



CURRICULUM VITAE (CV)
of
NOR HANIZA SARMIN

PERSONAL INFORMATION

Name : Nor Haniza Sarmin
Citizenship : Malaysian
Date of birth : September 8, 1967
Place of birth : Pontian, Johor, Malaysia
Marital Status : Married, three children
Home Address : 23, Jln Keindahan 23, Taman Skudai Indah 2, 81300 Skudai, Johor, Malaysia
Office Address : Department of Mathematical Sciences, Faculty of Science,
Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia
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EDUCATION BACKGROUND

PhD (Mathematics), State University of New York at Binghamton, Binghamton, New York 13902-6000, USA; January 1995 - May 1998.
Thesis : On Two-generator Groups of Class Two and Their Nonabelian Tensor Squares.
Supervisor: Prof Luise-Charlotte Kappe

M.A. (Mathematics), State University of New York at Binghamton, Binghamton, New York 13902-6000, USA; August 1989 - December 1990.

B.Sc. (Mathematics) with honors, State University of New York at Binghamton, Binghamton, New York 13902-6000, USA; January 1986 - May 1989.

Minor in Economics.

PROFESSIONAL MEMBERSHIP

Malaysian Mathematical Sciences Society (PERSAMA), Lifetime Member
Institute of Electrical and Electronics Engineer (IEEE), 2011- present
PUTM Academic Staff Association (PKAUTM), 1991 - present
Islamic Science Academy (ASASI), 2003 – present
UTM Toastmasters Club, July 2016-present

PRESENT JOB

Professor

Department of Mathematical Sciences, Faculty of Science, Universiti Teknologi Malaysia
Starting date: June 6, 2014

Associate Director (Global Strategy and Engagement), UTM International

UTM International, Universiti Teknologi Malaysia

Date: August 15, 2019 – December 31, 2022

Associate Professor

Department of Mathematical Sciences, Faculty of Science, Universiti Teknologi Malaysia

Starting date: October 30, 2002

Lecturer

Department of Mathematical Sciences, Faculty of Science, Universiti Teknologi Malaysia

Starting date: May 2, 1991

Confirmation date: May 1, 1994

TEACHING EXPERIENCE

Undergraduate :-

Basic Mathematics, Calculus 1, Calculus 2, Basic Statistics, Linear Algebra, Discrete Mathematics, Set Theory and Logic, Modern Algebra, Complex Variables, Complex Analysis, Real Analysis

Postgraduate :-

Group Theory 1, Group Theory 2

SUPERVISING EXPERIENCE

Bachelor Degree Level

May 1992 – present *Total: 44 students*

Master Level

December 1999 – present *Total: 28 students*

PhD Level

November 2003 – present *Total: 47 students*

PhD Supervision

No.	Name	Year	Title
1	Fong Wan Heng (<i>graduated on 26 March 2008</i>)	2004 – 2007	Modelling of Splicing Systems Using Formal Language Theory.
2	Azhana Ahmad (<i>graduated on 16 Sept. 2008</i>)	2003 – 2008	The Exact Number of Conjugacy Classes of 2-Generator p -Groups of Nilpotency Class 2.
3	Nor Muhainiah Mohd Ali (<i>graduated on 31 Dec 2008</i>)	2005 – 2008	Homological Functors and Capability of 2-Generator Groups of Nilpotency Class Two
4	Rohaidah bte Masri (co) (<i>graduated on 17 Nov 2009</i>)	2005-2009	The Nonabelian Tensor Squares of Some Bieberbach Groups With Cyclic Point Group of Order 2
5	Norashiqin Mohd Idrus (PT)	2004 – 2011	Bieberbach Groups With Finite Point Groups

