

Nagy Nosseir

Professor & Chair

Department of Aerospace Engineering

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Education:

- Ph.D., Aerospace Engineering, University of Southern California, 1997.
- M.A.Sc., Aerospace Engineering, University of Toronto, Canada, 1973.
- B.Sc., Aeronautical Engineering, Cairo University, Egypt, 1970.

Professional Experience:

- Faculty, San Diego State University, 1983-present
- Chair, Department of Aerospace Engineering, San Diego State University, 1990-93, and 2012-present
- Assistant Professor, Department of Applied Sciences, New York University, 1979-83.

Honors, Awards, Memberships:

- International Lecturer Program Award, “Micro-systems Design”, from Bad-Wurtemberg Scholarship, 2005.
- Most Influential AE-Faculty, SDSU, 2005.
- Grant-in-Aid, “Micro-inclinometer”, SDSU, 2000
- Grant entitled “Concurrent Design and Manufacturing Engineering” from DOD, Defense Conversion Program, (submitted by J. Pinto, principal investigator), \$270 K, 1998. I wrote and developed the Micro-Electro-Mechanical Systems (MEMS) portion of the grant.
- Grant-in-Aid “Air Bubble Plume as an Oil Barrier,” SDSU, 1996.

- Grant entitled “Graduate Research and Training in Hypersonics”, from NASA, submitted jointly with USC, \$90 K, 1988-90.
- Grant entitled “Upgrading of Data Acquisition System for Wind-Tunnel Laboratories”, from NSF, \$48 K, 1989.
- Navy-ASEE Summer Research Fellowships, 1989-1994. The research projects were conducted at the NWC Propulsion Research Laboratory, (1989 and 1990), and NOSC (1991-1994).
- Meritorious Performance and Professional Promise (MPPP) Awards from SDSU, 1987 and 1990.
- Grant entitled “Experimental Investigation of Flow Induced Oscillations in a Side-Dump Ramjet Combustor”, from the Office of Naval Research (ONR), \$130 K, 1984-1988.
- Grant-in-Aid, “Experimental Investigation of Air Bubble Plumes”, from SDSU Foundation, 1984.
- Grant-in-Aid “Development of a Novel Technique for Turbulence Measurement”, from SDSU, 1983.
- Developed “Optical Pressure Transducer Based on Randomly Distributed Fiber Optics,” with Ho, C.M. and Plocher, D., U.S. Patent No. 873857.
- Developed “Fiber Optic Velocity Transducer”, patent pending.
- Member of AIAA, American Physical Society, and Sigma Xi.

Teaching:

Current Courses:

- **AE123** The Aerospace Engineer
- **AE280** Methods Of Analysis
- **AE340** Fluid Mechanics
- **AE460A&B** Aerospace Engineering Applications (Senior Design Course)
- **AE550** Viscous Flow
- **AE612** Compressible Fluid Flow
- **AE644** Turbulent Flow

Past Courses:

- **EM202** Statics and Dynamics for Electrical Engineers
- **EM341** Fluid Mechanics Laboratory
- **AE596** Introduction to MEMS
- Micro-Fluidics (Furtwagen, Germany), FE Review (College of Extended Studies, SDSU), Atmospheric Science, an Introductory Survey (NYU).

Research Areas & Sample Publications:

Turbulent Flows:

- Ho, C. M. and N. S. Nasseir, "Dynamics of an Impinging Jet. Part I: The Feedback Phenomenon", J. Fluid Mechanics, Vol. 105, pp. 119-142, 1981.
- Nasseir, N. S. and S. Behar, "Characteristics of Jet Impingement in a Side-Dump Combustor", AIAA Journal, Vol. 24, Nov. 1986, pp. 1752-1757.
- Nasseir, N. S., "Impinging Jets", Chap. 13, Vol. 2, Encyclopedia of Fluid Mechanics, 1986, Chermisinoff, Editor, Gulf Publishing.
- Nasseir, N. S., U. Peled and G. Hildebrand, "The Pressure Field Generated by Jet-on-Jet Impingement", AIAA Journal, Vol. 25, No. 10, 1987, pp. 1312-1317.
- Ziereman, S., Gutmark, E. and Nasseir, N., "Characteristics of Two Adjacent Rectangular Jets", AIAA Paper No. 92-0237, 1992.
- Ladd, Park, Hendricks, and Nasseir, "Active Control of Oscillatory Lift Forces on a Circular Cylinder", AIAA Paper No. 93-3277, 1993.

Aero-Acoustics:

- Nasseir, N. S. and H. S. Ribner, "Tests of Theoretical Model of Jet Noise", AIAA Paper No. 75-436, 1975.
- Nasseir, N. S. and C. M. Ho, "Dynamics of an Impinging Jet. Part II: The Noise Generation", J. Fluid Mechanics, Vol. 116, pp. 379-391, 1982.
- Nasseir, N. S., U. Peled and G. Hildebrand, "Tones Generated Due to the Impingement of Two Jets on Each Other", Proceedings of the 23rd JANNAF Combustion Meeting, NASA/Langley Research Center, CPIA Pub. 457, Vol. 1, pp. 459-468, 1986.

Experimental Techniques & Instrumentation:

- Nasseir, N. S., "A Novel Technique for Turbulence Measurements", Proceedings of the 58th Semi-Annual STA Meeting, Ottawa, Canada, 1982.
- Nasseir, N. S. and B. Dagan, "Tests of a Fiber-Optic Velocity Transducer", Experiments in Fluids 3, Springer-Verlag, 239-243, 1985.

- M. Reichardt, U. Mescheder, and N. Nosseir, "Simulation of a Micro-Fabricated Inclinometer," Proceedings of the Int. Conference on Mathematics and Engineering Techniques in Medicine and Bio-Sciences (METMBS'00), pp. 309-314, 2000.