



Norhafizah Md Sarif

Curriculum Vitae

*"The hardest arithmetic to master is that which enables us
to count our blessings" - Eric Hoffer*

Personal Detail

Name **Norhafizah Binti Md Sarif.**
Address **Faculty of Industrial Sciences & Technology.
Universiti Malaysia Pahang.
Lebuhraya Tun Razak.
26300 Gambang Pahang.**
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Tel **(+60)9-5492463.**
Website **blog.ump.edu.my/norhafizah.**

Education

2012–2018 **Doctor of Philosophy (Mathematics).**
Universiti Malaysia Pahang, Malaysia
2004–2005 **Master of Science (Applied Mathematics).**
Universiti Teknologi Malaysia, Malaysia
2001–2004 **Bachelor of Science (Industrial Mathematics).**
Universiti Teknologi Malaysia, Malaysia

Experience

2009–2018 **Lecturer, FACULTY OF INDUSTRIAL SCIENCES & TECHNOLOGY.**
Universiti Malaysia Pahang
2006–2009 **Lecturer, FACULTY OF ELECTRIC & ELECTRONICS.**
Universiti Malaysia Pahang

2005–2006 **Assisting Lecturer**, FACULTY OF COMPUTER SCIENCE & MATHEMATICS.
Universiti Teknologi Mara (Pahang Campus)

Awards

- 2017 Hadiah Sanjungan Cendekia Bitara: Merit Award 2016 Publication Journal: Mixed convection flow over a horizontal circular cylinder in viscous Fluid at lower stagnation point with convective boundary conditions
- 2016 CiTReX 2015 Bronze Medal, Modelling on Align MHD Viscous Fluid
- 2016 CiTReX 2015 Bronze Medal, Mathematical Modelling on Jeffrey Fluid under Convective Boundary Condition
- 2009 Anugerah Persama – Kategori Makalah Ilmiah : Mathematical Modelling of Tsunami Waves

Association Membership

- 2018 Malaysian Mathematical Sciences Society (PERSAMA), Lifetime Member.

Teaching & Learning Innovation

- 2017 **Open Course Ware (OCW) Slides for Calculus.**
Norhafizah Md Sarif & Norazaliza Mohd Jamil
- 2017 **Massive Open Online Course (MOOC) for Calculus.**
Norazaliza Mohd Jamil, Abdul Rahman Mohd Kasim, Muhammad Azrin Ahmad, Norhafizah Md Sarif & Siti Fatimah Ahmad Zabidi

Subject Taught

Current Teaching

- 1 **Mathematics for Computer Graphics, BUM1133.**
The aim of this course is to introduce and develop mathematical skills that underpin the technical aspects of computer graphics application. It will emphasize on matrix, vector, geometry and parametric representation, general concept of Basic Mathematics, Vector Calculus and Numerical Methods. For further understanding about this subject, a lot of exercises will be given. At the end of the course, students should be able to grasp key concept and uses each of the mathematical concept in computer graphics application. Appropriate software is used by students to implement some of these ideas in practice.
- 2 **Calculus, DUM1123, BUM1123.**
Calculus is the mathematics of change, of calculating problems that are continually evolving. This is possible by breaking such problems into infinitesimal steps, solving each of those steps, and adding all the results. Students are exposes to limits and continuity, differentiation, application of differentiation, integration, and application of integration.

3 **Basic Mathematics**, *DUM1113*.

This course introduces and discusses the fundamental of mathematics focusing on providing a solid theoretical foundation for further work. Students are exposed to number system, equations, inequalities and absolute value, polynomials, sequences and series, matrices and system of linear equations, functions and graphs, and trigonometric functions.

Teaching History

1 **Engineering Mathematics I**, *BET1533*.

This course introduces and discusses the fundamental of mathematics focusing on providing a solid theoretical foundation for further work. Students are exposed to number system, equations, inequalities and absolute value, polynomials, sequences and series, matrices and system of linear equations, functions and graphs, and trigonometric functions.

2 **Foundation of Mathematics**, *DCT1043*.

This course introduces and discusses the fundamental of mathematics focusing on providing a solid theoretical foundation for further work. Students are exposed to number system, equations, inequalities and absolute value, polynomials, sequences and series, matrices and system of linear equations, functions and graphs, and trigonometric functions.