No.	Name	Year	Title
	<i>(graduated on 4 April 2011)</i>		
6	Loh Ser Lee (co) <i>(graduated on 23 Nov 2011)</i>	2008-2011	Graph Theoretical Characterizations and Techniques for Minimization of Connected Graphs Into Single-row Networks.
7	Samad Rashid (Iran) <i>(graduated on 30 Jan 2012)</i>	July 2009-2012	The Nonabelian Tensor Squares and Capability of Some Finite Groups
8	Yuhani Yusof <i>(graduated on 29 Feb 2012)</i>	Dec 2008-2011	DNA Splicing System Inspired by Bio Molecular Operations
9	Mohd Sham Mohamad <i>(graduated on 26 March 2012)</i>	Dec 2008-2011	Compatibility Conditions and Nonabelian Tensor Products of Finite Cyclic Groups Of p -Power Order
10	Fadila Normahia Abd Manaf <i>(graduated in March 2013)</i>	July 2009-2012	Commutativity Degrees of Nilpotent Groups of Class Two
11	Fariba Karimi (Iran) <i>(graduated in July 2013)</i>	Dec 2009-2012	Mathematical Modeling of Splicing Systems in DNA Computing
12	Sheila a/p Ilangovan <i>(graduated in November 2013)</i>	July 2010-2013	Conjugacy Classes and Graph of Some 2-Groups of Nilpotency Class 2.
13	Faiz Muhammad Khan (Pakistan) <i>(graduated in December 2013)</i>	July 2010 – 2013	Fuzzy Ideals in Ordered Semigroups and Their Generalisations
14	Yasamin Barakat (Iran) <i>(graduated in December 2013)</i>	July 2010-2013	Automorphisms of Nonabelian 2-Generated p -Groups of Class 2
15	Kayvan Moradipour (Iran) <i>(graduated in December 2013)</i>	2011-2013	The Exact Number and Size of Conjugacy Classes, Commutativity Degrees and Non-Commuting Graphs of Finite Metacyclic Groups
16	Abdulqader Mohammed Bin Basri Assaqqaf (Yemen) <i>(graduated in January 2014)</i>	Dec 2009-2013	Capability and Homological Functors of Finite Metacyclic p -Groups
17	Hazzirah Izzati Mat Hassim <i>(graduated in November 2014)</i>	July 2010-2014	The Homological Functors of Bieberbach Groups with Cyclic Point Groups of Order Two, Three and Five
18	Sanaa Mohamed (Libya) <i>(graduated in November 2014)</i>	Sept 2011-2014	Extension of the Commutativity Degrees of Some Finite Groups and Their Related Graphs
19	Gan Yee Siang (co) <i>(graduated in Mac 2015)</i>	Sept 2011-2015	Finite Automata in DNA Splicing and Sticker Systems with the Presence of Weights
20	Hidayat Ullah Khan (Pakistan) <i>(graduated in 2015)</i>	Feb 2012 – 2015	Generalized Interval-Valued Fuzzy Sets of Ordered Semigroups
21	Mathuri Selvarajoo (co) <i>(graduated in 2015)</i>	Sept 2011-2015	Probabilistic Splicing System and Sticker Systems in DNA Computing
22	Zainab Yahya (co) <i>(graduated in 2016)</i>	Sept 2011-2015	Representation of Some Finite Groups and Galois Stability
23	Rosita Zainal (co) <i>(graduated in 2016)</i>	Feb 2012-2016	The Schur Multipliers, Nonabelian Tensor Squares and Capability of Some Finite p -Groups
24	Muhammad Azrin Ahmad <i>(graduated in 2016)</i>	Sept 2012 - 2016	Second Order Limit Language and Its Properties in Yusof-Goode Splicing System
25	Mustafa El-Sanfaz (Libya) <i>(graduated in 2016)</i>	Oct 2013 -2016	The Probability that an Element of a Non- Abelian Group Fixes a Set and its Applications in Graph Theory

No.	Name	Year	Title
26	Adnin Afifi Nawī (co)	Sept 2012 – 2016	The Schur Multiplier and Capability of Pairs of Some Finite Groups
27	Muhanizah Abdul Hamid (co)	Sept 2012 – 2016	The Relative n -th Nilpotency Degree of Two Subgroups of a Finite Group Related to a Graph
28	Nurhidaya Mohamad Jan (co) (<i>graduated in 2017</i>)	Sept 2012 - 2016	The Modelling of Watson-Crick Petri Net and Place-Labelled Petri Net Controlled Grammar using Formal Language Theory
29	Siti Afiqah Mohammad (<i>graduated in 2018</i>)	Feb 2014 - 2017	The Homological Functors of Bieberbach Groups of Dimension Six with Quaternion Point Group of Order Eight
30	Norarida Abd Rhani (co) (<i>graduated in 2018</i>)	Sept 2014-2017	An Extension of the Commutativity Degree of Some Finite Groups and Their Graphs
31	Siti Norziahidayu Amzee Zamri (<i>graduated in 2018</i>)	Mac 2015-2017	A Variance of the Probability That a Metacyclic p -Groups Fixes a Set and Its Related Graphs
32	Rabiha Birkia (Sudan) (<i>graduated in 2019</i>)	Sept 2015-2018	Energy of Some Graphs Associated to Finite Groups
33	Ibrahim Gambo (Nigeria) (<i>graduated on 2019</i>)	Oct 2015-2018	Innovative Types of Fuzzy Gamma Ideals in Ordered Gamma Semigroups
34	Suad Saed M Alrehaili (<i>graduated in 2020</i>)	Aug 2016 - 2019	Homological Functors of Metabelian Groups
35	Alia Husna Mohd Noor (<i>graduated in 2020</i>)	Aug 2016 - 2019	3-generator Groups of p -power Order and Some Related Graphs
36	Nur Idayu Alimon (<i>graduated in 2021</i>)	Sept 2017 - 2021	The Spectrum and Laplacian Spectrum of Some Graphs of Metacyclic p -Groups
37	Nabilah Najmuddin (<i>graduated in 2021</i>)	Aug 2016 - 2021	Homological Functors of Bieberbach Groups
38	Amira Fadina Ahmad Fadzil (<i>graduated in 2021</i>)	Feb 2017 - 2021	The Energy of Cayley Graphs of Some Finite Groups

