# AZIZAH BINTI RAMLI

## PERSONAL PARTICULARS


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|---|---|---|---|
| **IC No** | 900723065400 | **Address** | No. 28, Jalan Bahagia, Taman Damai, 34200 Parit Buntar, Perak Darul Ridzuan |
| **Age** | 27 | | |
| **Place of Birth** | Pahang | | |
| **Nationality** | Malaysian | | |
| **Gender** | Female | **Mobile No.** | +60139266038 |
| **Height/Weight** | 158cm/43kg | | |
| **Marital Status** | Married | **Email** | azizah_ramli@yahoo.com |
| **Expected Salary** | Negotiable | | |
| **Willing To Travel** | Yes | **License** | B2&D |


## AREA OF INTEREST

**Technical** Research and Development

**Non-Technical** Education, Management, Management Treasury and Mathematics

## EDUCATION BACKGROUND

**2013-2016** **Universiti Putra Malaysia**
Master of Science (Numerical Analysis)
CGPA : **3.625**

**2009-2013** **Universiti Putra Malaysia**
Bachelor of Science (Hons.) Mathematics
CGPA : **3.430**

**2008-2009** **Kolej Matrikulasi Pahang**
Life Science
CGPA : **3.07**

**1997-2007** **Sekolah Menengah Kebangsaan Jengka Pusat**
SPM : **5A, 3B, 3C**
PMR : **6A, 2B, 1C**

**Sekolah Rendah Kebangsaan Jengka Pusat 2**
UPSR : **5A**

## WORKING EXPERIENCES

### INTERNSHIP TRAINING / INDUSTRIAL TRAINING

**Location** Warisan Jengka Education Sdn. Bhd.
**Duration** 2 months (2nd July 2012- 24th August 2012)
**Department** Education (Pendidikan)
**Activities**

- Joining the making of events
- Involving the working of accounting
- Involving the working of marketing
- Helping the other staffs

### UNIVERSITY'S TUTOR

**Location** Universiti Putra Malaysia
**Duration** Second semester 2013/2014 until second semester 2014/2015
**Department** Institute for Mathematical Research (INSPEM)
**Subject** Calculus, Computer Programming in Mathematics, Introduction to Mathematics for Business and Economics
**Activities**

- Discuss tutorials with students
- Help students to understand the topics
- Help students with programming

## FINAL YEAR PROJECT (FYP)

**Title:** Third Order Runge-Kutta Based On Modified Contraharmonic Mean for Solving Stiff Problems

**Description:**

In this project, the stiff problems are solved by using an explicit one-step method. The third Runge-Kutta method by Rozita et al (2009) is extended to solve stiff problems at different value of weights. The formulation is based from the modification of the contraharmonic mean for the numerical solution of ordinary differential equations. The results of this method are compared with other methods such as the classical third order Runge-Kutta method and the third order Runge-Kutta contraharmonic mean method.

**Objectives:**

**I.** Toderive the modified third-order contraharmonic mean weights Runge-Kutta method.

**II.** To investigate the stability region of the modified third-order contraharmonic mean weights Runge-Kutta method.

**III.** To validate the performance of the modified third-order contraharmonic mean weights Runge-Kutta method for solving stiff problems at different value of weights.

**Material:** Ababneh, O. Y. and Rozita, R. 2009. New Third Order Runge-Kutta Based on Contraharmonic Mean for Stiff Problems, *Applied Mathematical Sciences*. 3: 365 – 376.

## MASTER RESEARCH

**Field:** Numerical Analysis

**Title:** Diagonally Implicit Multistep Block Methods for Solving First Order Ordinary and Fuzzy Differential Equations

**Description:**

The single first order ordinary and fuzzy differential equations are solved by using two-point diagonally implicit multistep block method. The method derived by Majid (2004) is extended to include method of order three and five. The solutions are approximated by moving two points in a block. Runge-Kutta method is being chosen as the initial points for the block method and constant step size are of $h=0.1$ and $h=0.01$ are being considered. The stability analysis is being discussed. Meanwhile, the fuzzy differentiation equations is interpreted using Seikkala's derivative. The interpretation implies the future behaviour of the solutions. In some problems, the Seikkala's derivative has certain defect.

**Objectives**:

**I.** To extend the method derived by Majid (2004) to include method of order three and five.

**II.** To investigate the stability analysis of the two-point diagonally implicit multistep block method.

**III.** To solve single first order ordinary differential equations and fuzzy differential equations based on Seikkala's derivative by using constant step size.

**Materials:** Majid, Z. A. 2004. *Parallel Block Methods for Solving Ordinary Differential Equations*, PhD Thesis, Universiti Putra Malaysia.

## PUBLICATIONS

**I.** Ramli, A., Majid, Z. A. and Senu, N. Numerical Solution of Fuzzy Differential Equations using Diagonally Implicit Multistep Block Method. In *Extended Abstract book of the Fundamental Science Congress 2014 (FSC 2014)*, Kuala Lumpur, Malaysia, August 19-20, 2014.

**II.** Ramli, A., Majid, Z. A. and Senu, N. Solving Fuzzy Differential Equations using Implicit Multistep Block Method. In *AIP Conference Proceedings Series for 22nd National Symposium on Mathematical Sciences (SKSM22)*, Shah Alam, Malaysia, November 24-26, 2014. (Published in AIP Conf. Proc. 1682, 020019 (2005); http://dx.doi.org/10.1063/1.4932428).

