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https://www.researchgate.net/profile/Thanhtrung-Dang-2/stats

PROFESSOR TITLE

November 2025: Professor in Mechanical Engineering
November 2013: Associate Professor in Mechanical Engineering

EDUCATION

Chung Yuan Christian University (CYCU), Taiwan **Sept 2010 – Aug 2011**
Postdoc program, at the Thermo-Fluidic Analysis Group (TFAG), Department of Mechanical Engineering

Chung Yuan Christian University (CYCU), Taiwan **Sept 2007 – July 2010**
Ph.D., at the Thermo-Fluidic Analysis Group (TFAG), Department of Mechanical Engineering

Hochiminh City University of Technology (HCMUT) **Sept 2002 – Sept 2004**
M.Sc., Thermal technology with a concentration in waste heat recovery for industrial fire-tube boilers.

Hochiminh City University of Technology (HCMUT) **Sept 1996 – Jan 2001**
B.S., Thermal technology with a concentration in industrial refrigeration and thermal power plant.

WORK EXPERIENCE

Hochiminh City University of Technology and Education (HCMUTE) **April 2020 – April 2025**
Head of the Department of Thermal Engineering
Chairman of the Master Program in Thermal Engineering

Hochiminh City University of Technology and Education (HCMUTE) **Nov 2011 – April 2020**

Faculty for High Quality Training
Chairman of the High Quality Program in Thermal Engineering
Chairman of the Master Program in Thermal Engineering (from 2015-2024)

Hochiminh City University of Technical Education (HCMUTE) **Apr 2011 – Sept 2016**
Vice Dean of the Faculty of Automotive Engineering

Hochiminh City University of Technical Education (HCMUTE) **Nov 2010 – Apr 2011**
Faculty for High Quality Training
Chairman of the High Quality Program in Automotive Engineering

Hochiminh City University of Technical Education (HCMUTE) **Jun 2004 – Jun 2007**
Center for Research and Transfer Technology
Technical manager and chief accountant

Hochiminh City University of Technical Education (HCMUTE) **Aug 2003 – Present**
Lecturer of the Department of Thermal Engineering

Investment Commerce Fisheries Corporation (INCOMFISH) **Feb 2001 – Jul 2003**
Engineer

COURSES TAUGHT

THERMAL ENGINEERING
HEAT TRANSFER
ADVANCED HEAT TRANSFER
STEAM BOILER
REFRIGERATION AND AIR CONDITIONING SYSTEMS
ENERGY ECONOMICS
ENGLISH FOR THERMAL ENGINEERING

PUBLICATIONS

A) INTERNATIONAL PAPERS

A1/ Journal papers

[45] Nguyen Van Vu, Mohammad Alhuyi Nazari, Thanh_Trung Dang, Yevgeniy Muralev, M. Mohanraj, Thanh_Tinh Tran, and An_Quoc Hoang, Two-phase modeling and performance evaluation of plate heat exchangers in ejector refrigeration systems with low-GWP refrigerants, Results in Engineering 28, October 2025, https://doi.org/10.1016/j.rineng.2025.107710 (ESCI-Q1)

[44] Thanhtrung Dang, Hoangtuan Nguyen, and Kyaw Thu, Thermo-Hydraulic Performance Analysis of a Microchannel Flat-Tube Heat Exchanger with Finned Enhancements, EVERGREEN - Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy, Vol. 12, Issue 02, pp. 1380-1391, June, 2025, https://doi.org/10.5109/7363515. (Scopus-Q3)

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[42] Thanhtrung Dang, Hoangtuan Nguyen, and Hung-Son Dang, Thermal Parameters Optimization of the R744/R134a Cascade Refrigeration Cycle Using Taguchi and ANOVA Methods, *Processes* 2025, *13* (4), 1210; https://doi.org/10.3390/pr13041210 April 2025 (SCIE-Q2)

[41] Thanhtrung Dang, Tronghieu Nguyen, Jyh-tong Teng, Jau-Huai Lu & Chien Nguyen Ba, Numerical simulation of heat transfer phenomena in a microchannel evaporator for a transcritical CO_2 air conditioning system, International Journal of Air-Conditioning and Refrigeration, Vol. 32 : 17, Sept 2024, 1-15, https://doi.org/10.1007/s44189-024-00062-y (ESCI-Q3)

