

## CURRICULUM VITAE



DR. HAFIZUDIN BIN MOHAMAD NOR,  
SENIOR LECTURER,  
BILIK NO. 10, ARAS BAWAH,  
INSTITUT MATEMATIK KEJURUTERAAN, UniMAP,  
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### PERSONAL PARTICULARS

Age	: 39
D.O.B	: 19 September 1984
Gender	: Male
Religion	: Islam
Marital status	: Married
Expertise	: Applied Mathematics ( Homotopy Continuation Methods )
Application Areas	: Scalar of Nonlinear Equations as well as a System of Equations.
Keywords	: Numerical Method, Polynomial Equations, Homotopy Continuation Method, Nonlinear Equations, System of Nonlinear Algebraic Equations, Homotopy Function, Ostrowski Homotopy Continuation Method, Super Ostrowski Homotopy Continuation Method, Modified Super Ostrowski Homotopy Continuation Method. Quadratic Bezier Homotopy Function, Quadratic Parameter Homotopy Function.

## EDUCATIONAL BACKGROUND

INSTITUTION	YEARS	CERTIFICATE/EXAMINATION
Universiti Sains Malaysia, Pulau Pinang.	2012 – 2015	Doctor of Philosophy (Applied Mathematics)
Universiti Sains Malaysia, Pulau Pinang.	2010 – 2011	Master of Science ( Mathematics ) CGPA : 3.13
UiTM Shah Alam, Selangor.	2007 – 2009	Bac. of Science (Hons.) (Mathematics); CGPA: 3.60
UiTM Seri Iskandar, Perak.	2004 – 2007	Diploma in Quantitative Sciences; CGPA: 3.62
Sek. Men. Keb. Pendang, Kedah	2000 – 2001	Sijil Pelajaran Malaysia (SPM)
Sek. Men. Keb. Tunku Temenggung, Kedah	1997 – 1999	Penilaian Menengah Rendah (PMR)
Sek. Keb. Kg. Chegar, Kedah	1991 – 1996	Ujian Pencapaian Sekolah Rendah (UPSR)

## SOFTWARE SKILLS COMPUTER PROGRAMMING:

Mathematica, Wordpress, Joomla, Maple, Matlab, C++, Visual Basic.

## WORKS EXPRIENCE

- 1) May 2011 -- March 2012 , Part Time Lecturer (Mathematics)  
Universiti Teknologi Mara Permatang Pauh, Pulau Pinang.  
Subject: i) Pre-Calculus (MAT 133),  
ii) Calculus 1 (MAT 183)  
iii) Calculus 2 (MAT 235)

Level: Diploma

- Programme:
- i) Civil Engineering
  - ii) Electrical Engineering
  - iii) Mechanical Engineering

2) June 2015 -- November 2015 , Part Time Full Time Lecturer (Mathematics)

Universiti Teknologi Mara Permatang Pauh, Pulau Pinang.

Subject: i) Further Mathematics For Science and Engineering (MAT 285),

3) April 2016 , Part Time Teacher (Mathematics)

Sekolah Menengah Sains Kepala Batas, Pulau Pinang.

Subject: i) Modern Mathematics

4) September 2017 – August 2018, Part Time Lecturer (Mathematics)

School of Distance Education

Universiti Sains Malaysia, Pulau Pinang

Subject : i) Differential Equation I (JIM 213)

ii) Introductory Numerical Methods (JIM 310)

5) September 2018 – August 2019, Part Time Lecturer (Mathematics)

School of Distance Education

Universiti Sains Malaysia, Pulau Pinang

Subject : i) Differential Equation I ( JIM 213)

ii) Complex Variables (JIM 419)

- 6) September 2019 – September 2020, Part Time Lecturer (Mathematics)  
School of Distance Education,  
Universiti Sains Malaysia, Pulau Pinang.  
Subject : i) Differential Equation I (JIM 213)  
ii) Complex Analysis (JIM 501)
- 7) October 2020 – Present, Senior Lecturer  
Institute of Engineering Mathematics,  
Universiti Malaysia Perlis, Perlis.  
Subject: i) EQT203  
ii) DQT203  
iii) SDQ20203  
iv) SDQ20303

## AWARDS

- 1) Anugerah Cemerlang Matematik  
Faculty of Computer and Mathematical Sciences (FSKM),  
UiTM (2009).
- 2) Distinguished Student Paper Award  
Paper: Superior Accuracy of Ostrowski Continuation Method with Quadratic Bezier Homotopy and Linear Fixed Point Functions for Nonlinear Equations  
Programme: ICOQSIA 2014 organized by Universiti Utara Malaysia (UUM)  
Venue : Pulau Langkawi.