External co-supervisor:

Hossein Mousa Jafarabadi (PhD by Mixed mode - Iran) – Title: Semihypergroups and Dynamics Created by Them

LATEST PUBLICATIONS**Indexed Journals/Proceedings****ISI Web of Knowledge****(2022)**

1. Vian Salah, **Nor Haniza Sarmin** and Hazzirah Izzati Mat Hassim. “Maximum Degree Energy of the Non-commuting Graphs Associated to the Dihedral Groups”, *Advances and Applications in Mathematical Sciences*, 21(4), 1913-1923, 2022.

2. Nurul 'Ain Mazlan, Hazzirah Izzati Mat Hassim, **Nor Haniza Sarmin** and Sanhan Muhammad Salih Khasraw. "Wiener Index and Mean Distance of Zero-Divisor Type Graph of Ring of Integers Modulo n ", *Advances and Applications in Mathematical Sciences*, 21(4), 1907-1911, 2022.
3. Mohammad Hassan Mudaber, **Nor Haniza Sarmin** and Ibrahim Gambo. "Perfect Codes in Unit Graph of Some Commutative Rings", *Advances and Applications in Mathematical Sciences*, 21(4), 1895-1905, 2022.
4. Mustafa Anis El-Sanfaz, **Nor Haniza Sarmin** and Siti Norziahidayu Amzee Zamri. "On the Generalized Non-commuting Graphs of Dihedral, Semi-dihedral and Quasi-dihedral Groups", *Advances and Applications in Mathematical Sciences*, 21(4), 1883-1893, 2022.

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5. Nurhidayah Zaid, **Nor Haniza Sarmin**, Sanhan Muhammad Salih Khasraw. "The Applications of Zero Divisors of Some Finite Rings of Matrices in Probability and Graph Theory", *Jurnal Teknologi*, 83(1), 127-132, 2021.
6. Nurul Izzaty Ismail, Wan Heng Fong, **Nor Haniza Sarmin**. "Generalisations of Splicing Languages in DNA Splicing Systems Involving Two Palindromic Restriction Enzymes", *Malaysian Journal of Fundamental and Applied Sciences (MJFAS)*, 17(2), 128-138, 2021.
7. Mustafa Anis El-Sanfaz, **Nor Haniza Sarmin** and Siti Norziahidayu Amzee Zamri. "Generalized Commuting Graph of Dihedral, Semi-dihedral and Quasi-dihedral Groups", *Malaysian Journal of Fundamental and Applied Sciences (MJFAS)*, 17(6), 711-719, 2021.

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8. **Sarmin, N.H.**, Alimon, N.I. & Erfanian, A. "Topological Indices of the Non-commuting Graph for Generalised Quaternion Group", *Bulletin of the Malaysian Mathematical Sciences Society*, 43, 3361-3367, 2020. <https://doi.org/10.1007/s40840-019-00872-z>
9. Athirah Zulkarnain, **Nor Haniza Sarmin**, Hazzirah Izzati Mat Hassim. "The Conjugacy Class Graphs of Non-abelian 3-Groups", *Malaysian Journal of Fundamental and Applied Sciences*, 16(3), 297-299, 2020.
10. Nur Idayu Alimon, **Nor Haniza Sarmin** and Ahmad Erfanian, "The Harary Index of the Non-commuting Graph for Dihedral Groups", *Southeast Asian Bulletin of Mathematics*, 44(6), 763-768, 2020.
11. Amira Fadina Ahmad Fadzil, **Nor Haniza Sarmin** and Ahmad Erfanian, "Energy of Cayley Graphs for Alternating Groups", *Southeast Asian Bulletin of Mathematics*, 44(6), 789-795, 2020.
12. Nabilah Najmuddin, **Nor Haniza Sarmin** and Ahmad Erfanian, "The Independence and Clique Polynomials of the Center Graphs of Some Finite Groups", *Southeast Asian Bulletin of Mathematics*, 44(6), 803-812, 2020.
13. Nabilah Fikriah Rahin, **Nor Haniza Sarmin** and Sheila Ilangovan, "The Non-Normal Subgroup Graph for Some Generalised Quaternion Groups", *Southeast Asian Bulletin of Mathematics*, 44(6), 845-852, 2020.
14. Nurhidayah Zaid, **Nor Haniza Sarmin** and Sanhan Muhammad Salih Khasraw, "Probabilistic Characterizations of Some Finite Ring of Matrices and Its Zero Divisor Graph", *Southeast Asian Bulletin of Mathematics*, 44(6), 859-866, 2020.
15. Athirah Zulkarnain, **Nor Haniza Sarmin**, Hazzirah Izzati Mat Hassim and Ahmad Erfanian, "Cayley Graph for the Non-Abelian Tensor Square of Some Finite Groups", *Southeast Asian Bulletin of Mathematics*, 44(6), 867-873, 2020.
16. Fasihah Mohd Jaslan, Mohd Ariffin Abu Hassan, Nur Izzati Adnan, **Nor Haniza Sarmin**, "Fostering Global Talent among Students in Universiti Teknologi Malaysia via Study Abroad Programme", *Akademika: Jurnal Sains Sosial dan Kemanusiaan Asia Tenggara*, 90(2), 5-15, 2020.

