

## CURRICULUM VITAE (CV)

of  
**FONG WAN HENG**



---

### PERSONAL INFORMATION

Name : Fong Wan Heng  
Citizenship : Malaysian  
Office address : Department of Mathematical Sciences, Faculty of Science, Universiti  
Teknologi Malaysia, 81310 UTM Johor Bahru, Johor.  
Office telephone : 07-5534325  
E-mail : fwh@utm.my

### EDUCATION BACKGROUND

PhD (Mathematics), November 2004 – March 2008.  
M.Sc. (Mathematics), July 2003 – October 2004.  
B.Sc. (Industrial Mathematics) with honours, May 1999 – June 2003.

### ARTICLES/PUBLICATIONS

#### Book Chapter

(2019)

1. Nurhidaya Mohamad Jan, Fong Wan Heng, Nor Haniza Sarmin, Sherzod Turaev and Siti Munirah Mohd, Watson-Crick Petri Net and Its Structural Properties. In: Liyana Amalina Adnan, Nurhidaya Mohamad Jan and Hatika Kaco. *Innovation for Sustainability and Green Technology: Degradation of Inanimate Forms*, Malaysia: USIM Press. 53-64; 2019. ISBN: 978-967-440-700-1.

(2014)

2. Fong Wan Heng and Mathuri Selvarajoo, Probabilistic Sticker Systems. In: Fong Wan Heng and Yusof Yaacob. *Recent Advances in DNA Sticker System and Watson-Crick Automata*, Malaysia: Penerbit UTM Press. 1-14; 2014. ISBN: 978-983-52-1011-2.
3. Fong Wan Heng, Gan Yee Siang and Sherzod Turaev, Weighted Sticker Systems. In: Fong Wan Heng and Yusof Yaacob. *Recent Advances in DNA Sticker System and Watson-Crick Automata*, Malaysia: Penerbit UTM Press. 15-35; 2014. ISBN: 978-983-52-1011-2.
4. Fong Wan Heng, Mathuri Selvarajoo and Sherzod Turaev, Probabilistic Splicing Systems. In: Fong Wan Heng and Yusof Yaacob. *Recent Advances in DNA Splicing System*, Malaysia: Penerbit UTM Press. 15-26; 2014. ISBN: 978-983-52-1000-6.
5. Fong Wan Heng, Gan Yee Siang and Sherzod Turaev, Weighted Splicing Systems. In: Fong Wan Heng and Yusof Yaacob. *Recent Advances in DNA Splicing System*, Malaysia: Penerbit UTM Press. 27-42; 2014. ISBN: 978-983-52-1000-6.

### Indexed Journals/Proceedings

#### ISI Web of Science

(2021)

1. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, Generalisations of Splicing Languages in DNA Splicing Systems Involving Two Palindromic Restriction Enzymes, Malaysian Journal of Fundamental and Applied Sciences (MJFAS), 2021, 17(2): pg 128-138, eISSN: 2289-599X, (<https://mjfas.utm.my/index.php/mjfas/article/view/1370>).

(2019)

2. Wan Heng Fong, Aqilahfarhana Abdul Rahman and Nor Haniza Sarmin, Isomorphism and Matrix Representation of Point Groups, *Malaysian Journal of Fundamental and Applied Sciences*, 2019, 15(1): pg 88-92. ISSN: 2289-5981. (<https://mjfas.utm.my/index.php/mjfas/article/view/1087>).
3. 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*, 2019, 15(10): pg 65-76, ISSN: 1868-1646. (<https://online-journals.org/index.php/i-joe/index>)
4. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, DNA Splicing Systems with at Most Two Cutting Sites of a Non-Palindromic Restriction Enzyme, *MATEMATIKA: Malaysian Journal of Industrial and Applied Mathematics*, 2019, 35(2): pg 129-137, eISSN: 0127-9602, (<https://matematika.utm.my/index.php/matematika/article/view/1108>).
5. 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: Malaysian Journal of Industrial and Applied Mathematics*, 2019, 35(3): pg 283-296, eISSN: 0127-9602 ([MATEMATIKA: Malaysian Journal of Industrial and Applied Mathematics](https://matematika.utm.my/index.php/matematika/article/view/1108)).
6. 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: Malaysian Journal of Industrial and Applied Mathematics*, December 2019, Special Issue: pg 1-14, eISSN: 0127-9602 (<https://matematika.utm.my/index.php/matematika/article/view/1260/830>).

