# CURRICULUM VITAE


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Education :

- PhD in Mathematics (2006) The University of Queensland, Australia
- M.Sc in Applied Probability (1999) The University of Twente, The Netherlands
- M.Sc in Industrial Engineering (1997) Bandung Institute of Technology, Indonesia
- B.Sc in Accounting (1995) Parahyangan Catholic University, Indonesia
- B.Sc in Mathematics (1993) Bandung Institute of Technology, Indonesia

PhD thesis : Stochastic Models of Election Timing

Professional membership :

1. Society for Industrial and Applied Mathematics (SIAM)
2. American Mathematical Society (AMS)
3. Australian Mathematical Society (AustMS)
4. Australia and New Zealand Industrial and Applied Mathematics (ANZIAM)
5. Indonesian Mathematical Society (IndoMS)

Current Positions

- Head, Department of Mathematics, UNPAR (September 2015 – August 2018).
- Lektor Kepala, Department of Mathematics, UNPAR (1993-now).

Previous Positions

- Vice Rector for Resources, UNPAR (December 2011 – June 2015)
- Dean, Faculty of Information Technology and Sciences, UNPAR (November 2009 – December 2011)
- Head, Department of Mathematics, UNPAR (May 2006 – November 2009).
- Vice Dean for Financial and Administrative Affairs, Faculty of Mathematics and Natural Sciences, UNPAR (August 1999 - August 2001).
- Deputy Head, Department of Mathematics, UNPAR (November 1996 - June 1997).

Research interests : Operational Research, Inventory Models, Election Timing, Financial Mathematics.

Research grants :

1. Permana, F.J., **Lesmono, D.**, and Chendra, E (2014-2016). "Penentuan Harga Opsi Eksotik dan Value-at-Risk untuk Dinamika Harga Aset yang mengikuti Proses Varians Gamma: Studi Kasus di Indonesia." Hibah Bersaing DIKTI.
2. **Lesmono, D.** and Limansyah (2016). "Model Persediaan Probabilistik Multi Item dengan Faktor Diskon dan Kadaluarsa". Hibah Penelitian LPPM Unpar.
3. Permana, F.J., **Lesmono, D.,** and Chendra, E (2013). "Valuasi Opsi Plain Vanilla Jenis Amerika dengan Dinamika Harga Aset Mengikuti Proses Varians Gamma." Hibah Penelitian LPPM Unpar.
4. **Lesmono, D.** and Limansyah (2012). "Model Persediaan Probabilistik Satu Jenis Barang Dengan Melibatkan Faktor *All Unit Discount*". Hibah Penelitian LPPM Unpar.
5. Permana, F.J., **Lesmono, D.,** and Chendra, E (2011-2012). "Model Matematika Untuk Indeks Harga Saham di Indonesia dan Aplikasinya Dalam Penentuan Harga Opsi." Hibah Fundamental DIKTI.
6. Permana, F.J., **Lesmono, D.,** and Chendra, E (2009). "Pemodelan Harga Komoditi di Pasar Komiditi Indonesia: Kasus Olein (Minyak Sawit dan Emas (Gulir Emas)." Hibah Fundamental DIKTI.
7. **Lesmono, D** and Permana, F.J. (2009). "Pemodelan Matematika untuk Indeks Harga Saham LQ45". Hibah Penelitian LPPM Unpar.

Book/Book Chapter/Bulletin Publications :

1. **Lesmono, D**. *Election Timing: Concepts, Mathematical Models and Applications*, LAP Lambert Academic Publishing, Germany, 2010. ISBN: 978-3-8383-3021-1.
2. **Lesmono, Dharma.,** A Term Structured Volatility Model of Poll Data and its Application to Election Timing, In *Aspects of Mathematical Modelling* (eds. Hosking, R.J. and Venturino, E), Birkhauser Verlag, Basel, 283-291, 2008.
3. **Lesmono, Dharma.,** Stochastic Models of Election Timing (PhD Abstract), *Bull. Aust. Math. Soc.*, **75**(1), 157-157, 2007.