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17. Rohaidah Masri, Nor Fadzilah Abdul Ladi, Nor'ashiqin Mohd Idrus, Tan Yee Ting, **Nor Haniza Sarmin**. "The Nonabelian Tensor Square of a Bieberbach Group with Point Group $C_2 \times C_2$ of Dimension Three", Journal of Mechanics of Continua and Mathematical Sciences, Special Issue No. 1, 248-258, 2019.
18. Wan Heng Fong, Aqilahfarhana Abdul Rahman and **Nor Haniza Sarmin**. "Isomorphism and Matrix Representation of Point Groups", Malaysian Journal of Fundamental and Applied Sciences, 15(1), 88-92, 2019.
19. Rabiha Mahmoud, Amira Fadina Ahmad Fadzil, **Nor Haniza Sarmin**, Ahmad Erfanian. "The Laplacian Energy of Conjugacy Class Graph of Some Finite Groups", MATEMATIKA, 35(1), 59-65, 2019.
20. Nur Idayu Alimon, **Nor Haniza Sarmin**, Ahmad Erfanian. "The Wiener Index and Zagreb Index of the Conjugacy Class Graph of Dihedral Groups", MATEMATIKA, 35(1), 51-57, 2019.
21. Amira Fadina Ahmad Fadzil, **Nor Haniza Sarmin** and Ahmad Erfanian. "The Energy of Cayley Graphs for a Generating Subset of the Dihedral Groups", MATEMATIKA, 35(3), 371-376, 2019.
22. Aqilahfarhana Abdul Rahman, Wan Heng Fong, **Nor Haniza Sarmin**, Sherzod Turaev and Nurul Liyana Mohamad Zulkufli. "Static Watson-Crick Linear Grammars and Its Computational Power", MATEMATIKA, 35(3), 283-296, 2019.
23. Nurul Izzaty Ismail, Wan Heng Fong, **Nor Haniza Sarmin**. "DNA Splicing Systems with at Most Two Cutting Sites of a Non-Palindromic Restriction Enzyme", MATEMATIKA, 35(2), 129-137, 2019.
24. Nur Idayu Alimon, **Nor Haniza Sarmin**, Ahmad Erfanian. "Topological Indices of the Non-Commuting Graph for Generalised Quaternion Group", Bulletin of the Malaysian Mathematical Society, Published online <https://link.springer.com/article/10.1007/s40840-019-00872-z?shared-article-renderer>, December 2019.
25. Nabilah Najmuddin, **Nor Haniza Sarmin** and Ahmad Erfanian. "General Form of Domination Polynomial for Two Types of Graphs Associated to Dihedral Groups", MATEMATIKA, 35(2), 149-155, 2019.
26. Wan Heng Fong, Aqilahfarhana Abdul Rahman, **Nor Haniza Sarmin** and Sherzod Turaev. "Static Watson-Crick Context-Free Grammars", International Journal of Online and Biomedical Engineering, 15(10), 65-76, 2019.
27. Wan Heng Fong, Nurul Izzaty Ismail and **Nor Haniza Sarmin**. "Automata for DNA Splicing Languages with Palindromic and Non-Palindromic Restriction Enzymes using Grammars", MATEMATIKA, 35(Special Issue), 1-14, 2019.
28. Nabilah Najmuddin, **Nor Haniza Sarmin** and Ahmad Erfanian, "Domination polynomial of the commuting and noncommuting graphs of some finite nonabelian groups", AIP Conference Proceedings, 2184, 020009-1- 020009-8, 2019.

