CURRICULUM VITA

HARINDRA JOSEPH SHERMAL FERNANDO
Professor of Engineering

EDUCATION

California Institute of Technology (1983-1984)	Post Doctoral (Fluid Mechanics)
The Johns Hopkins University (1980-1983)	Post Doctoral, 1983 PhD (Fluid Mechanics), 1983 MA (Fluid Mechanics), 1982
The University of Sri Lanka (1974-1979)	BSc (Eng.) Hons., 1979, 1st Class Honors, Mechanical Engineering
St. Sebastian's School, Moratuwa, Sri Lanka (1960-1973)	G.C.E. (Advanced Level), 1973

HONORARY DEGREES

Doctor, Honoris Causa (University of Grenoble, Université Joseph Fourier, France), 2014
Doctor of Laws, *Honoris Causa* (University of Dundee, Scotland), 2016

PRINCIPAL RESEARCH INTERESTS

Fluid Mechanics: turbulence in homogeneous, stratified and rotating flows, double-diffusive phenomena, multiphase flows (fog and particle laden-flows), oceanic flows, industrial fluid mechanics, urban air pollution, wind energy, sustainability engineering

PRINCIPAL TEACHING INTERESTS

Fluid Mechanics, Engineering Mathematics, Environmental Fluid Mechanics, Turbulence, Ecosystems Engineering

POSITIONS HELD

2010-	Wayne & Diana Murdy Endowed Professor in Engineering and Geosciences, University of Notre Dame (Joint appointments in the Department of Civil and Environmental Engineering and Earth Sciences and Department of Aerospace and Mechanical Engineering; Concurrent appointment in the Department of Applied and Computational Mathematics and Statistics, 2016-)
2010-	Professor Emeritus, Arizona State University
1994-2009	Director, Center for Environmental Fluid Dynamics (EFD), Arizona State University (1994-2007 – EFD Program; 2008 - Arizona Board of Regents' Center)
1992-2009	Professor, Department of Mechanical and Aerospace Engineering, Arizona State University (2008 – Affiliate Professor, School of Sustainability)
1988-1992	Associate Professor, Department of Mechanical and Aerospace Engineering, Arizona State University
1984-1988	Assistant Professor, Department of Mechanical and Aerospace Engineering, Arizona State University
1983-84	Post-Doctoral Fellow, Division of Engineering and Applied Sciences, California Institute of Technology

1983 April – September; Post-Doctoral Fellow, Department of Earth and Planetary Sciences, The Johns Hopkins University

1980-83 Research Assistant, Department of Earth and Planetary Sciences, The Johns Hopkins University

1979-80 Assistant Lecturer in Mechanical Engineering, University of Sri Lanka, Katubedda Campus

1973-74 Staff Member, St. Sebastian's College, Moratuwa, Sri Lanka

GUEST LECTURESHIPS

2023 University of Bologna Summer School on "Physical Sensing of the Environment', July 16-21.

2022 IAHR Africa Summer School, Invited Lecturer

2014 Gehard Jirka Environmental Fluid Mechanics Summer School, Invited Lecturer, Hong Kong.

2008 National Center for Atmospheric Research, Geophysical Turbulence Program Summer Schools (Principal Lecturer)]

2007 Woods Hole Oceanographic Institution (Geophysical Fluid Dynamics Program)

2006 Summer School on Coastal Dynamics, Toulon, France (lecturer)

2003 University of Cambridge, Invited Lecturer, GAFD Summer Program

2002 University of Alberta, Invited Lecturer, Fluid Dynamics Summer School

2001 Summer School on Urban Meteorology, Lecci, Italy (lecturer)

1995 Woods Hole Oceanographic Institution (Principal Lecturer, Geophysical Fluid Dynamics Summer Program)

HONORS AND DISTINCTIONS

2023 Elected Fellow, International Association for Hydro-Environment Engineering and Research

2022 IAHR Presidential Lecture (International Association for Hydro Environment Engineering and Research)

2022 At the 50th Anniversary of the University of Moratuwa, honored as one of the seven most distinguished Alumni

2022 University of Notre Dame, Faculty Research Achievement Award

2021 Elected as a Fellow of the American Geophysical Union

2020 Member, MacArthur Fellows Nominating Committee

2019/20 Faculty Mace Bearer, University of Notre Dame

2019 Convocation speaker and Chief Guest, Ocean University of Sri Lanka

2018 Elected, International Eurasian Academy of Sciences (IEAS)

2017 49th Annual Alan Berman Research Publication Award, Naval Research Laboratory

2017 Borland Hydraulics Lecture, Hydrology Days Conference

2016 Nels Nelson Distinguished Lecture, University of Minnesota

2016 Awarded *Doctor of Laws, Honoris Causa*, by University of Dundee, Scotland.

2015 Enrico Marchi Award Lecture, Italian Hydraulics Association

2014 Hong Kong Jockey Club Advanced Institute, Invited Lecture

2014 Awarded *Doctor Honoris Causa,* by Universitê Joseph Fourier (University of Grenoble), France

2013	Telford Premium Prize, Institute of Civil Engineers, UK, for the paper entitled "Draw-down and run-up of tsunami waves on sloping beaches" published in 2012
2012	Fellow, American Association for the Advancement of Science (AAAS)
2012	Official Nominator for the Japan Prize (Japan Prize Foundation)
2010	Elected Fellow, American Meteorological Society
2009	Elected to Academia Europaea (The Academy of Europe)
2008	Tempe Five Who Matter - honored by Arizona Republic Newspaper at the yearend as one of the five Tempe residents who have made a notable difference in the life of the city.
2008	Recognized for "Outstanding Environmental Achievements" in the IEA/CMTA/CICC Conference awards (for Air Quality).
2007	Featured in an article in the New York Times (25th December)
2007	Sri Lanka Foundation of USA, Lifetime Achievement Award
2007	Award of Excellence for Science and Research, Alumni Association, St. Sebastian's College (75th Jubilee Award).
2004	Elected Fellow, American Physical Society
2004	William Mong Distinguished Lectureship, Hong Kong University
2003	ASU Graduate College – Faculty Mentorship Appreciation Award
2002	Elected Fellow, American Society of Mechanical Engineers
2001	Rieger Foundation Award for the "Third Distinguished Rieger Scholar in Environmental Sciences"
1997	"Appreciation Certificate" from the Western Alliance to Expand Student Opportunities (WAESO)
1997	ASU Alumni Faculty Achievement Award for Research
1993-	Listed in Who's Who in Science and Engineering; Who's Who in American Education; American Men and Women in Science; Who's Who in the World; International Directory of Biographies; Who's Who in Engineering Education; The Contemporary Who's Who
1991	Overseas Fellow - Churchill College, Cambridge, UK
1987/88/89	American Western Universities Faculty Participation Award (Department of Energy/Solar Energy Research Institute)
1987	Presidential Young Investigator Award (National Science Foundation)
1980-1983	Gilman Fellowship (The Johns Hopkins University)
1980	Westland Helicopters External Research Assistantship
1980	UNESCO Graduate Fellowship
1980	East-West Center Award (University of Hawaii)
1980	Colombo Rotary Club award for the productive public servant of the year
1980	British Commonwealth Scholarship
1980	Australian-Colombo Plan Scholarship
1979	UNESCO Gold Medal for the best engineering student of the year

VISITING POSITIONS

2017	Visiting Professor, High Performance Computing Institute, Agency for Science, Technology and Research, Government of Singapore.
2007-2011	Visiting Professor, University of Toulon, France (1 month/year)
2002	Tel Aviv University, Israel (1.5 months, Rieger Distinguished Scholar)
1998	Visiting Professor, University of Girona, Spain (summer)

1991-1996	U.K. Meteorological Office (Visiting Scientist, Summers)
1995	Visiting Professor, ETH, Zurich (August-September)
1989/90	Senior Visitor, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, England (Seven Months)

PROFESSIONAL SOCIETY MEMBERSHIPS

American Physical Society (Fellow)
American Society of Mechanical Engineers (Fellow)
American Meteorological Society (Fellow)
American Association for Advancement of Science AAAS (Fellow)
American Geophysical Union (Fellow)
International Association of Hydro-environmental Research, IAHR (Fellow)
International Institute for Infrastructure Reconstruction IIIR (Fellow)
European Academy (Elected Member, Cosmology Division)
American Society for Engineering Education (professional member)
European Geophysical Society (Member)
American Oceanographic Society (member)
EUROMECH, European Mechanics Society (member)

PAPERS AUTHORED

Archival Journal Papers Published (1983 -)

1983

1. Fernando, H.J.S. and Long, R.R., "The Growth of a Grid-Generated Mixed Layer in a Two-Fluid System," *Journal of Fluid Mechanics*, **133**, 377-395, 1983.

1985

2. Fernando, H.J.S. and Long, R.R., "On the Nature of the Entrainment Interface of a Two-Layer Fluid Subjected to Zero-Mean-Shear Turbulence," *Journal of Fluid Mechanics*, **151**, 21-53, 1985.
3. Fernando, H.J.S., "A Discussion on Oscillatory Boundary Layer and Eddy Viscosity," *ASCE Journal of Hydraulics Engineering*, **111(6)**, 1036-1038, 1985.
4. Fernando, H.J.S. and Long, R.R., "The Growth of a Shear-Free Mixed Layer in a Linearly Stratified Fluid," *Physics of Fluids*, **28(10)**, 2999-3005, 1985.

1986

5. Fernando, H.J.S., "A Discussion on the Dynamics of Jets in Two-Layer Stratified Fluids," *ASCE Journal of Hydraulics Engineering*, **112(11)**, 1107-1111, 1986.
6. Fernando, H.J.S., "On Buoyancy Transfer Across an Entrainment Interface," *Boundary-Layer Meteorology*, **34**, 171-176, 1986.

1987

7. Narimousa, S. and Fernando, H.J.S., "On the Sheared Density Interface of an Entraining Stratified Fluid," *Journal of Fluid Mechanics*, **174**, 1-22, 1987.
8. Fernando, H.J.S., "Comments on Wind Direction and Equilibrium Mixed Layer Depth: General Theory," *Journal of Physical Oceanography*, **17(1)**, 169-170, 1987.

9. Fernando, H.J.S., "The Formation of Layered Structure When a Stable Salinity Gradient is Heated From Below," *Journal of Fluid Mechanics*, **182**, 525-541, 1987.

1988

10. Hannoun, I.A., Fernando, H.J.S. and List, E.J., "Turbulence Structure Near a Density Interface," *Journal of Fluid Mechanics*, **189**, 189-209, 1988.
11. Fernando, H.J.S., "The Growth of a Turbulent Patch in a Stratified Fluid," *Journal of Fluid Mechanics*, **190**, 55-70, 1988.
12. Fernando, H.J.S., "An Intrusion in a Stratified Fluid," *Transactions of the American Geophysical Union*, *EOS*, **69(16)**, 1-2, 1988.
13. Fernando, H.J.S. and Long, R.R., "Turbulent Mixing at a Density Interface in the Presence of a Steady Stabilizing Buoyancy Flux," *Dynamics of Atmospheres and Oceans*, **12**, 233-257, 1988.

1989

14. Fernando, H.J.S., Boyer, D.L. and Chen, R-r., "Turbulent Thermal Convection in Rotating and Stratified Fluids," *Dynamics of Atmospheres and Oceans*, **13**, 95-121, 1989.
15. Fernando, H.J.S., "Note on Interfacial Mixing in Stratified Flows," *Journal of Hydraulics Research*, **27(3)**, 463-465, 1989.
16. Boyer, D.L., Davies, P.A., Fernando, H.J.S. and Zhang, X., "Linearly Stratified Flow Past a Horizontal Circular Cylinder," *Philosophical Transactions of the Royal Society (London)*, Series A, **328**, 501-528, 1989.
17. Fernando, H.J.S., "Oceanographic Implications of Laboratory Experiments on Diffusive Interfaces," *Journal of Physical Oceanography*, **19(11)**, 1707-1715, 1989.
18. Fernando, H.J.S, "Buoyancy Transfer Across a Diffusive Interface," *Journal of Fluid Mechanics*, **209**, 1-34, 1989.
19. Chen, R-r., Fernando, H.J.S. and Boyer, D.L., "Formation of Isolated Vortices in a Rotating Convecting Fluid," *Journal of Geophysical Research (Atmospheres)*, **94(D15)**, 18,445-18,453, 1989.

1990

20. Muench, R., Fernando, H.J.S. and Stegen, G.R., "Temperature and Salinity Steps in the Northwestern Weddell Sea," *Journal of Physical Oceanography*, **20(2)**, 295-306, 1990.
21. De Silva, I.P.D., Montenegro, L.M. and Fernando, H.J.S., "Measurement of Interfacial Distortions at a Stratified Entrainment Interface," *Experiments in Fluids*, **9(3)**, 174-177, 1990.
22. Fernando, H.J.S., Johnstone, H. and Zangrando F., "Interfacial Mixing by Turbulent Buoyant Jets," *Journal of Hydraulics Engineering*, **117(1)**, 1-20, 1990.
23. Fernando, H.J.S. and Little, L.J., "Molecular Diffusive Effects in Penetrative Convection," *Physics of Fluids A*, **2(9)**, 1592-1596, 1990 (also see the erratum in Phys. Fluids, **8(8)**, 2550).
24. Fernando, H.J.S., "Comments on Interfacial Migration in Thermohaline Staircases," *Journal of Physical Oceanography*, **20(12)**, 1994-1995, 1990.

1991

25. Fernando, H.J.S., "Turbulent Mixing in Stratified Fluids," *Annual Reviews of Fluid Mechanics*, **23**, 455-493, 1991.
26. Noh, Y. and Fernando, H.J.S., "A Numerical Study on the Formation of a Thermocline in Shear-Free Turbulence," *Physics of Fluids A,* **3(3)**, 422-426, 1991.
27. Zangrando, F. and Fernando, H.J.S., "A Predictive Model for the Erosion of Thermohaline Interfaces," *ASME Journal of Solar Energy Engineering*, **113**, 59-65, 1991.
28. Fernando, H.J.S., Chen, R-r. and Boyer, D.L., "Turbulent Thermal Convection in Rotating Fluids," *Journal of Fluid Mechanics*, **228**, 513-547, 1991.
29. Stegen, G.R., Muench, R.D., Fernando, H.J.S. and Ching, C.Y., "The Spatial/Temporal Evolution of Diffusive Thermohaline Layers," *Physics of Fluids A,* **3(5)**, 1142, 1991.
30. Stephenson, P.H. and Fernando, H.J.S., "Laboratory Experiments on Turbulent Mixing Across Sheared Interfaces," *Physics of Fluids A,* **3(5)**, 1461, 1991.
31. Noh, Y. and Fernando, H.J.S., "Propagation of Gravity Currents Along an Incline in the Presence of Boundary Mixing," *Journal of Geophysical Research (Oceans),* **96(7)**, 12,586-12,592, 1991.
32. Noh, Y. and Fernando, H.J.S., "Dispersion of Suspended Particles in Turbulent Fluids," *Physics of Fluids A,* **3(7)**, 1730-1740, 1991.
33. Davies, P.A., Fernando, H.J.S., Besley, P. and Simpson, R., "The Generation and Spreading of a Turbulent Mixed Layer in a Rotating Stratified Fluid," *Journal of Geophysical Research (Oceans)*, **96(7)**, 12,567-12,585, 1991.
34. Stephenson, P.W. and Fernando, H.J.S., "Turbulence and Mixing in a Stratified Shear Flow," *Journal of Geophysical and Astrophysical Fluid Dynamics*, **59**, 147-164, 1991.

1992

35. Noh, Y. and Fernando, H.J.S., "The Motion of Buoyant Cloud Along an Incline in the Presence of Boundary Mixing," *Journal of Fluid Mechanic*s, **235**, 557-577, 1992.
36. Lin, Q., Lindberg, W., Boyer, D.L. and Fernando, H.J.S., "Linearly Stratified Flow Past a Sphere," *Journal of Fluid Mechanics*, **240**, 315-354, 1992.
37. De Silva, I.P.D. and Fernando, H.J.S., "Some Aspects on Mixing in a Stratified Turbulent Patch," *Journal of Fluid Mechanic*s, **240**, 601-625, 1992.
38. Noh, Y., Fernando, H.J.S. and Ching, C.Y., "Flow Induced by the Impingement of a Thermal on a Density Interface," *Journal of Physical Oceanography*, **22(10)**, 1207-1220, 1992.
39. Lin, Q., Boyer, D.L., Fernando, H.J.S. and "Turbulent Wakes of Linearly Stratified Flow Past a Sphere," *Physics of Fluids A*, **4(8)**, 1687-1696, 1992.

1993

40. Noh, Y. and Fernando, H.J.S., "The Influence of Molecular Diffusion on the Deepening of the Mixed Layer," *Dynamics of Atmospheres and Oceans,* **17**, 187-215, 1993.
41. Noh, Y. and Fernando, H.J.S., "A Numerical Model for the Fluid Motion at a Density Front in the Presence of Background Turbulence," *Journal of Physical Oceanography,* **23(6)**, 1142-1153, 1993.
42. Fernando, H.J.S. and De Silva, I.P.D., "Note on Secondary Flows in Oscillating-Grid Mixing Box Experiments," *Physics of Fluids A*, **5(7)**, 1849-1851, 1993.
43. Fernando, H.J.S. and Ching, C.Y., "Effects of Background Rotation on Turbulent Line Plumes," *Journal of Physical Oceanography,* **23**, 2125-2129, 1993.

44. Fernando, H.J.S. and Ching, C.Y., "Lead-Induced Convection: A Laboratory Perspective," *Journal of Marine Systems*, **4**, 217-230, 1993.
45. Lin, Q., Boyer, D.L. and Fernando, H.J.S., "Note on Internal Waves Generated by the Turbulent Wake of a Sphere," *Experiments in Fluids*, **15**, 147-154, 1993.
46. Noh, Y. and Fernando, H.J.S., "The Transition in the Sedimentation Pattern of a Particle Cloud," *Physics of Fluids A*, **5(12)**, 3049-3055, 1993.
47. Ching, C.Y., Fernando, H.J.S. and Noh, Y., "Interaction of a Negatively Buoyant Line Plume with a Density Interface," *Dynamics of Atmospheres and Oceans*, **19**, 367-388, 1993.
48. Boyer, D.L., Fernando, H.J.S. and van Atta, C.W., "Forward: Special Issue on Laboratory Experiments in Physical Oceanography," *Dynamics of Atmospheres and Oceans*, **19**, 1-2, 1993.

1994

49. Davies, P.A., Boyer, D.L., Fernando, H.J.S. and Zhang, X., "On the Unsteady Motion of a Circular Cylinder through a Linearly Stratified Fluid," *Philosophical Transactions of the Royal Society (London)*, **A345**, 1-34, 1994.
50. Lin, Q., Boyer, D.L. and Fernando, H.J.S., "Flows Generated by the Periodic Horizontal Oscillations of a Sphere in a Linearly Stratified Fluid," *Journal of Fluid Mechanics*, **263**, 245-270, 1994. (50)
51. Fernando, H.J.S. and Brandt, A., "Chapman Conference Delves into Double-Diffusive Convection," *EOS*, **75(45)**, 524-525, 1994.
52. Flor, J., Fernando, H.J.S. and Van Heijst, G.J.F., "The Evolution of an Isolated Turbulent Region in a Two-Layer Fluid," *Physics of Fluids*, **6(1)**, 287-296, 1994.
53. Ayotte, B.A. and Fernando, H.J.S., "The Motion of a Turbulent Thermal in the Presence of Background Rotation," *Journal of the Atmospheric Sciences*, **51(13)**, 1989-1994, 1994.
54. Perera, M.A.J.M., Fernando, H.J.S. and Boyer, D.L., "Turbulent Mixing at an Inversion Layer," *Journal of Fluid Mechanics*, **267**, 275-298, 1994.
55. Lin, Q., Boyer, D.L. and Fernando, H.J.S., "The Vortex Shedding of a Streamwise-Oscillating Sphere Translating Through a Linearly Stratified Fluid," *Physics of Fluids*, **6(1)**, 239-252, 1994.
56. De Silva I.P.D. and Fernando, H.J.S., "Oscillating Grids as a Source of Nearly Isotropic Turbulence," *Physics of Fluids*, **6(7)**, 2455-2464, 1994.
57. Fernando, H.J.S. and Brandt, A., "Recent Advances in Double-Diffusive Convection," *Applied Mechanics Reviews*, **4(79)**, C1-C7, 1994.

1995

58. Perera, M.A.J.M., Fernando, H.J.S. and Boyer, D.L., "Mixing Induced by the Oscillatory Flow Past a Right Circular Cylinder," *Journal of Fluid Mechanics*, **284**, 11-21, 1995.
59. Berman, N.S., Boyer, D.L., Brazel, A.J., Brazel, S.W., Celada, R.A., Chen, R-r., Fernando, H.J.S., Fitch, M.J. and Wang, H-w., "Synoptic Classification and the Design of Physical Model Experiments for Complex Terrain," *Journal of Applied Meteorology*, **34(3)**, 719-730, 1995.
60. Davies, P.A., Mofor, L.A. and Fernando, H.J.S., "Laboratory Studies of Mixed Buoyant Jets in Shallow Cross-Flows," *Proceedings of the Institute of Civil Engineers, Water, Marine and Energy*, **112**, 75-78, 1995.