Publications

Journal

- 2016 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Numerical study of mixed convection boundary layer flow near the lower stagnation point of a horizontal circular cylinder in nanofluids, *ARPN Journal of Engineering and Applied Sciences*, 11 (11), 7274 – 7278.
- 2016 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Mixed convection flow over a horizontal circular cylinder in viscous Fluid at lower stagnation point with convective boundary conditions, *ScienceAsia Journal*, 42, 5 – 10.
- 2016 Hussanan, A., Khan, I., Hashim, H., Mohamed, M. K. A., Ishak, **Sarif, N. M.**, and Salleh, M. Z. Unsteady MHD Flow of some nanofluid past an accelerated vertical plate embedded in porous medium, *Jurnal Teknologi*, 78, 542–554..
- 2016 Mohamed, M. K. A., Salleh, M. Z, Hussanan, A., **Sarif, N. M.**, Noar, N. A. Z., Anuar, I., and Widodo, B. Mathematical Model of free convection boundary layer flow on solid sphere with viscous dissipation and thermal radiation, *International Journal of Computing Science and Applied Mathematics*, 2 (2), 20-25.
- 2016 Mohamed, M. K. A., **Sarif, N. M.**, Salleh, M. Z., , Noar, N. A. Z., Anuar, I. Effects of viscous dissipation on free convection boundary layer flow towards a horizontal circular cylinder , *ARPN Journal of Engineering and Applied Sciences*, 11 (11), 7258–7263.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Numerical solution of flow and heat transfer over a stretching sheet with Newtonian heating using the Keller-Box method, *Procedia Engineering*, 53, 542 – 554.
- 2008 Yaacob, N., **Sarif, N. M.**, Aziz, Z.A. Modelling of Tsunami Waves, *Matematika*, 24, 211–230.

Conference Proceeding

- 2018 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Mixed convection boundary layer flow over a horizontal circular cylinder immersed in porous medium with convective boundary conditions, *MATEC Web of Conferences*, 189, 1 – 6.

- 2017 Yap, B. K., Hussanan, A., Mohamed, M. K. A, Ismail, Z., Salleh, M. Z., **Sarif, N. M.** , Thermal Radiation Effect on MHD Flow and Heat Transfer of Williamson Nanofluid Past Over a Stretching Sheet, *IOP Conference Proceedings of International Conference on Applied Mathematics and Statistics (ICoAIMS)*, 1557, 200 – 205.
- 2015 Ishak, N., Hahim, H., Mohamed, M. K. A., **Sarif, N. M.**, Salleh, M. Z., and Rosli, N., MHD flow and heat transfer for the upper-convected Maxwell fluid over a stretching/shrinking sheet with prescribed heat flux, *AIP Conference Proceedings 1691*, 1557, 200 – 205.
- 2015 Hashim, H., Mohamed, M. K. A., Hussanan, A., Ishak, N., **Sarif, N. M.**, and Salleh M.Z., The effects of slip conditions and viscous dissipation on the stagnation point flow over a stretching sheet, *AIP Conference Proceedings 1691*, 1557, 4 – 7.
- 2014 Alkasasbeh, H. T., **Sarif, N. M.**, Salleh, M. Z., Nazar, R. and Pop, I., Effect of radiation and magnetohydrodynamic free convection boundary layer flow on a solid sphere with Newtonian heating in a micropolar fluid, *AIP Conference Proceedings 1643*, 662, 662 – 669.
- 2014 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Numerical solution of the free convection boundary layer flow over a horizontal circular cylinder with convective boundary conditions, *AIP Conference Proceedings of the 3rd International Conference on Mathematical Sciences (ICMS3)*, 1602, 179 – 185.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Boundary layer flow and heat transfer over a stretching sheet with convective boundary condition, *AIP Conference Proceedings of the 20th National Symposium on Mathematical Sciences (SKSM20)*, 1552, 420 – 425.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Free Convection Boundary Layer Flow of a Horizontal Circular Cylinder in a Micropolar Fluid with Convective Boundary, *Mucet Conference Proceedings of Malaysian Technical Universities Conference on Engineering & Technology (MUCET2013,03-04 Dec 2013, Kuantan Pahang*.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Forced Convection Boundary Layer Flow over a Horizontal Circular Cylinder with Convective Boundary Condition, *International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2013)*, 2–5 June 2013, Istanbul, Turkey.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Radiation effects on MHD flow and heat transfer over a stretching sheet with convective boundary conditions, *AIP Conference of the International Conference on Mathematical Sciences & Statistic, (ICMSS)*, 1557, 200 – 205.

