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1. GENERAL INFORMATION

DATE OF BIRTH	14 July 1968
PLACE OF WORK	Department of Mathematics, Faculty of Science, Mahidol University, Rama VI Road, Bangkok 10400, Thailand
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2. QUALIFICATIONS

- **PhD. (Mathematics)** — Curtin University of Technology, 2008.
- **M.Sc. (Applied Mathematics)** — Mahidol University, 1995.
- **B.Sc. (Mathematics)** — Kasetsart University, 1991.

3. HONOURS

2003 – 2008	Royal Thai Government Scholarship
1991	“Tab Nelaniti” Prize for B.Sc. (Mathematics) student
1987 – 1995	DPST Scholarship

4. EXPERIENCE

JAN 2022 – PRESENT

Head, Department of Mathematics
 Faculty of Science, Mahidol University

NOV 2019 – PRESENT

Assistant Director for Administration
 Centre of Excellence in Mathematics

DEC 2015 – NOV 2019

Deputy Dean for Administration
 Faculty of Science, Mahidol University

OCT 2014 – NOV 2015

Deputy Dean for Education
 Faculty of Science, Mahidol University

FEB 2009 – SEP 2014

Assistant Dean for System Development and Technology

Faculty of Science, Mahidol University

OCT 2001 – PRESENT**Assistant Professor**

Department of Mathematics, Faculty of Science, Mahidol University

APR 2000 – AUG 2003**Assistant Chairman**

Department of Mathematics, Faculty of Science, Mahidol University

JUL 1995 – OCT 2001**Lecturer**

Department of Mathematics, Faculty of Science, Mahidol University

5. LIST OF PUBLICATIONS

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CITATIONS

1. **Amornsamankul, S.**, 1995, Earth-moon-satellite problem with the Bulirsch-Stoer-Gragg method of rational extrapolation: M.Sc. Thesis.
2. Lenbury, Y., Ratanakul, C., Pahupongsap, S., **Amornsamankul, S.** Analysis of Fast Kinetics Models for the Distribution of Polychlorinated Dibenzo-p-dioxins and Dibenzofurans in Humans. J. Sci. Soc. Thailand. 24 (1998) 205-214.
3. Lenbury, Y., Neamvong, A., **Amornsamankul, S.**, Puttapiban, P. Modelling Effects of High Product and Substrate Inhibition on Oscillatory Behavior in Continuous Bioreactors. BioSystems. 49 (1999) 191-203.
4. Lenbury, Y., Rattanamongkonkul, S., Tumrasvin, N., **Amornsamankul, S.** Predator-prey Interaction Coupled by Parasitic Infection: Limit Cycles and Chaotic Behavior. Mathematical and Computer Modelling. 30 (1999) 131-146.
5. Lenbury, Y., Ruktamatakul, S., **Amornsamankul, S.** Modeling Insulin Kinetics: Responses to a Single Oral Glucose Administration or Ambulatory-fed Condition. BioSystems. 59 (2001) 15-25.
6. **Amornsamankul, S.**, Wiwatanapataphee, B., Wu, Y.H., Lenbury, Y. Simulation of Blood Flow in the Lumen and Porous Medium Regions of Stenotic Arteries. Contributions in Mathematics and Applications: A special volume of East-West Journal of Mathematics. (2005) 95-103.
7. **Amornsamankul, S.**, Wiwatanapataphee, B., Wu, Y.H., Lenbury, Y. Effect of Non-Newtonian Behaviour of Blood on Pulsatile Flows in Stenotic Arteries. International Journal of Biomedical Sciences. 1(1) (2006) 42-46.
8. Wiwatanapataphee, B., **Amornsamankul, S.**, Wu, Y.H., Lenbury, Y. Simulation of Transient Blood Flow through Stenosed Coronary Arteries. WSEAS Transactions on Fluid Mechanics. 1(7) (2006) 771-778.
9. Wiwatanapataphee, B., Wu, Y.H., **Amornsamankul, S.**, Novaprateep, B. Simulation of Transient Blood Flows in the Artery with an Asymmetric Stenosis. ANZIAM Journal. 48 (2008) C1006-C1021.
10. **Amornsamankul, S.**, 2008, Mathematical Modelling and Numerical Simulation of Blood Flow Through Stenotic Arteries: PhD. Thesis.
11. Kraipeerapun, P., **Amornsamankul, S.**, Fung, C.C., Nakkrasae, S. Applying Duo Output Neural Networks to Solve Single Output Regression Problem. Lecture Notes in Computer Science. 5863 (2009) 554-561.
12. Kraipeerapun, P., Nakkrasae, S., Fung, C.C., **Amornsamankul, S.** Solving regression problem with complementary neural networks and an adjusted averaging technique. Memetic Computing. 2(4) (2010) 249-257.
13. Kraipeerapun, P., **Amornsamankul, S.** Ensemble of duo output neural networks for binary classification. International Journal of Mathematics and Computers in Simulation. 4(4) (2010) 162-170.
14. **Amornsamankul, S.**, Kaorapapong, K., Wiwatanapataphee, B. Three-dimensional simulation of femur bone and implant in femoral canal using finite element method. International Journal of Mathematics and Computers in Simulation. 4(4) (2010) 171-178.