61. Voropayev, S.A., Fernando, H.J.S. and Mitchell, L.A., "On the Rate of Frazil Ice Formation in the Presence of Turbulence," *Journal of Physical Oceanography*, **25(6)**, 1441-1450, 1995.
62. Kit, E., Fernando, H.J.S. and Brown, J.A., "Experimental Examination of Eularian Frequency Spectra in Zero-Mean-Shear Turbulence," *Physics of Fluids*, **7(5)**, 1168-1170, 1995.
63. Ching, C.Y., Fernando, H.J.S. and Robles, A., "Breakdown of Line Plumes in Turbulent Environments," *Journal of Geophysical Research (Oceans)*, **100(C3)**, 4707-4713, 1995.
64. Fernando, H.J.S., "Migration of Density Interfaces Subjected to Differential Turbulent Forcing," *Journal of Geophysical and Astrophysical Fluid Dynamics*, **78**, 1-20, 1995.
65. Neves, M.J. and Fernando, H.J.S., "Sedimentation of Particles from Jets Discharged by Ocean Outfalls – A theoretical and Laboratory Study." *Water Science and Technolgy*, 133-140.

1996

66. Xu, Y., Fernando, H.J.S. and Boyer, D.L., "Turbulent Wakes of Stratified Flow Past a Cylinder," *Physics of Fluids*, **7(9)**, 2243-2255, 1996.
67. Noh, Y. and Fernando, H.J.S., "Onset of Stratification in the Mixed Layer Subjected to a Stabilizing Buoyancy Flux," *Journal of Fluid Mechanics*, **304**, 27-46, 1996.
68. Chen, R-r., Berman, N.S., Boyer, D.L. and Fernando, H.J.S., "Physical Model of Diurnal Heating in the Vicinity of a Long Mountain," *Journal of the Atmospheric Sciences*, **53(1)**, 62-85, 1996.
69. Ching, C.Y., Fernando, H.J.S., Mofor, L. and Davies, P.A., "Interaction of Multiple Line Plumes in an Uniform Environment," *Journal of Physical Oceanography*, **26(4)**, 525-540, 1996.
70. Fernando, H.J.S. and Hunt, J.C.R., "Some Aspects of Turbulence and Mixing in Stably Stratified Layers," *Dynamics of Atmospheres and Oceans*, **23**, 55-61, 1996.
71. Broderson, S., Metzger, D.E. and Fernando, H.J.S., "Flows Generated by the Impingement of a Jet on a Rotating Surface: Part I - Basic Flow Patterns," *Journal of Fluids Engineering*, **118(1)**, 62-67, 1996.
72. Broderson, S., Metzger, D.E. and Fernando, H.J.S., "Flows Generated by the Impingement of a Jet on a Rotating Surface: Part II - Detailed Flow Structure and Analysis," *Journal of Fluids Engineering*, **118 (1)**, 68-73, 1996.
73. Voropayev, S.A., Fernando, H.J.S. and Wu, P.C., Starting and Steady Quadrupolar Flow," *Physics of Fluids*, **8(2**), 384-396, 1996.
74. Srdic, A., Fernando, H.J.S. and Montenegro, L.M., "Generation of Nearly Isotropic Turbulence Using Two Oscillating Grids," *Experiments in Fluids*, **20**, 395-397, 1996.
75. Colomer, J. and Fernando, H.J.S. "Resuspension of a Particle Bed by a Round Vertical Jet," *Journal of Environmental Engineering*, **122 (9)**, 864-869, 1996.
76. Voropayev, S.A. and Fernando, H.J.S., "Propagation of Grid Turbulence in Homogeneous Fluids," *Physics of Fluids*, **8(9)**, 2435-2440, 1996.
77. DeSilva, I.P.D., Fernando, H.J.S., Eaton, F. and Hebert, D., "Kelvin-Helmholtz Billows in Nature and laboratory," *Earth & Planetary Sciences Letters*, **143 (1-4)**, 217-231, 1996.
78. Davies, P.A., Mofor, L.A. and Fernando, H.J.S., Laboratory Studies of Mixed Buoyant Jets in Shallow Cross-Flows. Technical Note. *Proceedings of the Institution of Civil Engineers-Water Maritime and Energy*, *112*(1), 75-78, 1995. doi.org/10.1680/iwtme.1995.27396

1997

79. Kit, E., Strang, E. and Fernando, H.J.S., "Measurement of Turbulence Near Shear-Free Density Interfaces," *Journal of Fluid Mechanics,* **334**, 293-314, 1997.
80. Voropayev, S.A., Zhang, X., Boyer, D.L., Fernando, H.J.S. and Wu, A., "Horizontal Jets in Rotating Stratified Fluids," *Physics of Fluids,* **9(1)**, 115-126, 1997.
81. Kit, E. and Fernando, H.J.S., "Frequency Spectra of Scalar Fluctuations at Entraining Stratified Interfaces," *Fluid Dynamics Research,* **19**, 65-75, 1997.
82. Fernando, H.J.S. and Leissa, A.W., Introduction to "Retrospective": "Generation of Surface Waves by Wind" by John Miles, *Appl. Mech. Rev.*, **50(7)**, R5, 1997.
83. Fernando, H.J.S., Mahalov, A. and Nicolaenko, B. "Preface: Advances in Geophysical Fluid Dynamics and Turbulence," *Theoretical and Computational Fluid Dynamics*, **9(3/4)**, 165-166, 1997.
84. Xu, Y., Boyer, D.L., Fernando, H.J.S. and Zhang, X., "Motion Fields Generated by the Oscillatory Motion of a Circular Cylinder in a Linearly Stratified Fluid," *Experimental Thermal and Fluid Science*, **14**, 277-296, 1997.
85. Folkard, A., Davies, P.A. and Fernando, H.J.S., "Measurements of Turbulent Patch in a Rotating Linearly Stratified Fluid," *Dynamics of Atmospheres and Oceans*, **26**, 27-51, 1997.
86. Fernando, H.J.S. and Hunt, J.C.R., "Turbulence, Waves and Mixing at Shear-Free Density Interfaces; Part 1 - A Theoretical Model," *Journal of Fluid Mechanics,* **347**, 197-234, 1997.
87. McGrath, J., Fernando, H.J.S. and Hunt, J.C.R., "Turbulence, Waves and Mixing at Shear-Free Density Interfaces; Part 2 - Laboratory Experiments," *Journal of Fluid Mechanics,* **347**, 235-261, 1997.
88. Zhang, X., Boyer, D.L. and Fernando, H.J.S., "Turbulence-Induced Rectified Flows in Rotating Fluids," *Journal of Fluid Mechanics,* **350**, 97-118, 1997.

1998

89. DeSilva, I.P.D. and Fernando, H.J.S., "Experiments on Collapsing Patches in Stratified Fluids," *Journal of Fluid Mechanics,* **358**, 29-60, 1998.
90. Cole, G. and Fernando, H.J.S., "Decay of Turbulent Fluctuations in a Convecting Boundary Layer," *Fluid Dynamics Research*, **23(3)**, 161-176, 1998.
91. Manasseh, R., Ching, C.Y. and Fernando, H.J.S. "The Transition from Wave-Dominated to Density Driven Isolated Flows," *Journal of Fluid Mechanics,* **361**, 253-274, 1998.
92. Colomer, J., Zieren, L.D. and Fernando, H.J.S., "Comments on the Paper "Localized Convection in Rotating Stratified Fluid," *Journal of Geophysical Research,* **103(C6)**, 12,891-12,894, 1998.
93. Lucio, P.A., Voropayev, S.A., Fernando, H.J.S., Boyer, D.L. and Houston, W.N. "The Motion of Cobbles in the Swash Zone," *Coastal Engineering,* **33,** 41-60, 1998.
94. Fernando, H.J.S., Chen, R-r. and Ayotte, B.A., "Development of a Point Plume in the Presence of Background Rotation," *Physics of Fluids,* **10(9)**, 2369-2383, 1998.
95. Voropayev, S., Roney, J., Boyer, D.L., Fernando, H.J.S. and Houston, W.N. "The Motion of Large Bottom Particles (Cobbles) in Wave-induced Oscillatory Flows," *Coastal Engineering,* **34,** 197-219, 1998.
96. Fonseka, S.V., Fernando, H.J.S. and van Heijst, G.J.F., "The Evolution of an Isolated Turbulent Region in a Stratified Fluid," *Journal of Geophysical Research,* **103(C11),** 24,857-24,868, 1998.

97. Berestov. A, Fernando, H.J.S. and Fox, P., "Modeling of Transport and Seepage in Effluent-Dominated Streams," *Journal of Water Resources Research,* **34(11),** 3025-3033, 1998.
98. Colomer, J., Casamitjana, X. and Fernando, H.J.S. "Resuspension and Sedimentation of Particles from a Sediment Bed by Turbulent Jets," *Applied Scientific Research*, **59**, 229-242, 1998.

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INVENTION DISCLOSURE:

Disclosure ID: D-0283; Title - ANN Extrapolation (2020), University of Notre Dame, IDEA Center.

KEYNOTE/INVITED PRESENTATIONS AT CONFERENCES/WORKSHOPS

1. Fernando, H.J.S., "Turbulent Mixing Across Density Interfaces: A Review of Laboratory Experiments and Their Oceanographic Implications," Invited Paper, *'Aha Hulikoa, Winter Hawaiian Workshop Proceedings*, Institute of Geophysics, University of Hawaii, 205-218, 1989.
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7. Fernando, H.J.S. "Stratified Turbulence," Keynote Pedagogical Lecture, IUTAM, IAMAS/IUGG, GTP/NCAR Workshop on "Developments in Geophysical Turbulence," Boulder, CO June 16-19, 1998.
8. Fernando, H.J.S. "Entrainment and Mixing in Stably Stratified Flows," Invited Lecture, GTP/NCAR conference on "Observations, Experiments and LES" Boulder, CO Aug. 12-15, 1998.
9. Fernando, H.J.S. "Turbulence and Mixing in Environmental Flows," Invited Paper, "Hopkins Conference in Environmental Fluid Mechanics," 8-9, April 2-4, Baltimore, 1998
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13. Fernando, H.J.S. "Flow and Dispersion in Complex terrain Airsheds," Invited Paper, Fluid Mechanics and the Environment, Conference in Honor of Sid Leibovich's 60th Birthday, Ithaca, NY, Aug 23-24, 1999.
14. Fernando, H.J.S. " The Atmospheric Boundary Layer in Complex terrain," Invited Paper, XXVI General Assembly, Nice, France 25-30 March 2001, EGS News Letter, 78, 154.

15. Fernando, H.J.S. "Vertical Mixing and Dispersion in Urban Airsheds," Invited Paper, Wave Phenomena III: Waves in Fluids from Microscopic to the Planetary Scale," June 11-15, Edmonton, Canada.

16. Fernando, H.J.S. "Flow in Complex Terrain Areas," Keynote Paper, NSF-CNRS Workshop on "Transport and Mixing of Reactive and Passive Scalars in the Atmospheric Boundary Layer," July 4, 2001, Institut Pierre-Simon Laplace, Paris.

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19. Fernando, H.J.S., Hyde, P. and Zehnder, J. "Phoenix as a Field Facility," Invited Presentation at the 3rd CLEANER Workshop, Duke University, February 4-5, 2003.

20. Fernando, H.J.S., "Quasi-two dimensional Flow Structures in Stratified and Rotating Turbulent Flows," Invited paper, International Symposium on Shallow Flows, June 16-18, Delft, The Netherlands, 5-13, 2003.

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23. Fernando, H.J.S. "Air Quality Dynamics in the Phoenix Area," Invited Paper, Yale-IGES International Workshop on Urbanization and Environmental Change, April 22-24, Yale University, New Haven, CT, 2004

24. Fernando, H.J.S. "Fluid Mechanics of Urban Environments," Keynote Paper, Proceedings 10th Congress of Asian Fluid Mechanics (Ed., J.J. Wijethunga), University of Peradeniya, Sri Lanka, 17-21 May (Paper A02, CD).

25. Fernando, H.J.S. "Hydraulic Phenomena in Urban Atmospheric Environments and their Role in Contaminant Dispersion," Keynote Paper for the 4th International Symposium on Environmental Hydraulics, Hong Kong, 15-18, December 2004.

26. Fernando, H.J.S. "Challenges in Tackling Urban Environmental Problems: An Example of a Rapidly Growing City," IAI Institute for Urbanization and Global Change Research in Latin America, Mexico City, Sep 27 to October 8th, 2004.

27. Fernando, H.J.S., "Air Pollution in Urban Settings," Invited Speaker, NSF Workshop on Sensors for Environmental Observatories, Seattle, WA Nov 30 – Dec 02, 2004.

28. Fernando, H.J.S. "Challenges in Tackling Urban Environmental Problems: An Example of a Rapidly Growing City," William Mong Distinguished Lecture in Engineering and Computer Sciences, Hong Kong University, 2004.

29. Fernando, H.J.S. "Urban Environments: Effects of Global Change and Extreme Events," Keynote Speaker, Joint Houston-London Conference at the Shell Oil Auditorium, Rice University on Climate Change, Extreme Events and Coastal Cities, February 9-10, 2005.

30. Fernando, H.J.S. "The Sumatra Tsunami in Sri Lanka," Invited Speaker, Urgent Meeting on Tsunami Research, March 18, 2005, Institute of Civil Engineers and Lighthill Institute of Mathematics, London, 2005.

31. Fernando, H.J.S. "Coherent Structures in Fluid Mechanics: Their Role in Mixing and Transport in Environmental Flows," Invited Speaker, Proceedings, GTP Workshop on Coherent Structures in Atmosphere and Ocean, NCAR, July 11-14, 2005.

32. Fernando, H.J.S. "Observations Following the Sumatra Tsunami in Sri Lanka," Conference on Infrastructure Reconstruction, College of Engineering, University of Calgary, October 21, 2005.

33. Fernando, H.J.S. "Small Scale Turbulence and Mixing in Stratified Shear Flows," Invited Speaker, Conference on Emerging Paradigms in Non-Linear Sciences, Los Alamos National Laboratory, Jan26-Jan 28, 2006.

34. Fernando, H.J.S., "Air Circulation and Contaminant Dispersion in Cities," Keynote Speaker, NATO Advanced Research Workshop on Planetary Boundary Layer, 18-22 April, Dubrovnic, Croatia, 2006.

35. Fernando, H.J.S. and Lozovatsky, I., "Turbulence and Mixing in Strongly Stratified Layers of Natural Flows," Keynote Speaker, 10th European Workshop on Physical Processes in Natural Waters, June 26-28, 2006, University of Granada, Spain.

36. Fernando, H.J.S., "Particle Laden Flows: from Geophysical to sub-Kolmogorov Scales," Keynote Closing Speaker, Euromech Colloquium 477, University of Twente, June 21-33, 2006.

37. Fernando, H.J.S., "Flow, Turbulence and Transport in Complex Terrain Airsheds: From Meso to Street Canyon Scales," Keynote Speaker, NCAR GTP Workshop on Turbulence and Scalar Transport in Roughness Sublayers, September 26-28, 2006.

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39. Calhoun, R., Retallack, C., Christman, A. and Fernando, H.J.S., "Nocturnal Valley Flow in T-Rex," Invited Talk, Stable Atmospheric Boundary Layer Workshop, Sedona, Arizona, November 12-16, 2006.

40. Fernando, H.J.S., "Small Scale Mixing in Stably Stratified Flows," Invited Speaker in the AFOSR Workshop on "Challenges of Multi-scale Atmospheric Turbulence," Tempe, AZ, Dec 14-15, 2006.

41. Fernando, H.J.S. "Transport and Small Scale Mixing in Topographically Dominated Stably Stratified Flows, Keynote Speaker, Sixth International Symposium on Stratified Flows, Perth, Australia, December 11-14, 2006.

42. Fernando, H.J.S., "Coral Observations Following Sumatra Tsunami in Sri Lanka," IIHR-Asia Pacific Division Meeting, Hong Kong, Inaugural Thematic Paper, January 15-16, 2007.

43. Fernando, H.J.S. "Tsunamis: A Journey through their Manifestation and Aftermath, *American Society of Limnology and Oceanology (ASLO)*, Keynote Union Session Speaker, Annual Conference, Santa Fe, February 2-7, 2007.

44. Fernando, H.J.S., "Particle Laden Flows in Geophysics," Invited Speaker, Explosive Volcanism Workshop, Integrating Numerical and Laboratory Models of Explosive Eruptions with Deposits: Understanding Explosive Volcanic Sedimentation, Prescott, Arizona, March 31-April 4, 2007.

45. Fernando, H.J.S., "Urban Atmospheric Boundary Layer Dynamics," Invited Speaker, *SIAM Conference on Mathematical and Computational Issues in the Geosciences*, In Session MS15, High Performance Computing and Mathematical Modeling of Atmospheric Flows, Santa Fe, New Mexico, March 19-22, 2007.

46. Fernando, H.J.S., "Air Quality in Phoenix Area," Conference on "Rome Experience to the ATMOSFERA Production in Milan: A Project for the Air Quality in Big Cities," Invited Speaker, April 23, Campidoglio, Rome, 2007.

47. Park, K.Y. and Fernando, H.J.S., "ASU's version of MM5/Urbanized: Input Data on Land Use and Improvement of Physics," Invited Talk, NUDAPT (National Urban Database and Access Portal Tool) Workshop, US Environmental Protection Agency, April 18-20, Salt Lake City, Utah, 2007.

48. Park, K.Y. and Fernando, H.J.S., "ASU's version of MM5/Urbanized: Applications" NUDAPT Invited Talk (National Urban Database and Access Portal Tool) Workshop, US Environmental Protection Agency, April 18-20, Salt Lake City, Utah, 2007.

49. Fernando, H.J.S., "Urban Heat Island in Phoenix," Invited Presentation at the Urban heat Island Taskforce/City Council, City Hall. May 15, 2007.

50. Fernando, H.J.S., "Tales of Troubled Waters: Sumatra Tsunami, Katrina Storm Surge and Cognates," NATO (Security through Science Program) Workshop on Aral Sea, Keynote Speaker, Girona, Spain, July 11-14, 2007. (50)

51. Mahalov, A., Nicolaenko, B. and Fernando,, H.J.S., "High Performance Computing of Environmental Flows," Invited Paper, Multi-Scale Mathematics in Defense Research and It's Spin-Offs, Lighthill Institute of Mathematics, Workshop, May 31-June 2, 2007.

52. Di Sabatino, S. and Fernando, H.J.S., "Turbulent Mixing Scenario during Evening Transition," Invited Paper, Turbulent Mixing and Beyond, The Abdus Salam International Centre for Theoretical Physics, Trieste, August 18-26, 2007.

53. Fernando, H.J.S. "Some Non-Linear Problems Associated with Modeling of Urban Air Flows," Keynote Speaker, First Basil Nicolaenko Distinguished Lecture Series in Non-Linear Sciences, Arizona State University, October 8, 2007.

54. Fernando, H.J.S., "Urban heat Island in Phoenix," City of Phoenix, Invited Speaker and Moderator, Continuous learning Institute, October 6, 2007.

55. Fernando, H.J.S. "Wading in Troubled Waters: Tsunamis, Storm Surges and Stressed Environments," Keynote Speaker, 5th International Symposium on Environmental Hydraulics, Tempe, AZ 4-7, 2007.

56. Fernando, H.J.S. "Anthropogenic Exacerbation of Natural Disasters," Mini-Conference on "A Dynamic Approach to Mitigation of Natural Disasters," Keynote Speaker, International Infrastructure Renewal & Reconstruction, University of Calgary, April 10-11, 2008.

57. Fernando, H.J.S., Journeying Through Some Stressed Ecosystems," Invited Speaker, National Academy of Engineering, Regional Meeting and Sustainability Symposium, Tempe, Arizona, April 2008.

58. Fernando, H.J.S., "Urban heat Island of Phoenix," Invited Speaker, Weather Workshop, National Weather Service, Phoenix, May 13, 2008.

59. Fernando, H.J.S., "Technology Infusion for Atmospheric Boundary layer Research; Observations and Experiments on Multi-scale Turbulence Phenomena," Keynote Speaker, Geophysical Turbulence Phenomena; Observing the Turbulent Atmosphere: Sampling Strategies, Technology and Applications. Theme of the Year Workshop, National Center for Atmospheric Research, Boulder, CO, May 28-30, 2008.

60. Fernando, H.J.S., "Episodic Events in Nature; The Role of Turbulence, Waves and Mixing," 2nd NATO Workshop on Aral Sea, Invited Speaker, Tashkent, Uzbekistan, October 22024, 2008.

61. Fernando, H.J.S., "Fluid Mechanics of Urban Environments," Invited Speaker, American Physical Society Fluid Dynamics Meeting, San Antonio, Texas, *Bull. Am. Phys. Soc.* **53(15)**, 212, 2008.

