICH METHOD FOR SOLVING A CLASS OF NONLINEAR INTEGRAL EQUATIONS

2016 GERAN PENYELIDIKAN TRANSLASIONAL COMPLETED CO-RESEARCHER

### 3. MODIFIED ADOMIAN DECOMPOSITION METHOD FOR NONLINEAR FREDHOLM-VOLTERRA INTEGRO-DIFFERENTIAL EQUATIONS

2015 GERAN PENYELIDIKAN PENTADBIR COMPLETED MAIN RESEARCHER

### 4. OPTIMIZATION OF INTERNET PRICING UNDER MULTIPLE WIRELESS NETWORKS SERVING MULTIPLE QUALITY OF SERVICE (QOS)

2014 GERAN KPT COMPLETED CO-RESEARCHER

### 5. DESIGNING A NEW MODEL FOR TROJAN DETECTION

2012 GERAN PENYELIDIKAN PENTADBIR COMPLETED MAIN RESEARCHER

# RESEARCH

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## 6. OPTIMIZATION OF INTERNET PRICING UNDER MULTIPLE QOS NETWORKS

2011 GERAN KPT COMPLETED CO-RESEARCHER

## 7. STATUS INFORMATION SECURITY MANAGEMENT SYSTEM POLICY BASED ON BS7799 FOR IT DEPARTMENT IN IPTA IN NEARBY LEMBAH KLANG

2006 GERAN PENYELIDIKAN PANTAS BAWAH SETAHUN COMPLETED CO-RESEARCHER

## 8. DEVELOPING PDA-CGPA PLANNER FOR USIM

2006 GERAN PENYELIDIKAN PANTAS BAWAH SETAHUN COMPLETED MAIN RESEARCHER

# PUBLICATION

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## 1. GENERAL 2D SYSTEM OF NONLINEAR INTEGRAL EQUATIONS AND ITS APPROXIMATE SOLUTION

JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS

2019 JOURNAL ERA CO-AUTHOR

## 2. EXTENDED CHEBYSHEV POLYNOMIALS FOR SOLVING BOUNDED AND UNBOUNDED SINGULAR INTEGRAL EQUATIONS

JOURNAL OF PHYSICS:CONF. SERIES

2019 JOURNAL SCOPUS CO-AUTHOR

## 3. BOUNDARY INTEGRAL METHOD AND CAVITATION BUBBLE MODELING

2019 BOOK MAIN AUTHOR

## 4. BACHOK-HASHAM POLYNOMIALS FOR SOLVING A SPECIAL CLASS OF SINGULAR INTEGRAL EQUATIONS

AMERICAN INSTITUTE OF PHYSICS

2018 JOURNAL SCOPUS CO-AUTHOR

## 5. MODIFIED HPM FOR HIGH-ORDER LINEAR FRACTIONAL INTEGRO-DIFFERENTIAL EQUATIONS OF FREDHOLM-VOLTERRA TYPE

JOURNAL OF PHYSICS: CONFERENCE SERIES

2018 JOURNAL SCOPUS CO-AUTHOR

## 6. EFFECTIVE APPROXIMATE METHOD FOR SOLVING LINEAR FREDHOLM-VOLTERRA INTEGRAL EQUATIONS.

NUMERICAL ALGEBRA, CONTROL AND OPTIMIZATION (NACO)

2017 JOURNAL SCOPUS CO-AUTHOR

## 7. THE COMPARISON OF INTERNET PRICING SCHEME IN MULTI LINK BOTTLENECK MULTI SERVICE NETWORK

6TH INTERNATIONAL CONFERENCE ON COMPUTING AND INFORMATICS ICOCI 2017

2017 PROCEEDING NON-INDEX CO-AUTHOR

## 8. BACHOK-HASHAM POLYNOMIALS FOR SOLVING A SPECIAL CLASS OF SINGULAR INTEGRAL EQUATIONS

25TH NATIONAL SYMPOSIUM ON MATHEMATICAL SCIENCES (SKSM25). PAPER WILL BE PUBLISHED IN AIPCP

2017 PROCEEDING NON-INDEX CO-AUTHOR

## 9. SEQUENCE AND SERIES

INTEGRATION OF NAQLI AND AQLI KNOWLEDGE: AN APPLICATION TO ACTUARIAL SCIENCE, RISK MANAGEMENT & FINANCIAL MATHEMATICS CURRICULUM