15. Kraipeerapun, P., **Amornsamankul, S.** Neural network regression based on falsity input. *International Journal of Mathematical Models and Methods in Applied Sciences*. 5(5) (2011) 874-881.
16. **Amornsamankul, S.**, Promrak, J., Kraipeerapun, P. Solving multiclass classification problems using combining complementary neural networks and error-correcting output codes. *International Journal of Mathematics and Computers in Simulation*. 3(5) (2011) 266-273.
17. Kaorapapong, K., **Amornsamankul, S.**, Tang, I.-M., Wiwatanapataphee, B. Heat transfer in cemented hip replacement process. *International Journal of Mechanics*. 3(5) (2011) 202-209.
18. Nokkaew, A., Pimpunchat, B., Modchang, C., **Amornsamankul, S.**, Triampo, W., Triampo, D. Estimation of algae growth model parameters by a double layer genetic algorithm. *WSEAS Transactions on Computers*. 11(11) (2012) 377-386.
19. **Amornsamankul, S.**, Pimpunchat, B., Duangchai-Yoosook, S., Triampo, W. Applying genetic algorithm and fourier series to WQI of Tha Chin river in Thailand. *International Journal of Mathematics and Computers in Simulation*. 6(3) (2012) 333-340.
20. Nokkaew, A., **Amornsamankul, S.**, Pimpunchat, B., Saengpayab, Y., Triampo, W. Simple stochastic model for random waste absorption of an algae cell: Analytic approach. *International Journal of Mathematical Models and Methods in Applied Sciences*. 9(7) (2013) 837-844.
21. Kongson, J., **Amornsamankul, S.** A Model of the Signal Transduction Process under a Delay. *East Asian Journal on Applied Mathematics*. 7(4) (2017) 741-751.
22. Nokkaew, A., Modchang, C., **Amornsamankul, S.**, Lenbury, Y., Pimpunchat, B., Triampo, W. Mathematical modeling of infectious disease transmission in macroalgae. *Advances in Difference Equations*. 1(288) (2017) 1-8.
23. Sornnery, A., Pimpunchat, B., Tuntiwaraasakul, D., Kitrunloadjanaporn, P., **Amornsamankul, S.**, Triampo, W. Using ANOVA to evaluate the effects of swine slaughterhouse wastewater conditions on algae growth. *International Journal of Simulation: Systems, Science and Technology*. 19(4) (2018) 14.1-14.8.
24. Thongthaisong, P., Triampo, W., **Amornsamankul, S.** A novel droop-logistic model for microorganism population studies. *International Journal of Simulation: Systems, Science and Technology*. 19(4) (2018) 15.1-15.6.
25. Sirimangkhal, K., Pimpunchat, B., **Amornsamankul, S.**, Triampo, W. Modelling greenhouse gas generation for landfill. *International Journal of Simulation: Systems, Science and Technology*. 19(4) (2018) 16.1-16.7.
26. Pipatsart, N., Modchang, C., Triampo, W., **Amornsamankul, S.** Network based model of infectious disease transmission in Macroalgae. *International Journal of Simulation: Systems, Science and Technology*. 19(5) (2018) 11.1-11.8.
27. Sutamas Satthong, Kritsana Saego, Pongpatai Kitrunloadjanaporn, Narin Nuttavut, **Somkid Amornsamankul** and Wannapong Triampo. Modeling the effects of light sources on the growth of algae. *Advances in Difference Equations*. 170 (2019) 1-6.
28. Jiraporn Charoenpong, Busayamas Pimpunchat, **Somkid Amornsamankul**, Wannapong Triampo, Narin Nuttavut. A Comparison of Machine Learning Algorithms and their Applications. *International Journal of Simulation: Systems, Science and Technology*. 20(4) (2019) 8.1-8.17.
29. Sirimangkhal, K., Pimpunchat, B., **Amornsamankul, S.**, Nuttavut, N., Triampo, W. A Review of Modelling and Computer Simulation of Landfill Gas. *International Journal of Simulation: Systems, Science and Technology*. 20(4) (2019) 9.1-9.9.
30. Satthong, S., Saego, K., Kitrunloadjanaporn, P., Nuttavut, N., **Amornsamankul, S.**, Triampo, W. Modeling the effects of light sources on the growth of algae. *Advances in Difference Equations*. 2019(1) (2019).
31. Narin Nuttavut, Darapond Triampo, **Somkid Amornsamankul**, Wannapong Triampo. STEM-based Learning Blended with Inquiry-based Learning for Medical Students through Forensic STEM Activities. *International Journal of Simulation: Systems, Science and Technology*. 21(1) (2020) 7.1-7.7.
32. Nicha Khathinhorm, Rungrod Samankitesakul, Wasakorn Laesanklang, **Somkid Amornsamankul**. Deep Learning and Image Processing for Disc Brake Pad Identification: A Case Study of Brake Pads Company. *Journal of Engineering and Digital Technology (JEDT)*. 10(2) (2022).
33. Chanitsara Phalawan, Tongjai Satthaphon, Suntaree Unhapipat, Banpot Horbanluekit, **Somkid Amornsamankul**. Enhancement of Brake Pads Production Planning with Time Management and Process Condition Using VBA on Microsoft Excel. *Engineering Access*. 9(1) (January-June 2023) 62-69.