**III.** Ramli, A. and Majid, Z. A. An Implicit Multistep Block Method for Solving Fuzzy Differential Equations. In *Proceeding of the 7th International Conference on Research and Education in Mathematics (ICREM7)*, Kuala Lumpur, Malaysia, August 25-27, 2015. (Published in IEEE proceeding,DOI:10.1109/ICREM.2015.7357031).

**IV.** Ramli, A. and Majid, Z. A. Fourth Order Diagonally Implicit Multistep Block Method for Solving Fuzzy Differential Equations. In *International Journal of Pure and Applied Mathematics (IJPAM)*. (Published in IJPAM, Academic Publications: Volume: 107, Issue: 3, http://ijpam.eu/contents/index.php).

## CONFERENCE, SEMINAR AND WORKSHOP ATTENDED

- Statistics and Operational Research International Conference (SORIC) 2013, Sarawak (2013).
- 2nd Seminar and Workshop On Numerical Analysis (SAWONA 2014), INSPEM UPM (2014).
- The Regional Fundamental Science Congress 2014, Faculty of Science UPM (2014).
- Workshop 18 (MAPLE),INSPEM UPM (2014).
- Simposium Kebangsaan Sains Matematik Ke-22, Universiti Malaya and Persatuan Sains Matematik Malaya (2014).
- Workshop on Fuzzy Setting Theory, Department of Mathematics UPM (2015).
- An Introduction to Chaos Theory & Communication 2015 (CHAOS 2015),INSPEM UPM (2015).
- Seminar Kebangsaan Pemantapandan Penghayatan Matematik (SKPPM 2015), INSPEM UPM (2015).
- 7th International Conference On Research and Education in Mathematics (ICREM7), INSPEM UPM (2015).

## EXTRA CURRICULAR

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| **2013-2015** | • Program Amal Bakti 2013, INSPEM UPM (2013).<br>• Facilitator for Bengkel Persediaan Menghadapi UPSR, INSPEM and Faculty of Medicine UPM (2014).<br>• Facilitator for Kem Matematik INSPEM 2014, INSPEM UPM and SM Sains Raja Tun Azlan Shah (2014).<br>• Facilitator for Kem Matematik INSPEM 2015, INSPEM UPM and SM Sains Raja Tun Azlan Shah (2015). |
| **2009-2013** | • Sports and Recreation Executive of Persatuan Kebajikan Mahasiswa Pahang (PERMADA) UPM.<br>• Kem Pemantapan Organisasi, Kumpulan Latihan Kelanasiswa Malaysia UPM (2009).<br>• Kursus Perantis Mahasiswa,Yayasan Pahang & Majlis Mahasiswa Anak-anak Pahang (2009).<br>• Kem Kecemerlangan Holistik Timur, PERMADA UPM(2009).<br>• Majlis Khatam Al-Quran Malam Sinar Penghayatan Ramadhan, Kolej Kelima UPM (2009).<br>• Wacana Bicara Tentang Cinta, Persatuan Mahasiswa Islam UPM with BHeP UPM (2010).<br>• Committee Member in Team Building PERMADA 2010, PERMADA with BHeP UPM (2010).<br>• Dean's Honours achievement in first semester 2009/2010, Faculty of Science UPM.<br>• Representative of the Jelawat block for the Sport Secretariat Session 2009/2010 in Kolej Kelima, UPM.<br>• Majlis Ramah Mesra Bersama Yayasan Pahang (2010).<br>• Secretariat for Perhimpunan Mahasiswa Anak Pahang dan Pelancaran Sedekad MAMPAN, Yayasan Pahang and Majlis Mahasiswa Anak-anak Pahang (MAMPAN) (2010).<br>• Program Penerangan 1 Malaysia (2010).<br>• Treasurer for the Rumah Terbuka PERMADA 2010,PERMADA with BHeP UPM (2010).<br>• Kuliah Tasawwur Islam Sesi 2010/2011 under Pusat Islam Universiti, UPM.<br>• English Holiday Camp 2011,Akademi PEKA with Bumiutama Corporation (M) Sdn. Bhd. (2011).<br>• Head of Food Unit for the Program Transformasi Kecemerlangan Minda 2011, PERMADA with BHeP UPM and Yayasan Pahang (2011).<br>• Friendship Camp Programme Malaysia (Jengka) – Singapore (Yishun), Persatuan Pengakap Malaysia (2011).<br>• Ikatan Hati Warga Felda, Karnival Iktiraf 2011/2012, Dataran Merdeka, Kuala Lumpur (2012).<br>• Bengkel Pengurusan Jenazah, UPM (2012).<br>• Anugerah Bakti Harmoni, Sekretariat Kebajikan, Kerohanian & Perpaduan Kolej Kelima UPM (20112).<br>• Bengkel MAPTEX 2012, Faculty of Science UPM (2012).<br>• Finishing School in "Resume & Interview Skills", UPM (2012).<br>• Hayati Malidur Rasul 2013, UPM (2013).<br>• Program "Grab Your Future", UPM (2013). |

| **COMPUTER SKILLS** | | **COMMUNICATION SKILLS** | |
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| Microsoft Office<br>C Programming<br>Maple<br>LaTex | Advanced<br>Advanced<br>Familiar<br>Intermediate | English<br>Malay | Written and Spoken<br>Written and Spoken |

## REFERENCES

**FINAL YEAR PROJECT SUPERVISOR & MASTER SUPERVISOR**

Prof. Dr. Zanariah binti Abdul Majid
Head of Laboratory
Laboratory of Computational Sciences and Mathematical Physics
Institute for Mathematical Research
Universiti Putra Malaysia
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**HEAD OF DEPARTMENT**

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