FACULTY OF COMPUTER SCIENCE AND MATHEMATICS

UMT

MINISTRY OF HIGHER EDUCATION

DR. HASSILAH SALLEH

SENIOR LECTURER

Dr. Hassilah's research interests lie at the intersection of deep learning, mathematical finance, and stochastic analysis. She focuses on the mathematical foundations of finance using stochastic processes to model and understand market dynamics. Her work aims to bridge the gap between theoretical finance and computational methods, enhancing financial predictions and strategies.

CONTACT

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RESEARCHER PROFILE

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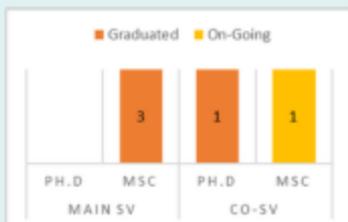**Google** HASSILAH SALLEH

EDUCATION

- PhD in Stochastic Analysis, University of Oslo (UiO)
- Master in Mathematics (Course Work), Universiti Kebangsaan Malaysia (UKM)
- BSc in Financial Mathematics, Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM–currently known as UMT)

AREAS OF EXPERTISE

- Stochastic Analysis
- Financial Mathematics
- Deep Learning for Finance

SUPERVISION

Legend: ■ Graduated ■ On-Going

	MAIN SV		CO-SV
	PH.D	MSC	PH.D	MSC
Graduated		3	1	
On-Going				1

SELECTED RESEARCH PROJECTS

✓ Fundamental Research Grant Scheme (FRGS) from Ministry of Higher Education Malaysia. A New Mathematical Model for an Islamic Option Based on a Mudharabah Principle (2009–2012). RM62,000.

✓ Talent and Publication Enhancement-Research Grant (TAPE-RG) from UMT. Incorporating Deep Learning with Gaussian Process for Stock Price Forecasting in Bursa Malaysia (2023–2025). RM20,000.

SELECTED PUBLICATIONS

✓ A.M.P. Vincent & H. Salleh (2024). Improving Stock Price Forecasting Accuracy with Stochastic Multilayer Perceptron, Malaysian Journal of Fundamental and Applied Sciences. 20, pp. 914–922.

✓ A.M.P. Vincent & H. Salleh (2024). Review on Stochastic Hybridisation of Feedforward Neural Network in Stock Market. Journal of Mathematical Sciences and Informatics. 4(1), pp. 59-73.

✓ A.M.P. Vincent & H. Salleh (2023). Adaptation of Stochasticity into Activation Function of Deep Learning for Stock Price Forecasting. Bulletin of Electrical Engineering and Informatics. 12(6), pp. 3780-3789.

✓ R. Rasul & H. Salleh (2013). Two-Dimensional Model of Lexicographic Preferences, Applied Mathematical Sciences. 7(108), pp. 5353 – 5362

✓ O.M. Pamen, T. Meyer-Brandis, F. Proske & H. Salleh (2012). Malliavin Calculus Applied to Optimal Control of Stochastic Partial Differential Equations with Jumps. Stochastics. 85(3), pp. 431-463.

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