34. Suksamran, J., **Amornsamankul, S.**, Lenbury, Y. Reaction-Diffusion-Integral System Modeling SARS-CoV-2 Infection-Induced versus Vaccine-Induced Immunity: Analytical Solutions and Stability Analysis. *IAENG International Journal of Applied Mathematics*. 54(2) (2024) 223-231.
35. Morrakotsriwan, Preeyanunt., Kaewlob, Kritsana., Unhapipat, Suntaree., Horbanluekit, Banpot., **Amornsamankul, Somkid.** Enhancements to Human Resource and Data Resource Management Performance in the Development of Disc Brake Pad Products. *Engineering Access*. 10(2) (2024) 81-89.
36. Techakasarn, P., Sawangtong, W., Khajohnsakumeth, N., Netramai, S., Kijchavengkul, T., Yaijam, G., **Amornsamankul, S.** NUMERICAL SIMULATION OF STRESS DISTRIBUTION IN GLASS BOTTLES DURING CARBONATED BEVERAGE PASTEURIZATION. *ICIC Express Letters, Part B: Applications*. 16(5) (2025) 489-496.
37. Jitsangob, S., **Amornsamankul, S.**, Hobanluekit, B., Sriwiboon, M., Unhapipat, S. APPLICATION OF CONVERSATIONAL CHATBOT FOR BRAKE PADS BUSINESS IN THAILAND VIA LINE APPLICATION. *ICIC Express Letters, Part B: Applications*. 16(5) (2025) 559-565.
38. Tharyar Aung, Rapeepun Vanichviriyakit, Kittisak Chayantrakom, **Somkid Amornsamankul** and Pallop Huabsomboon. CNN-Based Identification of Pathogens of Concern in Shrimp. *Animals*. 3194(15) (2025) 1-22.
39. Meesri, Sarawut., **Amornsamankul, Somkid.**, Kraipeerapun, Pawalai. APPLYING MULTIPLE CASCADE GENERALIZATIONS TO PREDICTING OBESITY LEVELS. *ICIC Express Letters, Part B: Applications*. 17(5) (2026) 493-500.