2017 CHAPTER IN BOOK CO-AUTHOR

## 10. MODIFIED HOMOTOPY PERTURBATION METHOD FOR SOLVING LINEAR SECOND-ORDER FREDHOLM INTEGRO-DIFFERENTIAL EQUATIONS

FILOMAT

2016 JOURNAL ERA CO-AUTHOR

## 11. APPROXIMATE SOLUTION OF INTEGRO-DIFFERENTIAL EQUATION OF FRACTIONAL (ARBITRARY) ORDER

JOURNAL OF KING SAUD UNIVERSITY

2016 JOURNAL SCOPUS CO-AUTHOR

## 12. ON THE SYMBOLIC MANIPULATION FOR THE CARDINALITY OF CERTAIN DEGREE POLYNOMIALS

2ND INTERNATIONAL CONFERENCE ON MATHEMATICS, ENGINEERING AND INDUSTRIAL APPLICATIONS 2016

2016 PROCEEDING NON-INDEX CO-AUTHOR

## 13. OPTIMIZATION OF WIRELESS PRICING SCHEME

INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY AND BUSINESS (ICITB) 2015

2015 PROCEEDING NON-INDEX CO-AUTHOR

# PUBLICATION

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## 14. 2D SYSTEM OF NONLINEAR INTEGRAL EQUATIONS AND ITS APPROXIMATE SOLUTION

THE 5TH INTERNATIONAL CONFERENCE ON CONTROL AND OPTIMIZATION WITH INDUSTRIAL APPLICATIONS

2015 PROCEEDING NON-INDEX CO-AUTHOR

## 15. THE IMPROVED MODELS OF INTERNET PRICING SCHEME OF MULTI SERVICE MULTI LINK NETWORKS WITH VARIOUS CAPACITY LINKS

ADVANCED COMPUTER AND COMMUNICATION ENGINEERING TECHNOLOGY

2015 CHAPTER IN BOOK CO-AUTHOR

## 16. DESIGNING A NEW MODEL FOR TROJAN HORSE DETECTION USING SEQUENTIAL MINIMAL OPTIMIZATION

ADVANCED COMPUTER AND COMMUNICATION ENGINEERING TECHNOLOGY

2015 CHAPTER IN BOOK CO-AUTHOR

## 17. DESIGNING A NEW MODEL FOR WORM RESPONSE USING SECURITY METRICS

ADVANCED COMPUTER AND COMMUNICATION ENGINEERING TECHNOLOGY

2015 CHAPTER IN BOOK CO-AUTHOR

## 18. NOTE ON THE CONVERGENCE ANALYSIS OF HOMOTOPY PERTURBATION METHOD FOR FRACTIONAL PARTIAL DIFFERENTIAL EQUATIONS

ABSTRACT AND APPLIED ANALYSIS

2014 JOURNAL WOS CO-AUTHOR

## 19. NUMERICAL METHODS FOR FRACTIONAL ORDER SINGULAR PARTIAL DIFFERENTIAL EQUATIONS WITH VARIABLE COEFFICIENTS

MATHEMATICAL PROBLEMS IN ENGINEERING

2014 JOURNAL WOS CO-AUTHOR

## 20. CONVERGENCE OF VARIATIONAL ITERATION METHOD FOR SOLVING SINGULAR PARTIAL DIFFERENTIAL EQUATIONS OF FRACTIONAL ORDER

ABSTRACT AND APPLIED ANALYSIS

2014 JOURNAL WOS CO-AUTHOR

## 21. AN EFFICIENT TROJAN HORSE CLASSIFICATION (ETC)

INTERNATIONAL JOURNAL OF COMPUTER SCIENCE ISSUES

2013 JOURNAL WOS CO-AUTHOR

## 22. IMPROVED MODELS OF INTERNET CHARGING SCHEME OF SINGLE BOTTLENECK LINK IN MULTI QOS NETWORKS.

JOURNAL OF APPLIED SCIENCES

2013 JOURNAL WOS CO-AUTHOR

## 23. IMPROVED MODELS OF INTERNET CHARGING SCHEME OF MULTI BOTTLENECK LINKS IN MULTI QOS NETWORKS.

AUSTRALIAN JOURNAL OF BASIC & APPLIED SCIENCES

2013 JOURNAL WOS CO-AUTHOR

## 24. FRACTIONAL VARIATIONAL ITERATION METHOD AND ITS APPLICATION TO FRACTIONAL PARTIAL DIFFERENTIAL EQUATION

MATHEMATICAL PROBLEMS IN ENGINEERING

2013 JOURNAL WOS CO-AUTHOR

## 25. HOMOTOPY PERTURBATION METHOD FOR FRACTIONAL BLACK-SCHOLES EUROPEAN OPTION PRICING EQUATIONS USING SUMUDU TRANSFORM