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29. **Nor Haniza Sarmin**, Hazzirah Izzati Mat Hassim, Siti Afiqah Mohammad, Nor'ashiqin Mohd Idrus, Rohaidah Masri, Yee Ting Tan. "Recent Updates on Homological Invariants of Bieberbach Groups", Southeast Asian Bulletin of Mathematics, 42(5), 729-746, 2018.
30. M. H. Hooshmand and **Nor Haniza Sarmin**. "f-Grouplikes", Journal of Mathematical Extension, 12(1), 41-45, 2018.
31. Nur Idayu Alimon, **Nor Haniza Sarmin** and Ahmad Erfanian. "Topological Indices of Non-commuting Graph of the Dihedral Groups", Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon2018), 473-476, 2018.
32. Nabilah Najmuddin, **Nor Haniza Sarmin** and Ahmad Erfanian. "The Independence and Clique Polynomial of the Conjugacy Class Graph of Dihedral Group", Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon2018), 434-438, 2018.
33. Aqilahfarhana Abdul Rahman, Wan Heng Fong, **Nor Haniza Sarmin**, Sherzod Turaev and Nurul Liyana Mohamad Zulkufli. "Static Watson-Crick Regular Grammar", Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon2018), 457-462, 2018.

34. Alia Husna Mohd Noor, **Nor Haniza Sarmin**, Hamisan Rahmat. "Related graphs of the conjugacy classes of a 3-generator 5-group", Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon2018), 454-456, 2018.
35. Nur Idayu Alimon, **Nor Haniza Sarmin**, Amira Fadina Ahmad Fadzil. "The Energy of Four Graphs of Some Metacyclic 2-Groups", Malaysian Journal of Fundamental and Applied Sciences, 14(1), 59-66, 2018.
36. Muhammad Azrin Ahmad, **Nor Haniza Sarmin**, Mohd Firdaus Abdul-Wahab, Fong Wan Heng and Yuhani Yusof. "Biomolecular aspects of second order limit language", Malaysian Journal of Fundamental and Applied Sciences, 14(1), 15-19, 2018.
37. Nurul Izzaty Ismail, Wan Heng Fong and **Nor Haniza Sarmin**. "Computation of Splicing Languages from DNA Splicing System with One Palindromic Restriction Enzyme", Journal of Fundamental and Applied Sciences, 14(2), 188-192, 2018.

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38. **Nor Haniza Sarmin**, Alia Husna Mohd Noor, Sanaa Mohamed Saleh Omer. "On Graphs Associated to Conjugacy Classes of Some Three-Generator Groups", Jurnal Teknologi, 79(1), 55 – 61, 2017.
39. **Nor Haniza Sarmin**, Ain Asyikin Ibrahim, Alia Husna Mohd Noor, Sanaa Mohamed Saleh Omer. "The Conjugacy Classes of Some Metabelian Groups and Their Related Graphs", Jurnal Teknologi, 79(1), 69 – 73, 2017.
40. Nurhidayah Zaid and **Nor Haniza Sarmin**. "On the Generalized Conjugacy Class Graph of Some Dihedral Groups", Malaysian Journal of Fundamental and Applied Sciences, 13(2), 36 – 39, 2017.
41. Norarida Abd Rhani, Nor Muhainiah Mohd Ali, **Nor Haniza Sarmin**, Ahmad Erfanian. "On the Dominating Number, Independent Number and the Regularity of the Relative Co-prime Graph of a Group", Malaysian Journal of Fundamental and Applied Sciences, 13(2), 72 - 74, 2017.
42. Nur Idayu Alimon, **Nor Haniza Sarmin**, Amira Fadina Ahmad Fadzil. "The Adjacency Matrix of the Conjugate Graph of Some Metacyclic 2-Groups", Malaysian Journal of Fundamental and Applied Sciences, 13(2), 79 - 81, 2017.
43. Athirah Zulkarnain, **Nor Haniza Sarmin**, Alia Husna Mohd Noor. "On the Conjugate Graphs of Finite p-groups", Malaysian Journal of Fundamental and Applied Sciences, 13(2), 100 - 102, 2017.
44. Rabiha Mahmoud, Amira Fadina Ahmad Fadzil, **Nor Haniza Sarmin**, Ahmad Erfanian. "The Laplacian Energy of Conjugacy Class Graph of Some Dihedral Groups", Malaysian Journal of Fundamental and Applied Sciences, 13(2), 129 - 131, 2017.
45. Nurhidaya Mohamad Jan, Sherzod Turaev, Fong Wan Heng, **Nor Haniza Sarmin**. "Place-labelled Petri Net Controlled Grammars", ScienceAsia, 43S, 9 – 19, 2017.
46. Siti Norziahidayu Amzee Zamri, **Nor Haniza Sarmin**, Mustafa Anis El-Sanfaz and Hamisan Rahmat. "On the Generalized Commuting and Non-commuting Graphs of Metacyclic 3-groups", Malaysian Journal of Fundamental and Applied Sciences, 13(3), 181 - 185, 2017.
47. Nabilah Najmuddin and **Nor Haniza Sarmin**, "The Independence Polynomial of N-th Central Graph of Dihedral Groups", Malaysian Journal of Fundamental and Applied Sciences, 13(3), 271 - 274, 2017.
48. Yee Siang Gan, Wan Heng Fong, **Nor Haniza Sarmin** and Sherzod Turaev, "Generative Capacity of Sticker Systems with the Presence of Weights", ScienceAsia, 43(S), 35 – 42, 2017.
49. Wan Heng Fong, Yee Siang Gan, **Nor Haniza Sarmin** and Sherzod Turaev, "Variants of Weighted Sticker Systems with Different Weighting Spaces", ScienceAsia, 43(S), 43 – 51, 2017.
50. Nor Fadzilah Abdul Ladi, Rohaidah Masri, Nor'ashiqin Mohd Idrus, **Nor Haniza Sarmin**, Tan Yee Ting. "The Central Subgroups of the Nonabelian Tensor Squares of Some Bieberbach Groups with Elementary Abelian 2-Group Point Group", Jurnal Teknologi, 79(7), 115-121, 2017.
51. Siti Afiqah Mohammad, **Nor Haniza Sarmin**, Hazzirah Izzati Mat Hassim, "Polycyclic transformations of crystallographic groups with quaternion point group of order eight", Malaysian Journal of Fundamental and Applied Sciences, 13(4), 788-791, 2017.