62. Fernando, H.J.S. and Voropayev, S.A., "Shallow Flows in the Atmosphere and Oceans: Geophysical and Engineering Applications," Keynote Speaker, Proceedings, International Symposium on Shallow Flows, Hong Kong, December 10-12, 2008.

63. Hunt, J.C.R., Eames, I., Westerweel, J., Davidson, P.A., Voropayev, S.,. Fernando, H.J.S., and M. Braza, Thin Shear Layers – The Key to Turbulence Structure? Keynote Paper (by J.C.RHunt), Proceedings, International Symposium on Shallow Flows, Hong Kong, December 10-12, 2008.

64. E.R. Pardyjak and H.J.S. Fernando, "The Effect of Surface type on the Decay of Turbulence in the Surface Layer during Evening Transition," Invited Paper, European Meteorological Society, 9th EMS / 9th ECAM, EMS2009-531, 02 Oct 2009.

65. Princevac, M., Fernando, H.J.S. and Hunt, J.C.R., Thermally Driven Flows in Complex Terrain: Field, Laboratory and Analytical Investigation," Invited Paper, International Symposium on Multi-Phase Flow in Atmospheric Boundary Layer", October 16th to 19th, Lanzhou, China, 2009. (50)

66. Fernando, H.J.S and Lozovatsky, I., Topographic Influence on Internal Waves, Keynote Speaker, Turbulence and Internal Waves in Mediterranean Sea (TURBINTERMED) Workshop, March 10-12, Toulon, France, 2010.

67. Fernando, H.J.S. "Environmental Hydraulics and Sustainability: Some Lessons from Recent Past," Keynote Address, 6th International Symposium on Environmental Hydraulics, Athens, Greece, 23-25 June, 2010.

68. Fernando, H.J.S., "Water Resources: Changes over Next 20 Years," Invited Speaker, 1st IAHR Summit on Hydro-Environmental Engineering and Research, "The Engineering and Research Contribution to Global Water Security, Athens, June 14, 2010.

69. Ovenden, N., Shaffer, S. And Fernando, H.J.S. "Investigations of Environmental and Terrain Effects on the Propagation of Freeway Noise, Invited Paper, Acoustical Society of America (ASA), Seattle May 23 and 27, 2011.

70. Fernando, H.J.S. "Sustainable Coastal Cities: Role of Environmental Hydraulics," Invited Speaker, Future of Environmental Hydraulics (Symposium in honor of Heinz Stefan). University of Minnesota, St. Anthony Falls Hydraulics Laboratory, May 11, 2011.

71. Fernando, H.J.S. "Flow and Dispersion through Urban Canopies," Invited Speaker, Symposium Honoring Professor C.C. Mei, American Academy of Arts and Sciences, Boston, May 20, 2011.

72. Fernando, H.J.S., Pol, S., Nath, C., Voropayev, S., Webb, S. and Lord, D., "Jets, Plumes and Double Diffusion under Confinement – And their Role in Fluid Mechanics of US Strategic Petroleum Reserves," Invited Speaker, Gehard H. Jirka Memorial Colloquium on Environmental Fluid Mechanics," June 3-4, Karlsruhe, Germany, 2011

73. Fernando, H.J.S., Climate Impacts on Urban Areas, Workshop on Asian Climate Change and Variability: Trends and Policy, Invited Speaker, Divecha Center for Climate Change, IIS Bangalore, July 20 to 22, 2011.

74. Fernando, H.J.S. "Toward Sustainable and Secure Coastal Zones: Role of Waves, Tides, Sediments and Turbulence," Inaugural Keynote Speaker, 6th International Symposium on Asian and Pacific Coasts (APAC 2011), Hong Kong, December 14-16, 2011.

75. Fernando, H.J.S. "Sustainable and Secure Coastal Zones: Role of Waves, Tides, Sediments and Turbulence," Invited Speaker, 5th Annual CENSAM (Center for Environmental Sensing and Modeling) Workshop, MIT-Singapore Alliance, Jan 12-13, 2012.

76. Fernando, H.J.S. "Air Quality at Different Spatial Scales: Panel Discussion," Invited Speaker, 5th Annual CENSAM (Center for Environmental Sensing and Modeling) Workshop, MIT-Singapore Alliance, Jan 12-13, 2012.

77. Fernando, H.J.S., "Mixing in Stratified Shear Layers, including the Effects of Topography, Invited Speaker, Workshop on Physical Processes in the Bay of Bengal and Monsoon ISO. 5-7 March, Indian Institute of Sciences, Bangalore, 2012.

78. Fernando, H.J.S., Pardyjak, E., Zajic, D., De Wekker, S.J.F., and Pace, J., The Mountain Terrain Atmospheric Modeling and Observations (MATERHORN) Program: The First Field Experiment (MATERHORN-X1), Invited Paper, *American Geophysical Union*, Fall Meeting, Abstract # A12D-01, 2012.

79. Fernando, H.J.S., Climate Change in Urban Areas, Invited Talk, Conference on Climate Change and the Common Good: Security, Sustainability and Policy, University of Notre Dame, Apr 8-10, 2013.

80. Fernando, H.J.S., Bhat, G.N. and Sharma, A., The Battle of Fluids: Air, Water and Climate, Keynote Speaker, 35th IAHR World Congress, Chengdu, China, September 8-13, 2013.

81. Fernando, H.J.S., From Laboratory to Climate: Understanding of Multi-scale Processes through Observations, Invited Speaker, *Mémorial Gabriel Chabert d'Hières Prospective sur la nouvelle plate-forme Coriolis, Université Joseph Fourier, Grenoble, France*, 2014.

82. Fernando, H.J.S. Urban Fluid Mechanics, Presentation at the *Honoris Causa Ceremony*, Universit*é* Joseph Fourier, Grenoble, 2014.

83. Fernando, H.J.S., Urbanization and Climate Change in Urban Metropolises, Distinguished Lecture, *Hong Kong Jockey Club Advanced Institute Lecture*, Hong Kong University of Science and Technology, 12th December, 2014.

84. Fernando, H.J.S., Turbulence and Fluxes in the Atmospheric Boundary Layer: Implications from Urban Street Canyon to Climate Scales, *Enrico Marchi Award Lecture*, Italian Hydraulics Association, June 12, 2015.

85. Fernando, H.J.S., Meteorology and Air Quality in Urban Areas in Complex Terrain: Effects of Climate Change and Rapid Expansion, Invited Lecture, 23rd (Korean Academy for Science and Technology International Symposium on *"Fine Particles: Causes, Impact and Mitigation"*, Diamond Hall, Plaza Hotel, Seoul, Korea, 17 September 2015.

86. Fernando, H.J.S., Hacker, J., Katopodes Chow, F., Pardyjak, E., and de Wekker, S.F.J., The Mountain Terrain Atmospheric Modeling and Observations (MATERHORN) Program (2011-2016), Invited Lecture, 20th Annual George Mason University (GMU) Conference on Atmospheric Transport and Dispersion Modeling, GMU Fairfax, Virginia June 14-16, 2016.

87. Fernando, H.J.S., Kit, E., Sukorianski, S. and Hocut, C.M., Turbulent Bursts in the Stable Atmospheric Boundary Layer, Invited Lecture, IMA Conference on Turbulence, Waves and Mixing, Wednesday 6 – Friday 8 July 2016, King's College Cambridge, UK, 2016.

88. Fernando, H.J.S., Intraseasonal Oscillations in Equatorial Atmosphere and Oceans. IAHR Fluid Mechanics Plenary Lecture, 8th International Symposium on Stratified Flows, San Diego, CA, August 29-September 1, 2016.

89. Fernando H.J.S, University of Notre Dame, Notre Dame, IN; and Conry P, and Sharma A: Effects of Climate Change on Cities: Dynamical Downscaling to Pedestrian Scale, Invited Presentation. American Meteorological Society Annual Meeting, Paper 3.5, January 22-27, Seattle, USA, 2017.

90. Fernando, H.J.S., Climate Change in Cities, Invited Speaker, Workshop on Urban Microclimate: From Research to Application, Singapore, 26th April, 2017.

91. Fernando, H.J.S. Perdigão Project –EU-USA Scientific Collaboration on Wind Energy Meteorology/Physics, Invited Speaker, International Electrochemical Commission (IEC) Meeting, Vila Velha Del Rodao, Portugal, June 14, 2017.

92. Fernando, H.J.S., Research Initiatives in the Indian Ocean to understand monsoon weather and climate change impact, Guest of Honor Speech, NARA Scientific Sessions, Sri Lanka, 2017.

93. Fernando, H.J.S. Complex Terrain Atmospheric Boundary Layer, Workshop on the Future of Atmospheric Boundary Layer Observations, *National Academies of Science, Engineering and Medicine,* Invited Speaker, 2017.

94. Fernando, H.J.S. Effects of Climate Change on Urban Areas, Invited Speaker, Symposium on Hydro-environment Research for Smart Cities (in honor of Professor Joseph Hun-Wei Lee's 65th Birthday), Hong Kong University of Science and Technology, Hong Kong, 2017.

95. Fernando, H.J.S., 'Coastal Sustainability in the Face of a Changing Climate," Invited Speaker, UMCES Environmental Summit 2018 *(*Environmental Intelligence for the 21st Century), November 30, 2018, Baltimore, MD, USA.

96. Fernando, H.J.S., Pirro, A., Perez, J., Wijesekera, H., and Conry, P., Monsoon Intraseasonal Oscillations in Equatorial Atmosphere and Oceans., Invited Speaker, 6th Norway/Scotland Waves and Hydrodynamics Symposium in Edinburgh 8-10 May 2019.

97. Fernando, H.J.S., Observational Strategies of PBL Over Complex Terrain, Invited Speaker, First Workshop for Science and Meteorology with Artificial Intelligence in Research and Technology for Beijing 2022 Winter Olympics (SMART WS-1), Institute of Urban Meteorology, Beijing, China, October 24, 2019.

98. Fernando, H.J.S., "Whither Environmental Fluid Mechanics," Keynote (Vision) Lecture, International Association of Hydro-environment Engineering and Research, 85th Anniversary Summit, Beijing, December 14-17, 2020.

99. Kit, E., Barami, Eli, Sukoriansky, S., Fernando, H.J.S., Studying of Intermittency and bursting phenomena in Stratified Boundary Layer using Probability Density Functions, *Euromech Colloquium on 'Extreme Dissipation and Intermittency in Turbulence', Invited Paper*, 17-19 May 2021.

100. Fernando, H.J.S. Shallow-Flow Waves in Equatorial Atmosphere and Oceans, Invited Keynote Speaker, 5th International Symposium on Shallow Flows (ISSF2021), Nanjing, China, October 23-25, 2021.

101. Fernando, H.J.S., Perez, J., Conry, P., Bhat, G.S., and Wijesekera, H.W., Nexus of Equatorial Waves and MISO Events in Bay of Bengal, Invited, Paper # A34G-03, *AGU Fall Meeting, New Orleans*, 13-17 December, 2021.

102. Fernando, H.J.S., Coordinated Sensing across the Hydro-Environmental Scale Spectrum, *Second (International Association of Hydro-Environment Engineering Research Presidential Lecture*, (Live Streamed), 04 December 2022.

103. Fernando, H.J.S. "Sensing of Earth's Environment [Across Hydro-environment Spectra], University of Bologna Summer School on "Physical Sensing of the Environment', Invited Speaker, July 16-21.

CONFERENCE PROCEEDINGS (Refereed, National and International)

1. Fernando, H.J.S., "Peat: Its Origin and Nature," Karmantha, **10**(October), 16-19, 1977.

2. Herath, K. and Fernando, H.J.S., "Use of Solar Panels for the Domestic Lighting in Sri Lanka," Paper for the *Symposium on Policy on Energy*, Institute of Engineers, Sri Lanka, 1980.

3. Fernando, H.J.S., "A Note on the Peat Resources in Sri Lanka," *Peat as an Energy Alternative II*, Inst. Gas Tech., I.I.T., Chicago, ISPEA Trans., 109-118, 1981.

4. Fernando, H.J.S. and Long, R.R., "Mixed Layer Growth in Stratified Fluids," *The Ocean Surface: Wave Breaking, Turbulent Mixing and Radio Probing* (Eds. Y. Toba and H. Mitsuyasu), 541-546, 1985.

5. Fernando, H.J.S., “Molecular Diffusive Effects in Stratified Turbulent Mixing," *Advances in Aerodynamics, Fluid Mechanics and Hydraulics* (Eds. R. Arndt, S. Heinz, C. Farell and S. Peterson), 997-1004, 1986.

6. Fernando, H.J.S., "Evolution of a Series of Convecting Layers Separated by Diffusive Density Interfaces," *Proceedings of the International Symposium on Buoyant Flows* (Ed. G. Noutsopoulous), Athens, Greece, 348-358, 1986.

7. Fernando, H.J.S. and De Silva, I.P.D., “Collapse of a Turbulent Patch in a Stratified Fluid," *Eighth Symposium on Turbulence and Diffusion, American Meteorological Society*, 283-284, 1988.

8. Fernando, H.J.S. and De Silva, I.P.D., “On the Growth and Collapse of a Turbulent Patch in a Stratified Fluid," *Transport Phenomena in Turbulent Flows* (Eds. M. Hirata and N. Kasagi), Hemisphere Publishing, 545-556, 1988.

9. Fernando, H.J.S. and De Silva, I.P.D., "On the Lengthscales of Stratified Turbulence," *Proceedings 4th Asian Congress of Fluid Mechanics*, A174-177, 1989.

10. Fernando, H.J.S., "Turbulent Mixing Across Density Interfaces: A Review of Laboratory Experiments and Their Oceanographic Implications," (Invited Paper), *'Aha Hulikoa, Winter Hawaiian Workshop Proceedings*, Institute of Geophysics, University of Hawaii, 205-218, 1989.

11. Fernando, H.J.S. and Ching, C.Y., “An Experimental Study on Thermohaline Staircases," *Proceedings of the Conference on Double Diffusion in Oceanography*, Woods Hole Oceanographic Inst., (Ed. R. Schmidt) WHOI Report # 91-20, 141-150, 1989.

12. Fernando, H.J.S., “Turbulent Mixing in the Presence of a Stabilizing Buoyancy Flux," *Stratified Flows* (Eds. E.J. List and G. Jirka), American Society of Civil Engineers, 447-453, 1990.

13. Noh, Y. and Fernando, H.J.S., “The Interaction Between Turbulence Structure and Diffusion of Suspended Particles," *Proceedings of the 2nd IUAPPA Conference on Air Pollution* (Eds. K-R. Cho, D-S. Kim, J-G. Na and S-C. Yoon), Seoul, Korea, 185-202, 1991.

14. Fernando, H.J.S. and Stephenson, P.H., “Mixing Across Sheared Stratified Interfaces," *Proceedings*, Environmental Hydraulics (Eds. J.H.W. Lee and Y.K. Cheung), Balkema Publishing, 391-396, 1991.

15. De Silva, I.P.D., Montenegro, L.M., Brandt, A. and Fernando, H.J.S., “Experiments on the Interaction of Internal Gravity Waves With Mean Shear," *Fifth Asian Congress of Fluid Mechanics* (Eds. K-S. Chang and D.H. Choi), Korea, 988-991, 1992.

16. Fernando, H.J.S., Perera, M.A.J.M. and Boyer, D.L., “Trapping of Internal Gravity Waves in an Inversion," *Proceedings of the 11h Australasian Fluid Mechanics Conference*, Hobart, 1165-1168, 1992.

17. Davies, P.A., Boyer, D.L., Fernando, H.J.S. and Zhang, X., “On the Flow Generated by the Unsteady Motion of a Circular Cylinder Through a Linearly Stratified Fluid," *Proceedings of the 11th Australasian Fluid Mechanics Conference*, Hobart, 1021-1024, 1992.

18. Fernando, H.J.S., Perera, M.A.J.M. and McGrath, J., "Turbulent Mixing Across Density Interfaces: Some New Concepts and New Results," *18th International Congress of Theoretical and Applied Mechanics*, Israel, 54-55, 1992.

19. Davies, P.A., Boyer, D.L., Fernando, H.J.S. and Zhang, X., "Wake Flows in Stratified Fluids," *Waves and Turbulence in Stratified Fluids* (Eds. S.D. Mobbs and J.C. King), Clarendon Press, 301-322, 1993.

20. Noh, Y. and Fernando, H.J.S., "The Generation of Stratification in Shear-Free Turbulence by an Imposed Buoyancy Flux," *Near Wall Turbulent Flows* (Eds. R.M.C. So, C.G. Speziale and B.E. Launder), Elsevier, 367-375, 1993.

21. Ayotte, B.A. and Fernando, H.J.S., "Laboratory Studies Related to Open-Ocean Deep Convection," *Ninth Conference on Atmospheric and Oceanic Waves*, San Antonio, Texas, 249-251, 1993.

22. Berman, N.S., Brazel, A.J., Boyer, D.L., Fernando, H.J.S. and Chen, R-r., "Air Quality in Nogales," *Southwest Center for Environmental Research Policy Meeting*, Mesa, AZ, March 26-27, 1993.

23. Berman, N.S., Chen R-r., Fernando, H.J.S., Boyer, D.L. and Celada, R.A., "Combined Physical and Numerical Modeling for the Analysis of Wind Fields in Complex Terrain," Proceedings of the Special Conference on *"The Role of Meteorology in Managing the Environment in the 90's*, VIP-29, Air and Water Management Association, Pittsburgh, PA, 296-303, 1993.

24. Fernando, H.J.S., Davies, P.A., Ayotte, B.A., Mofor, L.A. and Ching, C.Y., "Turbulent Plumes, Thermals and Convection in Oceans," NATO Advanced Research Workshop on *"Recent Advances in the Fluid Mechanics of Turbulent Jets and Plumes,"* Vianna do Castello, Portugal, Kluwer Academic, 357-373, 1993.

25. Etling, D. and Fernando, H.J.S., "On the Influence of Background Rotation on Turbulent Jets," NATO Advanced Research Workshop on "*Recent Advances in the Fluid Mechanics of Turbulent Jets and Plumes*," Vianna do Castello, Portugal, Kluwer Academic, 401-411, 1993.

26. Fernando, H.J.S., Hunt, J.C.R. and Carruthers, D.J., "Turbulence, Waves and Mixing at Stratified Density Interfaces: Modeling and Experiments," (Invited Paper), *Fourth IMA Conference on Stably Stratified Flows* (Eds. I. Castro and N. Rockliff), 175-200, 1994.

27. Chen, R-r., Fernando, H.J.S., Berman, N.S., Boyer, D.L. and Brazel, A.J., "Change of Atmospheric General Circulation Due to Global Warming: Inferences From a Physical Model," In: *Proceedings, International Specialty Conference on Global Climate Change: Science, Policy and Mitigation Strategies*, Phoenix, AZ, April 5-8, 1994.

28. Fernando, H.J.S., "Turbulence and Mixing at Density Interfaces," (Invited Paper), *Fourth International Symposium on Stratified Flows*, Grenoble, June 29-July 2, 1994.

29. De Silva, I.P.D., Montenegro, L.M., Fernando, H.J.S. and Brandt, A., "Some Observations Related to Evolving Kelvin-Helmholtz Billows," *Fourth International Symposium on Stratified Flows*, Grenoble, June 29-July 2, 1994.

30. Folkard, A., Davies, P.A. and Fernando, H.J.S., "Measurements of Turbulent Patch in a Rotating Linearly Stratified Fluid," *Fourth International Symposium on Stratified Flows*, Grenoble, June 29-July 2, 1994.

31. Redondo, J.M., Fernando, H.J.S. and Pares, S., "Cloud Entrainment by Internal or External Turbulence," *Mixing in Geophysical Flows* (Eds. J.M. Redondo and O. Metais), U.P.C. Press, Barcelona, 1994.

32. Fernando, H.J.S. and De Silva, I.P.D., "Generation of Turbulence in Stably Stratified Boundary Layers," *Proceedings, Sixth Asian Congress of Fluid Mechanics* (Eds. Y.T. Chew and C.P. Tso), Singapore, 330-333, 1995.

33. Stegen, G.R., Fernando, H.J.S. and Ching, C.Y., "Evolution of Turbulent Jets in Stratified Media," *Proceedings, Sixth Asian Congress of Fluid Mechanics* (Eds. Y.T. Chew and C.P. Tso), Singapore, 951-957, 1995.

34. Ching, C.Y. and Fernando, H.J.S., "Turbulent Jets and Plumes in Rotating Fluids," Tenth ASCE Engineering Mechanics Specialty Conference, Boulder, CO, 1994.

35. Fernando, H.J.S., Strang, E.J., and Hunt, J.C.R., "Turbulent Mixing in Nature; Mechanisms and Parameterizations," (Invited Paper), Proceedings, IUTAM Conference on "*Physical Limnology*," Broom, Australia, September 10-14, 1995.

36. Manasseh, R., Ching, C.Y. and Fernando, H.J.S., "The Isolated Propagating Flow: A hybrid Between a Solitary Wave and a Density Driven Bore," *Proceedings of the 12th Australasian Fluid Mechanics Conference*, University of Sydney, Australia, 10-15 December 367-370, 1995.