MATHEMATICAL PROBLEMS IN ENGINEERING

2013 JOURNAL WOS CO-AUTHOR

## 26. A NEW MODEL FOR TROJAN DETECTION USING KNOWLEDGE DATA DISCOVERY AND MACHINE LEARNING

CREATIF AND INNOVATION SEMINAR 4TH EXPOSITION ON ISLAMIC INNOVATION 2013

2013 PROCEEDING NON-INDEX CO-AUTHOR

# PUBLICATION

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## 27. AN IMPROVE OPTIMIZATION MODEL OF INTERNET CHARGING SCHEME IN MULTI SERVICE NETWORKS

TELKOMNIKA

2012 JOURNAL WOS CO-AUTHOR

## 28. STABILITY AND ACCURACY OF EXPONENTIAL EXTRAPOLATION METHOD

INTERNATIONAL JOURNAL ON ADVANCED SCIENCE ENGINEERING INFORMATION TECHNOLOGY

2012 JOURNAL WOS CO-AUTHOR

## 29. A NEW APPROACH OF OPTIMIZATION MODEL ON INTERNET CHARGING SCHEME IN MULTI SERVICE NETWORKS

INTERNATIONAL JOURNAL OF SCIENCE AND TECHNOLOGY

2012 JOURNAL WOS CO-AUTHOR

## 30. APPLICATION OF HOMOTOPY PERTURBATION AND VARIATIONAL ITERATION METHODS FOR FREDHOLM INTEGRODIFFERENTIAL EQUATION OF FRACTIONAL ORDER

ABSTRACT AND APPLIED ANALYSIS

2012 JOURNAL WOS CO-AUTHOR

## 31. STABILITY AND ACCURACY OF EXPONENTIAL EXTRAPOLATION METHOD

2ND INTERNATIONAL CONFERENCE ON ADVANCED SCIENCE, ENGINEERING AND INFORMATION TECHNOLOGY (ICASEIT)

2011 PROCEEDING NON-INDEX CO-AUTHOR

## 32. EXPONENTIAL EXTRAPOLATION METHOD FOR THE SOLUTION OF INITIAL VALUE PROBLEMS IN ORDINARY DIFFERENTIAL EQUATIONS

7TH INTERNATIONAL CONFERENCE ON MATHEMATICS, STATISTICS AND APPLICATION ICMSA 2011

2011 PROCEEDING NON-INDEX CO-AUTHOR

## 33. DEVELOPING CGPA PLANNER BY USING PDA FOR ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA (USIM)

3RD INTERNATIONAL MICROLEARNING 2007 CONFERENCE

2007 PROCEEDING NON-INDEX MAIN AUTHOR

## 34. PERFORMANCE ANALYSIS OF EDGE DETECTION METHODS FOR MACROSCOPIC IMAGES

KKU SCIENCE JOURNAL

2003 JOURNAL WOS CO-AUTHOR

## 35. BACKPROPAGATION FOR RECOGNITION OF INVARIANTS AND SPATIAL DETECTORS OF CONSTITUENTS OF PERCEPTUAL PATTERNS

BRUNEI DARULSSALAM JOURNAL OF TECHNOLOGY AND COMME

2003 JOURNAL WOS CO-AUTHOR

## 36. NEURAL NETWORKS ARCHITECTURES AS IMAGE RECOGNIZERS

ADVANCE TECHNOLOGY CONGRESS

2003 PROCEEDING NON-INDEX CO-AUTHOR

## 37. PHENOMENOLOGICAL LAMBDA NUCLEAR INTERACTIONS

PHYSICAL REVIEW

2002 JOURNAL WOS CO-AUTHOR

## 38. PROTOTYPE ARCHITECTURE FOR IMAGE RECOGNITION IN COMPLEX ENVIRONMENTS

SPATIAL INFORMATION TECHNOLOGIES IN THE NEW MILENNIUM

2002 PROCEEDING NON-INDEX CO-AUTHOR

## 39. IMPLEMENTATION OF PARALLEL BOUNDARY INTEGRAL METHOD ON SPHERICAL BUBBLE DYNAMICS USING SHARED MEMORY COMPUTER

MALAYSIAN JOURNAL OF COMPUTER SCIENCE

2000 JOURNAL WOS MAIN AUTHOR

# PUBLICATION

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## 40. A LEARNING VECTOR QUANTIZATION FOR RECOGNITION OF INVARIANTS AND SPATIAL DETECTORS OF PERCEPTUAL PATTERNS CONSTITUENTS