Journal Publications :

1. Permana, F.J., **Lesmono, D.,** and Chendra, E., Valuation of Asian American Option using a Modified Path Simulation Method, *World Journal of Engineering and Technology*, **3**, 296-301, 2015.
2. Permana, F.J., **Lesmono, D.,** and Chendra, E., Valuation of European and American Options under Variance Gamma Process, *Journal of Applied Mathematics and Physics*, **2**, 1000-1008, 2014.
3. Wong, H. and **Lesmono, D**. On the evaluation of product customization strategies in a vertically differentiated market, *International Journal of Production Economics*, **144**(1), 105-117, 2013.
4. Tonkes, E. and **Lesmono, D**. Fair Valuation of Predication Market Contracts on the US Senate, *Current Politics and Economics of the United States, Canada, and Mexico*, 15(4), 439-463, 2013.
5. Tonkes, E. and **Lesmono, D.** A Longstaff and Schwartz Approach to the Early Election Problem, *Advances in Decision Sciences* Vol 2012, Article ID 287579, 18 pages, doi: 10.1155/2012/287579.
6. Yong, B., Chin, L dan **Lesmono, D**. Kajian Matematis dan Simulasi Skenario tentang Banyaknya Kemenangan yang Dibutuhkan Suatu Tim untuk Mencapai Peringkat Tertentu dalam Suatu Turnamen, *Jurnal Ilmiah Mat Stat*, **12**(1), 46-54, Januari 2012.
7. Limansyah, T and Lesmono, D. Model Persediaan Multi Item dengan Mempertimbangkan Faktor Kedalu-warsa dan Faktor *All Unit Discount*., *Jurnal Teknik Industri*, **13** (2), 87-94, 2011.
8. Tonkes, E. and **Lesmono, D**. Consistency in the US Congressional Popular Opinion Polls and Prediction Markets, *Journal of Prediction Markets*, **4**(2), 45-64, 2010.
9. **Lesmono, Dharma**., Tonkes, Elliot and Burrage, Kevin., Opportunistic timing and manipulation in Australian Federal Elections, *European Journal of Operational Research*, **192**, 677-691, 2009.
10. **Lesmono, D**., Pollett, P.K., Tonkes, E.J. and K. Burrage A note on the existence and uniqueness of a bounded mean-reverting process. *Journal of the Indonesian Mathematical Society*, **14**(2), 83-93, 2008.
11. **Lesmono, Dharma** and Tonkes, Elliot. Stochastic dynamic programming for election timing: a game theory approach. *Asia-Pacific Journal of Operational Research*, **23**(3), 287-309, 2006.
12. **Lesmono, Dharma**. A mathematical model for election timing, *Quantitative Methods*, **2**(1), 38-49, 2006.
13. **Lesmono, D.,** Tonkes, E.J., Burrage, K. A continuous time model for election timing, *Australian Mathematical Society Gazette*, **32**(5), 329-338, 2005.
14. **Lesmono, Dharma** and Tonkes, Elliot. Optimal strategies in political elections, *ANZIAM Journal*, **46C**, C764-C785, 2005.
15. **Lesmono, D.,** Tonkes, E.J. and Burrage, K. An early political election problem. *ANZIAM Journal*, **45C**, C16-C33, 2003.

Conference Publications:

1. Kusumah, R dan **Lesmono, D.** (2016). Penerapan Algoritma Bee Colony Untuk Menyelesaikan Traveling Salesman Problem, Prosiding Seminar Nasional Matematika Unpar 11, September 2016.
2. Koswara, H. dan **Lesmono, D.** (2016). Model Persediaan P(R,T) Multi Item dengan Distribusi Permintaan Umum, Prosiding Seminar Nasional Matematika Unpar 11, September 2016.