6. RESEARCH WORK PRESENTED IN INTERNATIONAL CONFERENCES

1. **Amornsamankul, S.**, Wiwatanapataphee, B., Wu, Y.H., Lenbury, Y. Simulation of Blood Flow in the Lumen and Porous Medium Regions of Stenotic Arteries. *International Conference in Mathematics and Applications*. Bangkok, Thailand. 15-17 December 2005.
2. **Amornsamankul, S.**, Wiwatanapataphee, B., Wu, Y.H., Lenbury, Y. Effect of Non-Newtonian Behaviour of Blood on Pulsatile Flows in Stenotic Arteries. *The 13th Biennial Computational Techniques and Applications Conference*. Townsville, Australia. 2-5 July 2006.
3. Wiwatanapataphee, B., **Amornsamankul, S.**, Wu, Y.H., Lenbury, Y. Non-newtonian Blood Flow through Stenosed Coronary Arteries. *The 2nd WSEAS International Conference on Applied and Theoretical Mechanics*. Venice, Italy. 20-22 November 2006.
4. **Amornsamankul, S.**, Wiwatanapataphee, B., Wu, Y.H., Lenbury, Y. Numerical Simulation of Blood Flow in the Stenosed Coronary Artery. *The 2nd Asian Simulation and Modeling 2007*. Chiang Mai, Thailand. 9-11 January 2007.
5. Kraipeerapun, P., Fung, C.C., Nakkrasae, S., **Amornsamankul, S.** Applying Complementary Neural Networks to Porosity Prediction in Well Log Data Analysis. *The 6th International Joint Conference on Computer Science and Software Engineering (JCSSE2009)*. Phuket, Thailand. 13-15 May 2009.
6. Kraipeerapun, P., Nakkrasae, S., **Amornsamankul, S.**, Fung, C.C. Complementary neural networks for regression problems. *Eighth International Conference on Machine Learning and Cybernetics*. Baoding, China. 12-15 July 2009.
7. Kraipeerapun, P., **Amornsamankul, S.**, Fung, C.C., Nakkrasae, S. Applying duo output neural networks to solve single output regression problem. *16th International Conference on Neural Information Processing (ICONIP 2009)*. Bangkok, Thailand. 1-5 December 2009.
8. Nakkrasae, S., Kraipeerapun, P., **Amornsamankul, S.**, Fung, C.C. Bagging of Complementary Neural Networks with Double Dynamic Weight Averaging. *2010 11th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing*. 9-11 June 2010.
9. **Amornsamankul, S.**, Kraipeerapun, P. Bagging of Duo Output Neural Networks for Single Output Regression Problem. *2010 3rd IEEE International Conference on Computer Science and Information Technology*. Chengdu, China. 7-10 July 2010.
10. Kraipeerapun, P., **Amornsamankul, S.** Using Duo Output Neural Network to Solve Binary Classification Problem. *ACS'10 Proceedings of the 10th WSEAS International Conference on Applied Computer Science*. Iwate, Japan. 4-6 October 2010.
11. **Amornsamankul, S.**, Kaorapapong, K., Wiwatanapataphee, B. Three-Dimensional Simulation of the Femur Bone Using Finite Element Method. *ACS'10 Proceedings of the 10th WSEAS International Conference on Applied Computer Science*. Iwate, Japan. 4-6 October 2010.

