

CURRICULUM VITAE



A. BUTIR-BUTIR PERIBADI (Personal Details)			
Nama Penuh (Full Name)	SITI NUR IQMAL IBRAHIM		Gelaran (Title): PROF MADYA DR
Tarikh Lahir (Date of Birth) 24/09/1983	Warganegara (Citizenship) MALAYSIA	Bangsa (Race) MALAY	Jantina (Gender) FEMALE

Jabatan/Fakulti (Department/Faculty)	E-mel dan URL (E-mail Address and URL)
DEPARTMENT OF MATHEMATICS AND STATISTICS, FACULTY OF SCIENCE, UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG, SELANGOR, MALAYSIA	iqmal@upm.edu.my 012-2096024

B. KELAYAKAN AKADEMIK (Academic Qualification)			
Nama Sijil / Kelayakan (Certificate / Qualification obtained)	Nama Sekolah Institusi (Name of School / Institution)	Tahun (Year obtained)	Bidang pengkhususan (Area of Specialization)
Doctor of Philosophy (Ph.D)	University of Essex	2013	Computational Finance
Master of Science (MSc.)	University of Leeds	2008	Financial Mathematics
Bachelor of Science (BSc.)	University of Minnesota	2006	Mathematics

C. KEMAHIRAN BAHASA (Language Proficiency)					
Bahasa / Language	Lemah Poor (1)	Sederhana Moderate (2)	Baik Good (3)	Amat Baik Very good (4)	Cemerlang Excellent (5)
English					✓
Bahasa Melayu					✓
Chinese					
Lain-lain (other):					

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN (Scientific experience and Specialisation)				
Organization	Position	Start Date	End Date	Expertise
INSTITUTE FOR MATHEMATICAL RESEARCH, UPM	ASSOCIATE RESEARCHER	April 2014	January 2021	Computational Finance
INSTITUTE FOR MATHEMATICAL RESEARCH, UPM	HEAD OF LABORATORY	Mac 2024	February 2027	Computational Finance

E. PEKERJAAN (Employment)				
Majikan / Employer	Jawatan / Designation	Jabatan / Department	Tarikh lantikan / Start Date	Tarikh tamat / Date Ended
Universiti Putra Malaysia	Associate Professor	Mathematics	01/11/2019	
Universiti Putra Malaysia	Senior Lecturer	Mathematics	6/1/2014	31/10/2019
Universiti Putra Malaysia	Tutor	Mathematics	12/02/2007	6/10/2014
University of Essex, UK	Graduate Teaching Assistant	Mathematics	2011	2012
University of Minnesota, USA	Undergraduate Teaching Assistant	Mathematics	2004	2006

F. ANUGERAH DAN HADIAH (Honours and Awards)				
Name of awards	Title	Award Authority	Award Type	Year
Academic Awards	Anugerah Perkhidmatan Cemerlang	UPM	University	2022
Non-Academic Awards	CCFEA Research Excellence Award	CCFEA University of Essex	Department	2013
	Silver Medal PRPI2016	Office of the Deputy Vice Chancellor (Research & Innovation), UPM	Innovation Competition	2016
	Anugerah Penyelidik Muda Cemerlang	INSPEM UPM	Institute	2018
	INDES2019 Bronze Medal	UiTM	Innovation Competition	2019
	ICMSS2022 Best Presenter Award	UPM / Banasthali University	Conference	2022
Awards of Merit				

G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) (List of publications – author (s), title, journal, volume, page and year published)	
Journal	<ol style="list-style-type: none"> Ibrahim, S.N.I., O'Hara, J., and Constantinou, N. (2013). Pricing power options within the Heston framework. <i>New Trends in Mathematical Sciences</i>, 1(1), 1-9. Also presented at the <i>International Conference on applied Analysis and Algebra, Istanbul, Turkey</i>. Ibrahim, S.N.I., O'Hara, J., and Constantinou, N. (2013). Risk-neutral valuation of power barrier options. <i>Applied Mathematics Letters</i>, 26(6), 595-600. Also presented at the <i>CCFEA PhD. Workshop 2013, University of Essex, Essex, UK</i>. Ibrahim, S.N.I., O'Hara, J., and Constantinou, N. (2014). Pricing extendible options using the fast Fourier transform. <i>Mathematical Problems in Engineering</i>, 2014, 1-7. Ibrahim, S.N.I., O'Hara, J., and Zaki, M. (2016). Pricing formula for power options with jump-diffusion. <i>Applied Mathematics & Information Sciences</i>. 10(4). 1313-1317. Ibrahim, S.N.I. (2016). Modeling rubber prices as a GBM process. <i>Indian Journal of Science and Technology</i>. 9(28). Ibrahim, S.N.I., Ng, T.W., O'Hara, J. and Nawawi, A. (2017). Pricing holder-extendable options in a stochastic volatility model with an Ornstein-Uhlenbeck process. <i>Malaysian Journal of Mathematical Sciences</i>. 11(1). 1-8. Poh, L.T., Kilicman, A., and Ibrahim, S.N.I. (2018). On intellectual capital and financial performances of banks in Malaysia. <i>Cogent Economics & Finance</i>. 6 (1). Ng, T.W., and Ibrahim, S.N.I. (2018). Pricing down-and-out power options with exponentially curved barrier. <i>Numerical Algebra, Control & Optimization</i>. 8(3): 291-297. Ibrahim, S.N.I., Muhammad, S.A., and Abdullah, M.H. (2018). A network analysis of the stock market in Malaysia, Singapore and Indonesia. <i>International Journal of Engineering & Technology</i>. 7(4.1): 99-101. Ibrahim, S.N.I., and Ng, T.W. (2019). Fourier-based approach for power options valuation. <i>Malaysian Journal of Mathematical Sciences</i>. 13(1): 31-40.

