Colonel Professor Dr. Suwimon Saneewong Na Ayuttaya

พันเอกหญิง ศาสตราจารย์ ดร.สุวิมล เสนีวงศ์ ณ อยุธยา

POSITION:
President of the Faculty Senate,
Chulachomklao Royal Military Academy

GOVERNMENT OFFICE
Department of Mechanical Engineering,
Academic Division, Chulachomklao Royal Military Academy, Nakhon Nayok, Thailand

CONTACT:
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EDUCATION:
Doctor of Philosophy (Mechanical Engineering),
Thammasat University, Thailand (2013)

Mechanical Engineeing (Mechanical Engineering),
Srinakarinwirot University, Thailand (2005)

Bachelor of Engineering (Geotechnology),
Suranaree University of Technology, Thailand (2001)

RESEARCH AREA:
Electrohydrodynamic Technique,
Porous Media,
Drying Technique,
Thermal System Design,
Energy Management Technology

WORK EXPERIENCE:

Year	Work Position
2024 - Now	Academic Review Committee, Royal Thai Naval Academy
2019 - Now	Consultant and Instructor, Master of Engineering Program in Defense Engineering and Technology, Faculty of Engineering, Chulalongkorn University
2017 - Now	Editorial Board member, Chulachomklao Royal Military Academy Journal
2013 – Now	Researcher, Center of Excellence in Electromagnetic Energy Utilization in Engineering (CEEE), Department of Mechanical Engineering, Faculty of Engineering, Thammasat University
2004 - Now	Instructor, Mechanical Engineering Department, Academic Division, Chulachomklao Royal Military Academy

AWARDS:

Year	Award Name	Awarding Institution
2024	Outstanding Alumni Award in Research, Academic and Innovation Field	Srinakarinwirot University
2024	Outstanding Alumni Award in Academic Field	Suranaree University of Technology
2019	Outstanding Award in Engineering Field from Her Royal Highness Princess Maha Chakri Sirindhorn	Chulachomklao Royal Military Academy
2016	Outstanding Award in Engineering Field From The Princess Maha Chakri Sirindhorn	Chulachomklao Royal Military Academy
2016	Best paper award	18th International Conference on Advanced Motion Control and Mechanical Systems (ICAMCMS 2016), 6-7 October 2016, Prague, Czech Republic.
2014	Outstanding Award in Engineering Field From The Princess Maha Chakri Sirindhorn	Chulachomklao Royal Military Academy

RESEARCH GRANTS:

Year	Topic	Research Grant	Position
2024 - Now	Hub of Talents Electromagnetic Energy in Medical Engineering	National Commission on Science, Research and Innovation Promotion Fund	Researcher
2021	Research and Development of Solar-powered Water Screw Pump	Chulachomklao Royal Military Academy Fund	Project Leader
2019	The Study and Model of Electrostatic Powder Coating for Equipment	Chulachomklao Royal Military Academy Fund	Project Leader
2014 - 2016	Influence of Electrically-Driven Wind on Heat Transfer Enhancement of Material Surface in a Rectangular Duct	Thailand Research Fund and Chulachomklao Royal Military Academy Fund	Project Leader
2013	Computer Programming for Selecting the Variable Refrigerant Volume (VRV) Air Conditioning system to appropriately operate at CRMA Auditorium	Chulachomklao Royal Military Academy Fund	Project Leader
2011 - 2012	Analysis of Electrohydrodynamic Effect to Heat and Mass Transfer Behaviors in Unsaturated Porous Media	Thammasat University Fund	Project Leader

PUBLICATIONS:

International Publications:

Mawintorn, T., Lolupiman, K., Kiatwisarnkij, N., Woottapanit, P., Karnan, M., Saneewong Na Ayuttaya, S., Zhang, X., Wangyao, P. and Qin, J. (2024). Fabrication and Characterization of Zinc Anode on Nickel Conductive Cloth for High-Performance Zinc Ion Battery Applications. *Journal of Metals, Materials and Minerals*, 34(3), 2083. (Q3 (I.F.1.122))

Woottapanit, P., Yang, C., Cao, J., Limphirat, W., Saneewong Na Ayuttaya, S., Zhang, X., Wangyao, P. and Qin, J. (2023). Inhibition of Zinc Dendrite Growth by WC-Cellulose Separators for High-Performance Zinc-Ion Batteries, *ACS Applied Energy Materials*, 6(20), 10578–10584. (Q1 (I.F.5.43))

Saneewong Na Ayuttaya, S. (2023). Blood Flow Transport with Electrokinetic Flow Technique through a Narrow Semicircle Shape within the Vertical 2D Asymmetrical Model. *International Journal of Thermofluid Science and Technology,* 10(3), 100303. (Q3 (I.F.0.43))

Saneewong Na Ayuttaya, S. (2022). The Performance and Feasibility Analysis of Solar-powered Screw Pump for Agricultural Sector in Thailand. *Asia-Pacific Journal of Science and Technology,* 27(05). APST-27-05-13. (Q3 (I.F.0.74))

Saneewong Na Ayuttaya, S. (2022). Heat Transfer Enhancement on Saturated Porous Samples using Electrostatic Precipitator Process in k-ε Turbulent Model. *International Journal of Thermofluid Science and Technology,* 9(4), 090403. (Q3 (I.F.0.43))

Saneewong Na Ayuttaya, S. and Rattanadecho, P. (2021). Implementation of Blood Flow Transport under Electrokinetic Flow through Porous Fat Depot within the Vertical Flow Model. *International Journal of Heat and Technology,* 39(5), 1509 - 1522. (Q3 (I.F.0.70))