3. Hardiwinata, R. dan **Lesmono, D.** (2016). Penentuan Jarak Minimum Dalam Suatu Jaringan Dengan Algoritma Prim Dan Pemrograman Bilangan Biner, Prosiding Seminar Nasional Matematika Unpar 11, September 2016.
4. Koswara, H. dan **Lesmono, D.** (2015). Analisis Sensitivitas Kenaikan Harga Model P(R,T) Multi Item. Prosiding Seminar Nasional Pemodelan dan Perancangan Sistem Magister Teknik Industri UNPAR, 8 Desember 2015.
5. Koswara, H. dan **Lesmono, D.** (2015). Analisis Senstivitas Model P(R,T) *Multi Item* dengan Adanya Kenaikan Harga. Prosiding Seminar Nasional Sains dan Teknologi Fakultas Teknik Universitas Muhammadiyah Jakarta, 17 November 2015.
6. Rikardo, C., Limansyah, T., **Lesmono, D**. (2015). Model Persediaan Deterministik dengan Mempertimbangkan Masa Kadaluarsa dan Penurunan Harga Jual. Prosiding Seminar Nasional Sains dan Teknologi Fakultas Teknik Universitas Muhammadiyah Jakarta, 17 November 2015.
7. Wijaya, A.I., Limansyah, T dan **Lesmono, D.** (2015). Penyelesaian Linear Fractional Programming dengan Menggunakan Metode Criss Cross, Prosiding Seminar Nasional Matematika Unpar 10, MS87-93, September 2015.
8. Debora, M., Limansyah, T., dan **Lesmono, D.** (2012). Model Persediaan Deterministik dengan mempertimbangkan Waktu Kadaluarsa dan Faktor Incremental Discount, Prosiding Seminar Nasional Matematika Unpar 7, MS70-77, Oktober 2012.
9. Wijaya, Michael L.. dan **Lesmono, D.** (2012). Prediksi Pergerakan Nilai Tukar Euro Terhadap US Dollar Menggunakan Moving Average, Prosiding Seminar Nasional Matematika Unpar 7, MS138-144, Oktober 2012.
10. Permana, F.J., **Lesmono, D.**, and Chendra, E., Modelling Indonesian Stock Indices using Variance Gamma., In *Proceedings of The World Congress on Engineering and Technology*, Shanghai, 28 October - 2 November 2011.
11. Astridnindya, I.P. dan **Lesmono D.** (2011). Penentuan Nilai Opsi Lookback dengan Menggunakan Metode Trinomial, Prosiding Seminar Nasional Matematika Unpar 6, 456-462, Oktober 2011.
12. Mayangsari, A. dan **Lesmono, D.** (2011). Modifikasi Model Stackelberg dan Aplikasinya Dalam Ekonomi, Prosiding Seminar Nasional Matematika Unpar 6, 456-462, Oktober 2011.
13. Wong, H and **Lesmono, D.,** The value of enhancing customisation in the existence of consumer preferences heterogeneity. In *Proceedings of the 21st International Conference on Production Research*, Stuttgart, 31 July - 4 August 2011.
14. Elisa, Y., dan **Lesmono, D**. (2010). Perbandingan Biaya Persediaan dari Model EOQ Komposit, Prosiding Seminar Nasional Matematika Unpar 5, MS141-149, Oktober 2010.
15. Wahyuni, D. dan **Lesmono, D** (2010). Model EOQ Komposit dengan Diskon, Prosiding Seminar Nasional Matematika Unpar 5, MS202-213, Oktober 2010.
16. **Lesmono, D.** dan Permana, F.J. Persamaan Diferensial Stokastik untuk Dinamika Indeks LQ45., Prosiding Konferensi Nasional Matematika XV, Manado, 30 Juni-3 Juli 2010.
17. Permana, F.J., **Lesmono, D.** and Chendra, E., Commodity Price and Volatility Models of Indonesia Market, *Proceeding of the 4$^{th}$ International Conference on Research and Education in Mathematics* (ICREM4), Kuala Lumpur 21-23 October 2009, pp. 281-288.
18. Permana, F.J., **Lesmono, D.** and Chendra, E., Stochastic Price Process Models of Rolling Gold Traded in Indonesia Market, *Proceeding of the 4$^{th}$ International Conference on Research and Education in Mathematics* (ICREM4), Kuala Lumpur 21-23 October 2009, pp. 607-612.
19. Agustine, D. dan **Lesmono, D**. (2009). Model Persediaan untuk Kebijakan Pemesanan yang Optimal dengan Skema Penundaan Pembayaran, Prosiding Seminar Nasional Matematika Unpar 4, MS119-126, September 2009.
20. Ferry J. Permana, **J. Dharma Lesmono** and Erwinna Chendra, Palm Oil Price Model of Indonesia Market, *Proceedings of the 5th Asian Mathematical Conference*, Kuala Lumpur 22-26 June 2009, Vol. III, pp. 325-332.
21. Elliot Tonkes and **Dharma Lesmono**, A Stochastic Dynamic Programming Problem in Electricity Market, *Proceedings of the 5th Asian Mathematical Conference*, Kuala Lumpur 22-26 June 2009, Vol. III, pp. 494 - 501.