SURANAREE JOURNAL OF SCIENCE AND TECHNOLOGY

2000 JOURNAL WOS CO-AUTHOR

## 41. GENERAL WEATHER PREDICTION USING TWO LEVELS BAROTROPIC MODELS

INTERNATIONAL CONFERENCE ON MATHEMATICS AND ITS APPLICATION IN THE NEW MELLENIUM

2000 PROCEEDING NON-INDEX CO-AUTHOR

## 42. COMPUTING EIGENVALUES OF PERIODIC STURM-LIOUVILLE PROBLEMS USING SHOOTING TECHNIQUE AND DIRECT INTEGRATION METHOD

INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS

1998 JOURNAL WOS CO-AUTHOR

## 43. CUBIC APPROXIMATION IN BOUNDARY INTEGRAL METHOD FOR THREE DIMENSIONAL LAPLACE EQUATION WITH ROTATIONAL SYMMETRY

SAINS MALAYSIANA

1993 JOURNAL WOS MAIN AUTHOR

## 44. EXISTENCE OF $H^2$ EXPANSION FOR SOME EXTRAPOLATION METHODS FOR SOLVING AUTONOMOUS HIGHER ORDER ODE'S

APPLIED MATHEMATICSS AND COMPUTATION

1993 JOURNAL WOS CO-AUTHOR

## 45. LINEAR AND QUADRATIC APPROXIMATION IN BOUNDARY INTEGRAL METHOD FOR THREE DIMENSIONAL LAPLACE EQUATION WITH ROTATIONAL SYMMETRY

PERTANIKA JOURNAL OF SCIENCE AND TECNHOLOGY

1993 JOURNAL WOS MAIN AUTHOR

## 46. EXTRAPOLATION METHOD FOR HIGHER ORDER ORDINARY DIFFERENTIAL EQUATIONS

MATHEMATIKA

1991 JOURNAL WOS CO-AUTHOR

## 47. DIRECT SOLUTION OF THIRD ORDER ORDINARY DIFFERENTIAL EQUATIONS USING RUNGE-KUTTA

MATHMATIKA

1988 JOURNAL WOS CO-AUTHOR

## 48. TRANSIENT CAVITIES NEAR BOUNDARIES PART II, FREE SURFACE

JAOURNAL OF FLUID MECHANICS

1987 JOURNAL WOS CO-AUTHOR

## 49. TRANSIENT CAVITIES NEAR BOUNDARIES PART I, RIGID BOUNDARY

JAOURNALS OF FLUID MECHANICS

1986 JOURNAL WOS CO-AUTHOR

## 50. MATHEMATICAL MODEL OF CAVITATION BUBBLE

2ND. NATIONAL SYMPOSIUM ON MATHEMATICAL SCIENCES

1986 PROCEEDING NON-INDEX MAIN AUTHOR

## 51. BOUNDARY INTEGRAL METHOD APPLIED TO CAVITATION BUBBLE DYNAMICS

MATHEMATICS CONFERENCE

1984 PROCEEDING NON-INDEX MAIN AUTHOR

## 52. HIGHER ORDER BOUNDARY INTEGRAL MODELING OF CAVITATION BUBBLES

8TH. AUSTRALASIAN FLUID MECHANICS CONFERENCE

1983 PROCEEDING NON-INDEX MAIN AUTHOR

# CONSULTATION

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## 1. PENILAI LUAR KENAIKAN PANGKAT AHLI AKADEMIK DI UNIVERSITI MALAYSIA TERENGGANU

UNIVERSITI MALAYSIA TERENGGANU

2015 NATIONAL

## 2. AHLI LEMBAGA PNASIHAT DIPLOMA SAINS, FAKULTI SAINS DAN TEKNOLOGI, UNIVERSITI MALAYSIA TERENAGGANU

2014 NATIONAL

## 3. AHLI LEMBAGA PENASIHAT PROGRAM DIPLOMA SAINS DAN TEKNOLOGI, FAKULTI SAINS DAN TEKNOLOGI, UNIVERSITI MALAYSIA TERENGGANU

FAKULTI SAINS DAN TEKNOLOGI, UNIVERSITI MALAYSIA T

2012 NATIONAL

## 4. KETUA PANEL PENAKSIR SOALAN STPM FURTHER MATHEMATICS 3 956/3

MAJLIS PEPERIKSAAN MALAYSIA

2012 NATIONAL

# AWARDS/RECOGNITION

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## 1. STARS:STREAMLINING STUDENT PERFORMANCE TRACKING FOR LECTURERS IN REAL-TIME

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024

UNIVERSITI

BRONZE

## 2. ANUGERAH PENYELIDIKAN KATEGORI SAINS DAN TEKNOLOGI (PENYELIDIKAN TERBAIK)

2014

UNIVERSITY

## 3. POCKET NUMERIAL SOLVER (POCKET SOLVER)

Ekspo Penyelidikan dan Ciptaan Institusi Pengajian Tinggi Antarabangsa 2007

2007

ANTARABANGSA

BRONZE