	<ol style="list-style-type: none"> 11. Ibrahim, S.N.I., Diaz-Hernandez, A., O'Hara, J.G., and Constantinou, N. (2019) Pricing extendable options with mean-reverting stochastic volatility. <i>ANZIAM Journal</i>. 61(2019): 382-397. 12. Laham, M.F., Ibrahim, S.N.I., and Kilicman, A. (2020) Pricing arithmetic Asian put option with early exercise boundary under jump-diffusion process. <i>Malaysian Journal of Mathematical Sciences</i>. 14(1): 1-15. 13. Hamdan, Z.N., Ibrahim, S.N.I., and Mustafa, M.S. (2020) Modelling Malaysian gold prices using geometric Brownian motion model. <i>Advances in Mathematics: Scientific Journal</i>. 9(9): 7463-7469. 14. Hamdan, Z.N., Rahman, N.H.A., and Ibrahim, S.N.I. (2020). The accuracy of jump-diffusion model and regression analysis for prediction of Malaysian centrifuged latex prices. <i>Advances in Mathematics: Scientific Journal</i>. 9(12): 10855-10867. 15. Ibrahim, S.N.I., Misiran, M., and Laham, M.F. (2020). Geometric fractional Brownian motion model for commodity market simulation. <i>Alexandria Engineering Journal</i>. 60(1): 955-962. 16. Sawal, A.S., Ibrahim, S.N.I., and Laham, M.F. (2022). The valuation of knock-out power calls under Black-Scholes framework. <i>Mathematical Modeling and Computing</i>. 9(1): 57-64. 17. Munis, R.A., Camargo, D.A., da Silva, R.B.G., Tsunemi, M.H., Ibrahim, S.N.I., and Simoes, D. (2022). Price modeling of eucalyptus wood under different silvicultural management for real options approach. <i>Forests</i>. 13(3): 478. 18. Sawal, A.S., Ibrahim, S.N.I., and Roslan, T.R.N. (2022). Pricing equity warrants with jumps, stochastic volatility, and stochastic interest rates. <i>Mathematical Modeling and Computing</i>. 9(4): 882-891. 19. Ibrahim, S.N.I., and Laham, M.F. (2022). Call warrants pricing formula under mixed-fractional Brownian motion with Merton jump-diffusion. <i>Mathematical Modeling and Computing</i>. 9(4): 892-897. 20. Muda, N.Z., and Ibrahim, S.N.I. (2023). Comparison of GBM, GFBM and MJD models in Malaysia rubber prices forecasting. <i>Malaysian Journal of Fundamental and Applied Sciences</i>. 19(1): 73-81. 21. Balasubramaniam, S.S., and Ibrahim, S.N.I. (2023). Simulating rubber prices under geometric fractional Brownian motion with different Hurst estimators. <i>Malaysian Journal of Fundamental and Applied Sciences</i>. 19(1): 93-102. 22. Laham, M.F., and Ibrahim, S.N.I. (2023). Penalty method for pricing American-style Asian option with jumps diffusion process. <i>Mathematical Modeling and Computing</i>. 10(4): 1215-1221. 23. Wan Omar, H., and Ibrahim, S.N.I. (2024). Pricing Writer-Extendable Call Options with Monte Carlo Simulation. <i>Applied Mathematics and Computational Intelligence</i>. 13(1): 128-135. 24. Zulrushdi, P.N.Q.M., Bahaludin, H., and Ibrahim, S.N.I. (2024). A Minimum Spanning Tree Stock Market Analysis of Malaysia Technology Companies. <i>Journal of Quality Measurement and Analysis</i>. 20(3): 153-162. 25. Rashid, S.F.A., Ibrahim, S.N.I., and Laham, M.F. (2024). Incorporating Long Memory into the Modeling of Gold Prices. <i>Mathematical Modelling and Computing</i>. 11(4): 1128-1134. 26. Sawal, A.S., and Ibrahim, S.N.I. (2024). The Greeks for Equity Warrants under the JSVSR Model. <i>AIP Conference Proceeding</i>. 3150, 030003. https://doi.org/10.1063/5.0227876. 27. Meah, A.A.M.A., and Ibrahim, S.N.I. (2025). Non-Parametric Approach in Measuring Value-at-Risk using Historical Simulation Method. <i>Semarak International Journal of Fundamental and Applied Mathematics</i>. 7(1): 25-38. 28. Wong, J.Y., Ibrahim, S.N.I., Ali, N.M., and Ilias, I.S.C. (2025). The Impact of Macroeconomic Variables on Stock Prices: A Case Study from FTSE Bursa Malaysia KLCI from 1994 until 2022. <i>Universiti Malaysia Terengganu Journal of Undergraduate Research</i>. 7(1): 83-100. 29. Lim, M.C., Nor, N.M., Selamat, A.I., and Ibrahim, S.N.I. (2025). Integrating ESG and Shariah Frameworks for Enhanced Equity Market Returns. <i>Information Management and Business Review</i>. 17(3(I)S): 202-215. 30. Lim, M.C., Nor, N.M., Selamat, A.I., and Ibrahim, S.N.I. (2025). Combining fundamental and technical analyses for better stock selection: An empirical study on Bursa Malaysia. <i>The Economics and Finance Letters</i>. 12(3): 545-562.
Books/Monographs	
Chapter in book	
Proceedings	<ol style="list-style-type: none"> 1. Ibrahim, S.N.I., O'Hara, J.G., and Constantinou, N. (2012). Power option pricing via fast Fourier transform. <i>Computer Science and Electronic Engineering Conference (CEECE), 2012 4th, IEEE</i>, 1-6. 2. Gunawan, N.I.I.I., Ibrahim, S.N.I., and Rahim, N.A. (2017). A review on Black-Scholes model in pricing warrants in Bursa Malaysia. <i>AIP Conference Proceeding</i>. 1795. 3. Ibrahim, S.N.I., and Laham, M.F. (2022). FFT-pricing framework for call warrants: a preliminary. <i>The 12th International Fundamental Science Congress 2021</i>, 38-41.