3) Anugerah PERSAMA 2015

Paper: Numerical Solution of Polynomial Equations using Ostrowski Homotopy Continuation Method.

Programme: SKSM23 organized by Universiti Teknologi Malaysia (UTM)

Venue: Pulai Springs Resort, Johor.

#### **LIST OF PROPOSAL DEFENCE'S / DISSERTATION'S REVIEWER**

1) Reviewer for a PhD Candidate of Proposal Defense, Nurain Zulaikha binti Hussain, Modification of Runge Kutta Cash-Karp Method Based on LU-Representation of Fuzzy Number for solving Fuzzy Boundary Value Problems, 19 Februari 2021.

2) Reviewer for a Master Candidate of Dissertation 1, Murulikrishnan Nandakumar, Numerical Solution of SIRD epidemic model of COVID-19 using Differential Transformation Method, 20 Februari 2022.

#### **LIST OF PUBLICATION'S REVIEWER**

1) Modified Non Classical Conjugate Gradient Parameter for Symmetric Nonlinear Equations of Several Variables, Applied Mathematics and Computational Intelligence (AMCI), UniMAP.

## LIST OF PUBLICATION

### 1) Journal

**Nor, H. M.**, Md. Ismail, A. I., & Majid, A. A. (2014), Quadratic Bezier Homotopy Function for Solving System of Polynomial Equations, *MATEMATIKA* **29** (2), 159– 171.

**Nor, H. M.**, Rahman, A., Md. Ismail, A. I., & Majid, A. A. (2014), Numerical Solution of Polynomial Equations using Ostrowski Homotopy Continuation Method, *MATEMATIKA* 30(1), 47 – 57.

W Ismail, W. Z. A., **Nor, H. M.**, & Ishak, S. (2015), Newton Homotopy Continuation Method for solving Nonlinear Equations using Mathematica, *JST* 7 (1), 39 – 45.

**Nor, H. M.**, Rahman, A., Md Ismail, A. I. & Majid, A. A. (2015), Solving Polynomial Equations using Modified Super Ostrowski Homotopy Continuation Method, *JST* 7 (2), 9 – 19.

**Nor, H. M.**, Rahman, A., Md Ismail, A. I. & Majid, A. A. (2016), Super Ostrowski Homotopy Continuation Method for Solving Polynomial System of Equations, *Matematika* 32(1), 53 – 67.

**Nor, H. M.**, & Mohd Yatim, S. A. (2021), Quadratic Parameter Homotopy Function for Solving Polynomial Equations, *Songklanakarin Journal of Science and Technology* 43 (1), 237 – 242.

**Nor, H. M.**, Asnor, A. I. ., Yahya, Z. R. ., & Ahmad, M. Z. . (2022). Introduction of Ostrowski Homotopy Continuation Method for Solving Nonlinear Equations using Mathematica. *Journal of Science and Technology*, 14(1), 37–43.

## 2) AIP Proceeding

**Nor, H. M.**, Md Ismail, A. I. & Majid, A. A., "Comparative Study of Homotopy Continuation Methods for Nonlinear Algebraic Equations" in Simposium Kebangsaan Sains Matematik ke 21, AIP Conference Proceedings 1605, American Institute of Physics, Melville, NY, 2013, pp. 10 – 15

**Nor, H. M.**, Md Ismail, A. I. & Majid, A. A., "A New Homotopy Function for Solving Nonlinear Equations" in International Conference on Mathematical Sciences and Statistics 2013, AIP Conference Proceedings 1557, American Institute of Physics, Melville, NY, 2013, pp. 21-25.

**Nor, H. M.**, Md Ismail, A. I. & Majid, A. A., "Linear Fixed Point Function for Solving System of Polynomial Equations" in The 3<sup>rd</sup> International Conference on Mathematical Sciences, AIP Conference Proceedings 1602, American Institute of Physics, Melville, NY, 2014, pp. 105 – 112.