52. Siti Norziahidayu Amzee Zamri, **Nor Haniza Sarmin**, Sanhan Muhammad Salih Khasraw, Mustafa Anis El-Sanfaz, Hamisan Rahmat, "On the commutativity degree of metacyclic groups of 5-power order using conjugation action", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 784-787, 2017.
53. Ibrahim Gambo, **Nor Haniza Sarmin**, Hidayat Ullah Khan, Faiz Muhammad Khan, "New fuzzy generalized bi gamma-ideals of the type $(\langle \Gamma, \Gamma \rangle)_{k,q}$ in ordered gamma-semigroups", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 666-670, 2017.
54. Rabiha Mahmoud, **Nor Haniza Sarmin**, Ahmad Erfanian, "The conjugacy class graph of some finite groups and its energy", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 659-665, 2017.
55. Ibrahim Gambo, **Nor Haniza Sarmin**, Hidayat Ullah Khan, Faiz Muhammad Khan, "The characterization of regular ordered gamma-semigroups in terms of $(\langle \Gamma, \Gamma \rangle)_{k,q}$ fuzzy gamma-ideals", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 576-580, 2017.
56. Nabilah Najmuddin, **Nor Haniza Sarmin**, Ahmad Erfanian, "The independence polynomial of conjugate graph and noncommuting graph of groups of small order", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 602-605, 2017.
57. Nurhidaya Mohamad Jan, Wan Heng Fong, **Nor Haniza Sarmin**, Sherzod Turaev, "State machine of place-labelled petri net controlled grammars", *Malaysian Journal of Fundamental and Applied Sciences*, 13(4), 649-653, 2017.
58. Rabiha Mahmoud, **Nor Haniza Sarmin** and Ahmad Erfanian, "On the energy of non-commuting graph of dihedral groups", *AIP Conference Proceedings* **1830**, 070011 (2017). <http://dx.doi.org/10.1063/1.4980960>
59. Ibrahim Gambo, **Nor Haniza Sarmin**, Hidayat Ullah Khan and Faiz Muhammad Khan, "New Form of Fuzzy Bi Γ -Ideals in Ordered Γ - Semigroup", *AIP Conference Proceedings* **1830**, 070019 (2017). <http://dx.doi.org/10.1063/1.4980968>
60. Siti Norziahidayu Amzee Zamri, **Nor Haniza Sarmin** and Mustafa Anis El-Sanfaz, "The Conjugate and Generalized Conjugacy Class Graphs for Metacyclic 3-groups and Metacyclic 5-groups", *AIP Conference Proceedings* **1830**, 070015 (2017). <https://doi.org/10.1063/1.4980964>
61. Wan Heng Fong, **Nor Haniza Sarmin**, Sherzod Turaev and Ahmad Firdaus Yosman, "Generating Finite Cyclic and Dihedral Groups using Sequential Insertion Systems with Interactions", *AIP Conference Proceedings* **1830**, 070005 (2017). <http://dx.doi.org/10.1063/1.4980954>

