



Dr. Salmawaty, M.Sc

Position	Research Interest: Numerical Analysis, Applied Mathematics, Mathematical Models, Ethnomathematics Teaching Responsibilities: Teaching in the Mathematics Department: Bachelor and Master Degree of Mathematics Study Programme
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Academic Career	Doctorate course: Institut Teknologi Bandung (ITB) and The University of Twente (UT), The Netherlands (sandwich program) – Numerical Analysis (1999–2003); Magister Course: Virginia Polytechnic Institute and State University (VPI&SU), USA – Applied Mathematics (1991–1993) ; Bachelor Course: Institut Teknologi Bandung (ITB), Indonesia - Mathematics Department (1979–1985).
Employment	Lecturer in Mathematics Department FMIPA, USK (1989–present); Head of Mathematics Department FMIPA, USK (1994–1999); Secretary of Mathematics Department USK (1993–1994); Lecturer in Mathematics Education Department Tarbiyah Faculty, IAIN Ar-Raniry Banda Aceh (1989–1991); Staff at Computational Aerodynamics Division, Technology Directorate, PT. Industri Pesawat Terbang Nusantara (IPTN) Bandung (1986–1989)
Research and development projects (last 5 years)	Computer Program Development of a Fara'id Table from Aceh to Support the Implementation of the Islamic Law/Superior Research Universitas Syiah Kuala - USK PTNBH/IDR70,000,000/2020–2021.
Collaborations (last 5 years)	<ol style="list-style-type: none"> 1. Computer Program Development of a Fara'id Table from Aceh to Support the Implementation of the Islamic Law/Office for Ministry of Religion Banda Aceh/2020-2021. 2. Webinar on Application of Ethnomathematics and Ethno-informatics for Cultural Preservation in Indonesia, Case Study: Sundanese and Acehese Culture/Mathematics Department, The University of Padjadjaran and The Indonesian Mathematical Society Branch West Java, Banten, and Jakarta/2025.
Patents and proprietary rights	Copyright Patent (HAK CIPTA): Program Komputer Penentuan Bagian Waris untuk Tiga Jenis Ahli Waris Profar3_PRE_USK (computer programs); Motif Fraktal Bungong Meulu (motif arts).
Publications (last 5 years)	<ol style="list-style-type: none"> 1. Siti Sahrani, Salmawaty, Said Munzir, Saiful Amri (2025) Sketch the Sierpinski Gasket, Mandelbrot Set, Julia Set, and Its Basin of Attraction using Newton Method/Elkawnie Journal of Islamic Science and Technology, 11(1) (to be published). 2. Nur Azmi, Salmawaty Arif, Hizir Sofyan, Rini Oktavia (2025) Bridging Geometry and Cultures for Junior High School Level: Rumoh Aceh Design from a Computational Thinking Perspective/Journal on Mathematics Education, 16(2) 3529. 3. Salmawaty Arif, Nanda Akmalia (2024) Analysis of Ecotourism and Disaster Mitigation Data at the Kuala Langsa Mangrove Forest by Using the Analytic Hierarchy Process/Barekeng: Journal of Mathematics and Its Applications, 18(4), 2125–36. 4. Nur Azmi, Hizir Sofyan, Rini Oktavia, Salmawaty Arif (2024) Ethnomathematics: Culture Exploration and the Improvement of Mathematical Teaching Process/Proceedings of the 12th Annual International Conference (AIC) 2022, Universitas Syiah Kuala, 37772. 5. Taufiq Iskandar, Salmawaty, Marwan Ramli, Hizir Sofyan, Muhammad Ikhwan (2024) Effect of Free Convection on Surface Ocean Currents: A Case Study of Shallow Waters/AIP Conference Proceedings of the 12th Annual International Conference (AIC) 2022, 3082 (1). 6. Muhammad, Ichsan Setiawan, Rizwan, Haekal Azief Haridhi, Syarifah Meurah Yuni, Salmawaty (2022) Penggunaan Fishfinder untuk Penentuan Lokasi Rumpon dan Fishing Ground pada Masyarakat Nelayan Tradisional Lhok Krueng Aceh/Jurnal Pengabdian Masyarakat At-Tamkin, 5(1), 56–64. 7. Salmawaty Arif, Rahmi Mulyana, Syarifah Meurah Yuni (2021), The Computer Program Development to Determine the Shares of Inheritance for Three Types of Heir/Elkawnie Journal of Islamic Science and Technology 7 (1), 178–90.
Membership	American Mathematical Society (1993–1999), The Indonesian Mathematical Society (1999–2018)
External link	http://fsd.usk.ac.id/salmawaty/