Book Reviews

1. Linear Algebra: Theory and Applications, Ward Cheney and David Kincaid, Jones and Bartlett, 2009, ISBN 978-0-7637-5020-6, *Australian Mathematical Society Gazette*, **37**(2), 110-111, May 2010.
2. Mathematicians of the World, Unite! The International Congress of Mathematicians - A Human Endeavor, Guilermo P. Curbera, A.K. Peters Ltd, 2009, ISBN 978-1-56881-330-1, *Australian Mathematical Society Gazette*, **37**(1), 34-35, March 2010.

Articles in Newspaper

1. Perhelatan Matematikawan Sedunia, Kolom Opini, Harian Umum Kompas, 4 September 2010.
2. Preferential Voting dalam Pilpres, Kolom Opini, Harian Umum Pikiran Rakyat, 17 Juli 2009.
3. Articles in *Lies & Statistics* Column *The Weekend Australian Financial Review* 2-3 October 2004 (with Elliot Tonkes).
4. Article in *Lies & Statistics* Column *The Weekend Australian Financial Review* 11-12 October 2003 (with Elliot Tonkes).

Presentations :

1. Pengembangan Model Persediaan *Continuous Review* dengan *All-Unit Discount* dan Faktor Kadaluwarsa. Konferensi Nasional Matematika (KNM) XVIII, Pekanbaru, 2-5 November 2016.
2. A Multi Item Probabilistic Inventory Model, Asian Mathematical Conference (AMC) 2016, Bali, 25-29 July 2016.
3. Optimal Ordering Policy for a Multi Item Probabilistic Inventory Model with All-Unit Discount, East Asia SIAM Conference (EASIAM), Macau, 20-22 June 2016.
4. Valuation of Asian American Option Using a Modified Path Simulation, The World Congress on Engineering and Technology (CET2015), Suzhou, China, 23-25 October 2015.
5. Modified Path Simulation Method for Valuation of Asian American Options, International Congress on Industrial and Applied Mathematics (ICIAM), Beijing, 10-14 August 2015.
6. Valuation of Asian Options under Variance Gamma Process, The World Congress of Engineering and Technology (CET2014), Wuhan, China, 26-28 October 2014.
7. Mathematical Modelling of the Commonality in Product Line Design in A manufacturer-retailer distribution channel, International Congress of Mathematicians 2014, Seoul, South Korea, 13-21 August 2014.
8. Does the VG Process better than Normal Distribution in Modelling the Dynamics of Log Return Asset Prices in Indonesia Market?, Asian Mathematical Conference (AMC) 2013, Busan, South Korea, 30 Juni – 4 Juli 2013.
9. Modelling Option on Indonesian Stock Indices using Variance Gamma, 8th Conference East Asia Section of Society of Industrial and Applied Mathematics (EASIAM), National Taiwan University, Taipei, Taiwan, 25-27 June 2012.
10. Modelling Indonesian Stock Indices Using Variance Gamma, The World Congress on Engineering and Technology (CET2011), Shanghai, 28 October - 2 November 2011.
11. Modelling Dynamic of LQ45 Index using Potential Diffusion, 7th International Congress on Industrial and Applied Mathematics (ICIAM2011), Vancouver Convention Centre, Vancouver, British Columbia, Canada, 18-22 July 2011.
12. Mathematical Model for LQ45 Index, International Congress of Mathematicians (ICM2010), Hyderabad International Convention Centre (HICC), India, 19-27 August 2010.