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[37] Minhhung Doan, Thanhtrung Dang and Xuanvien Nguyen, The Effects of Gravity on the Pressure Drop and Heat Transfer Characteristics of Steam in Microchannels: An Experimental Study, Energies, July 2020, 13, (14) 3575 (SCIE-Q1)

[36] Congkhanh Le, Thanhtrung Dang, Batan Le, and Kiencuong Giang, The comparisons on distribution between perpendicular flow and parallel flow of microchannel evaporators by the separated manifolds, Mechanics, Materials Science & Engineering (MMSE) Journal, Vol. 18, Nov 2018, pp.1-8

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[33] Vanmanh Nguyen, Batan Le, and Thanhtrung Dang, The Effects of Microchannel Geometry on Phase Transition for Two Phase Flow in Microchannel Heat Sinks, International Journal of Power and Energy Research, Vol. 2, Jan 2018, pp. 16-24

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[7] Thanhtrung Dang and Jyh-tong Teng, The effects of configurations on the performance of microchannel counter-flow heat exchangers – An experimental study, Applied Thermal Engineering, Vol. 31, Issue 17-18, 2011, pp. 3946-3955 (SCIE)

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[5] Thanhtrung Dang and Jyh-tong Teng, Comparison on the heat transfer and pressure drop of the microchannel and minichannel heat exchangers, Heat and Mass Transfer, Vol, 47, 2011, pp. 1311-1322 (SCI)

[4] Thanhtrung Dang and Jyh-tong Teng, Numerical and experimental studies of the impact of flow arrangement on the behavior of heat transfer of a microchannel heat exchanger, IAENG International Journal of Applied Mathematics, Volume 40 Issue 3, 2010, pp. 207-213 (EI)

[3] Thanhtrung Dang, Jyh-tong Teng and Jiann-cherng Chu, Effect of flow arrangement on the heat transfer behaviors of a microchannel heat exchanger, Lecture Notes in Engineering and Computer Science, Volume 2182, Issue 1, 2010, pp. 2209-2214 (EI)

[2] Thanhtrung Dang, Jyh-tong Teng, and Jiann-cherng Chu, A study on the simulation and experiment of a microchannel counter-flow heat exchanger, Applied Thermal Engineering, Volume 30, Issues 14-15, 2010, pp. 2163-2172 (SCIE)

[1] Thanhtrung Dang, Yaw-Jen Chang and Jyh-tong Teng, A study on the simulations of a trapezoidal shaped micro heat exchanger, Journal of Advanced Engineering, Volume 4, No. 4, October 2009, pp. 397-402.

A2/ Books and book chapters

[8] Banghi Nguyen, Thanhtrung Dang, Hoangtuan Nguyen, Tronghieu Nguyen, and Ronnachart Munsin, Experimental Study on Heat Transfer Characteristics and Pressure Drop of a Fin and Microchannel Flat-Tube Heat Exchanger, Proceedings of GTSD2024, Springer, pp. 1-7 (Scopus)

[7] Thanhtrung Dang, Huuthanh Nguyen, Hoangtuan Nguyen, and Baoha T.Le, A numerical simulation on heat transfer characteristics in the cascade heat exchanger of a R134A/CO_2 refrigeration system, Green Energy and Technology (GREEN) – Proceedings of ICSET2023, Springer, Aug 2024, pp. 1-7 (Scopus, Q3)

[6] Thanhtrung Dang and Tronghieu Nguyen, Effect of the Pressure Ratio on the Heat Transfer Phenomena of the Evaporator in CO_2 Air Conditioning System, Lecture Notes in Mechanical Engineering - Proceeding of RCTEMME2021, Springer, June 2022, pp. 1299 - 1305 (Scopus, Q4)

[5] Tronghieu Nguyen, Thanhtrung Dang and Minhhung Doan, The Effect of Airflow Rate on The Cooling Capacity of Minichannal Evaporator using CO_2 Refrigerant, Advances in Intelligent Systems and Computing, Volume 1284 – Computational Intelligence Methods for Green Technology and Sustainable Development - Proceedings of the International Conference GTSD2020, Springer, Jan 2021, pp. 399-408 (Scopus)