37. Ching, C.Y., Cole, G.S., Montenegro, L., Fernando, H.J.S. and Fox, P. "The Use of Horizontal Turbulent Jets as a Means to Improve Water Quality in Swimming Areas of Lakes," *Proceedings of the International Conference on Advances in Mechanical Engineering (ICAME, Des. 20-22, 1995)*, (Ed. T.S. Mruthyunjaya), Narosa Publishing House, New Delhi, India, 1996.

38. Durbin, P.A., Hunt, J.C.R., Kevlahan, N.K.R. and Fernando, H.J.S., "Non-Local Effects of Shear in Turbulent Flows," Sixth European Turbulence Conference, Lausanne, 1996.

39. Kit, E., Fernando, H.J.S. and Ching, C.Y., "Frequency spectra of scalar and velocity fluctuations at entraining stratified interfaces," Sixth European Turbulence Conference, Lusanne; In: Advances in Turbulence VI, Eds. S. Savrilakis, L. Machiels and P.A. Monkewitz, Kluwer Academic Publishers, 595-597, 1996.

40. Voropayev, S. and Fernando, H.J.S., "Vortex Quadrupoles and Propagation of Grid Turbulence," Sixth European Turbulence Conference, Sixth European Turbulence Conference, Lusanne; In: Advances in Turbulence VI, Eds. S. Savrilakis, L. Machiels and P.A. Monkewitz, Kluwer Academic Publishers, 149-152, 1996.

41. Colomer, J., Robles, A. and Fernando. H.J.S. "Investigation of Resuspension and Sedimentation of Particles by Vertical Jets," Sixth International Conference on Flow Modeling and Turbulence Measurements, Tallahassee, Florida, September 8-10, In: Flow Modelling and Turbulence Measurements VI, (Eds. Chen, C-J., Shih, C., Lienau, J. and Kung, R.), Balkema Publishing, Rotterdam, 789-796, 1996.

42. Neves, M.J., Fernando, H.J.S. and Neves, A.A. "Deposition of Particles from a Vertical Jet," Proceedings of the 11th ASCE Engineering Mechanics Conference, 442-445, Ft. Lauderdale, May 22-26, 1996.

43. Fernando, H.J.S., "Discussion on the Paper, Conductivity Measurements in the Wake of Submerged Bodies in Density Stratified Media," Proceedings: Twenty-first Symposium

on Naval Hydrodynamics, June 24-28, Norwegian University of Science & Technology, Trondheim, 275-276, National Academy Press.

44. Fernando, H.J.S., Peeters, P., Robles, A. and Niestadt, B. "Laboratory Modeling of Microbursts," 1st AIAA Theoretical Fluid Mechanics Meeting, June 17-20, New Orleans, AIAA Paper 96-2149, 1996.

45. Fernando, H.J.S. "The Splendor of Environmental Fluid Motions," Keynote Paper, Second International Symposium on Hydrodynamics, Hong Kong, Dec., 16-18, In: Hydrodynamics, Theory and Applications (Eds. Chwang, A.T., Lee, J.H.W. and Leung, D.Y.C), 621-632, 1996.

46. Wu, P.-C. and Fernando, H.J.S. "Mixing Across Density Interfaces Subjected to Differential Turbulent Forcing," Second International Symposium on Hydrodynamics, Hong Kong, Dec., 16-18, In: Hydrodynamics, Theory and Applications (Eds. Chwang, A.T., Lee, J.H.W. and Leung, D.Y.C), 859-864, 1996.

47. Kit, E., Fernando, H.J.S. and Strang, E. "Measurement of Zero-Mean-Shear Turbulence in Homogeneous and Two-Layer Fluids," Second International Symposium on Hydrodynamics, Hong Kong, Dec., 16-18, In: Hydrodynamics, Theory and Applications (Eds. Chwang, A.T., Lee, J.H.W. and Leung, D.Y.C), 853-858, 1996.

48. Fernando, H.J.S., Colomer, J. and Boubnov, B. "Laboratory Studies of Convection from Isolated Sources," *Proceedings, Sixth Asian Congress of Fluid Mechanics*, Madras, 857-859, 1997. (50)

49. Folkard, A.M. and Fernando, A., "How is Thorpe-Scale Decay Rate Related to External Parameters? Physical and Theoretical Studies," Proceedings, Fifth IMA Conference on Stratified Flows - "Mixing and Dispersion in Stably Stratified Flows," 1997.

50. Kit, E., Strang, E., Fernando, H.J.S. and Norton, H. "Experiments on the Development of K-H billows in stratified shear flows," Seventh European Turbulence Conference, In: Advances in Turbulence VII (Ed. Uriel Frisch), Kluwer Academic Publishers, 1998.

51. Mahalov, A., Nicolaenko, B. and Fernando, H.J.S. "Development and Verification of Experimental Data Bases for Pancake Structures in Atmospheric Flows," Proceedings 12th International Symposium on Aerospace/Defense Sensing, Simulation and Controls, Apr 13-17, Orlando, 1998.

52. Srdic-Mitrovic and Fernando, H.J.S. "On the Stratification Drag," In: Environmental Hydraulics (Eds. Lee, J.H.W., Jayawardena, A.W., and Wang, Z.Y.), Proceedings of the Second International Symposium on Environmental Hydraulics, Hong-Kong, Balkema Publishing, Dec 16-18, 407-412, 1998.

53. Hunt, J.C.R. and Fernando, H.J.S. "Effects of Strong Buoyancy and Unsteadiness on Weak Stratified Airflow on Sloping Terrain," Invited Paper, 25th Anniversary Meeting, Indian Institute of Technology, 1998.

54. Fernando, H.J.S., Hunt, J.C.R., Strang, E.J., Berestov, A.L. and Lozovatsky, I.D. "Turbulent Mixing in Stably Stratified Flows; Limitations and Adaptations of the Eddy Diffusivity Approach," In: Physical Processes in Lakes and Oceans (Ed. Jorg Imberger), American Geophysical Union Coastal & Estuarine Series **54**, 351-362, 1998.

55. H.J.S., Fernando, Pardyjak, E., Yu, F., Mahalov, A. and Grachev, A. "A Study of the Turbulent Mixing in the Atmospheric Boundary Layer of Phoenix, Arizona,"

Proceedings, 1999ASME/JSME Fluids Engineering Division Summer Meeting July 18-23, San Francisco, CA, 1999.

56. Y Guo, P A Davies, H J S Fernando and C Y Ching. "Influence of background turbulence on the evolution of turbulent jets," Proceedings Session D4 (Jets, Plumes and Density Currents), Theme D (Hydraulic and Ecological Interactions in a Vulnerable Environment), XXVIII IAHR Congress, Hydraulic Engineering for Sustainable Water Resources Management at the Turn of the Millenium, (eds H Bergmann, R Krainer and H Breinhaelter), 246-252, Graz, Austria, 22-27 August, 1999

57. Grachev, A.A., Fernando, H.J.S., Hunt, J.C.R., Pardyjak, E.P., Oroud, I., Berman, N.S., Yu, F. and Wang, G. "The Structure of the Atmospheric Boundary Layer Over the Complex Terrain of Phoenix Valley," Proceedings of the 13th Symposium on Boundary Layers and Turbulence, 79th AMS Meeting, Jan. 10-15, Dallas, Texas, 331-334,1999.

58. E J Strang, Fernando, H.J.S. and E Kit., Aspects of Turbulent Mixing at Density Interfaces: In Mixing and Dispersion in Stably Stratified Flows (ed. P A Davies), Institute of Mathematics and its Applications Conference Series, 68, 213-228, Oxford University Press, Oxford, UK (ISBN 0 19 850015 7), 1999.

59. Hunt, J.C.R. and Fernando, H.J.S., Separated Flow around Bluff Obstacles at Low Froude Number; Vortex Shedding and Estimates of Drag. In Mixing and Dispersion in Stably Stratified Flows (ed. P A Davies), Institute of Mathematics and its Applications Conference Series, 68, 477-492, Oxford University Press, Oxford, UK (ISBN 0 19 850015 7), 1999.

60. Colomer, J., X. Casamitjana and Fernando, H.J.S. "Convection from an isolated source in a stratified fluid," Annals of Advances Turbulence III, In: Turbulent Diffusion in the Environment (Eds: J.M. Redondo and A. Babiano), 103-112, XXDFTG, UPC, Barcelona, Spain, 2000.

61. Casamitjana, X., Colomer, J. and Fernando, H.J.S. "Flow Regimes for a Momentum Jet Discharging from Below a Particle Bed," Annals of Advances Turbulence III, In: Turbulent Diffusion in the Environment (Eds: J.M. Redondo and A. Babiano), 225-234, XXDFTG, UPC, Barcelona, Spain, 2000.

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SPONSORED RESEARCH PROJECTS

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External Funding

06/01/85 - 03/11/87: National Science Foundation Research Initiation; Turbulent Mixing in the Presence of Stable Stratification. ($69,998)

06/01/87 - 06/01/92: National Science Foundation; Presidential Young Investigator Award. ($265,000)

06/01/87 - 03/05/89: Office of Naval Research, Arctic Science Programs; Mixing Across Double-Diffusive Interfaces. ($66,363)

10/15/87 - 10/14/89: Office of Naval Research, Coastal Sciences Program; Laboratory Experiments on Boundary Mixing and Front Formation in Stratified Fluids. ($92,833)

02/01/88 - Garrett Fluid Systems Company; Presidential Young Investigator Matching Equipment. ($10,565)

06/01/88 - National Science Foundation; Research Education for Undergraduates. ($3,379)

09/14/88 - Science Applications International Corporation; Analysis of Weddell Sea Oceanographic Data. ($5,785)

10/01/89 - 09/30/91: Office of Naval Research, Arctic Sciences Program; Laboratory Experiments on Fluid Dynamical Processes Related to Winter Arctic Leads. ($113,080)

06/01/89 - National Science Foundation; Research Education for Undergraduates Award. ($4,000)

11/28/89 - Intel Corporation; Presidential Young Investigator Award Matching Equipment. ($35,702)

01/01/90 - 12/31/91: Office of Naval Research, Small-Scale Processes Program; Diapycnal Mixing, Gravity Current Propagation and Sediment Dispersion in Turbulent Fluids. ($131,888)

01/01/90 - 12/30/92: Office of Naval Research, Ocean Engineering; Experimental and Theoretical Studies of Wakes in Stratified Fluids, Co-PI, PI - Dr. D.L. Boyer. ($185,837)

06/01/90 - 05/31/93: National Science Foundation, Division of International Programs; Structure of Turbulence Near Density Interfaces. ($14,470)

06/01/90 - 05/31/91: Garrett Engine Division (Allied Signal); Rotating Disk Cavity Flow. ($10,212)

09/01/90 - 08/01/93: North Atlantic Treaty Organization; Spreading of a Locally Generated Mixed Layer in a Linearly Stratified Fluid, Co-PIs - Drs. P.A. Davies, D.L. Boyer and G. Chabert d'Heires. (£7,240)

06/01/91 - 10/31/91: Army Research Office; Trapping of Internal Gravity Waves in an Inversion, PI, Co-PI - Dr. D.L. Boyer. ($20,804)

05/03/91 - Silicon Graphics; IRIS 3100 Silicon Graphics Work Stations and 4020 PC; Equipment Donation. ($78,600)

03/01/91 - 02/29/92: Southwest Center for Environmental Research; Modeling of Drainage Flow in Rio Grande Basin, PI, Co-PI - Dr. D.L. Boyer. ($14,100)

10/01/91 - 09/30/94: Science Applications International Corporation; Collapse of Stratified Turbulent Jets. ($20,000)

10/01/91 - 09/30/93: Office of Naval Research, Arctic Science Programs; Hydrodynamics of Convection Under Polar Leads. ($124,058)

01/01/92 - 12/30/94: Office of Naval Research, Small-Scale Processes Program; Turbulent Mixing in Stratified and Sediment Laden Flows. ($210,069)

08/01/92 - 06/30/93: Science Applications International Corporation; Collapse of Stratified Turbulent Jets. ($9,950)

09/30/92 - 09/29/93: Office of Naval Research, Engineering Program; Laser-Induced Fluorescence/ Particle Tracking System for Stratified Turbulence Research, Co-PI - Dr. D.L. Boyer. ($81,000)

10/01/92 - 09/30/95: National Science Foundation (CTS); Turbulent Mixing in Environmental Flows. ($235,271): REU Supplement - ($16,000)

01/15/92 - 03/15/95: Office of Naval Research, Small-Scale Processes Program; AASERT: Mixing and Internal Wave Propagation in Stratified Flows. ($98,326)

02/15/93 - 02/14/94: Southwest Center for Environmental Research; Air Quality in Nogales, Co-PI, PI - Dr. N. Berman. ($77,500)

05/01/93 - 04/30/96: Office of Naval Research, Arctic Programs; AASERT: Laboratory Experiments on Deep Ocean Convection. ($92,000)

10/01/93 - 09/30/96: Environmental Protection Agency; Particle-Laden Stratified Turbulent Flows. ($216,069)

05/01/93 - 04/30/96: Office of Naval Research, Ocean Technology Programs; AASERT: Measurement of Lift, Drag and Torque on Obstacles in Stratified and Rotating Flows, Co-PI, PI - Dr. D.L. Boyer. ($97,571)

10/01/93 - 09/30/95: Office of Naval Research, Arctic Science Programs; Studies on Convection in Polar Oceans. ($133,298)

10/01/93 - 09/30/96: National Science Foundation (Ocean Sciences); Physical Modeling of Tidal Currents in the Vicinity of Continental Shelf Breaks, Co-PI, PI - Dr. D.L. Boyer. ($294,236)

01/15/94 - 03/15/97: Office of Naval Research, Small-Scale Processes Program; AASERT: Critical-Layer Absorption in Stratified Flows. ($90,830)

01/01/95 - 12/30/96: Office of Naval Research, Small-Scale Processes Program; Turbulence and Mixing in Deep and Coastal Oceans. ($167,747)

01/07/95 - 30/06/98: Army Research Office; Turbulent Mixing in Stratified Shear Flows, Co-PI - Dr. D.L. Boyer. ($205,362)

01/04/95 - 01/30/98: Office of Naval Research; Dynamics of Cobbles in and Near the Surf Zone, Co-PI, PI - Dr. D.L. Boyer. ($338,184)

01/01/95 - 12/31/97: Arizona State University Multi-Disciplinary Initiative; Environmental Transport, Eco-Systems Analysis and Biorestoration in Arid Regions, Co-PIs - Drs. D. Patten, P. Fox and N. Berman. ($225,000)

05/15/95 - 06/30/95: Arizona Department of Environmental Quality; Design of a System to Limit Coliform Bacteria in Recreational Areas of Lake Havasu, PI - P. Fox. ($22,000)

10/01/95- 09/30/97: Office of Naval Research; Studies on Convection in Polar Oceans. ($137,937).

01/01/96- 12/31/98: National Science Foundation; Studies on Environmental Turbulent Flows. ($259,317 + 3 REU awards $12,000)

01/01/97- 12/31/98: Office of Naval Research; Mixing, Fine-Structure and Internal Waves Near Shallow Summit Sea Mounts, Co-P.I., P.I. - I. Lozovatsky (220,847)

01/01/97 12/31/98: Office of Naval Research; Turbulent Mixing in Oceanic Surface and Coastal Boundary Layers ($174,962).

01/01/97 12/31/99: National Science Foundation; Physical and Numerical Modeling of Currents in and Near Submarine Canyons ($295,919), Co-P.I., P.I. - D.L. Boyer.

06/01/97 05/30/00: Office of Naval Research, Coastal Dynamics Program; AASERT: Mine Movement in and Near Surf Zone ($ 115,116), Co-P.I., P.I. - D.L. Boyer.

06/01/97 05/30/00: Army Research Office, Geosciences and Engineering; AASERT: Turbulent Patches in Stratified Shear Flows ($ 109,469), P.I., Co-P.I. - D.L. Boyer.

04/01/97 05/30/98: Environmental Protection Agency, SCERP Program; Complex-Terrain Airshed of El Paso - Ciudad Juarez - Sunland Park Basin ($ 82,918), Co-P.I., P.I. - N.S. Berman

08/01/97 07/31/99: National Science Foundation; Modeling of Contaminant Dispersion in Complex Terrain Flows ($425,000), P.I., Co-P.I.'s - N.S. Berman, D.L. Boyer, A. Mahalov and J. Anderson.

10/01/98 09/30/99: Environmental Protection Agency, SCERP Program; Characterization of Ambient Particulate Matter in the Paso del Norte Region ($ 75,000), Co-P.I. (with J. Anderson), P.I. - N.S. Berman

04/01/98 03/31/01: Air Force Office of Scientific Research; Development and Verification of Experimental Databases for Pancake Structures in Geophysical Flows (86,925); Co-P.I. (with A. Mahalov), P.I. - B. Nicolaenko.

04/01/98	3/31/00: Office of Naval Research, Coastal Dynamics Program; Dynamics of Cobbles in and Near the Surf Zone ($200,000); Co-P.I., P.I. - D.L. Boyer.
08/15/98	8/14/01: US Department of Education, GAANN Program; Graduate Education in Environmental Technology ($378,330); P.I., Co-P.I.'s - G. Raupp, P. Phelan and P. Fox.
10/12/98	9/30/99: US Bureau of Reclamation; Evaluations of Flow Fields in Wetlands Using Physical Models ($73,623); Co-P.I., P.I. - P. Fox.
08/01/98	12/1/98: Arizona Department of Environmental Quality; Meteorological Measurements at the Falcon Field Airport ($10,639).
10/01/99	09/30/00: Environmental Protection Agency, SCERP Program: Modeling of the El Paso Airshed ($ 75,000), Co-P.I. with J. Anderson, P.I. - N.S. Berman
01/01/99	12/31/01: National Science Foundation (Urban Research Initiative); Dynamics of an Urban Carbon Dioxide Dome ($ 498,000), Co P.I. with T. Day, P. Glober, T. Hogan, J. Klopatek and E. Wentz, P.I. – Robert Balling
01/01/99	12/32/00: Office of Naval Research: Topographic Influence on Internal Waves and Meso-scale Ocean Dynamics, Co-P.I., P.I. - I. Lozovatsky (280,000)
05/01/99	31/12/00: Office of the President, ASU; Neighborhood Seed Grant Program; Tempe Town Lake Evaporation and Climate Modification (68,775), Co P.I with Tony Brazel, P.I. Nancy Selover
15/08/99	14/08/03: Department of Energy: Vertical Transports and Mixing in Complex Terrain Airsheds ($744,696), PI, Co P.I.'s – J. Anderson, D.L. Boyer and N.S. Berman.
15/06/99	06/14/00: National Science Foundation: Environmental Stratified Shear Flows ($45,000), PI.
11/17/99	06/16/01: Arizona Department of Transportation: A Field Study of Particulate Emissions from Major Roadways in the Phoenix Airshed ($325,056), Co-PI, P.I. - J. Anderson.
01/01/00	05/30/01: Southwest Center for Environmental Research and Policy/EPA: Meso-scale Meteorological Modeling of ElPaso Del Norte Airshed ($75,000+24,000), PI, Co-PI's Neil Berman and James Anderson.
04/01/00	03/31/02: Office of Naval Research (Coastal Dynamics Program): The Dynamics of Cobbles in and Near the Surf Zone ($229,075), Co PI with Sergey Voropayev, PI: D.L. Boyer.
06/01/00	05/30/01: SCERP/EPA, A Multi-Scale Atmospheric Analysis of Particulate Concentration and Flow in the Douglas-Agua Prieta Airshed ($67,239), Co-PI, P.I. Andrew Ellis.
07/01/00	06/30/03: National Science Foundation: Urban Fluid Mechanics: Thermal Circulation in Complex Terrain ($294,368), PI.
10/01/00	09/31/03: US Army Research Office: Effects of Roughness and Thermal Inhomogeneities on Urban Flows ($242,000), PI, Co-PI. – Don Boyer
01/15/00	12/31/02: Office of Naval Research: Studies of Mine Burial in Coastal Environments (249,995), PI., Co-PI's – Don Boyer, Sergey Voropayev
06/01/00	05/30/03: National Science Foundation: Interpretation of SHEBA Data Using Numerical Models ($195,000), Co-PI, PI – David Smith.
01/01/01	12/31/02: Office of Naval Research: Laboratory Benchmarks for the Development of Numerical Models (217,352), Co-PI, PI – Don Boyer

01/01/01 12/31/01: Office of Naval Research: Lateral and Vertical Mixing in Marginal Zones, ($100,000), Co-PI, PI – Iosiff Lozovatsky

01/18/01 12/21/01: National Science Foundation: US-France Cooperative Research ($18,000), Co-PI with Alex Mahalov, P.I. – Basil Nicolaenko

08/15/01 08/14/02: Arizona Department of Environmental Quality ($69,489), Modeling of Douglas/Agua Prieta Airshed, Co-PI , PI – Joseph Zehnder

06/01/01 08/31/02: SCERP/EPA ($70,000): Tran-border Flux of Fugitive Dust at Douglas, Arizona- Agua Prieta Airshed, Co-PI, PI – James Anderson, S.M. Lee

09/30/01 09/30/04: Air Force Office of Scientific Research ($852,604): Statistics and Variability of Turbulence Dynamics in the Middle Atmosphere, Co-P.I. with Alex Mahalov, PI – Basil Nicolaenko.