	4. Sawal, A.S., and Ibrahim, S.N.I. (2024). The Greeks for Equity Warrants under the JSVSR Model. <i>AIP Conference Proceeding</i> . 3150, 030003. https://doi.org/10.1063/5.0227876 .
<i>Other publications</i>	1. Ibrahim, S.N.I. (2022). Price path simulation with geometric Brownian motion and geometric fractional Brownian motion models. <i>E-Science Putra</i> . Issue 8 (January – April 2022).
<i>Computer software</i>	

H. PROJEK PENYELIDIKAN TERDAHULU (<i>Past Research Project</i>)					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
02-01-14-1464FR	Pricing Exotic Options Under Mean Reversion and Stochastic Volatility Using Fourier Method	Project Leader	2014-2016	FRGS	Completed
GP-IPM/2014/9437300	The Valuation of Option Pricing Using Numerical Methods in Finance	Project Leader	2014-2016	UPM	Completed
FRGS/1/2015/SG04/UMT/02/1	Innovations in stochastic model and valuation of derivatives with emphasis on continuous time autoregressive moving average processes	Member	2015-2018	FRGS	Completed
GP-IPS/2016/9514900	Multi-spectral gradient method via least square technique with non-Euclidean norm for large scale unconstrained optimization	Member	2016-2018	UPM	Completed
FRGS/1/2017/STG06/USIM/02/3	Numerical solution for Islamic pricing option using a modified 2-point block backwards difference method	Member	2017-2020	FRGS	Completed
GP/2017/9570100	Pricing Derivatives in a Model that Captures Asymmetric Leptokurtic Features	Project Leader	2017-2020	UPM	Completed
GP-IPS/2018/9624800	Pricing American-Style of Asian Options with Stochastic Process	Project Leader	2018-2021	UPM	Completed
FRGS/1/2020/STG06/UPM/02/5	Modelling pricing framework for some exotic options with stochastic processes using stochastic calculus	Project Leader	2020-2023	FRGS	Completed
	<i>Forecasting Agricultural Commodities to</i>	Project Leader	2024-2025	Kementerian Ekonomi Malaysia	Completed

	<i>Assist Decision-Making</i>				
	Network analysis of financial markets in an internet of things (IoT)	Co-Investigator	2021-2024	GP-IPM	Ongoing
<i>FRGS/1/2024/STG06/USIM/02/4</i>	Establishing A Numerical Solution for Islamic Asset Prices using a Multistep-Wavelet Algorithm to Promote Long Term Economic Stability	Member	2024-2027	FRGS	Ongoing
	Integration of Time Series and Machine Learning Models in Agricultural Time Series Forecasting	Co-Investigator	2025-2027	GP-IPM	Ongoing