[4] Kimhang Vo, Thanhthao Nguyen, Thanhtrung Dang, Tronghieu Nguyen, Hoangtuan Nguyen, Chapter 21 - An experimental investigation on the Heat Transfer Coefficients of CO_2 in Minichannel and Microchannel Evaporators, Proceedings of the 2019 International Conference on "Physics and Mechanics of New Materials and Their Applications, Nova Science Publishers, Oct 2020, pp. 197-206

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A3/ Conference papers

[31] Thanhtrung Dang, Vanpha Nguyen, Giahuy Dang, Hoangtuan Nguyen, and Jau-Huai Lu, An Experimental On Subcooling Potential By Geothermal In CO2 Air Conditioning System, The proceedings of IEEE International Conference on System Science and Engineering 2021 (ICSSE2021), Hochiminh city, Vietnam, Aug26-28, 2021, (EI), pp. 313-318

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[29] Thanhtrung Dang and Tronghieu Nguyen, An Experimental Study on The Performance of An Air Conditioning System using CO2 Refrigerant with The Actual Power Input of 440W, The proceedings of 2020 5th International Conference on Green Technology and Sustainable Development (GTSD2020), Hochiminh city, Nov 27-28, 2020, IEEE, pp. 645-650

[28] Thanhtrung Dang, Vanloi Nguyen and Hoangtuan Nguyen, An Experimental on Heat Transfer Characteristics of the Cascade Heat Exchanger in a Refrigeration System Using R32/CO_2, The proceedings of 2020 5th International Conference on Green Technology and Sustainable Development (GTSD2020), Hochiminh city, Nov 27-28, 2020, IEEE, pp. 413-417

[27] Kimhang Vo, Thanhthao Nguyen, Thanhtrung Dang, Tronghieu Nguyen, Hoangtuan Nguyen, An experimental investigation on the Heat Transfer Coefficients of CO_2 in Minichannel and Microchannel Evaporators, 2019 International Conference on "Physics and Mechanics of New Materials and Their Applications" PHENMA 2019, Hanoi, Vietnam, Nov 7-10, 2019, pp. 1-6

[26] Tronghieu Nguyen, Thanhtrung Dang, and Kimhang Vo, Experimental Comparisons on Heat Transfer Characteristics of CO_2 Air Conditioning System with an Internal Heat Exchanger and

without an Internal Heat Exchanger Using Minichannel Evaporator, The proceedings of IEEE International Conference on System Science and Engineering 2019 (ICSSE2019), Quang Binh, Vietnam, July19-21, 2019, pp. (EI)

[25] Thanhtrung Dang, Kiencuong Giang, Hoangtuan Nguyen, and Baphuoc Le, A Numerical Simulation on Heat Transfer Behaviors in the Gas Cooler of a CO_2 Air Conditioning System, The proceedings of IEEE International Conference on System Science and Engineering 2019 (ICSSE2019), Quang Binh, Vietnam, July19-21, 2019, pp. (EI)

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[22] Thanhtrung Dang, Kiencuong Giang, Minhhung Doan, Experiments on Influence of Gravity to Heat Transfer Efficiency in Micro Tube Condenser, IEEE The proceedings of 2018 4th International Conference on Green Technology and Sustainable Development (GTSD), Hochiminh city, Nov 23-24, 2018, pp. 391-394

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number 01761, The 31th National Conference on Mechanical Engineering of CSME (CSME2014), Taichung, Taiwan, December 6-7, 2014

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[2] Thanhtrung Dang, and Jyh-tong Teng Effect of the Substrate Thickness of Counter-flow Microchannel Heat Exchangers on the Heat Transfer Behaviors, the proceeding of the International Symposium on Computer, Communication, Control and Automation 2010 (3CA2010), Tainan, Taiwan, May, 2010, pp. 17-20 (EI, ISTP)

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MultiConference of Engineers and Computer Scientists 2010 (IMECS2010), Hong Kong, March, 2010, pp. 2209-2214 (Best Student Paper Award) (EI).

B) DOMESTIC PAPERS

B1/ Journal papers

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Industrial refrigeration and air conditioning.