04/01/02 10/01/02: Office of Naval Research (54,615), Dynamics of Cobbles in and Near the Surf Zone, PI, Co P.I.s D.L. Boyer and S. Voropayev

07/01/02 06/30/03: SCERP/EPA ($80,000): Effects pf Prescribed Fires on Air Quality in the Yuma/San Luis Area, PI. Co P.I.'s – J. Anderson & S.M. Lee

04/01/02 03/31/03: Army Research Office (DURIP) ($750,000): Remote Sensing of Urban Environments: Acquisition of an Eye-Safe Coherent Doppler Lidar for Arizona State University's Urban Fluid Mechanics Research, Co. P.I., P.I. – R. Calhoun.

08/01/02 07/31/04: University of Houston (EPA Prime) ($80,000); Urban-Scale Flow Modeling: Co-PI, PI -S.M. Lee.

03/01/02 02/28/04: Office of Naval Research ($168,293): Wakes of Maneuvering bodies in Stratified Fluids, Co PI, PI: S. Voropayev.

10/01/02 06/01/04: Arizona Department of Environmental Quality (91,450) ASU/ADEQ Modeling Center, PI.

03/31/03 03/31/04: Army Research Office ($152,530): Doppler Lidar Measurments of Wind, Turbulence and Aerosol Backscatter Measurements in an Urban Environment, Co PI, PI: Ronald Calhoun

04/01/04 03/31/04: Office of Naval Research ($91,400): Acquisition of a Stereoscopic PIV system for Flow Measurements Around Submerged Mines in Shoaling Waters , PI.

06/01/03 05/31/04: Physical Characterization of Aerosols from Prescribed Burns in the Yuma.San-Luis Area, Co P.I., PI: J. Anderson

05/01/03 01/31/04: Arizona Public Service Company ($65,207): Flow Induced Vibrations in a Shutdown Cooling System, PI, Co PI – Leonard Montenegro.

06/01/03 05/31/04: Arizona Department of Environmental Quality (30,000): Modeling of 8-Hour Ozone Boundaries, PI.

04/01/03 06/30/04: Arizona Department of Environmental Quality (90,925): 8-Hour Ozone Non-Attainment Boundaries Analysis and Socio-Economic Information, PI.

10/01/03 09/31/04: Department of Energy (118,778): Vertical Transport and Mixing in Complex Terrain Airsheds," PI, Co-PIs: D. Boyer and J. Anderson.

05/11/04 05/10/06: Arizona Department of Transportation ($50,000). Intergovernmental Service Agreement: Environmental Monitoring Along Freeways, PI.

09/01/04 08/31/05: National Science Foundation ($114,949): MUSES: Decision Support for Urban Development: Air Quality, Social Justice, Material and

	Energy and the Impact of Social Decision Making. Co-PI with 7 others, PI: John Crittenden.
04/01/04	03/31/06: Office of Naval Research ($223,151): Ripple Dynamics and Benthic Transformation under Variable Wave Forcing. PI: Co PI: Sergey Voropayev and Mark Schmeeckle.
06/01/04	08/31/05: SCERP/EPA ($70,000): Agricultural Burns Surrounding Yuma-San Luis Border: Plume Dispersion and Health Effects, PI, Co PI: PI – James Anderson, S.M. Lee
07/01/04	06/30/07: Army Research Office ($275,000): Air Flow and Dispersion Over an Urban Downtown Area, Co PI (PI: Ronald Calhoun)
08/15/04	08/14/05: National Science Foundation ($86,000): MEASURES: A Proof of Concept Demonstration, PI (Co PIs: J. Anderson, J. Crittenden and S. Panchanathan)
08/15/04	08/14/05: Arizona Department of Environmental Quality ($50,000): ASU-ADEQ Modeling Center Support, PI.
01/01/05	12/31/07: Air Force Office of Scientific Research ($997,543): Characterization and Prediction of Clear Air and Optical Stratospheric Turbulence for DOD High Altitude Platforms, Co-P.I. with Alex Mahalov, PI – Basil Nicolaenko
01/10/05	01/31/06: Arizona Public Service Company ($90,000): Continued Studies on Flow Induced Vibrations in a Shutdown Cooling System, PI, Co PI – Leonard Montenegro.
10/01/04	09/30/06: Office of Naval Research ($289,000):Mixing, Internal Waves and Meso-Scale Dynamics in the East China Sea. Co PI, PI – I. Lozovatsky.
10/01/04	09/60/07: National Science Foundation ($185,956): Collaborative Research: Surface Boundary Layer Characterization in Urban Areas, PI
03/01/05	02/28/07: Office of Naval Research ($196,000): Wakes of Maneuvering bodies in Stratified Fluids, Co PI, PI: S. Voropayev.
05/01/05	04/30/06; Army Research Office ($113,933); Acquisition of a SODAR/RASS Instrument Package for Remote Sensing of Urban Environments, PI, Co P.I.: R. Calhoun.
05/01/05	11/01/05; City of Scottsdale (Gutierrez-Palmenberg Inc.); $ 3000; Modeling Support for Air Emissions from Ground Water Facilities, PI.
07/01/05	06/30/06: Arizona Department of Environmental Quality ($235,000); ADEQ Modeling Center Activities; PI.
08/01/05	07/31/09: United States-Israel Bi-national Science Foundation ($69,000); Relating Spatial to temporal Instability of Meteorological Shear Flows. PI, US Side (co PIs – Eliezer Kit and Alex Gelfgat, Tel Aviv University)
10/01/05	09/30/06: Arizona Department of Transportation ($90,000); Effects of Wind Velocity and Inversion Strength on the Acoustic Propagation from Freeway Corridors; PI
01/01/06	07/31/06: Office of Naval Research (98,768); Ripple Dynamics and Benthic Transformations under Variable Wave Forcing; PI (Co PIs – Mark Schmeeckle and S. Voropayev)
12/29/05	03/31/06: Air Quality Technical Assistance; Maricopa Association of Governments (MAG); $ 2851; PI.

12/15/05 11/20/008: National Science Foundation; Coherent Lidar Deployment and Data Analysis for Terrain-Induced Rotor Experiment ($417,808); co-PI, PI- R. Calhoun

06/01/2006 05/31/2007: Arizona Public Service Company; VOPT Pretrip Investigations ($94,834); PI.

09/21/2006 09/2-/2007: Army Research Office, The Sedona Workshop on the Stable Boundary Layer ($44,325); PI Co-PI -R. Calhoun.

11/01/2006 09/30/2007: Tracking of Pollution Plume Using a Doppler Lidar; Arizona Department of Environmental Quality ($30,000); PI, Co-PI – R. Calhoun.

11/01/2006 09/30/2007: Continued Enhancement and Support for the ASU/ADEQ Modeling Center; Arizona Department of Environmental Quality ($190,000); PI.

10/01/2006 09/30/2009: Compositional Convection in Oil Storage Tanks; Sandia National Laboratory ($290,000); PI.

04/01/2007 06/30/2008: Modeling and Monitoring of Particulate Matter in Support of Children's Health Assessment Studies; Arizona Department of Environmental Quality ($222,000); PI (Co PIs: M. Rimza, J. Anderson and G. Runger)

03/01/2007 02/28/2010: Wakes of Maneuvering Bodies in Stratified Fluids; Office of Naval Research ($310,000); Co-PI, PI: S. Voropayev

04/01/2007 03/31/2009: Ripple Dynamics and Benthic Transformations under Variable Wave Forcing; Office of Naval Research ($203,100), PI, Co-PI – S. Voropayev.

04/01/2007 12/30/2009: Nonlinear Internal Waves in Tidal and Marginal Seas; Office of Naval Research ($310,000); Co-PI, PI: I. Lozovatsky.

04/01/2007 09/30/2008; Thermal Circulation in Complex Terrain: Upslope, Downslope and Transitional Flows, Science Foundation of Arizona ($ 106,663), PI.

03/29/2007 12/28/2007; Coherent Doppler Lidar Deployment in the Canopy Horizontal Array Turbulence Study, Army Research Office ($41,901), co-PI, PI – R. Calhoun.

06/01/2007 03/01/2009: Physical Modeling of the Upper Plenum of the PVNGS Reactor, Arizona Public Service Company ($144,362), PI.

06/20/2007 05/31/2008: Support for the ASU/ADEQ Modeling Center, Arizona Department of Environmental Quality ($48,000), PI.

7/23/2007 5/31/2008: Modeling and Monitoring of Particulate Matter in Support of Children's Health Assessment Studies; Arizona Department of Environmental Quality ($146,174), PI, Co-PI – James Anderson.

09/01/2007 10/31/2008: Physics-based Modeling support for the Development of Automated Target Recognition Algorithms of Ship Wakes, Raytheon Missile Systems ($89,589), PI.

01/17/2008 06/30/2009: ASU-ADEQ Air Quality Modeling Studies, Arizona Department of Environmental Quality ($310,000), PI.

02/01/2008 06/30/2008: The Use of DOAS for Monitoring Pollution in the Phoenix Area, Arizona Department of Environmental Quality ($130,000), PI.

02/15/2008 01/15/2009: Investigation on Flow Anomalies in Acid Scrubbers of Honeywell Engine Plant ($75,000), Honeywell Inc., PI, co-PI – James Anderson.

01/01/2009 12/31/2009: Air Quality Modeling and Monitoring in Arizona, Arizona Department of Environmental Quality, PI, $ 485,999.

01/01/2009 12/31/2009; Environmental Measurements in Support of Traffic Generated Noise Studies, Arizona Department of Transportation, PI $65,000.

01/01/2009 12/31/2010; Major Sources and Transport of Fugitive Dust in the PM10 Nonattainment Area of SW Phoenix, Honeywell Inc., PI, 277,000 (co PIs: James Anderson, Matt Frazer, Ronald Calhoun).

07/01/2009 06/30/2010; Multi-Core Hardware for High Performance Atmospheric Characterization and Forecasting. Air Force Office of Scientific Research, Co-PI, 250,000 (PI; Alex Mahalov)

07/01/2009 06/30/2010: Visualization of Complex Spatio-Temporal Multiscale Fluid Dynamic Phenomena, National Science Foundation, co-PI, 113,890 (PI: Juan Lopez)

09/012009 8/30/2013: CMG Research: Multiscale Modeling of Urban Atmospheres in a Changing Climate. National Science Foundation, co-PI, $775,000 (PI: Alex Mahalov, with H.-P. Huang, W. Tang, M. Moustaoui)

09/01/2009 6/30/2010: Further studies on Flow Instabilities in Nuclear Reactors, Arizona Public Service Company, PI, $158,000.

01/01/10 12/31/2013: Climate Change and Inland Seas: Phenomena, Feedbacks and Uncertainties. European Union, People, Marie Curie International Research Exchange Scheme, FP7-PEOPLE-2009-IRSES (11 months of Post-Doctoral Support).

10/30/09 06/30/10: ADEQ/ASU Air Modeling Research, Arizona Department of Environmental Quality, PI, $80,000.

01/01/2010 12/31/2010: Workshop: Weather in Mountainous Terrain, Army Research Office, PI, $24,552 (nd: 201602).

12/15/2010 06/05/2011: Advanced Research Workshop: Climate Change, Human Health and National Security; North Atlantic Treaty Organization, PI, $59,470 (nd: 261274).

04/01/2010 03/30/2013: Mesoscale Dynamics, Lateral and Vertical Mixing in China Seas and Western Pacific; Office of Naval Research (N000141010738); Co-PI, $483,040 (nd: 201637).

07/01/2010 06/30/2011: ASU/ADEQ/ Air Modeling for Western Arizona Sonora Border Air Quality Study (WASBAQS); PI; $ 74,300 (nd. 250123).

07/01/2010 06/30/2011: ASU/ADEQ; Air Quality Modeling for the Joint Air Toxics Assessment Project (JATAP), $30,000, PI (nd. 250130)

07/01/2010 06/30/2011: Air Modeling for Western Arizona Sonora Border Air Quality Study (WASBAQS), PI, $55,000 (nd; 250123)

02/01/2010 09/30/2010: Jet Penetration into Stratified Fluids, Sandia National Laboratories, PI; 80,000 (nd: 208002)

01/01/2011 12/30/2012: ASIRI: Air-Sea Interactions in Northern Indian Ocean (And it's Relation to Monsoonal Dynamics of the Bay of Bengal), Office of Naval Research, $ 213,159, PI.

01/01/2011 12/30/2011: Workshop on Climate Change, Human Health and National Security, North Atlantic Treaty Organization; $59,740, PI (nd: 261274)

01/01/2012 12/31/2012: Jet Penetration into Stratified Fluids, Sandia National Laboratories, PI, 120,000 (nd: 208002)

06/01/2011 05/30/2017: MOUNTAIN TERRAIN ATMOSPHERIC MODELING AND OBSERVATIONS (MATERHORN) PROGRAM, Office of Naval Research, PI; $ 7,236,965. (+ supplemental funding, total ~8M)

03/01/2012	02/28/2012: ASIRI-EBOB Workshop; Air-Sea Interactions in Northern Indian Ocean (ASIRI): Effects of Freshwater Fluxes in Bay of Bengal (EBOB) GRANT N62909-12-1-1061 Office of Naval Research, Global. $15.750.
02/01/2012	09/30/2012: Jet Penetration into Stratified Fluids, Sandia National Laboratories, PI; 35,000 (nd: 208002)
04/01/2012	03/30/2013: Lidar Deployment in Port Headland, Western Australia, Western Australia Department of Environment, Curtin University (S*ub);* PI: $32, 400 (nd: 261436).
10/01/2012	05/31/2013: Crude Oil Mixing in Underground Salt Caverns, Sandia Laboratories; PI; : $20,000; (nd: A13-0108)
01/01/2013	12/31/2015: Internal Waves and Mixing in the East Indian Coastal Current off Sri Lanka, Office of Naval Research, $784,555 (nd: 13-0323), PI.+$11,000 supplement+ $ 85,297 + $192,000 (Total : $1,129,555)
06/14/2013	06/14/2014: " Thermodynamic Profiler for Atmospheric Boundary Layer Studies, Office of Naval Research, $172,380.00 (nd: A13-0251), PI.
08/26/2013	07/29/2016: "Materials, Properties and Optimum Geometries for the Design of Noise Walls", Illingworth & Rodkin, Inc.. $128,999, (nd: A14-0079), PI
04/01/2014	03/31/2017: ASIRI: Remote Sensing of Atmospheric Waves and Instabilities (RAWI), Office of Naval Research, $639,802 (Nd: A14-0227-001), PI.
09/01/2014	08/31/2015: Workshop: Microscale Modeling of Complex Terrain Flows, Army Research Office, $12,616 (Nd: A15-0106), co-PI.
09/03/2014	08/31/2019: CASPER: Coupled Air Sea Processes and EM ducting Research: Theory and Field Experiments, Naval Research Laboratory (Office of Naval Research, Prime), $ 1,004,220 (Nd: A15-0106), PI.
12/23/2014	09/30/2017: Forecast Improvement in Complex Terrain near the Columbia River Gorge, (Vaisala 3-Tier; Department of Energy, Prime), 282,282, (ND: A15-0343).
08/18/2015	08/17/2017: Scientific Program Overview: The Perdigao Field Experiment, National Science Foundation, $47,777, PI (ND: A16-0074).
10/01/2015	09/30/2018: Experimental investigation of thermally driven anabatic flow separation, United States-Israel Binational Science Foundation, $ 54,359 (ND: A16-0109).
08/01/2015	7/31/2016: Supplements to ASIRI, Office of Naval Research, $32000 + $10,000, PI (ND: A13-0155)
09/29/2015	09/28/2016: A Triple-Lidar based Automated Remote Sensor for Wind Measurements, Office of Naval Research, $525,000, PI (ND: A16-0136)
03/01/2016	02/28/2019: Perdigao: Multiscale Flow Interactions in Complex Terrain, $531,260 (Notre Dame Share), National Science Foundation, Lead PI (Total award $3,400,000). ND: A16-0271.
04/01/2017	02/08/2022: Air-Sea Coupling in Monsoon Intraseasonal Oscillations, Office of Naval Research, Lead PI (Total Award $ 2,839,118): ND: A17-0277.
01/01/2018	09/30/2018: Support for 8th International Symposium on Environmental Hydraulics, Army Research Office. Co-PI, PI: Andrew Kennedy (Total $15,000)
01/15/2017	12/31/2018: The Eighth (8th) International Symposium on Environmental Hydraulics, National Science Foundation, PI, (Total: $15,000); ND: A18-0213.

01/01/2018 08/10/2018: Air-Sea Coupling in Monsoon Intraseasonal Oscillations, US Naval Research Laboratory, Lead PI, (Total award 24,000), ND: A18-0192.

01/03/2018 02/28/2020: Toward Improving Coastal Fog Prediction (C-FOG), Office of Naval Research, Lead PI (Total Award, $3,000,000+ship time $746K), ND: A18-0295.

01/12/2018 12./30/2018: Luksic Family International Research Collaboration Grants, Notre Dame, PI: I. Lozovatsky, (Total $10,200)

01/12/2018 01/31/2019: Support for MISO-BOB Operations, Naval Research Laboratory, PI, ($13,000).

09/01/2019 10/31/2019: MISO-BOB Logistics, Naval Research Laboratory, PI, ($20,000), ND: A18-0192.

09/01/2019 12/31/22: Collaborative Research: Sundowner Winds Experiment in Santa Barbara, CA (SWEX), PI, National Science Foundation, (Total - $434,000), ND: A20-0065.

07/15/2019 07/14/2020: A Scanning FMCW W-Band Radar for Cloud and Fog Research, US Department of Navy, PI, (Total: $480,445.00+ Supplementv$85,871 = Total $520,870), ND: A20-0057.

01/11/2021 1/10/2023: Coupled Air-Sea Processes and EM Ducting Research (CASPER): Effects of Atmospheric Boundary Layer Dynamics on Propagation, US Department of Navy, PI, (Total: $1,000,000), ND: A21-0226.

05/01/2021 04/30/2026: Fatima: Fog and turbulence interactions in the marine atmosphere, US Department of Navy, PI, (total $7,500,000 + ship time $3M)

10/01/2021 05/31/2022: Development of OpenFOAM for UES3 (Urban Environmental SMART Sustainable Solutions), Argonne National Laboratory, PI ($30,000), ND: A22-0146.

02/01/2022 01/30/2023: An Instrument Package for Research on Marine Fog-Turbulence Coupling, Department of Navy, PI ($548,117), ND: A22-0241.

09/01/2022 08/31/2027: Community Research On Climate and Urban Science (CROCUS), Department of Energy, PI ($400,000), ND: A23-0105.

01/01/2023 12/31/2027: DRI: The Arabian Sea Transition Layer (ASTraL): Exchange across the Air-Sea Interface, PI: ($1,853,801), ND: A23-0205.

12/07/2023 06/30/2027: Augmentation of WFIP-3 Instrumentation for Escalated Marine Atmospheric Boundary Layer Studies, PI: ($430,000 ND: A24-0185

Internal Funding

- Faculty Grant in Aid 1985: Mixed Layer Development and Subsequent Step Microstructure Formation When a Stable Salinity Gradient is Heated From Below. ($3,000)
- Faculty Grant in Aid 1986: Turbulent Mixing in the Presence of a Stabilizing Buoyancy Flux. ($3,000)
- Research Incentive Award 1986: Laboratory Modeling of Some Sea-Ice Related Phenomena. ($3,000)
- Research Incentive Award 1986: Turbulent Mixing in the Presence of Buoyancy and Double- Diffusive Effects. ($10,000)
- Center for Energy Research Instrumentation Grant 1986. ($1,600)
- Garrett Seed Money Program 1989. ($6,500)
- Multidisciplinary Research Award, Provost Office, ASU, 1993. ($150,000)

- Multidisciplinary Research: Vice President for Research, ASU 1996-2001 ($250,000)
- Multidisciplinary Research: Vice President for Research Office, ASU 2002-2009 ($640,000)

Travel Grants

- National Science Foundation Travel Grant ($1,900) to attend Wave Breaking, Turbulent Mixing and Radio Probing of the Ocean Surface Meeting, Sendai, Japan (1984).
- Office of Naval Research/American Geophysical Union Travel Grant ($900) to attend IAMAP/IAPSO Joint Assembly, Honolulu, HI (1985).
- National Science Foundation Travel Grant ($500) to attend Sir G.I. Taylor Scientific Meeting, Cambridge, England (1986).
- Japanese Environmental Research Council Travel Grant ($500) to attend 2nd International Symposium on Transport Phenomena in Turbulent Flows, Tokyo, Japan (1987).
- American Geophysical Union Travel Grant ($1,100) to attend Joint Oceanographic Assembly, Acapulco, Mexico (1988).
- Office of Naval Research Travel Grant ($960) to attend 'Aha Hulikoa Winter Hawaiian Workshop, Honolulu, HI (1989).
- National Science Foundation Travel Grant ($400) to attend Double-Diffusion in Physical Oceanography Meeting, Woods Hole, MA (1989).
- American Western Universities Travel Grant ($765) to visit Solar Energy Research Institute, Golden, CO (1990).
- American Geophysical Union Travel Grant ($850) to attend the International Union of Geodesy and Geophysics Meeting, Vienna, Austria (1991).
- National Science Foundation Travel Grant ($800) to attend the 18th International Congress of Theoretical and Applied Mechanics, Haifa, Israel (1992).
- NATO Scientific Exchange Program Grant ($7,899) to carry out joint research at the University of Oporto, Oporto, Portugal (1994).
- NATO Scientific Exchange Program Grant ($8,500) to carry out joint research at the University of Girona, Spain (1996).
- NATO Scientific Exchange Program Grant ($6,400) to carry out joint research at the University of Girona, Spain (1998).
- NATO Scientific Exchange Program Grant ($8,500) to carry out joint research at the University of Rome and Tel Aviv University (2004).