**Nor, H. M.**, Rahman, A., Md Ismail, A. I. & Majid, A. A., "Superior Accuracy of Ostrowski Homotopy Continuation Method with Quadratic Bezier Homotopy and Linear Fixed Point Functions for Nonlinear Equations" in International Conference on Quantitative Sciences and Its Applications 2014, AIP Conference Proceedings 1635, American Institute of Physics, Melville, NY, 2014, pp. 174-181.

## 3) Book

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 1, Edisi SK.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 2, Edisi SK.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 3, Edisi SK.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 1, Edisi SJKC.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 2, Edisi SJKC.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 3, Edisi SJKC.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 1, Edisi SJKT.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 2, Edisi SJKT.

M.J. Masnan, L. Ibrahim, N. Rusli, N. A. Zulkifli, N. H. A. Aziz, K.C. Yin, N.F.M. Noor. S. Vijayan and **H. M. Nor**, Modul Numerasi Asas 3, Edisi SJKT.

#### 4) Programming

**Hafizudin Mohamad Nor**, Asma Izzati Asnor, Zainor Ridzuan Yahya, Muhammad Zaini Ahmad, "Supplemental Material: Introduction of Ostrowski Homotopy Continuation Method for Solving Nonlinear Equations Using Mathematica" from the Notebook Archive (2022), <https://notebookarchive.org/2022-08-eauds86>

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2023	Ostrowski Homotopy Continuation Method	CRLY2022P05476
2022	Modul Numerasi Asas 1, Edisi SK.	LY2022P01244
	Modul Numerasi Asas 2, Edisi SK.	LY2022P01245
	Modul Numerasi Asas 3, Edisi SK.	LY2022P01246
	Modul Numerasi Asas 1, Edisi SJKC.	LY2022P01247
	Modul Numerasi Asas 2, Edisi SJKC.	LY2022P01248
	Modul Numerasi Asas 3, Edisi SJKC.	LY2022P01249
	Modul Numerasi Asas 1, Edisi SJKT.	LY2022P01250
	Modul Numerasi Asas 2, Edisi SJKT.	LY2022P01251
	Modul Numerasi Asas 3, Edisi SJKT.	LY2022P01252

## LIST OF SUPERVISION AT UNIMAP

1. Co-Supervisor (on-going) for a UiTM PhD student, Herniza Md. Tahir.

Research Topic: The Newton Extended Formula Associated with Homotopy Continuation Method for Nonlinear Algebraic Equation.

2. Supervisor (on-going) for a student, Mohd Syafiq Abdul Rahman.

Research Topic: Development and Analysis of Novel Homotopy Continuation Methods for Solving Systems of Polynomial Equations.

## LIST OF COMMITTEE AT UNIMAP

1. Ahli Jawatankuasa Promosi FSGM tahun 2021.

2. Ahli Jawatankuasa Seminar FSGM tahun 2021.

3. Penyelaras SDQ20203 bagi sidang pertama diploma 2021/2022.

4. Ahli Jawatankuasa Teknikal untuk program International STEM & Innovation Colloquia Series (ISICS) – Focusing on developing website <https://isics.unimap.edu.my>

5. Ahli Jawatankuasa Jurnal Applied Mathematical and Computational Intelligence (AMCI) - Focusing on modifying website <https://amci.unimap.edu.my> to the new version.

6. Penyelaras SDQ20303 bagi sidang kedua diploma 2022/2023.

7. Ketua Jawatankuasa Promosi peringkat jabatan Institut Matematik Kejuruteraan bagi tahun 2022. – memastikan laman web IMK <https://imk.unimap.edu.my> sentiasa dikemaskini. (sudah mendapat pengiktirafan 5 bintang).

8. Ketua Jawatankuasa Promosi SKSM30 tahun 2023.

## **REFEREES**

i) Prof. Madya Ts. Dr. Muhammad Zaini Ahmad  
Associate Professor,  
Former Dean,  
Institute of Engineering Mathematics,  
Universiti Malaysia Perlis,  
02600 Arau, Perlis.  
019 – 481 3549.

ii) Dr. Nor Hanim Abd Rahman  
Senior Lecturer,  
Jabatan Sains Komputer dan Matematik,  
Universiti Teknologi Mara,  
13500 Permatang Pauh, Pulau Pinang.  
019 – 457 3797.

iii) Dr. Siti Ainor binti Mohd Yatim  
Senior Lecturer,  
School of Distance Education,  
Universiti Sains Malaysia,  
11800 Gelugor, Pulau Pinang.  
017 – 448 4399