Poster Presentation

- 2016 **Sarif, N. M.**, Kasim, A. R. M., Aziz, L. A., Zokri, S. M, Arifin, N. S., Ismail, Z., Noar, N.A.Z.M., Salleh, M. Z., Shafie, S. Modeling on Aligned MHD Flow, Creation, 176 Innovation, Technology & Research Exposition (CITReX 2016), 2728 Mac 2016, Universiti Malaysia Pahang, Malaysia.
- 2015 **Sarif, N. M.**, Salleh, M. Z., Rosli, N. and Nazar, R. Forced Convection Boundary Layer Flow Over a Horizontal Circular Cylinder with Convective Boundary Conditions by Using Keller-Box Method, Kolokium RACE (RACE 2015), 13–14 Januari 2015, Akademi Pengajian Tinggi (AKEPT), Kuala Lumpur Malaysia.
- 2013 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Radiation effects on MHD flow and heat transfer over a stretching sheet with convective boundary conditions, Creation, Innovation, Technology & Research Exposition (CITReX 2013), 27–28 Mac 2013, Universiti Malaysia Pahang, Malaysia
- 2012 **Sarif, N. M.**, Salleh, M. Z., and Nazar, R. Boundary layer flow and heat transfer over a stretching sheet with convective boundary conditions, Karnival Sains & Matematik (ez-SciMat 2012), 2–4 Nov 2012, Universiti Malaysia Pahang, Malaysia

Module Book

- 2019 Nor Aida Zuraimi Md Noar, Mohd Zuki Salleh, Ezrinda Mohd Zaihidee, **Norhafizah Md Sarif**, & Norfatihah Hanafi, Calculus, UMP Publisher, Malaysia
- 2018 **Norhafizah Md Sarif**, Rozana Mohd Jamil, Siti Fatimah Ahmad Zabidi, Intan Sabariah Sabri, Nor Aida Zuraimi Md Noar, Norazaliza Mohd Jamil & Najihah Mohamed, Basic Mathematics, UMP Publisher, Malaysia
- 2017 Norazaliza Mohd Jamil, Nor Alisa Mohd Damanhuri, Yuhani Yusof, Nor Aida Zuraimi Md Noar & **Norhafizah Md Sarif**, Mathematical Formulae Book, UMP Publisher, ISBN 978-990-2054-00-9

Research Grant

On-Going

- 1 **RDU1703187**, PROJECT LEADER, 30 June 2017– 29 June 2019, Mathematical Model for Convective Boundary Layer Stagnation Flow Past a Sheet in Viscoelastic fluid and Williamson Nanofluid .
Norhafizah Md Sarif. Najihah Mohamed, Rozieana Khairuddin, Mohd Zuki Salleh, Zulkhibri Ismail@Mustofa, Norhayati Rosli, Abdul Rahman Mohd Kasim
- 2 **RDU170354**, MEMBER, 15 April 2017– 14 April 2019, Exact Solution of Heat and Mass Transfer on Unsteady Boundary Layer Flow in a Micropolar Fluid Past an Oscillating Plate with Newtonian Heating.
Zulkhibri Ismail@Mustofa, **Norhafizah Md Sarif**, Abdul Rahman Mohd Kasim, Mohd Zuki Salleh, Norhayati Rosli
- 3 **RDU170328**, MEMBER, 01 Mac 2017– 01 Mac 2019, Numerical Solutions for The Aligned Magnetic Field of Viscous and Williamson Fluid with Dust Particle Over a Stretching Sheet.
Abdul Rahman Mohd Kasim, **Norhafizah Md Sarif**, Mohd Zuki Salleh, Zulkhibri Ismail @Mustofa, Norhayati Rosli
- 4 **RDU170358**, MEMBER, 01 August 2016 – 31 July 2019, Mathematical Modelling on Magnetohydrodynamic (MHD) Convection Boundary Layer Flow Over a Horizontal Circular Cylinder and Sphere in Jeffrey Fluid with Various Effects.
Mohd Zuki Salleh, Abdul Rahman Mohd Kasim, **Norhafizah Md Sarif**, Zulkhibri Ismail @Mustofa
- 5 **RDU160116**, MEMBER, 15 April 2017– 14 April 2019, Development of Mathematical Model and Simulation for Enzymatic Hydrolysis of Cellulose in a Stirred Tank.
Norhayati Rosli, Muhammad Azrin Ahmad, Abdul Rahman Mohd Kasim, Mohd Zuki Salleh and **Norhafizah Md Sarif**.
- 6 **RDU180301**, MEMBER, 01 April 2018– 31 Mac 2020, Development of the 5th Stage Runge-Kutta (SRK5) Method for Stochastic Differential Equations.
Norazaliza Mohd Jamil, Norhayati Rosli, Jolius Gimbun, and **Norhafizah Md Sarif**.
- 7 **RDU1703291**, MEMBER, 20 September 2017– 19 September 2019, Reverse Engineering: Data Fitting by G1 Rational Cubic Bezier in Designing of 3 Dimensional Skull Defect Implants.
Najihah Mohamed, **Norhafizah Md Sarif**, Rozieana Khairuddin and Mohd Zuki Salleh