STUDENT DISSERTATION/THESIS SUPERVISION (Completed)

At Arizona State University

MS:

1. Philip Stephenson	Mixing in Stratified Shear Flows (M.S. 1989)
2. C.Y. Ching	Formation and Evolution of Thermohaline Staircases (M.S. 1990)
3. Miran Perera	Mixing Induced by Oscillatory Stratified Flow Past a Right Circular Cylinder (Co-Supervision with Dr. D.L. Boyer) (M.S. 1991)

4. Barbara Ayotte	Convection From Isolated Sources in the Presence of Background Turbulence (M.S. 1993)
5. Greg Cole	Turbulent Thermal Convection in Stratified Fluids (M.S. 1995)
6. David Striver	Measurement of Drag and Lift on Bodies Moving Through Stratified Fluids (Co-Supervision with Dr. D.L. Boyer) (M.S. 1995)
7. Alex Wu	Theoretical Analyses of Some Low and High Reynolds Number Flows (M.S. 1995)
8. John Cuprek	Studies on Preconditioning Phase of Oceanic Deep Convection (M.S. 1995)
9. Paul Luccio	The Motion of Cobbles in the Swash Zone (Co-Supervision with Dr. D.L. Boyer) (M.S. 1997)
10. David Coder	Evolution of a Turbulent Patch in a Stratified Shear Flow (M.S. 1997)
11. Jason Rooney	Cobble Motion Under Wave-Induced Oscillatory Flow (Co-Supervision with Dr. D.L. Boyer) (M.S. 1997)
12. P.A. Priyadarshana	Effects of Mechanical Stirring on Turbulent Convection With Applications to Deep Ocean Convection (M.S. 1997).
13. Michael Levy	Convection in Rotating Stratified Fluids (M.S. 1998)
14. Dawn Lervick	The Influence of Molecular Diffusion on the Final Decay of Stratified Turbulence (M.S. 1998).
15. Michael McNamee	An Experimental Study of Axi-Symmetric Turbulent Puffs: Their Motion, Dilution and Sedimentation. (M.S. 2001)
16. John Rotter	The evolution of Kelvin-Helmholtz Billows in Non-Stratified and Stratified Shear Flows (M.S. 2000)
17. Michael Arzabe	Evaluation of Deep Zone Flow Fields in Constructed Wetlands Using a Physical Model (M.S. 2000)
18.Brian (Wai-Chung) Chan	Modeling of Anabatic Flows In Complex Terrain (M.S. 2001)
19. Sean Riley	Decay of Convective Turbulence in the Presence of an Inversion Layer (MS 2003).
20. Cristian Dumitrescu	Gravity Currents in Urban Environments (M.S., 2005).
21. Amit Gupta	Flow through a Building Cluster: A Numerical Study (MS 2005)
22. Sridhar Balasubramanian	Ripple Dynamics and Mine Evolution in Coastal Zone: Laboratory Experiments and Model Evaluations (MS 2005)
23. David Boswell	Gradient Richardson Number Measurements in the Nocturnal Boundary Layer: Effects of Spatial Resolution (MS 2006)
24. Richard Morrison	Studies of Wake Signatures in Shallow Fluid Layers: Laboratory Experiments and Phenomenological Modeling (MS 2006)
25. Bret Verhoef	Evening Transition in Complex Terrain: The Phoenix Transition Flow Experiment (TRANSFLEX) (MS 2006)
26. Parikh, N.	Sensor networks: Decentralized Monitoring and Subspace Classification of Events (Co-Supervision with Huan Liu, CSE, MS, 2006).
27. Anna, Abhilasha	Numerical Modeling of Time Dependent Flows in the Upper Plenum of a Nuclear Reactor (MS 2008)

28. Sant, Thomas	Measurements of Eddy Dissipation Rate in the Atmosphere: Flow Following Hot Film Anemometry (MS 2008).
29. Stephen Shaffer	Investigations of Environmental Effects on Freeway Acoustics (MS 2009).
30. Chinmoy Nath	Surface Wake Signatures in a Temperature Stratified Fluid: Laboratory Experiments and Theoretical Modeling (MS 2009)
31. Ashish Sharma	Numerical Modeling of Flow in the Condensate Polisher Vessel of a Nuclear Reactor (MS 2009)
32. Darren Gest	Entrainment by Turbulent Jets in Two Layer Stratified Fluids (MS 2010)
33. Kasun Perera	Interaction of Valley and Slope Flows in Complex Terrain (MS, 2010).

PhD:

1. I.P.D. De Silva	Studies on Turbulent Mixing in Stratified Turbulent Patches (Ph.D. 1991)
2. Quiang Lin	Stratified Flow Past Obstacles (Co-Supervision with Dr. D.L. Boyer) (Ph.D. 1993)
3. Y. Xu	Cylinder Wakes in Linearly Stratified Flows (Co-Supervision with Dr. D.L. Boyer) (Ph.D. 1994)
4. C.Y. Ching	Turbulent Plumes in the Environment (Ph.D. 1994)
5. S. Fonseka	Turbulent Jets and Jet Puffs in Stratified Fluids (Ph.D. 1995)
6. E.J. Strang	Entrainment and Mixing in Stratified Shear Fows (Ph.D. 1997)
7. Andjelka Srdic	Dispersion in Stratified and Turbulent Flows (Ph.D. 1998)
8. Rajka Kristc	The Nature of Rough Wall Steady and Oscillatory Boundary Layers (Ph.D. 1999)
9. Eric Pardyjak	Atmospheric Boundary Layer Dynamics in Regions of Complex Terrain (Ph.D. 2001)
10. Sergey Smirnov	Jets and Wakes in Stratified Fluids (Ph.D. 2002, C0-supervsion with S. Voropayev)
11. Marko Princevec	Dynamics of Thermal Circulation in Complex Terrain (Ph.D., 2003)
12. Firat Testik	Experimental and Theoretical Modeling of Sand-Water-Object Interaction Under Non-Linear Progressive Waves (Ph.D. 2003, co-supervision with D. Boyer).
13. Zhihe Zhao	Numerical Simulation of Scour Around Fixed and Sagging Pipelines Using a Two Phase Model (Ph.D. 2006)
14. Dragan Zajic	Flow and Turbulence in Roughness Canopies (Ph.D. 2006)
15. Sridhar Balasubramanian	Ripple Dynamics in Heterogeneous Media (PhD 2008)
16. Suhas Pol	Evolution of Convection and Turbulent Jets in Stratified Low Aspect Ratio Containers (PhD, 2010)

Notre Dame:

MS Students completed:

1. Alan Barrett — South Bend Hydrokinetics: A Proposal for Establishment of a Hydrokinetic Test and Consultancy Center (MS, 2012, Notre Dame ESTEEM Program, Technical Advisor)
2. Michael Thompson — Stratified flow past a hill: Application of the Dividing Streamline Concept (MS 2013)
3. Kelly McEnerney — Observations and Dynamics of Low Salinity Cold Water Pools in the Bay of Bengal (MS 2014)
4. Patrick Conry — Chicago Heat Island and Climate Change, Bridging the Scales Via Dynamical Downscaling (MS 2016)
5. Numan Sirin — Interaction of Down-Valley flow with Ambient Flow in Complex Terrain (MS 2020)
6. Thomas Hintz — A Mechanism for Coastal Fog Genesis at Evening Transition (MS 2023, 65pp)

PhD Students completed:

1. Ann Dallman — Flow and turbulence in urban areas (PhD, 2013).
2. Christopher Hocut — Multi-scale flow and turbulence in complex terrain under low synoptic conditions (PhD, 2013)
3. Chinmoy Nath — Theoretical and Laboratory Modeling of Turbulent Jets in Low Aspect Ratio Containers (PhD, 2014)
4. Zachariah Silver — Mesoscale Modeling and Observations of Flow in Complex Terrain (PhD 2016).
5. Rumana Reaz Arifin — Numerical Modeling of Thermal Behavior in Lake Ontario using the EFDC Model (PhD 2016, Notre Dame, co-supervision with D. Pitts)
6. Patrick Conry — Scale Continuum of Vertical Exchanges between Lower Stratosphere and Surface Layers (PhD 2017)
7. Annunziata Pirro — Dynamics of waves and currents in the Bay of Bengal during Summer Monsoons (PhD 2019, May 13)
8. Daniel Vassallo — Analysis of gap flow phenomena and machine learning strategies for the prediction of atmospheric flows (PhD, November 13, 2020).
9. Sebastian Otarola-Bustos — Studies of Wind and Turbulence in Complex Terrain at Multiple Space-Time Scales (PhD, May 23, 2022)
10. Jaynise Perez — Processes guiding monsoon intraseasonal oscillations in the Bay of Bengal (PhD, March 31, 2023)
11. Sen Wang — Field and Numerical Investigation of Moist Thermodynamical Structure of Marine Fog, PhD Thesis, March 18, 2024 (97 pages)
12. Stef Bardoel — The Lifecycle of Marine Fog in the Coastal Zone, PhD Thesis, March 20, 2024 (134 pages)

Other Universities (Research supervision for thesis):

1. Dr. Jordi Colomer (PhD, 1994), University of Girona

2. Dr. Seoyeon Park (PhD, 2013), Seoul National University
3. Dr. Priyantha Jinadasa (PhD, 2022, Ruhuna University, Sri Lanka)

STUDENT/Post Doctoral Fellows/Collaborators Papers AWARDS:

1. James McGrath - *Best student paper award,* AGU Ocean Sciences Meeting, 1994.
2. Chinmoy Nath – *Runner Up, AIAA Western Regional Research Symposium Awards*, 2008.
3. Ann Dallman - *Zahm Research Travel Grant Fund*, University of Notre Dame, 2012 (Also Arizona Science Foundation Graduate Fellowship, 2008).
4. Ann Dallman – *Second place for the Best Student Oral Presentation*, 92nd Annual Meeting of the American Meteorological Society, 17th Conference on Air Pollution Meteorology, Jan 22-26, New Orleans, 2012.
5. Christopher Hocut, *Best Overall Presentatio*n, 92nd Annual Meeting of the American Meteorological Society, 17th Conference on Air Pollution Meteorology, Jan 22-26, New Orleans, 2012.
6. Neophytou et al. 2013, Best Paper Award, Toward Designing Strategies for Urban heat island Mitigation based on Multiscale Flow considerations' 34th AIVC Conference, Athens, 2013
7. Patrick Conry, National Defense Science and Engineering Graduate Research Fellowship, 2014 (Also Schmidt Graduate Fellowship, Notre Dame)
8. Patrick Conry, Outstanding Student Paper Award, American Meteorological Society, 96th Annual Meeting, Atlanta, Jan 10-14, 2016.
9. Zachariah Silver, First Prize, 19th Conference on Air Pollution Meteorology,16th American Meteorological Society, 96th Annual Meeting, Atlanta, Jan 10-14, 2016

STUDENT DISSERTATION/THESIS SUPERVISION (In Progress)

1. Sebastian Otarola Bustos	PhD	(Notre Dame)
2. Sen Wang	PhD	(Notre Dame)
3. Edgar Gonzales	PhD	(Notre Dame)
4. Stef Bardoel	PhD	(Notre Dame)
5. Griffin Modjeski	PhD	(Notre Dame)
6. Ann Dowling	PhD	(Notre Dame)
7. Thomas Hintz	PhD	(Notre Dame)

POST-DOCTORAL/RESEARCH PROFESSORS (In Progress)

1. Iossif Lozovatsky	(November 1994 -) - Research Professor
2. Jayesh Phadtare	(October 2021 -)
3. Kelly Huang	(August 2021 -)

POST-DOCTORAL/VISITING SCIENTISTS COLLABORATION (Completed)

1. Dr. Yign Noh	(November 1987 - April 1991)
2. Prof. G.J.F. Van Heijst	(November 1988 - February 1989)
3. Dr. L. Bopearatchi	(April 1990 - March 1991)
4. Prof. C-S. Yoon	(June 1990 - August 1990)
5. Prof. Mario Neves	(June 1990 - September 1990)
6. Dr. Linus Mofar	(August 1990 - March 1991)
7. Dr. B. Kim	(February 1991 - May 1991)

8. Mr. J. Flor (March 1991 - May 1991)
9. Miss D. Obaton (April 1991 - May 1991)
10. Dr. M. Mugbil (June 1991 - February 1994)
11. Dr. I.P.D. De Silva (September 1991 - March 1994)
12. Mr. Andrew Folkard (June 1992 - July 1992)
13. Dr. Quiang Lin (June 1993 - 1994)
14. Prof. Eliezer Kit (July 1993 - October 1993)
15. Prof. Jorge Neves (July 1993 - October 1993)
16. Mr. Earnest Knoors (September 1993 - November 1993)
17. Mr. Mark van de Zende (September 1993 - November 1993)
18. Prof. Sergei Vorapayev (November 1993 - October 1994)
19. Dr. Richard Manasseh (June 1994 - August 1994)
20. Dr. Nagwa Mohammed (June 1994 - October 1994)
21. Mr. Frans de Rooj (September 1994 - December 1994)
22. Mr. Jordi Colomer (January 1995 - May 1995)
23. Mr. Bert Niestadt (September 1995 - December 1995)
24. Mr. Paul Peeters (March 1996-June 1996)
25. Dr. Andrew Folkard (July 1994 - July 1995)
26. Professor G. Christodoulou (January 1997 - May 1997)
27. Dr. C.Y. Ching (August 1994 - January 1997)
28. Professor Boris Boubnov (December 1996 - February 1997)
29. Mr. Richard Eijmberts (January 1998 - May 1998)
30. Dr. Jordi Colomer (March 1997 - September 1997)
31. Dr. Ibrahim Orourd (August 1997 - May 1988)
32. Dr. Heather Earnshaw (Jan 1997-September 1998)
33. Mr. Oscar Van der Straten (Oct 1998- June 1999)
34. Mr. Adrianne Cense (Dec 1998 –May 1999)
35. Dr. Teresa Serra (Aug 1999-Nov 1999)
36. Dr. Ge Wang (January 1998-April 2000)
37. Professor Paolo Monti (September 2000-December 2000)
38. Professor Thomasz Kowalewski (September 2000-December 2000)
39. Dr. Hong Zhu (September 2000 – June 2001)
40. Ms. Michela Senesi (July 2001-December 2001)
41. Dr. Heng Sun (January 2001-July, 2001)
42. Dr. Olga Alexandrova (September 2000-August 2002)
43. Dr. Jae-Jin Kim (June 2001- December 2002)
44. Mr. Walter Griori (July 2002-May 2003)
45. Dr. Andjelka Srdic (September 1999 – January 2004)
46. Dr. Susanne Grossman-Clarke (March 2000- October 2004)
47. Mr. Andrea Datto (June 2003- December 2003)
48. Dr. Sang Mi Lee (November 1999 – November 2004)
49. Dr. Marko Princevac (June 2003 – August 2004)
50. Ms. Chiara Puglini (July 2004 – May 2005)
51. Dr. Saman Samarawickrama (June 2005 –Aug 2005)
52. Dr. David Smith (May 1997- Aug. 2005)
53. Prof. Rohinton Emmanuel (January 2006 - May 2006)
54. Prof. Silvana DeSabatino (January 2006 - April 2006)
55. Dr. Yu-Jin Choi (August 2004 –Ocotber 2006)

56. Professor J. Park (August 2004 –July 2007)
57. Ms. Eric Trujillo (March 2004-March 2006)
58. Dr. Nick Ovenden (August 2007-September 2007)
59. Ms. Kyunsung Park (October 2004 – June 2006)
60. Ms. Hristina Kirova (March 2006-December 2006)
61. Prof. Silvana DeSabatino (January 2007 - April 2007)
62. Dr. Sergey Dikarev (December 2007- July 2008)
63. Dr. Irina Tomashevskaya (November 2007 – January 2008)
64. Professor Mathias Roth (February 2007-May 2007)
65. Professor C-S. Yoon (February 2007- March 2008)
66. Professor Philippe Fraunier (March 2008)
67. Professor Jan-Peter Muller (December 2008-January 2009)
68. Dr. Nick Ovenden (September 2008, 2009)
69. Dr. Stacy Shi (February 2007-February 2009)
70. Dr. Zhihe Zhao (October 2006 – October 2008)
71. Ms. Rajani Rai (August 2009-December 2009)
72. Mr. Alexis Kabis (August 2009-December 2009)
73. Mr. Guillermo Bizzard (August 2009-December 2009)
74. Professor Eliezer Kit (November 2009-December 2009)
75. Professor Silvana DiSabatino (November 2011- August 2014)
76. Mr. Andreau Nadal Garci (July 2010-September 2010)
77. Dr. Jesus Palella (July 2010-September 2010)
78. Mr. Sergio Castellas (July 2010-September 2010)
79. Arnault Vallerie (French Naval Academy) (September 2010 – November 2010)
80. Romain Bergeras (French Naval Academy) (September 2010 – November 2010)
81. Dr. Dan Liberzon (June 2010-July 2012)
82. Dr. Reneta Dimitrova (May 2007 – November 2011)
83. Dr. Laura Leo (University of Salento, Italy) (May 2010 – October 2010)
84. Dr. Nick Ovenden (University College, London) (February 2012, Royal Society Scholar)
85. Thomas Bodnar (Czech Technical University) (February 22 – May 23, 2012)
86. Dr. G.N. Bhat (Indian Institute of Sciences) (March 18 - May 1, 2012)
87. Jan Wissink (Brunel University, UK) (July 1-31, 2012)
88. Herlina (Karlsruhe Institute of Technology) (July 7- August 1, 2012)
89. Professor Marina Neophytou (University of Cyprus) (June 1 - July 15, 2012)
90. Dr. Nick Ovenden (UCL) (July 15-30, 2012)
91. Mr. Gennaro Rispoli (University of Selanto) (Sep 1 – Nov 1, 2012)
92. Professor Gengang Wang (Nanjing University) (October 10, 2012 – October 9, 2013)
93. Ms. Mercedes Blanco (University of (May 15 – Dec 15, 2012)

Girona)

94. Dr. Silvana Di Sabatino (University of Selento) (June 1, 2012 – August 31, 2013)
95. Dr. Charles Retallack (August 2010-September 2012)
96. Dr. Dan Liberzon (Tel Aviv University) (September 15- October 15, 2012)
97. Dr. Mao Minjuan (Zhegiang Inst. of Metor) (October 16 – December 16, 2012)
98. Dr. Reneta Dimitrova (Bulgarian Academy) (July 1 – September 30, 2012)
99. Professor Peter Baines (Universit of Melbourne) (August 15 – September 15, 2012)
100. Dr. Andrey Grachev (NOAA) (January 2013-February 2013)
101. Professor Geng-Chen Wang (Nanjing University) (September 2012 – September 2013)
102. Dr. Mao Minjuan (Zhajgang Inst. Met, Hangzhou) (October 2012-December 2012)
103. Me. Tamas Zsedrovits (Parsmann Univ.of Budhapest) (May 15 2013 to September 15, 2013)
104. Mr. Chun Hou Wong (Eindhoven Institute of Technology) (September 1– December 15 2013)
105. Dr. Byron Blomquist, NOAA (January – February, 2014).
106. Dr. Qiang Zhang (September 2014-October 2015).
107. Mr. Patharapong Bhuripanyo (Chulangkorn University, Thailand) (June-July, 2015)
108. S. Otarola-Bustos, Pontificia Universidad Catolica de Chile, PUC (July-August 2015)
109. G. Yanez-Morroni, PUC (July-August 2015)
110. Mr. Patharapon (July – August 2015)
111. Wei Hao, Tshingua University (October 2015 to May 2016)
112. Dr. Byron Blomquist, NOAA (May – June, 2016).
113. Dr. Andrey Grachev (NOAA) (March 2013-April 2016)
114. Mr. Stefan Broadel (Eindhoven Institute of Technology) (May 1 – August 1, 2016)
115. Dr. Sergey Voropayev (Research Professor, February 1996-June 2016, Passed away June 30, 2016)
116. Dr. Chris Hocut (October 2013-June 2015)
117. Dr. Qiang Zhong (September 2014-September 2016)
118. Mr. Shinaphadh Damrongsiri (Chulangkorn University, Thailand) (June – July 2017)
119. Dr. Byron Blomquist (NOAA) (February 1 – February 28, 2018)
120. Dr. Laura Leo (Research Assistant Professor, August 2011-June 2018)
121. Dr. Ashish Sharma/Jointly with ECI (Research Assistant Professor, August 2012-July 2019)
122. Dr. Rahavendra Krishnamurthy (Research Assistant Professor, August 2016 – July 2019)
123. Dr. Andrey Grachev (Vising Professor, August 01 – September 30,