SCOPUS

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1. Mathuri Selvarajoo, Fong Wan Heng, **Nor Haniza Sarmin**, Sherzod Turaev. "The Properties of Semi-Simple Splicing System Over Alternating Group, A_3 ", *Journal of Physics Conference Series*, 1770(1): 012001.
2. Ibrahim Gambo, **Nor Haniza Sarmin**, Hidayat Ullah Khan, Faiz Muhammad Khan. "New generalization of Fuzzy Interior Gamma Ideals of Ordered Gamma Semigroups", *Turkish Journal of Computer and Mathematics Education*, 11(3): 893-902.
3. **Nor Haniza Sarmin**, Amira Fadina Ahmad Fadzil and Ahmad Erfanian, "Seidel energy for Cayley graphs associated to dihedral group", *Journal of Physics: Conference Series*, 1988: 012066, 2021.
4. Muhammad Nur Syiham Abdul Razak, Wan Heng Fong and **Nor Haniza Sarmin**, "Graph splicing rules with cycle graph and its complement on complete graphs", *Journal of Physics: Conference Series*, 1988: 012067, 2021.

5. Nurhidayah Zaid, **Nor Haniza Sarmin**, Sanhan Muhammad Salih Khasraw, Ibrahim Gambo and Nur Athirah Farhana Omar Zai, “The perfect codes of commuting zero divisor graph of some matrices of dimension two”, *Journal of Physics: Conference Series*, 1988: 012070, 2021.
6. Siti Afiqah Mohammad, **Nor Haniza Sarmin** and Hazzirah Izzati Mat Hassim, “Consistency Relations of an Extension Polycyclic Free Abelian Lattice Group by Quaternion Point Group”, *Journal of Physics: Conference Series*, 1988: 012071, 2021.
7. Nabilah Najmuddin, **Nor Haniza Sarmin** and Ahmad Erfanian, “Independence polynomial of the commuting and noncommuting graphs associated to the quasidihedral group”, *Journal of Physics: Conference Series*, 1988: 012072, 2021.
8. Nur Athirah Farhana Omar Zai, **Nor Haniza Sarmin**, Sanhan Muhammad Salih Khasraw, Ibrahim Gambo and Nurhidayah Zaid, “The non-zero divisor graph of ring of integers modulo six and the Hamiltonian quaternion over integers modulo two”, *Journal of Physics: Conference Series*, 1988: 012074, 2021.
9. Sook-Yan Hue, **Nor Haniza Sarmin**, Eddie Shahril Ismail, Ji-Jian Chin. “Easy Simple Factoring-based Digital Signature Scheme”, 2020 15th International Conference for Internet Technology and Secured Transactions (ICITST), 9351341, 2021.
10. Mohammad Hassan Mudaber, **Nor Haniza Sarmin** and Ibrahim Gambo, “Perfect Codes Over Induced Subgraphs of Unit Graphs of Ring of Integers Modulo n ”, *WSEAS Transactions on Mathematics*, 20: 399-403, 2021.

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11. Nabilah Fikriah Rahin, **Nor Haniza Sarmin**, Sheila Ilangovan. “The Non-Normal Subgroup Graph of Some Dihedral Groups”, *ASM Sc. J.*, Vol. 13, 2020, 1-7.
<https://www.akademisains.gov.my/asmsj/article/the-non-normal-subgroup-graph-of-some-dihedral-groups/>
12. Nur Idayu Alimon, **Nor Haniza Sarmin**, Ahmad Erfanian. “The Topological Indices of the Non-commuting Graph for Symmetric Groups”, *ASM Sc. J.*, Vol. 13, 2020, 1-5.
<https://www.akademisains.gov.my/asmsj/article/the-topological-indices-of-the-non-commuting-graph-for-symmetric-groups/>
13. S.A. Mohammad, N.H. Sarmin and H.I. Mat Hassim, “The Exterior Square of a Bieberbach Group with Quaternion Point Group of Order Eight”, *ASM Sc. J.*, Vol. 13, 2020, 1-7.
<https://www.akademisains.gov.my/asmsj/article/the-exterior-square-of-a-bieberbach-group-with-quaternion-point-group/>
14. Amira Fadina Ahmad Fadzil, Nor Haniza Sarmin and Ahmad Erfanian, “The Energy of Cayley Graphs for Symmetric Groups of Order 24”, *ASM Sc. J.*, Vol. 13, 2020, 1-6.
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39. Nurhidayah Zaid, **Nor Haniza Sarmin**, Siti Norziahidayu Amzee Zamri and Hamisan Rahmat, "On the orbit of some metabelian groups of order 24 and its applications", *AIP Conference Proceedings*, 1974, 030004, 2018.
40. Nor Muhainiah Mohd Ali, Norarida Abd Rhani, **Nor Haniza Sarmin** and Ahmad Erfanian, "The subset relative degree for two different sets in a finite group", *AIP Conference Proceedings*, 1974, 030024, 2018.

