

# **NAJIHAH BINTI MOHAMED**

Centre for Mathematical Sciences  
College of Computing and Applied Sciences  
Universiti Malaysia Pahang  
Lebuhraya Tun Razak  
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## **EDUCATION**

January 2020

Ph.D. (Computer Aided Geometric Design)

Universiti Sains Malaysia, Pulau Pinang, Malaysia

December 2005

M.Sc. (Mathematics)

Universiti Teknologi Malaysia Skudai, Johor, Malaysia

April 2003

B.Sc. (Honors) Industrial Mathematics

Universiti Teknologi Malaysia Skudai, Johor, Malaysia

## **PROFESSIONAL MEMBERSHIP**

Persatuan Sains Matematik Malaysia (PERSAMA)

## **THESES**

1. N. Mohamed (2019). Curve Reconstruction by Metaheuristics Algorithms on Cubic Rational Bézier Function, Unpublished Ph.D Thesis, Universiti Sains Malaysia.
2. N. Mohamed. (2005). Graph Models for Message Transmission with Time Optimality, Unpublished Master Dissertation, Universiti Teknologi Malaysia
3. N. Mohamed. (2003). B-Spline Simulation Model and Its Application In Wireless Cellular Network, Unpublished Undergraduate Final Year Project, Universiti Teknologi Malaysia

## **TEACHING AND WORK EXPERIENCES**

### **Lecturer**

Center For Mathematical Sciences, Universiti Malaysia Pahang

September 2019 – present

Course(s) : Degree Level - Applied Calculus  
Master Level - Operational Research

**Lecturer**

Faculty Industrial of Sciences & Technology, Universiti Malaysia Pahang  
November 2008 – September 2019

Course(s) : Degree Level - Ordinary Differential Equations, Applied Calculus  
Diploma Level - Basic Mathematics

**Lecturer**

Faculty of Mechanical Engineering, Universiti Malaysia Pahang  
February 2007 - November 2008

Course(s) : Degree Level - Ordinary Differential Equations, Applied Calculus  
Diploma Level - Calculus

**Lecturer**

Faculty of Mechanical Engineering, Kolej Universiti Kejuruteraan dan Teknologi Malaysia  
December 2005 - January 2007

Course(s) : Degree Level - Ordinary Differential Equations, Applied Calculus  
Diploma Level - Calculus

**Tutor**

Faculty of Mechanical Engineering, Kolej Universiti Kejuruteraan dan Teknologi Malaysia  
November 2005 - December 2005

Course(s) : Degree Level – Tutorial Instructor : Statistics

**Part Time Tutor**

Open Universiti Malaysia, Stulang, Johor  
January 2005 - December 2005

Course(s) : Degree Level – Trigonometry and Calculus

**Tutor**

Kolej Taj, Ipoh Perak  
June 2003 - November 2003

Course(s) : Degree Level – Instructional Design, C Programming  
Diploma Level - Statistics

**PUBLISHED PAPERS**

1. Mohamed, Najihah, Ahmad Lutfi Amri Ramli, Ahmad Abd Majid, and Abd Rahni Mt Piah. "Curve fitting by rational cubic Bézier with C1 and G1 continuity using metaheuristics methods." In *AIP Conference Proceedings*, vol. 2184, no. 1, p. 060037. AIP Publishing, 2019.
2. Mohamed, Najihah, Ahmad Lutfi Amri Ramli, Ahmad Abd Majid, and Abd Rahni Mt Piah. "Modified harmony search." In *Journal of Physics: Conference Series*, vol. 890, no. 1, p. 012097. IOP Publishing, 2017.
3. Mohamed, Najihah, Ahmad Abd Majid, and Abd Rahni Mt Piah. "Data fitting by G1 rational cubic Bézier curves using harmony search." *Egyptian Informatics Journal* 16, no. 2 (2015): 175-185.