2019)

124. Sandeep Wagh (October 2018- October 2021)

UNDERGRADUATE PROJECT SUPERVISION

Fall 1984:	Tom Nesdill and David McComia - Investigations on laboratory thermohaline staircases
Spring 1985:	Frederick Stanik and Steve Crownover - Design and construction of a 1-D traversing mechanism
	Akbar Ghafourian - Design and construction of an oscillating-grid mixing facility
Fall 1985:	Paul Johnson and Kristin van Valkenberg - Design and construction of a convection chamber
Spring 1986:	Fred Zerweg - Experiments on stratified intrusions
	Robert Kime - Experiments on differential mixing in stratified fluids
Fall 1986:	Cal Christianson - Design and construction of a shooting probe mechanism
Spring 1987:	Mitch Martin and Andreas Vismanthas - Experiments on turbulent convection
Fall 1987:	Salem Goolanrobee - Design and construction of a laser traversing mechanism
	Jim Frech - Design and construction of a boundary mixing tank
Spring 1988:	Kirk Irvine - Design and construction of a disk pump
Fall 1988:	Andy Rutenberg - Design and construction of a differential mixing tank
	Brent Finley - Design and construction of a tow tank
Fall 1988, Summer 1989:	Leigh Little - Experiments on thermal convection
Spring 1989:	David Lopez - Design and construction of a line thermal plume source
	Eric Edwards - Design and construction of a 2-D traversing mechanism
Summer 1989:	Mary O'Connell - Experiments on differential mixed layer deepening
Fall 1989:	Tanya Bose - Research on turbulent buoyant plumes
	Leigh Little - Experiments on decaying stratified turbulence
Spring 1990:	Steve Lemons - Design of a shooting probe assembly
	Tanya Bose - Design and construction of a multiple plume facility
Spring 1991:	Chris Montgomery - Experiments on mixing across stable interfaces
Fall 1991:	James McGrath - Experiments on differential mixing across interfaces
	Mario Lattanzio - Experiments on inclined plumes
Spring 1992:	Larry Burns - Design of a stratified shear flow facility
Fall 1992:	Paul Amorillo - Experiments with traveling plumes
Spring 1993:	John Cuprak - Experiments on deep convection

	Brendon Daas - Design of a convection facility
Fall 1993:	John Platt and Paul Staggers - Design of a rotating flow facility
Spring 1994:	Nick Mavrikos - Design of an oscillating flow facility
Fall 1994:	K. Lin - Design of a bi-directional shear flow facility
	Jane Owen and Reza Rajabian - Design of a laminar flow fountain
Spring 1995:	Dale Pulczinski - Design and construction of a bi-directional fluid flow tank
Fall 1995:	Karl Webster - Design of a Three Dimensional Parallel Laser Beam Scanner
Spring 1996:	Ronald Derrick - Design and Construction of a Wave Maker
Spring 1997	Alma Mujezinovic - Design of a Water Tank with an Oscillating Bottom
Fall 1997	Ben McEachern - Design of Experimental Apparatus for Convection in Stratified Fluids
Spring 1998	Robert Sisik - Design and Construction of a Variable Heat Flux Convection Chamber
Fall 1998	Rick Conner and Chris Herman – Laboratory Simulation of Convection in Complex Terrain Flows
Spring 2000	Matthew Cuprak and Chris Smith - Design of a Chamber to Study Slope Flows
Fall 2000	Thomas Kraus – Design and Manufacture of a Computer Controlled Two-Axis Traverse
	Destry Lucas – Design of Flow Facility to Investigate Roughness Effects on Turbulent Flows
Spring 2001	Joel McLean – Design of a facility to Study Thermal Circulation
Fall 2001	Eric Loomis – Design of an Underwater Flow Visualization System Using Submersible Cameras
	Nicholas Brindley – Rolling Sphere Problem on a Slope (Honors Thesis)
	Matt Elliot – Dispersion of Highway Debris Under Orthogonal Flow (Honors Thesis)
Spring 2002	Rochelle Jim and Bereket - Design and Construction of a 20-m Telescopic Tower
Summer 2002	Nathan Andreni – Design of a System to Simulate Fluid Flow Past the Junction of Two Slopes
Fall 2002	Tracy Doyle -- Heating and Cooling Slope to Mimic Diurnal Cycle
Spring 2003	Karl Fenstermaker – Telescopic Tower Roller Guides
Fall 2003	Gerardo Delago and Mark Duckworth – Flow Visualization System for a Flow Facility.
Spring 2004	David Kim and Matthew Pyon – Vortex Shedding from Heaving Body in Uniform Motion
Spring 2005	Leonardo Latorre and Bilal Farooq, Swirling Flows inside Pressurized Water Reactors

Fall 2005	Jamie Shepherd and David Mason – Investigation of Flow Anomalies within a Reactor Chamber
Fall 2006	Uven Choi - Design of an Automated Atmospheric Turbulence Measurement System
Fall 2007	Josh Garret (FURI Fellow) – Tracking of Ship Wakes using Infra Red Imagery.
Fall 2007	Nick Martin, IR Imaging of Ocean Surface (REU)
Summer 2008	Chris Ruckel (Visualization of Flow Instabilities, REU)
Fall 2007-	Dustin Hoffman, Design of a Rail System for Remote Sensing (REU)

Notre Dame:

Spring 2010	Joseph Realle (Webpage development), Jonathan Rosini (Low aspect ratio convection), Ricky Kennedy (Flow in Diversions)
Summer 2010	Peter Chung (Design of a Water Tunnel)
Fall 2010	Peter Chung (Water Tunnel Design), Taylor Sheppard (Asia Monsoon simulations), Marisa Gaither (Flow in Turbines)
Spring 2011	Peter Chung (Water Tunnel Design), Taylor Sheppard (Monsoon Simulations), Cathy Chukwulebe (Internal wave interactions)
Summer 2011	Margaret Bellon (Slatt Fellow), Matthew Daye
Fall 2011:	Cathy Chukwulebe, Margaret Bellon, Matthew Daye, Kristin Stryker
Spring: 2012	Dan Rish, Cathy Chukwulebe, Matthew Daye, Patrick Conry, Kristin Stryker, Samuel Wright
Summer 2012:	Samuel Wright, Patrick Conry, Sahan Fernando
Fall 2012	Samuel Wright, Patrick Conry, Kristin Stryker,
Spring 2013	Kristin Stryker, Samuel Wright
Fall 2013	Jasiris Tapia
Spring 2014	Jasris Tapia, James Herrick
Summer 2014	Santiago Espinoza Wilde
Fall 2014	Santiago Espinoza Wilde, James Herrick, Jeremy Cappello
Spring 2015	Santiago Espinoza Wilde, James Herrick, Jeremy Cappello
Summer 2015	Santiago Espinoza Wilde, James Herrick, Amy Kryston
Fall 2015	Brian McCurren, Maloney Foster, Jonathan Xu, James Herrick, Daniel Vassallo
Spring 2016	Jonathan Xu, James Herrick, Daniel Vassallo
Summer 2016	Kelly Valenci (Slatt Fellow)
Fall 2016	Kelly Valenci
Spring 2017	Kimbeerly Wojcik, Pablo Hermann (University of Chile)
Summer 2017	Tory King, Luis Fernandez, John Salvador, Corey Pennycup (GS)
Fall 2017	Kevin Latimer, John Salvadore
Spring 2018	Kevin Latimer, John Salvadore
Summer 2019	Joo-Sung Kim
Spring 2020	Joo-Sung Kim, Griffin Majewski
Fall 2020	Joseph Barbaro
Summer 2021	Lee Ngochi, Audrey Ellis
Fall 2022	Anika Herko
Fall 2023	Owen Diamond, Alan Monterraso
Spring 2024	Owen Diamond, Alan Monterraso

Undergraduate Awards:

Summer 2016	Kelly Valenci (Vincent P. Slatt Fellow)
Summer 2017	John Salvadore (Vincent P. Slatt Fellow)
Summer 2017	Luis Fernandez (Vincent P. Slatt Fellow)

K-12 EDUCATIONAL AND OUTREACH ACTIVITIES

Under the ONR summer High-School traineeship program, the following students were supervised during 1998-2000: Mark Hank, A. DeMassio, Brian Martin, Anjela Prestinario, A. Kim

Under the NSF Research Education for Teachers Program, the following teachers were supervised: Kristin Rademacher and Monica Balance (2001)

Council of Elders, Villa Montessori School, Phoenix (2002)

Arizona Board of Regents/Mountain View High School Teachers Summer Professional Development Program (One day activity at ASU, Environmental Fluid Dynamics Program), 2005, 15 teachers).

Facilitator, City of Phoenix Planning Department, Continuous Learning Institute "Urban Heat Islands Panel." (2007)

Anderson Junior High School, Chandler, Presentation on Tsunamis (2005, 2008, 2009)

Our Lady of Mount Carmel School, Tempe, Presentation on Water Resources (2010)

THESIS COMMEE SERVICE

ASU

Ph.D. Eddy Birch, Paul Delenbach, Altaf Hassan, Tom Buter, Nay Lin, Ronald Redetsky, Tim Haynes, Mark Reibert, Dan McGuiness, Bjorna Tikkas, Mark Hilderbrandt, Frank Yu, Rudolfo Vasquez, Ian Lyttle, Bao Nguyen, Ryosuke Akahori, Antonio Rubio, Kirsten Chojnicki; Michael Murphy, Jonathan Baltzar, Brent Hedquist

M.S. Mohamad Anwer, Prasad Pingali, Anju Nanda, Brent Steinwich, Nay Lin, Rick Holtz, Z. Xu, Katie Clifton, M. Henninson, I. Little, M. MacArthur, Fayzal Elbaty, Dan McGuiness, M-H. Chen, Fan Ho, F. Hreinsson, Cindy Law, Bin Xie, B. Rupesh, Hemanth Gokula, Robert Heap, Anupama Mattegunta, Kirsten Chojnicki, Stewart Smith, Tamara Rodic, Moutushi Zakir, Raghu Krishnamurthy, Aditya Choukulkar, Shantanu Kongara, Anandram Venkatasubramanian

Notre Dame

PhD. Jacob Allen Cress (AME), Casey Dietrich (CE/GEOS), Amin Doostmohammadi (AME), Yao Zhang (CE/GEOS), Tory Tomiczak (CEEES), Aaron Donahue (CEEES), Elise Wright (CEEES), Nathaniel Bristow (AME), Tianze Peng, Karina , Soto Rivas (PUC/ND, 2021), Matthew Kalensky (AME), Hyungwon Park, Minh Nguyen (2019), Maria Teresa Contreras-Vargas (CEEES), Mariana Alifa (CEEES, 2023), Paolo Giani (CEEES, 2023)

MS. Dui Nguyen (2016, MS), Luning Sun (2017, MS), Diogo Gunderson (AME, 2020)

Other:
Sigurdur (Siggi) Petur Magnusson (Civil & Env. Eng. MIT, 2014, PhD),
Priyantha Jinadasa (University of Peradeniya, Sri Lanka, 2017, PhD)
Stephen Shaffer (Arizona State University, 2014, PhD)
Kyungsun Park (Seoul National University, 2013, PhD)

INVITED PRESENTATIONS

Rutgers, State University of New Jersey (1983), California Institute of Technology (1984), The Johns Hopkins University (1984), The University of Wyoming (1985), Army Research Office, Durham, North Carolina (1986), The Johns Hopkins University (1986), University of Sri Lanka (1987), Florida State University (1988), Institute of Naval Oceanography (1988), Naval Research Laboratory (1988), Air Force Office of Scientific Research (1989), Eindhoven University (1990), Georgia Institute of Technology (1990), Princeton University (1990), University of California at San Diego (1990), University of Cambridge (1990), University of Delaware (1990), University of Dundee (1990), University of Southern Mississippi (1990), Korea Ocean Research and Development Center (1991), Oregon State University (1991), University of Southern California (1991), ETH Swiss Federal Institute of Technology (1992), University of Oporto, Portugal (1992), British Meteorological Office (1993), Iowa Institute of Hydraulics Research (1993), National Science Foundation (1993), Stanford University (1993), University of Iowa (1993), University of Oporto, Portugal (1993), University of Washington (1993), California Institute of Technology (1994), Los Alamos National Laboratory (1994), Tel Aviv University (1994), Kyushu University (1995), Kyushu University, Institution of Engineering Sciences (1995), Woods Hole Oceanographic Institution (1995 - GFD Summer Program, Principal Lecturer), Swiss Federal Institute of Technology, Zurich (1995), Institute of Aquatic Sciences and Water Pollution Control, Zurich (1995), Cornell University (1995), University of Roma (1995), University of Southern California (Aerospace Engineering) (1996), Northwestern University (1996), Indian Institute of Sciences (1996), Hong Kong University Science and Technology (1996), Cornell University (1997), California Institute of Technology (1997), Thammasat University, Bangkok (1997), Asian Institute of Technology (1997), Stanford University (1997), University of Girona (1998), Courant Institute of the New York University (1998), Los Alamos National Laboratory, Institute of Applied Mechanics of the Taiwan National University (1998), Central China University (1998), University of California, Riverside (1999), University of California, San Diego (1999), Sun City Engineers Club (1999), Kiwanis Club of Scottsdale (1999), Army Research Office (1999), University of North Carolina (1999), University of Roma (1999); Georgia Institute of Technology (2000), University of Cambridge, UK (2000), Massachusetts Institute of Technology (2000 May), University of Arizona (2000), University of Northern Arizona (2000), Massachusetts Institute of Technology (2000 Dec), Florida State University (2001), Stanford University (2001); University of Alberta (2001); Iowa Institute of Hydraulics Research Distinguished Lecture Series, University of Iowa (2002), University of Texas, El Paso (2002), Hong Kong University of Science and Technology (2002), Tel Aviv University (2002), Beer Sheeva University (2002), Technion, Israel Institute of Technology (2002), SCERP Management Committee (EPA Region 9), San Francisco (2000), Taiwan National University (2002), Industrial Technology Research Institute, Taiwan (2002); The Johns Hopkins University (2003); California Institute of Technology (2003), Arizona State University (Geology), 2003;

Polish Academy of Sciences (Warsaw) (2003), University of California, Berkeley (2003); Indian Institute of Technology (Delhi) (2004); Urban Development & Poverty Alleviation Authority/ HUDCO, Delhi, India, (2004); Office of the Principal Secretary, Delhi Government (2004); Universidad Autonoma Metropolitana, Mexico (2004), University of Peradeniya, BMICH (2005), University of Minnesota (2005), Arizona Department of Environmental Quality (2005), China Ocean University, Keelung (2005), Taiwan National University (2005); Swiss Federal Institute of Aquatic Sciences and Technology (EAWAG), 2005; Texas Tech, Lubbock (2005); University of Arizona (2006), University of Cambridge, UK (2006); Wageningen University, the Netherlands, (2006); Seoul National University (2006); Arizona State University, MAE (2007); University of Illinois, Urbana Champaign (2007); University of Texas at Austin (2007); University of Notre Dame (2007), Arizona State University, Geographical Sciences (2007), University of Toulon (2007); Korea Power Electric Company (2007); Arizona State University, Civil Engineering (2007), Illinois Institute of Technology (2007); Santa Clara University (2008), Massachusetts Institute of Technology (2008); The University of San Diego (2008); The University of Notre Dame (2008); P.P. Shirshov Institute of Oceanography, Moscow (2008), University of Trieste (Institute of Theoretical Physics) (2009), University of Arizona (AME, 2009), University of Toronto (2009), University of Alberta (2009), University of Girona (2009), University of Toulon (2009), Princeton University (2010); Harvard University (2010), Indian Institute of Sciences (2011), University of Reading, UK (2011), University of Toulon, France (2011), Notre Dame Advanced Study Institute (2012), University of Girona (2012), NARA, Sri Lanka (2013), Army Research Laboratory (2014), Bureau of Meteorology, Seychelles (2015), Korean Academy of Science and Technology (2015), University of Minnesota (2016), National Aquatic Resources Research Agency, Colombo, Sri Lanka (2016), Indian Institute of Tropical Meteorology (2016), Texas Tech University (2016), Singapore National University (2017), ND Energy Center (2017), Indian Institute of Tropical Meteorology (2017); Advanced Study Institute, Notre Dame (2019), University of Illinois, Urbana-Champaign (2019), University of Moratuwa, Sri Lanka (2019), Hong Kong University Science and Technology (2019), Hohai University, China (2019), The Johns Hopkins University (2020), Norwegian Miljødirektoratet (Environmental Department, with CJ Beegle), Ocean University of Sri Lanka (2020); University of Notre Dame, Energy Center (2020), Caltech GALCIT lecture (2021), Duke University, Civil and Environmental Engineering (2021), Pennsylvania State University (Atmospheric Sciences, 2022); Columbia University (Civil and Environmental Engineering and Mechanics; 2023)

Named Lectures:
Alwin G. Anderson Award Lecture, University of Minnesota 2003
Distinguished Lecture Series, University of California, Riverside, 2003
William Mong Lecture, University of Hong Kong, 2004;
Virginia Commonwealth University (2008; Distinguished Lecture Series)
Leading Edge Lecture Series, University of Toronto, (2009)
University of Arkansas (2012, Distinguished lecture)
HKUST Advanced Institute, Jockey Club Distinguished Lecture (2014).
Nels Nelson Distinguished Award Lecture, University of Minnesota (2016)
Texas Tech University Distinguished Lecture (2016)
Hesburgh Lecture (ND Club of Rockford, 2016)
Borland Hydraulics Lecture, Colorado State University (2017)
Weston Lecture, Nelson Environmental Institute, University of Wisconsin, Madison (2020)

Distinguished Lecture, Ramaiah University of Applied Sciences (RUAS), Bangalore, India (2020)

Popular Lectures: Engineers without Borders, ASU (2005), Kiwanis Club, Phoenix (2005); ASU Faculty Wives Association (2006); Battening Down the Hatches; Engineer Meets Climate Change (Notre Dame, Alumni Reunion, 2010); ND Club of Singapore Celebrations (2014); Climate Change (Windmore Center, Notre Dame, 2016); Boylan Catholic High School, Rockford (2016); Le Petite Fluer Montessori School, Sri Lanka (2019); Florida Key West College (22 July 2022)

PROFESSIONAL AND SCIENTIFIC SERVICE

Journal Editorships

Current:

Editor-in-Chief (2012 – to date), *Journal of Environmental Fluid Dynamics*
Editor, *Non-Linear Processes in Geophysics* (European Geophysical Union) (2010-todate)
Editor, *Journal of Theoretical and Computational Fluid Dynamics* (1996-todate)
Editorial Board Member (Associate Editor), *Proceedings of the Royal Society A: Mathematical, Physical & Engineering Sciences* (2017-todate)
Editorial Board Member, *Journal of Hydro-environmental Research* (2014-todate)
Editorial Board Member, *Environmental Fluid Mechanics Book Series*, World Scientific.
Editor, *Advances of Fluid Mechanics Series* (2000-todate)
Associate Editor, *Advances and Applications of Fluid Mechanics* (2006-todate)

Journal Editorships Completed:

Associate Editor, Physics of Fluids (2013-2014); Member Editorial Board (2014-2105)
Member Editorial Board, Physical Review Fluids (2016-2017)
Associate (1992-2008) and Technical (1992-2006) Editor, Applied Mechanics Reviews (Fluid Mechanics), American Society of Mechanical Engineers
Associate Editor, Journal of Hydro-environmental Research – An IAHR-APD/KWRA Journal (2007-2014)
Associate Editor (2000-2011), Journal of Environmental Fluid Dynamics

Journal Guest Editorships

Guest Co-Editor, Special Issue on "Laboratory Experiments in Physical Oceanography," Journal of Geophysical Research (Oceans), 1994.
Guest Co-Editor, Special Issue on "Ocean Fluid Mechanics," Dynamics of Atmospheres and Oceans Journal (1995).
Guest Co-Editor, Special Issue on "Laboratory Experiments in Physical Oceanography," Dynamics of Atmospheres and Oceans Journal (1999).
Guest Co-Editor, Special Issue on Atmosphere-Ocean Dynamics of Bay of Bengal, Deep-Sea Research II, "Topical Studies in Oceanography" (with A. L. Gordon; U. Jinadasa, M. Mathur, E. Shroyer and A. Tandon), 2019-2020.
Guest Co-Editor, Special Issue on C-Fog. Boundary-Layer Meteorology (with C. Dorman, I. Gultepe and A. Grachev), 2019-2020.

