

DR. UMMU ATIQAH BINTI MOHD ROSLAN

SENIOR LECTURER

Dr. Ummu Atiqah Mohd Roslan is a Senior Lecturer at the Faculty of Computer Science and Mathematics, Universiti Malaysia Terengganu (UMT), with expertise in mathematical modeling and dynamical systems. Her work focuses on applying advanced mathematical tools, such as stability analysis and bifurcation theory, to solve real-world problems in ecology, socio-economics, tourism, and environmental conservation. She holds a Ph.D. in Mathematics from the University of Exeter, UK, where she developed innovative stability indices for dynamical systems with riddled basins of attraction.



RESEARCHER PROFILE

Scopus[®] 35435930500

ORCID 0000-0002-4396-0947

Google scholar UMMU ATIQAH MOHD ROSLAN

CONTACT

+6019-2353385

ummuatiqah@umt.edu.my

fskm.umt.edu.my

EDUCATION

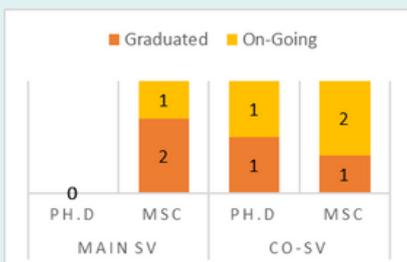


- Post-Doctoral, UKM, Malaysia
- PhD in Mathematics, University of Exeter, Exeter, United Kingdom
- MSc of Mathematical Sciences, Universiti Malaysia Terengganu
- BSc of Financial Mathematics, Universiti Malaysia Terengganu

AREAS OF EXPERTISE

- Dynamical Systems
- Ergodic Theory
- Ecological Modelling

SUPERVISION



COLLABORATORS



University of Exeter



UNIVERSITI SAINS MALAYSIA



UNIVERSITAS AHMAD DAHLAN



UNIVERSITI KEBANGSAAN MALAYSIA
The National University of Malaysia

SELECTED RESEARCH PROJECTS

- ✓ A Dynamical Approach to Predicting New Mother Sea Turtle Nesting Behavior in Chagar Hutang, Geran TAPE-RG - Universiti Malaysia Terengganu (2023-2025), RM20,000.
- ✓ Geran Penyelidikan Kerajaan Terengganu - GTC2021, A Mathematical Modelling to Assess the Impacts of Tourism Activities on the Economy of Local Vendors and Environment Quality at Kapas Island (2021-2022), RM6,000.
- ✓ Fundamental Research Grant Scheme (FRGS), JPT, Malaysia, Stability index for the characterization of basin of attraction of new sea turtle-human prey-predator dynamics model (2019-2022), RM68,200.

SELECTED PUBLICATIONS

- ✓ Roslan, U. A. M., Harun, F. N., & Alias, A. (2024). Dynamic Modelling for Assessing the Impact of Marine Debris on the Population of Sea Turtles. Journal of Quality Measurement and Analysis JQMA, 20(2), 1-14. Scopus indexed.
- ✓ Pratama, D. A., Bakar, M. A., Roslan, U. A. M., Surono, S., & Salhi, A. (2024). Numerical solutions of sea turtle population dynamics model by using restarting strategy of PINN-Adam. Results in Applied Mathematics, 22, 100457. Scopus indexed
- ✓ Roslan, U. A. M., Hassim, M. F. N., & Ruslan, S. M. M. (2024). A Mathematical Model to Assess the Impact of Tourism Activities on the Economy of Vendors at Bukit Maras, Terengganu, Malaysia. Malaysian Journal of Fundamental and Applied Sciences, 20(1), 1-9. Scopus indexed.
- ✓ Roslan, U. A. M., & Harun, F. N. (2023). Modeling the Impact of Pollution on Sea Turtles. Malaysian Journal of Fundamental and Applied Sciences, 19(4), 607-615. Scopus indexed.
- ✓ Dahri, A. S., Roslan, U. A. M., Damanhuri, H., & Rusli, M. U. (2023). Estimating the Population Growth Curve of Sea Turtle Eggs Production in Terengganu, Malaysia: Mathematical Modelling Approach. Journal of Advanced Research in Applied Sciences and Engineering Technology, 32(1), 332-342. Scopus indexed.



UNIVERSITI SAINS MALAYSIA



Universiti Tun Hussein Onn Malaysia