4. Mohamed, Najihah, Ahmad Abd Majid, Abd Rahni Mt Piah, and Zainul Ahmad Rajion. "Designing of skull defect implants using C1 rational cubic Bezier and offset curves." In *AIP Conference Proceedings*, vol. 1660, no. 1, p. 050003. AIP Publishing, 2015.
5. Mohamed, Najihah, Ahmad Abd Majid, and Abd Rahni Mt Piah. "Rational quadratic Bézier curve fitting by simulated annealing technique." In *AIP Conference Proceedings*, vol. 1522, no. 1, pp. 844-851. AIP, 2013.
6. Salleh, Mohd Zuki, Najihah Mohamed, Rozienna Khairuddin, Najiyah Safwa Khasi'ie, Roslinda Mohd Nazar, and Ioan Pop. "Free convection over a permeable horizontal flat plate embedded in a porous medium with radiation effects and mixed thermal boundary conditions." *Journal of Mathematics and Statistics* 8, no. 1 (2011): 122-128.
7. Najihah, Mohamed, Khairuddin Rozieana, Najiyah Safwa, and Nazar Roslinda. 2010. "Numerical Investigation of Free Convection Over A Permeable Horizontal Flat Plate Embedded In A Porous Medium With Radiation Effects And Mixed Thermal Boundary Conditions."
8. Salleh, M Z, N Mohamed, R Khairuddin, N S Khasi'ie, and R Nazar. 2009. "Numerical Study of Free Convection Boundary Layer Flow on a Vertical Surface with Prescribed Wall Temperature, Heat Flux and Newtonian Heating Using Shooting Method." In *Proceedings of the International Conference on Software Engineering and Computer Systems (ICSECS'09)*, UMP, Kuantan, 94–98.

## CONFERENCE / SEMINAR PRESENTATIONS

1. Curves Fitting by Rational Cubic Bézier with  $C^1$  and  $G^1$  Continuity using Metaheuristics Methods presented at International Conference on Mathematical Sciences and Technology 2018 (MathTech 2018), The Hotel Equatorial Penang, 10 – 12 December 2018
2. Modified Harmony Search presented at International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), Vistana Kuantan City Centre, 8 – 10 August 2017
3. Designing of Skull Defect Implants using C1 Rational Cubic Bezier and Offset Curves presented at International Conference on Mathematics, Engineering & Industrial Applications (ICoMEIA 2014), The Gurney Resort Hotel & Residence Penang, 28 – 30 May 2014
4. Reconstruction of Craniofacial Implants with C2 using Radial Basis presented at Craniofacial Medical Imaging Seminar 2014 - Mathematical Aspects, School of Mathematical Sciences, USM, Pulau Pinang, 14 November 2014

5. Estimating Skull Defect Implants Data by  $C^1$  Rational Cubic Bézier Curve and Offset Curve presented at 2<sup>nd</sup> Craniofacial Medical Imaging Seminar 2013 topic : 3-D Visualization & Reconstruction of Human Data and Its Clinical Application, School of Dental Sciences, USM, Kubang Kerian, 15 September 2013
6. Reconstruction of Craniofacial Implants Data Using  $C^1$  Continuity Curve presented at Craniofacial Medical Imaging Seminar 2013 – Mathematical Aspects, School of Mathematical Sciences, USM, Pulau Pinang, 5 April 2013
7. Curve Fitting for Rational Quadratic Bezier using Simulated Annealing presented at Simposium Kebangsaan Sains Matematik ke – 20 (SKSM20), Palm Garden Hotel, Putrajaya, 18 – 20 December 2012
8. Numerical study of free convection boundary layer flow on a vertical surface with prescribed wall temperature, heat flux and Newtonian heating using Shooting Method. presented at International Conference on Software Engineering and Computer Systems (ICSECS'09), Hotel Swiss Garden, Kuantan, 19 – 21 Oktober 2009

## **SUPERVISIONS**

1. Mohd. Huzairi bin Rusli, Evaluation of Petrol Engine Performance Using Mathematical Approach, Degree/Final Year Supervision 2007, Co supervisor
2. Choo Kim Hock, Diesel engine performance analysis using mathematical approach, Degree/Final Year Supervision 2007, Co supervisor
3. Mohd Asyraf bin Mohd Amir Hamzah, Interface Design in Unit Conversion, Diploma/Final Year Supervision 2006, Supervisor
4. Mohd Izwan Shah bin Md Isa, Statistical Method on Time Study for 4x4 Vehicle Assemble of MTB, Diploma/Final Year Supervision 2006, Supervisor