12. **Amornsamankul, S.**, Kraipeerapun, P. Applying Falsity Input to Neural Networks to Solve Single Output Regression Problems. 10th WSEAS International Conference on Applied Computer and Applied Computational Science. Venice, Italy. 8-10 March 2011.
13. Promrak, J., **Amornsamankul, S.**, Kraipeerapun, P. Combining complementary neural network and error-correcting output codes for multiclass classification problems. 10th WSEAS International Conference on Applied Computer and Applied Computational Science. Venice, Italy. 8-10 March 2011.
14. Kaorapapong, K., Jumpen, W., **Amornsamankul, S.**, Tang, I.-M., Wiwatanapataphee, B. Three Dimensional Simulation of Heat Transfer Problem after Cemented Hip Replacement. 4th WSEAS International Conference on Finite Differences - Finite Elements - Finite Volumes - Boundary Elements (F-and-B '11). Paris, France. 28-30 April 2011.
15. Pawalai Kraipeerapun and **Somkid Amornsamankul**. Using Stacked Generalization and Complementary Neural Networks to Predict Parkinson's Disease. The 11th International Conference on Natural Computing (ICNC 2015). Zhangjiajie, China. 15-17 August 2015, pp. 1294-1298.
16. Pawalai Kraipeerapun and **Somkid Amornsamankul**. Classification of Types of Forests Using Complementary Neural Networks and StackingC. The 14th IASTED International Conference on Software Engineering (SE 2016). Innsbruck, Austria. 15-16 February 2016, pp. 289-293.
17. Pawalai Kraipeerapun and **Somkid Amornsamankul**. Using Falsity Data in the Stacking Technique. The International Conference on Computational Intelligence and Applications (ICCIA 2016). Jeju Island, Korea. 27-29 August 2016, pp. 1-5.
18. Pawalai Kraipeerapun and **Somkid Amornsamankul**. Room Occupancy Detection using Modified Stacking. The 9th International Conference on Machine Learning and Computing (ICMLC 2017). Singapore. 24-26 February 2017.
19. Pawalai Kraipeerapun and **Somkid Amornsamankul**. Using Cascade Generalization and Neural Networks to Select Cryotherapy Method for Warts. In Proceedings of the International Conference on Engineering, Science, and Industrial Applications (ICESI 2019). Tokyo, Japan. 22-24 August 2019, pp. 106-110.
20. Wattanakasiwich, P., Suree, N., Chamrat, S., Saengsuwan, W., Suttharangsee, W., Panrat, T., Ruamcharoen, J., Triampo, W., **Amornsamankul, S.**, Laesanklang, W., Berglund, A., Chantawannakul, P. Investigating Challenges of Student Centered Learning in Thai Higher Education during the COVID-19 Pandemic. 2021 IEEE Frontiers in Education Conference (FIE 2021). Lincoln, United States. 13-16 October 2021.
21. Chatree Nilnumpetch, **Somkid Amornsamankul**, Pawalai Kraipeerapun. Cancer Prediction Using Cascade Generalization and Duo Output Neural Network. Proceedings of the 2021 Sixth International Conference on Research in Intelligent and Computing (ACSIS 2021). Vol. 27, pages 65-70.
22. Nilnumpetch, C., **Amornsamankul, S.**, Kraipeerapun, P. Cascade Generalization and Complementary Neural Networks for Multiclass Classification. 2022 IEEE International Conference on Electrical, Computer, and Energy Technologies (ICECET 2022). Prague, Czech Republic. 20-22 July 2022.
23. Chatree Nilnumpetch, **Somkid Amornsamankul**, Pawalai Kraipeerapun. Health Data Classification using Applied Cascade Generalization. 2023 International Conference on Inventive Computation Technologies (ICICT). Lalitpur, Nepal. 26-28 April 2023.
24. Meesri, Sarawut., **Amornsamankul, Somkid.**, Kraipeerapun, Pawalai. Rice Classification Using Three-Step Neural Network Integration. 2024 International Conference on System Science and Engineering (ICSSE). Hsinchu, Taiwan. 26-28 June 2024.

7. RESEARCH WORK PRESENTED IN LOCAL CONFERENCES

1. Nakkrasae, S., Kraipeerapun, P., **Amornsamankul, S.**, Fung, C.C. Porosity Prediction Using an Ensemble of Complementary Neural Networks with Average Error Adjusting. The Conference on Knowledge and Smart Technologies (KST 2009). Chonburi, Thailand. 24-25 July 2009.