(2018)

7. Muhammad Azrin Ahmad, Nor Haniza Sarmin, Mohd Firdaus Abdul-Wahab, Fong Wan Heng, Yuhani Yusof, Biomolecular Aspects of Second Order Limit Language, *Malaysian Journal of Fundamental and Applied Sciences* 2018, 14(1): pg 15-19, ISSN 2289-5981, (<https://mjfas.utm.my/index.php/mjfas/article/view/727/pdf>)
8. Wan Heng Fong and Nurul Izzaty Ismail, Generalisations of DNA Splicing Systems with One Palindromic Restriction Enzyme, *MATEMATIKA*, 2018, 34(1): pg 59-71. ISSN: 0127-8274 (<https://matematika.utm.my/index.php/matematika/article/view/1011/746>).
9. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, Computation of Splicing Languages from DNA Splicing System with One Palindromic Restriction Enzyme, *Malaysian Journal of Fundamental and Applied Sciences* 2018, 14(2): pg 188-192, ISSN 2289-5981, (<https://mjfas.utm.my/index.php/mjfas/article/view/879/pdf>).
10. 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*, 2018, pg 457-462, ISSN 2289-5981, (<https://mjfas.utm.my/index.php/mjfas/article/view/1282>).

(2017)

11. Wan Heng Fong, Nor Haniza Sarmin, Sherzod Turaev and Ahmad Firdaus Yosman, Generating Finite Cyclic and Dihedral Groups using Sequential Insertion Systems with Interactions, *Proceedings of the 4th International Conference on Mathematical Sciences (ICMS4 2016)*, AIP. Conf. Proc., 1830 (1), 2017, pg. 070005 1-6 (ISBN: 978-0-7354-1498-3), (<http://aip.scitation.org/doi/pdf/10.1063/1.4980954>)
12. Mathuri Selvarajoo, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, Probabilistic Simple Sticker Systems, *Proceedings of the 4th International Conference on Mathematical Sciences (ICMS4 2016)*, AIP. Conf. Proc., 1830 (1), 2017, pg. 020057 1-9 (ISBN: 978-0-7354-1498-3), (<http://aip.scitation.org/doi/pdf/10.1063/1.4980920>)
13. Nurhidaya Mohamad Jan, Sherzod Turaev, Wan Heng Fong and Nor Haniza Sarmin, Place-Labeled Petri Net Controlled Grammars, *ScienceAsia*, Volume 43S, 2017, pg 9-19. (ISSN: 1513-1874). **IF 0.343, Q4** ([http://www.scienceasia.org/2017.43S.n1/scias43S\\_9.pdf](http://www.scienceasia.org/2017.43S.n1/scias43S_9.pdf))
14. Wan Heng Fong, Yee Siang Gan, Nor Haniza Sarmin and Sherzod Turaev, Variants of Weighted Sticker Systems with Different Weighting Spaces, *ScienceAsia*, Volume 43S, 2017, pg 43-51. (ISSN: 1513-1874). **IF 0.343, Q4** ([http://scienceasia.org/2017.43S.n1/scias43S\\_43.pdf](http://scienceasia.org/2017.43S.n1/scias43S_43.pdf))

15. Yee Siang Gan, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, Generative Capacity of Sticker Systems with the Presence of Weights, *ScienceAsia*, Volume 43S, 2017, pg 35-42. (ISSN: 1513-1874). **IF 0.343, Q4** ([http://scienceasia.org/2017.43S.n1/scias43S\\_35.pdf](http://scienceasia.org/2017.43S.n1/scias43S_35.pdf))

**SCOPUS**  
**(2021)**

1. Wan Heng Fong, Muhammad Nur Syiham Abdul Razak and Nor Haniza Sarmin, Graph Splicing Rules with Cycle Graph and Its Compliment on Complete Graphs, *Journal of Physics: Conference Series*, 2021, 1988(2021), pg 012067(1-11). (<https://doi:10.1088/1742-6596/1988/1/012067>)
2. Ahmad Firdaus Yosman, Wan Heng Fong, Hazzirah Izzati Mat Hashim, Closure Properties of Bonded Sequential Insertion-Deletion Systems, *Journal of Physics: Conference Series*, 2021, 1988(2021), pg 012075(1-10). (<https://doi:10.1088/1742-6596/1988/1/012075>)
3. Mathuri Selvarajoo, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, The Properties of Semi-Simple Splicing System Over Alternating Group,  $A_3$ , *Journal of Physics: Conference Series*, 2021, 1770(1), pg 012001(1-8). (<https://doi.org/10.1088/1742-6596/1770/1/012001>)

