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EDUCATION

1978 - 1981 UNIVERSITY OF ARIZONA, Tucson, Arizona

Ph.D., August 1981, majored in Mechanical Engineering, minored in Mathematics.

1976 - 1978 STANFORD UNIVERSITY, Stanford, California

M.S., June 1976, majored in Mechanical Engineering

1968 - 1972 SHARIF UNIVERSITY, Tehran, Iran

B.S.M.E., June 1972

ASME Fellow, AIAA Associate Fellow

International J. Heat Exchangers, Member of Editorial Board

TEACHING EXPERIENCE

1982 - Present NORTHEASTERN UNIVERSITY, Boston, Massachusetts

Professor, Courses taught : Thermodynamics, Fluid Mechanics, Thermal Design, Capstone Design since its inception, Mechanical Engineering Computation and Interpretation, Problem Solving Using C, Numerical Methods in Mechanical Engineering, Computational Fluid Dynamics and Heat Transfer, Solar Thermal Energy, Wind Energy, Aerodynamics

1981 - 1982 UNIVERSITY OF ARIZONA, Tucson, Arizona

Assistant professor. Courses taught: Heat Transfer, Thermodynamics, Propulsion Systems and Numerical Analysis. Research: Unsteady Fluid Dynamics with Professor R.B. Kinney for NASA

1979 - 1980 UNIVERSITY OF ARIZONA, Tucson, Arizona

Instructor, courses taught : Thermodynamics and Numerical Analysis

RESEARCH AREAS

Experimental and Computational Fluid Dynamics and Heat Transfer, Fluid-surface interactions, Nano- and Bio-sensors.

PATENTS

Rotating Diesel Particulate Trap, US patent # 5,013,340, May 7, 1991, Co-Inventor.

Enhanced Cooling Apparatus for Gas Turbine engine Airfoils, US patent # 5,472,316, December 5, 1995, Taslim et al.

Turbine Airfoil and Methods for Airfoil Cooling, US patent # 6,132,169, October 17, 2000, Taslim et al.

Crossover Cooled Airfoil Trailing Edge, US patent # 6,607,356, August 19, 2003, Taslim et al.

Castellated Turbine Airfoil, US patent # 6,890,153, May 10, 2005, Taslim et al.

Device and Method for Chemical Analysis, US patent # 10,401,352 B2, Taslim et al. Sep 3, 2015.

Non-Rotating Wind Energy Generator, US patent # 9,222,465, 2016, Taslim et al.

Device and Method for Chemical Analysis, US patent # 9,664,674 B2, Taslim et al. May 30, 2017.

Length-Based Carbon Nanotubes Ladder, US patent # 11,079,387, August 3, 2021, Taslim et al.

Length-Based Separation of Carbon Nanotubes, US patent # 11,167,247, November 9, 2021, Taslim et al.

Methods and devices for detection of pathogens, US patent # 11,149,318, Oct 19, 2021, Taslim et al.

Methods and devices for detection of THC, US patent # 12,055,543 B2, Aug 6, 2024, Taslim et al.

BOOK CHAPTERS

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JOURNAL PUBLICATIONS

Taslim, M.E., Kinney, R.B., and Paolino, M.A., 1984, “Analysis of Two-Dimensional Viscous Flow Over an Elliptic Body in Unsteady Motion,” *AIAA Journal*, Vol. 22, No. 5, pp. 586-594.

Taslim, M.E. and Narusawa, U., 1986, “Binary Fluid Convection and Double Diffusive Convection in a Porous Medium,” *J. Heat Transfer*, Vol. 108, p. 221.

Pillatsis, G., Taslim, M.E. and Narusawa, U., 1987, “Thermal Instability of a Fluid-Saturated Porous Medium Bounded by Thin Fluid Layers,” *Journal of Heat Transfer*, Vol. 109, pp. 677-682.

Nayeb-Hashemi, H. and Taslim, M.E., 1987, “Effects of the Transient Mode II on the Steady State Crack Growth in Mode I”, *J. Engr. Frac. Mech.*, Vol. 26, pp. 789-807.

Kinney, R.B., Taslim, M.E. and Hung, S.C., 1988, “A Hybrid Computational Approach to Multi-Body Viscous-Flow Problems: Application to Large-Eddy Breakup in a Boundary Layer,” *J. Computational Physics*, Vol. 77, No. 2, pp. 378-404.

Taslim, M.E. and Narusawa, U., 1989, “Thermal Stability of a Horizontally Superposed Porous and Fluid Layers,” *J. Heat Transfer*, Vol. 111, No. 2, pp. 357-362.

Taslim, M.E., Rahman, A., and Spring, S.D., 1991, “An Experimental Investigation of the Heat Transfer Coefficients in a Spanwise Rotating Channel with Two Opposite Rib-Roughened Walls,” *J. Turbomachinery*, Vol. 113, pp. 75-82.

Taslim, M.E., Bondi, L.A. and Kercher, D.M., 1991, “An Experimental Investigation of Heat Transfer in an Orthogonally Rotating Channel Roughened 45 Degree Criss-Cross Ribs on Two Opposite Walls,” *J. Turbomachinery*, Vol. 113, pp. 346-353.

Taslim, M.E., Spring, S.D., and B.P Mehlman, 1992, “An Experimental Investigation of Film Cooling Effectiveness for Slots of Various Exit Geometries,” *J. Thermophysics Heat Transfer*, Vol. 6, No. 2, pp. 302-307.

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Balaji, S., Yang, F. and Taslim, M.E., 2020, “A comparative experimental study between the film effectiveness of trench and diffusion film holes,” *Int. J. Heat & Mass Transfer*, <https://doi.org/10.1016/j.ijthermalsci.2020.106713>.

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Neupane, G, Ozdemir, O.C., Taslim, M.E., 2025, “Understanding of Multiphase Plasma Dynamics in Plasma arc Additive Manufacturing using CFD simulation” (Poster presentation), Large scale additive action team (LSAAT) Conference, 2025, Worcester, MA.

Conahan, J.M., Ozdemir, O.C., Muftu, S., Taslim, M. E., 2025, “Supersonic Nitrogen and Helium Jet Impingement Phenomena on Flat Stationary Surfaces,” *ASME J. Heat Transfer* (Submitted).

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