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41. Adnin Afifi Nawi, Nor Muhainiah Mohd Ali, **Nor Haniza Sarmin** & Samad Rashid, "The Schur Multiplier of Pairs of Nonabelian Groups of order p^4 ", *Jurnal Teknologi (Science & Engineering)*, 78(3-2): 39 – 43, 2016.
42. Muhanizah Abdul Hamid, Nor Muhainiah Mohd Ali, **Nor Haniza Sarmin**, Ahmad Erfanian and Fadila Normahia Abd Manaf, "The Squared Commutativity Degree of Dihedral Groups", *Jurnal Teknologi (Science & Engineering)*, 78(3-2): 45 – 49, 2016.
43. Noarida Abd Rhani, Nor Muhainiah Mohd Ali and **Nor Haniza Sarmin**, "A Generalization on The n^{th} Commutativity Degree of Alternating Groups of Degree 4 and 5", *Jurnal Teknologi (Science & Engineering)*, 78(3-2): 51 – 55, 2016.
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46. Mustafa Anis El-Sanfaz, **Nor Haniza Sarmin** and Sanaa Mohamed Saleh Omer, "The Orbit Graph of Metacyclic 2-Groups of Negative Type", *International Journal of Pure and Applied Mathematics*, 109(2): 235-243, 2016.
47. Loh Ser Lee, Gan Chin Kim, Cheong Tau Han, Shaharuddin Salleh, **Nor Haniza Sarmin**, "An Overview on Network Diagrams: Graph-based Representation", *Journal of Telecommunication, Electronic and Computer Engineering*, 8(2): 83 – 86, 2016.
48. Hidayat Ullah Khan, Asghar Khan, **Nor Haniza Sarmin**, "Cartesian Product of Interval-valued Fuzzy Ideals in Ordered Semigroup", *Journal of Prime Research in Mathematics*, 12(1), 120 – 129, 2016.
49. Tan Yee Ting, Nor'Ashiqin Mohd Idrus, Rohaidah Masri, Wan Nor Farhana Wan Mohd Fauzia, **Nor Haniza Sarmin**, Hazzirah Izzati Mat Hassim. "The nonabelian tensor square of a Bieberbach group with symmetric point group of order six", *Jurnal Teknologi*, 78(1), 189 – 193, 2016.

ACTIVE RESEARCH GRANTS

Head Researcher

- Title : A Fundamental Research on Computing the Topological Indices of Graphs Using Group Theory in Describing the Physicochemical Properties of Molecular Structures

Date of research : 01 November 2020 – 31 October 2023

Sponsor : Fundamental Research Grant Scheme (FRGS), MOHE (Vote No R.J130000.7801.5F309)

Amount : RM 133, 300.00

Researchers : **Prof Dr Nor Haniza Sarmin** (Head Researcher), Dr. Fong Wan Heng, Shajarahtunnur binti Jamil, AP Dr Nor Muhainiah Mohd Ali and Dr Hazzirah Izzati Mat Hassim.
- Title : A Fundamental Research on the Probabilistic Characterizations of Some Finite Rings and Its Graph Applications

Date of research : 01 January 2020 – 30 June 2023

Sponsor : UTM Fundamental Research Grant (UTMFR), UTM (Vote No Q.J130000.2501.20H70)

Amount : RM 90, 000.00

Researchers : **Prof Dr Nor Haniza Sarmin** (Head Researcher), AP Dr Nor Muhainiah Mohd Ali, Dr. Fong Wan Heng, Dr Hazzirah Izzati Mat Hassim and Dr Sanhan Muhammad Salih Khasraw

Co-Researcher

- Title : Graphs of a Mathematical Model Depicting Bonding in DNA Recombination using Formal Language Theory

Date of research : 1 October 2021 – 30 September 2023

Sponsor : UTMSHine (Vote No. Q.J130000.2454.09G89)

Amount : RM 40, 000.00

Researchers : Dr Fong Wan Heng, **Prof Dr Nor Haniza Sarmin**, Dr Nor Muhainiah Mohd Ali, Dr Hazzirah Izzati Mat Hassim
- Title : Variances of Graphs for Dihedral Groups and Its Numerical Programming

Date of research : 1 October 2021 – 30 September 2023

Sponsor : UTM Encouragement Research Grant (Vote No. Q.J130000.3854.20J85)

Amount : RM 20, 000.00

Researchers : Dr Nor Muhainiah Mohd Ali, Dr Shazirawati Binti Mohd Puzi, **Prof Dr Nor Haniza Sarmin**, Dr Hazzirah Izzati Mat Hassim, Ts. Dr Hamimah Ujir

APPOINTMENT AT OTHER ORGANIZATION

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Last Updated: 29 May 2022