Saneewong Na Ayuttaya, S. (2021). Numerical Analysis of Jet Airflow Impact Inclined Flat Plate under Electrohydrodynamics Force in a Porous Medium. *International Journal of Numerical Methods for Heat and Fluid Flow,* 31(7), 2373 - 2404. (Q1 (I.F.4.12))

Saneewong Na Ayuttaya, S. (2020). Influence of the Jet Air Flow with Inclined Plate under Corona Discharge. *Science & Technology Asia,* 25(2), 47 - 62. (Q3 (I.F.0.41))

Saneewong Na Ayuttaya, S. and Rattanadecho, P. (2018). Influence of Electrode Arrangements on Electrohydrodynamics and Transport Phenomenon within Water and Porous Samples Connected to Rectangular Duct. *International Journal of Thermal Sciences*, 130C, 367 - 385. (Q1 (I.F.4.90))

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. (2017). Flow Control with Electrode Bank Arrangements by Electrohydrodynamics Force for Heat Transfer Enhancement in a Porous Medium. Heat Transfer – Asian Research, 47(4), 620 - 645. (Q2 (I.F.2.44))

Saneewong Na Ayuttaya, S. (2015). The Financial Evaluation to Select the Best Water Hyacinth Harvester to Improve Water Resources in Thailand. *Kasetsart Journal (Natural Science)*, 49(6), 1022 - 1035. (Q4 (I.F.0.34))

Saneewong Na Ayuttaya, K., and Saneewong Na Ayuttaya, S. (2014). Cost-Effectiveness Analysis of Statin Monotherapy Regimen in an Outpatient Management of Dyslipidemia in Patients with Diabetes Mellitus. *Songklanakarin Journal of Science and Technology,* 36(6), 675 - 681. (Q2 (I.F.0.60))

International Publications (Cont.):

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. (2013). Numerical Analysis of Electric force Influence on Heat Transfer in a Channel Flow (Theory Based on Saturated Porous Medium Approach). *International Journal of Heat and Mass Transfer*, 64, 361 - 374. (Q1 (I.F.6.40))

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. (2013). Numerical Analysis of Influence of Electrode Position on Fluid Flow in 2-D Rectangular Duct Flow. *Journal of Mechanical Science and Technology*, 27(7), 1957 - 1962. (Q2 (I.F.1.61))

Saneewong Na Ayuttaya, S., Chaktranond, C., Rattanadecho, P. and Kreewatcharin, T. (2012). Effect of Ground Arrangements on Swirling Flow in a Rectangular Duct Subjected to Electrohydrodynamic Effects. *Journal of Fluids Engineering -Transactions of the ASME*, 134, 051211 - 9. (Q2 (I.F.0.88))

National Publications:

Saneewong Na Ayuttaya, S. (2024). Electrode and Ground Arrangement on Sample Plate under Electrostatic Powder Coating Process. *CRMA Journal*, 22, 58 – 75. (TCI2)

Saneewong Na Ayuttaya, S. (2017). A review of Electrohydrodynamics Application (Based on the Mechanism Characteristic). *CRMA Journal*, 15, 37 – 59. (TCI1)

International Conferences:

Saneewong Na Ayuttaya, S. Numerical Investigation of EHD-enhanced Heat Transfer in a Solid Sample. *Proceedings of 18th International Conference on Advanced Motion Control and Mechanical Systems* (6 - 7 October 2016): Prague, Czech Republic.

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. EHD-enhanced Heat Transfer of Fluid Flow related with Sample Size.*Proceedings of 4th International Symposium on Engineering, Energy and Environment* (8 - 10 November 2015): Chonburi, Thailand.

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. Comparison on Electrode and Ground Arrangements Effect on Heat Transfer under Electric Force in a Channel and a Cavity Flow. *Proceedings of 2nd International Conference on Mechanical and Mechatronics Engineering* (5 - 6 July 2014): Singapore.

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. Numerical Simulation of Air Flow Driven by Electric Field in a Rectangular Duct.*Proceedings of 3rd International Symposium on Engineering, Energy and Environments* (17 - 20 November 2013): Bangkok, Thailand.

Saneewong Na Ayuttaya, S., Chaktranond, C., and Rattanadecho, P. Effect of Electric Force Direction on Fluid Flow and Heat Transfer in Channel Flow. *Proceedings of 2nd International Conference on Engineering and Applied Science* (15 - 17 March 2013): Tokyo, Japan.

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. Influence of Electric Force on Heat Transfer in a Channel Flow and Saturated Porous Medium, *Proceedings of 3rd International Conference on Mechanical Engineering* (24 - 27 October 2012): Chiangrai, Thailand.

Saneewong Na Ayuttaya, S., Chaktranond, C., Kreewatcharin, T. and Rattanadecho, P. Comparison on Effect of Electrode Arrangements between Wire-to-Wire and Wire-to-Plate Types on Swirling Flow under Electric Fields in a Channel Flow.*Proceedings of 2nd International Conference on Mechanical Engineering* (19 - 21 October 2011): Krabi, Thailand.

Saneewong Na Ayuttaya, S., Chaktranond, C. and Rattanadecho, P. Influence of Electrode Wire Structure on Corona Wind in a 2-D Rectangular Duct Flow (Numerical Analysis). *Proceedings of 1st International Conference on Mechanical Engineering* (20 - 22 October 2010): Ubon Ratchathani, Thailand.