**(2020)**

4. Aqilahfarhana Abdul Rahman, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, 1-Normal Form for Static Watson-Crick Regular and Linear Grammars, *ASM Science Journal*, 2020, 13(5.1), pg 1-7. ([https://doi.org/10.32802/asmscj.2020.sm26\(5.1\)](https://doi.org/10.32802/asmscj.2020.sm26(5.1)))
5. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, Automata for DNA Splicing Languages with Two Restriction Enzymes, *ASM Science Journal* 2020, 13(5.5), pg 1-7. ([https://doi.org/10.32802/asmscj.2020.sm26\(5.5\)](https://doi.org/10.32802/asmscj.2020.sm26(5.5)))
6. Ahmad Firdaus Yosman, Wan Heng Fong and Hazzirah Izzati Mat Hassim, On Bonded Sequential and Parallel Deletion Systems, *Journal of Critical Reviews*, 2020, 7(16): pg 902-909. ISSN: 2394-5125 (<http://www.jcreview.com/?mno=4001>).
7. Muhammad Azrin Ahmad, Nor Haniza Sarmin, Wan Heng Fong, Yuhani Yusof and Noraziah Adzhar, On the New Relation of Second Order Limit Language and Other Different Types of Splicing System, *AIP Conference Proceedings* 2020, 2266(1), pg 060003(1-5). (<https://doi.org/10.1063/5.0018075>).
8. Mathuri Selvarajoo, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, The Characteristics of Simple Splicing Languages Over Permutation Groups, *AIP Conference Proceedings* 2020, 2266(1), pg 060004(1-6). (<https://doi.org/10.1063/5.0018731>)
9. Aqilahfarhana Abdul Rahman, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, Closure Properties of Static Watson-Crick Linear and Context-Free Grammars, *AIP Conference Proceedings* 2020, 2266(1), pg 060005(1-8). (<https://doi.org/10.1063/5.0018350>)
10. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, Molecular Aspects on Generalisations of Splicing Languages, *AIP Conference Proceedings* 2020, 2266(1), pg 060008(1-6). (<https://doi.org/10.1063/5.0018377>)
11. Muhammad Nur Syiham Razak, Wan Heng Fong and Nor Haniza Sarmin, Folding Technique on n-Cut Spliced Semigraph in Splicing System, *AIP Conference Proceedings* 2020, 2266(1), pg 060011(1-10). (<https://doi.org/10.1063/5.0026045>)

**(2019)**

12. Muhammad Azrin Ahmad, Nor Haniza Sarmin, Wan Heng Fong, Yuhani Yusof, Noraziah Adzhar, Second Order Limit Language with Two Cutting Sites, *International Journal of Innovative Technology and Exploring Engineering (TM)*, 2019, Volume 8, Issue 4S: pg 367-372, ISSN 2278-3075. (<https://www.ijtee.org/download/volume-8-issue-4s/>).
13. Wan Heng Fong, Nurul Izzaty Ismail and Nor Haniza Sarmin, The Modelling of DNA Splicing Systems with Two Non-Palindromic Restriction Enzymes, *Indian Journal of Public Health Research & Development*, June 2019, Vol. 10, No. 6: pg 1527-1533, ISSN 0976-0245. (<http://www.indianjournals.com/ijor.aspx?target=ijor:ijphrd&volume=10&issue=6&article=288>)

14. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, Computation of Splicing Languages from DNA Splicing System Based on Sequences of Restriction Enzymes, *International Journal of Engineering and Advanced Technology (IJEAT)*, 2019, Vol. 8, Issue 6S3: pg 31-42, ISSN: 2249-8958, (<https://www.ijeat.org/wp-content/uploads/papers/v8i6S3/F10060986S319.pdf>).

**(2018)**

15. Aqilahfarhana Abdul Rahman, Wan Heng Fong and Mohd Halimi Ab Hamid, The Conjugacy Classes and Conjugacy Class Graphs of Point Groups of Order at Most 8, *Proceedings of the 25<sup>th</sup> National Symposium on Mathematical Sciences (SKSM 25)*, AIP Conf. Proc., Vol 1974, 2018, pg. 030007 1-7 (ISBN: 978-0-7354-1681-9). (<https://aip.scitation.org/doi/abs/10.1063/1.5041651>).
16. Nurhidaya Mohamad Jan, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev, Closure Properties of Watson-Crick Petri Net, *Proceedings of the 25<sup>th</sup> National Symposium on Mathematical Sciences (SKSM 25)*, AIP Conf. Proc., Vol 1974, 2018, pg. 030015 1-8 (ISBN: : 978-0-7354-1681-9). (<https://aip.scitation.org/doi/abs/10.1063/1.5041659>).