13. Stochastic Price Process Models of Rolling Gold Traded in Indonesia Market, The 4th International Conference on Research and Education in Mathematics (ICREM4), Renaissance Hotel, Kuala Lumpur, Malaysia, 21-23 October 2009.
14. A Stochastic Dynamic Programming Problem in Electricity Markets, 5th Asian Mathematical Conference, Putra World Trade Centre, Kuala Lumpur, Malaysia, 22-26 June 2009.
15. A note on the existence and uniqueness of a bounded mean-reverting process, 7th World Congress in Probability and Statistics, NUS, Singapore, 14 - 19 July 2008.
16. A mathematical model for surfing and manipulation in politics, The International Congress of Mathematicians (ICM), Madrid, 22-30 August 2006.
17. A term structured volatility model of poll data and its application to election timing, International Conference on Mathematical Modelling and Computation (MMC06), Universiti Brunei Darussalam, 5-8 June 2006.
18. A mathematical model for opportunistic timing and manipulation in Australian Federal Elections, Conference on Stochastic Modelling of Complex Systems (SMOC05) and the 4th National Symposium on Financial Mathematics (NSFM), Daydream Island Resort, Queensland, Australia, July 10-16, 2005.
19. A mean-reverting stochastic differential equation for poll data and its application in election timing, International Conference on Scientific Computing and Differential Equations (SciCADE05), Nagoya Congress Centre, Nagoya, Japan, May 23 - 27, 2005.
20. A game theory approach for political elections, 41th Annual ANZIAM Conference, War Memorial Conference Centre, Napier, New Zealand, January 30 - February 3, 2005.
21. Optimal strategies in political elections, 12th Biennial Computational Technique and Applications Conference (CTAC2004), The University of Melbourne, Australia, September 27 - October 1, 2004.
22. Optimal Timing of Political Elections, 40th Annual ANZIAM Conference, Hotel Grand Chancellor, Hobart, Australia, February, 1 - 5, 2004.
23. An Early Political Election Problem, 11th Computational Technique and Applications Conference (CTAC2003) as an embedded meeting of ICIAM 2003, Sydney, Australia, July 7 -11, 2003.

Professional Activities

1. Steering Committee Seminar Nasional Matematika 2005-2016, UNPAR.
2. Technical Program Committee, 2nd International Conference on Computational Intelligence, Communication Systems and Networks (CICSyN 2010), 28-30 July 2010, Liverpool, UK.
3. Technical Program Committee, Asia Modelling Symposium 2010, 4rd Asia International Conference on Modelling and Simulation, 26-28 May 2010, Kota Kinabalu, Malaysia.
4. Technical Program Committee, CICSyN2009, 1st International Conference on Computational Intelligence, Communication Systems and Networks, Indore, India, 23-25 July 2009.
5. Technical Program Committee, Asia Modelling Symposium 2009, 3rd Asia International Conference on Modelling and Simulation, Bandung, 25-26 May 2009 and Bali 29 May 2009.
6. Treasurer (Local Committee), Asia Modelling Symposium 2009, 3rd Asia International Conference on Modelling and Simulation, Bandung, 25-26 May 2009 and Bali 29 May 2009.

Contributions to Society :

1. Team Member, Ibu belajar Matematika, Organized by Department of Mathematics, UNPAR (2012-2016)
2. Judge, Kompetisi Matematika, Organized by Himpunan Matematika, UNPAR (2009-2016)

Courses taught :

- Optimization
- Stochastic Processes
- Game Theory
- Business Statistics
- Design Experiment
- Reliability Engineering
- Optimization Methods
- Mathematics for Economics