- 7 **RDU1703292**, MEMBER, 20 September 2017– 19 September 2019, A Simulated Annealing Approach for Redesigning a Warehouse Network Problem.
Rozieana Khairuddin, Najihah Mohamed, **Norhafizah Md Sarif**, and Mohd Zuki Salleh

Completed

- 1 **RDU121302**, MEMBER, 15 Nov 2012 – 14 Nov 2015, The Convective Boundary Layer Flow Over a Horizontal Circular Cylinder with Convective Boundary Conditions.
Mohd Zuki Salleh, **Norhafizah Md Sarif** and Norhayati Rosli.
- 2 **RDU140111**, MEMBER, 01 July 2014 – 30 June 2016, Modelling of Radiation Effects on Magnetohydrodynamic (Mhd) Convectiob Over Sphere and Cylinder With Convective Boundary Conditions.
Mohd Zuki Salleh , **Norhafizah Md Sarif**, Nor Aida Zuraimi Md Noar and Norhayati Rosli.
- 3 **RDU150101**, MEMBER, 15 Jan 2015 – 14 April 2018, Mathematical Modelling of the Convective Boundary Layer Flow in a Viscous and Nanofluid with Slip Conditions and Viscous Dissipation.
Mohd Zuki Salleh, Zulhibri Ismail@Mustofa, Abdul Rahman Mohd Kasim, **Norhafizah Md Sarif** and Nor Aida Zuraimi Md Noar.
- 4 **RDU160330**, MEMBER, 25 May 2015 – 24 May 2018, Mathematical Modelling of Convective Boundary Layer Flow of Jeffrey Fluid Under Convective Boundary Condition.
Abdul Rahman Mohd Kasim, Mohd Zuki Salleh, **Norhafizah Md Sarif** and Norhayati Rosli.

Supervision

On-Going

- 1 **Siti Nurfatihah Zulkifli**, *Main Supervisor*, MSE18002.
Numerical Solution of Convection Flow over Stretching/Shrinking Surface in a Nanofluid: A Revised Model
- 2 **Hasmawani**, *Co- Supervisor*, MSE18002.
Numerical Solution of Convection Flow over Stretching/Shrinking Surface in a Nanofluid: A Revised Model

Completed

- 1 **Yap Bing Kho**, *Co-Supervisor*, MSE15003.
Numerical Solution for Casson and Williamson Nanofluids Past over a Stretching Sheet

Consultation & Technical Services

- April 2018 **Committee for MATLAB for Beginner 1.0 Workshop**, Laboratory FIST, UMP Gambang.
- Jun 2018 **Trainer Olimpiad Matematik Kebangsaan**, MRSM Tun Razak, Pekan Pahang.

Computer skills

Basic Programming C++
Intermediate \LaTeX , Maple, MATLAB, Microsoft Windows

Languages

Malay **Mothertongue**
English **Intermediate**

Con conversationally fluent

Interests

- Badminton
- Reading
- Travelling