**Non-indexed Journals**

**International Level**

**(2017)**

1. Ahmad Firdaus Yosman, Markus Holzer, Bianca Truthe, Wan Heng Fong, Sherzod Turaev, On Bonded Indian and Uniformly Parallel Insertion Systems and Their Generative Power, *Malaysian Journal of Fundamental and Applied Sciences*, 2017, 13(4): pg 769-773, ISSN 2289-5981. (<http://www.mjfas.utm.my/index.php/mjfas/article/view/753/pdf>)
2. Nurhidaya Mohamad Jan, Wan Heng Fong, Nor Haniza Sarmin and Sherzo Turaev, State Machine of Place-Labelled Petri Net Controlled Grammars, *Malaysian Journal of Fundamental and Applied Sciences* 2017, 13(4): pg 649-653, ISSN 2289-5981. (<http://www.mjfas.utm.my/index.php/mjfas/article/view/736/pdf>)

**Non-indexed Proceedings**

**International Level**

**(2020)**

1. Ahmad Firdaus Yosman, Wan Heng Fong and Hazzirah Izzati Mat Hassim, Bonded Sequential Insertion-Deletion Systems and Their Generative Power, *Proceedings of the 8th International Graduate Conference on Engineering, Science and Humanities (IGCESH 2020)*, UTM Johor Bahru, Malaysia, 18-19 August 2020, pg 228-231. eISSN: 2735-055X. (<https://drive.google.com/file/d/10XHU7mqSBb1-YGzUm0ZlY6Yyxj0Owzf5/view>)
2. Muhammad Nur Syiham Abdul Razak, Wan Heng Fong and Nor Haniza Sarmin, Splicing System on Complete Graph, *Proceedings of the 8th International Graduate Conference on Engineering, Science and Humanities (IGCESH 2020)*, UTM Johor Bahru, Malaysia, 18-19 August 2020, pg 307-310. eISSN: 2735-055X. (<https://drive.google.com/file/d/10XHU7mqSBb1-YGzUm0ZlY6Yyxj0Owzf5/view>)

**(2019)**

3. Wan Heng Fong, Aqilahfarhana Abdul Rahman, Nor Haniza Sarmin and Sherzod Turaev, Computational Power of Static Watson-Crick Context-Free Grammars, *Science Proceedings Series, Universiti Teknologi Malaysia, Johor Bahru, Malaysia*, 2019, 1(2): pg 82-85. (<http://readersinsight.net/SPS/article/view/679>)

**(2018)**

4. Wan Heng Fong, Nurul Izzaty Ismail and Nor Haniza Sarmin, Generalisations of DNA Splicing Languages with One Restriction Enzyme using Automata, *Proceedings of the 7th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2018)*, 20-24 June 2018, Istanbul, Turkey, pg. 119-126 (ISBN: 978-9944-5868-9-4).
5. Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin, The Mathematical Modelling of DNA Splicing System with Palindromic and Non-Palindromic Restriction Enzymes, *Proceedings of the*

- 7th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2018), 20-24 June 2018, Istanbul, Turkey, pg. 127-137 (ISBN: 978-9944-5868-9-4).
6. Aqilahfarhana Abdul Rahman, Wan Heng Fong, Nor Haniza Sarmin, Sherzod Turaev and Nurul Liyana Mohamad Zulkufli, Closure Properties of Static Watson-Crick Regular Grammars, Proceedings of the 7th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2018), 20-24 June 2018, Istanbul, Turkey, pg. 71-76 (ISBN: 978-9944-5868-9-4).

**(2017)**

7. Ahmad Firdaus Yosman, Wan Heng Fong, Sherzod Turaev and Nor Haniza Sarmin, Generating Some Finite Groups using Sequential Insertion Systems, Proceedings of the Fourth Biennial International Group Theory Conference 2017 (4BIGTC2017). UTM Kuala Lumpur, Malaysia, 23-26 January 2017, pg. 123-126.

*Last Updated: 3 June 2022*