Professional Committee Service (National and International)

Current Assignments:

Member, National Academy of Engineering Committee to review the Central Valley Project Operations in CA (2023-2025)
Member (Ex Officio) of the International Association of Hydro-environment Research, Fluid Mechanics Committee (2021-2024)
Member, American Meteorological Society Global Partners Program Committee (2022-)

Completed Assignments:

External Thesis Examiner, Tel Aviv University; (1988)
Member, National Science Foundation, Instrumentation Panel; (1988)
Member, Dutch Foundation for Fundamental Research, Review Panel; (1988, 1994)
Guest Member, Annual Reviews of Fluid Mechanics Editorial Committee; (1991)
Member, Australian Research Council, Review Panel; (1991, 1993, 1994)
External Thesis Examiner, University of Cambridge, U.K.; (1993)
Member, Hong Kong Science Foundation, Review Panel; (1993-2003)
External Thesis Examiner, University of Western Australia, Australia; (1995, 1996)
Member, South African Science Foundation, Review Panel; (1995)
Co-Chair, Working Group (WG 108) on Double Diffusion, Scientific Committee on Oceanic Research (SCOR) (1996-)
National Science Foundation Career Awards Panel (1996)
National Science Foundation, Ocean Sciences Panel (1997)
External Thesis Examiner, Indian Institute of Sciences, Bangalore (1998)
Member, Canadian Research Council Review Panel (1997, 1998)
Member, National Science Foundation Graduate Fellowship panel (1994, 1995, 1996, 1997, 1999, 2000)
National Science Foundation, Career Awards Panel (1999).
Member, American Meteorological Society, Committee on the Meteorological Aspects of Air Pollution (1999-2002).
Member, Thermal Fatigue Expert Panel, Electric Power Research Institute (EPRI) (2000).
Member, Boeing (Mesa) team on the design of an airborne pollution elimination system (2001)
External Examiner, Kwangju Institute of Science and Technology, Korea (2001)
Member, Review Committee for the Journal "Physics of Fluids," American Institute of Physics (2002).
Panelist, Chemical and Biological National Security Program, Department of Homeland Security (2002)
Frenkiel Award Committee, Division of Fluid Dynamics, American Physical Society (2003, 2004)
Member, Department of Homeland Security, Bio/Chem Countermeasures Review Committee (2003).
Member, NSF Tsunami Survey Team in Sri Lanka, (2005).
Member, Publicity Committee, American Physical Society (2005-08).
Member, NSF CLEANER sensor committee (2005-2009)
National Science Foundation, Oceanography Panel (2006)
Member, Working Group to the development of environmental observatories: A subgroup of WATERS Network (2006-2007)

Member, American Geophysical Union Committee on Updating its position on "Meeting the Challenges of Natural Hazards" (2007)
Member, Panel on "A Retrospective on Some Recent Natural Disasters," 5th International Symposium on Environmental Hydraulics, Tempe, AZ, 6th December, (2007).
Member, Scientific Advisory Panel, Collaborative Computing Environment and Data Repository, International Center for Theoretical Physics (2007-)\
Working Member, International Scientific Advisory Committee, The Catalan Institute for Water Research (ICRA), a research centre established by the Generalitat de Catalunya (2007-2013).
Member, Louisiana Coastal Area Restoration Science Board, US Department of Interior (2006-2011)
Member, NSF CLEANER Organizational committee (2005-)
Member, Selection Committee for Selection of Newsworthy Abstracts, American Physical Society Fluid Dynamics Meeting (2008, 2009, 2010).
Member, US Army Corps of Engineers, West Bay Diversion Review Committee (2009).
Member, Evaluation Panel, DOD Strategic Environmental Research and Development (SERDP) Program (2011).
Member, Advisory Committee – CentNet (Sensor Networks), National Center for Atmospheric Research (2013-2014)
Member National Science Foundation AC ERE Diversity Working Group, 2013-2015.
Member, IAHR (International Association of Hydraulics Research) Committee for Fluid Mechanics (elected 2011-2014)
Member, Review Committee, Environmental Central Facility (ENVF), Hong Kong University of Science and Technology (2015).
Vice Chair, Fluid Mechanics Committee, International Association of Hydraulics Research (2013-16).
Member, Organizing Committee, IMA Workshop Commemorating the 75th Birthday of Lord Julian Hunt, University of Cambridge (2015-16).
Member, Local Organizing Committee, 14th International Conference on Fluid Control, Measurements and Visualization, University of Notre Dame, 2017.
Member, Advisory Committee, IIHR–Hydrosciences and Engineering, University of Iowa (2012 – 2016)
Member, National Science Foundation Directors' Advisory Committee for Environmental Research and Education (2012 - 2016)
Member, American Physical Society Fluid Dynamics Prize selection committee (2014-2017)
Member, International Organizing Committee, 4th International Symposium on Environmental Hydraulics, June 2018.
Member, International Scientific Committee, Flows and structures in fluids, Vladivostok, September 2018.
Member, California Delta Independent Science Board, Delta Stewardship Council (2012 – 2023; Appointed by the Governor of California)
Member, U.S. Government Interagency Committee for Meteorological Services and Supporting Research (ICMSSR), Joint Action Group for Atmospheric Transport and Dispersion Modeling (JAG/ATD) (2015- to date)
Member, Steering Committee, American Meteorological Society's Volunteering Program (AMSVP) (2019-2021)
Chair, 2022 Beijing Winter Olympics Project for Meteorological Predictions (MOUNTAOM/SMART) Project, Chinese Institute of Urban Meteorology, Beijing.

Member, Dean's Executive Council, Gonzaga University (2014-todate).
Chair, Fluid Mechanics Committee, International Association for Hydro-Environmental Engineering and Research (2017-2021).
Member, Advisory Committee, Center for Smart Urban Water Supply System (Smart UWSS), Hong Kong University of Science and Technology (2016-20)
Member, International Scientific Committee, 5th International Symposium on Shallow Flows, Nanjing, China (December 16-18, 2020).
Co-Convener, 2020 Fall AGU Special Session on Coastal and Marine Fog (with Adele Igel, Qiang Wang and Saša Gaberšek, lead)
Co-Convener, 2 July, 2021 IAHR First On-line Forum on 'Fluid Mechanics of Hydro-Environment: Focus for the Next Decade'

Local Committee Service:

Member, Organizing Committee for the American Physical Society, Division of Fluid Dynamics Meeting, Tempe; (1991)
Member, Organizing Committee for the Turbulent Shear Flow Conference, Tempe; (1993)
Member, Scientific Review Committee for Student Projects, Arizona Department of Transportation (1999).
Member, Organizing Committee, 3rd International Symposium on Environmental Hydraulics, 2001
Co-Chair, Regional Haze State Implementation Plan Stakeholder Advisory Group, Arizona Department of Environmental Quality (2002)
Member, Organizing Committee, 6th International Symposium on Environmental Hydraulics, 2006-7.
Member, City of Phoenix Continuous Learning Panel on "Urban Heat Island," 2007.
Member of the scientific committee, Array of Things, University of Chicago 2016-17.

Conference Organization as a Convener or Co-Convener

Co-Organizer, Special Session on "Laboratory Experiments in Physical Oceanography," American Geophysical Union Meeting; (Fall 1989).
Organizer, Sixth Annual Arizona Fluid Mechanics Conference; (February 1990).
Co-Organizer, Office of Naval Research Workshop on "Vortex Dynamics," Tempe; (March 1991).
Co-Organizer, Special Session on "Ocean Fluid Mechanics," American Physical Society Fluid Dynamics Meeting, Tempe; (November 1991).
Co-Organizer, Special Session on "Laboratory Experiments in Physical Oceanography," AGU Ocean Sciences Meeting, New Orleans; (January 1992).
Convener, American Geophysical Union Chapman Conference on "Double-Diffusive Convection," American Geophysical Union; (November 1993).
Co-Organizer, Special session on "Laboratory Experiments in Physical Oceanography," American Geophysical Union Ocean Sciences Meeting, San Diego; (February 1994).
Organizer, NATO Advanced Research Workshop on "Fluid Mechanics of Turbulent Jets and Plumes," Vianna do Castello, Portugal; (June 1993).
Co-Organizer, Army Research Office Workshop on "Nocturnal Boundary Layer," Tempe, AZ; (January 1994).
Co-Organizer, international workshop on "New Directions in Geophysical Fluid Dynamics and Turbulence," Tempe, Arizona (May 1996)

Co-Organizer, Special session on "Laboratory Experiments in Physical Oceanography," American Geophysical Union Ocean Sciences Meeting, San Diego (February 1997).

Organizer, WG-108 Scientific Committee for Ocean Research Workshop on Double Diffusive Convection (Nov. 4-5, 1999).

Co-Convenor, Special Session on "Field Experiments, Laboratory Investigations and Numerical Simulations of Turbulent Mixing in Stratified and Rotating Flows" American Geophysical Union Meeting, Ocean Sciences Meeting, Jan 22-26, 2004.

Organizer, ONR Mini Turbulence workshop, 2005.

Co-Convenor, Special Session on "Frontiers in Geophysical Fluid Dynamics" American Geophysical Union Meeting, Ocean Sciences Meeting, February 21-16, 2006.

Organizer, Sedona SABLE, Stable Atmospheric Boundary Layer Workshop, Sedona, Arizona, Nov 12-16, 2006. (Sponsor: ARO).

Organizer, Weather in Mountain Terrain workshop (Army Research Office and Office of Naval Research) 2010, Feb 1-2.

Co-Convenor, American Geophysical Union, Meeting of the Americas; Session OS16: Multi-scale Momentum and Scalar Transports in Geophysical Flows: Measurements and Modeling, Brazil, 8-13, 2010.

Co-Organizer, Geophysical Turbulence Workshop, Annual Meeting of the Pacific Division of the American Association for the Advancement of Science, June 12-16, 2011

Organizer, Climate Change, Human Health and National Security, NATO Advanced Research Workshop, Croatia, April 28-30, 2011.

Co-Organizer, Ocean-Atmosphere Processes of Monsoon Dynamics, Ocean Sciences Meeting (OSM) in Salt Lake City, Utah, 20-24 February 2012 (Co-organizer with Dr. Hemantha Wijesekera)

Co-Organizer, First International Workshop on the Oceanography of Bay of Bengal (funded by ONR Global), November 28-30, 2012.

Co-Organizer, Enhanced Regions of Mixing in the Coastal and Deep Ocean" Ocean Sciences Meeting (OSM) in Salt Lake City, Utah, 20-24 February 2012 (Co-organizer with Dr. Jeff Book; session 090)`

Co-Organizer, 6th Symposium of Shallow Water Flows, University of Iowa/Notre Dame, 2012-2012.

Organizer, European-US consortium workshop on Perdigao Field Experiment, September 19. 2013.

Organizer, MATERHORN Review Workshop, September 06, 2013, University of Notre Dame, 2013.

Lead Organizer, American Geophysical Union Special Session on 'Improving Weather Prediction in Mountainous Terrain,' American Geophysical Union Annual Meeting, San Francisco, 2013.

Co-Organizer, American Geophysical Union Special Session on 'Observations, Predictions, and Predictability of the Atmosphere Over Complex Terrain, (session #2429), San Francisco, 2014.

Organizer, Microscale Modeling of Complex Terrain Flows (an ARO workshop). September 24-25, 2014, at University of Notre Dame.

Co-Organizer, Tutorial that overviews a number of ONR sponsored international collaborative programs in the Northern Indian Ocean: ASIRI-OMM, ASIRI-EBOB and ASIRI-RAWI, AGU Meeting San Francisco, 2015.

Co-Convener, Special session on: Observations and Predictability of the Atmosphere over Complex Terrain (Session ID: 8181), AGU Fall Meeting, 2015.

Co-Convener, Special Session on Complex Terrain, AGU Fall Meeting, 2015.
Organizer, Steering Committee Workshop on MISO-BOB (for the Office of Naval Research), Chicago, June 7, 2016.
Co-Organizer, IMA Conference on Turbulence, Waves and Mixing in Honor of Lord Julian Hunt, King's College Cambridge, UK, Wednesday 6 – Friday 8, July, 2016.
Co-Convenor, Special Session on Complex Terrain Meteorological Studies Relevant to Wind Energy Forecasting, AGU Fall Meeting 2017, New Orleans (Sessions A 23J, 21E)
Organizer, 2nd International Symposium on the Oceanography of Bay of Bengal (ICO-BOB2), Colombo, Sri Lanka, January 10-11, 2018.
Convener, C-FOG I Conference, University of Notre Dame, May 23, 2018.
Co-organizer, 8th International International Symposium on Environmental Hydraulics, Notre Dame, Indiana, June 4-8. 2018.
Co-Convener, Session A105 - Observations, Modeling, and Forecasting of Coastal Fog Processes, AGU Fall Meeting, San Francisco, December 9-13, 2019.
Convener, C-FOG II Review Conference, University of Notre Dame, April 25-26, 2019.
Co-Convener, AGU Ocean Sciences Meeting Session ID: 84519, Towards an improved understanding of Indian Ocean dynamics and its role in the Monsoon, Feb 16-21, 2020.
Co-Convener, Asia Oceania Geosciences Society (AOGS), Asian field campaigns as a crossroads of interdisciplinary research, 28 June – 4 July, Vivaldi Park Ski Resort, Hongcheon, Korea, 2020.
Co-Convener, 18th Symposium on the Coastal Environment, Special Session on CASPER Special Session: Coastal Air–Sea Interaction Affecting Electromagnetic Wave Propagation, American Meteorological Society 100th Meeting, Boston, MA, 12-16, 2020.
Co-Convener, Session # AI12B - Toward an Improved Understanding of Indian Ocean Dynamics and Its Role in the Monsoon, Ocean Sciences Meeting, February 16-21, San Diego, CA, 2020.
Convener, Workshop: Advances and Challenges in Complex-Terrain Micrometeorology, March 30 – April 01, 2020, Las Cruces, New Mexico.
Co-Convener, Session #A33R, Observations, Modeling, and Forecasting of Coastal Fog Processes, American Geophysical Union Fall Meeting, San Francisco, 2019.
Co-Convener, Session # A048 Coastal and Marine Fog, American Geophysical Union, Fall Meeting in San Francisco (Virtual), 2020.

Conference Activities; Member of the Scientific/Organizing Committee

Member, Organizing Committee, Conference on "Near Wall Turbulent Flows," Tempe, AZ; (March 1993).
Member, Organizing Committee, Workshop on "Laboratory Models for Oceanic Flows," Moscow, Russia; (August 1993).
Member, Organizing Committee, "Mixing and Dispersion in Stably Stratified Flows," University of Dundee, Scotland (September 1996).
Member, Scientific Advisory Committee, Fifth International Symposium on Stratified Flows, Vancouver, Canada, 1999.
Member, Scientific Advisory Committee, Second International Symposium on Turbulence and Shear Flow Phenomena, Stockholm, 2001.

Member, Organizing Committee, Second International Conference on Environmental Hydraulics (2001).

Member, International Advisory Committee, Second International Conference on "Ecological and Hydrometeorological Problems of Large Cities and Industrial Zones." Russian State Hydrometeorological University, 2003. Co-Convenor, Special Session on "Frontiers in Geophysical Fluid Dynamics" American Geophysical Union Meeting, Ocean Sciences Meeting, February 21-16, 2006.

Member, International Advisory Committee, International Symposium on Shallow Flows, Delft University of technology, The Netherlands, 2002.

Member, Scientific Advisory Committee, Third International Symposium on Turbulence and Shear Flow Phenomena, Tokyo, 2003.

Member, Scientific Advisory Committee, International Symposium on Shallow Flows, Delft, The Netherlands, 2003.

Member, Scientific Advisory Committee, Fourth International Symposium on Turbulence and Shear Flow Phenomena, Virginia, 2004.

Member, International Scientific Committee, 4th Symposium on Environmental Hydraulics and 14th IAHR (APD) Congress, Hong Kong, 2004.

Member, International Scientific Committee, Fluxes and Structures in Geophysical Flows, Moscow State University, June 22-26, 2004.

Member, Scientific Advisory Committee, Fifth International Symposium on Turbulence and Shear Flow Phenomena, TSFP-5, Garching, Germany, 2007.

Member, Scientific Advisory Committee, International Conference on "Turbulent Mixing Beyond," (TMBW-07), Trieste, Italy, Aug 18-26, 2007.

Member, Scientific Advisory Committee, Sixth International Symposium on Turbulence and Shear Flow Phenomena, TSFP-5, Seoul, Korea, 2007.

Member, Scientific Advisory Committee, 5th International Symposium on Environmental Hydraulics, Tempe, Arizona, 2006-7.

Member, Scientific Advisory Committee, International Symposium on Shallow Water Flows, Hong Kong, 2007-2008.

Member, International Program Committee, International Conference on Fluxes and Structures in Fluids: Physics of Geospheres, Moscow, Russia, 2009.

Member, International Scientific Advisory Committee, Sixth International Symposium of Environmental Hydraulics, Athens, Greece (2009-10).

Member, International Program Committee, International Conference on Fluxes and Structures in Fluids: Physics of Geospheres, Vladovistok, Russia, 2011.

Member, International Scientific Committee, International Symposium on Stratified Flows, August 23-26, 2011.

Member, International Scientific Committee, Conf. of the Croatian Society of Mechanics to be held May 22 to 25, 2012 in Zadar.

Scientific Committee Member, International Conference of Turbulent Mixing and Beyond, Trieste, 2011.

Member, International Scientific Committee, IUTAM Symposium on Waves in Fluids, Effects of Non-Linearity, Rotation, Stratification and Dissipation, Moscow, July 18-20, 2012.

Scientific Committee Member, IUTAM Symposium (GA 10.01) on "The Dynamics of Extreme Events Influenced by Climate Change", China, September, 21-23, 2013.

Member, International Scientific Committee, 7th International Symposium on Environmental Hydraulics (ISEH2014), Singapore, January 7-9, 2014.

Scientific Committee Member, 8th International Conference on Fluvial Hydraulics, River Flow 2016, will be held in St. Louis, Missouri, USA from July 10 to July 14, 2016.

Member, International Scientific and Steering Committee, International Association Hydro-environment Research, Asia Pacific Division Conference, 2016.

Member, International Scientific Committee, 8th International Conference on Stratified Flows, San Diego, CA, August 28-September 1, 2016.

Member, International Scientific Committee, 4th International International Symposium on Shallow Flows, Eindhoven, the Netherlands, June 26-28, 2017.

Member, International Scientific Committee, IAHR World Congress, Kuala Lumpur, Malaysia,13-18 August, 2017.

Member, International Scientific Committee, Flows and structures in fluids, Vladivostok, September 2018.

Member, International Scientific Committee, 5th International Symposium on Shallow Flow, Hohai Univerity, Nanjing, December 16-18, 2020-2021.

Member, Local Organizing Committee (2020-2022), INDY-2022, American Physical Society Fluid Dynamics Meeting, November 2022.

Member, International Scientific Committee of the 1st International Association for Hydro-Environment Engineering and Research International Conference on Global Water Security, 30th Oct – 2nd Nov 2023, Hohai University, Nanjing China.

Member, Local Organizing Committee, Waves, Storm Surges and Coastal Hazards workshop, University of Notre Dame, October 01-06, 2023.

Member, International Organizing Committee, 4th IAHR Young Professionals Congress, November 22-24, online.

Referee Service

Applied Mechanics Reviews, Journal of Visualization, ASME Journal of Solar Energy Engineering, Boundary Layer Meteorology, Civil Engineering & Environmental Systems, Continental Shelf Research, Cornell Theory Center, Dynamics of Atmospheres and Oceans, Computers in Fluids, Experiments in Fluids, Environmental Science & Technology, Fluid Dynamics Research, French National Research Agency (ANR), Geophysical Research Letters, Indoor Air, International Journal of Heat and Mass Transfer, Journal of Applied Meteorology, Journal of Atmospheric Sciences, Journal of Fluid Mechanics, Journal of Fluids Engineering, Journal of Geophysical Research (Oceans), Journal of Geophysical Research (Atmosphere), Journal of Geophysical Research (Earth Sysytems) Journal of Heat Transfer, Journal of Hydraulics Engineering, ASCE, Journal of Physical Oceanography, Monthly Weather Review, National Research Council, Natural Environmental Research Council (UK), National Science Foundation (proposals), Australian Research Council, Numerical Heat Transfer, Physics of Fluids, West Educational Publishing (book reviews), Chemical Engineering Journal, Australian Research Council, International Journal of Heat and Fluid Flow, Experimental Thermal and Fluid Science, Computers in Fluids, Canadian Research Council, Research Council, Hong Kong Research Council, Livingston Trust Fund, UK, Dutch Fundamental Research Council, Department of Energy, Kluwer Academic Publishing (book reviews); Norwegian Research Council, Bulletin of the American Meteorological Society, Journal of Environmental Quality, Journal of Environmental Fluid Mechanics, Quarterly Journal of the Royal Meteorological Society, Ground Water Research Institute (Technion, Israel), Journal of Climate, Arabian Journal of Science and Engineering, AGU Journal of Earth Interactions, Science

External Examiner (PhD): Indian Institute of Sciences; University of Western Australia; University of Cambridge; Tel Aviv University, Seoul National University.

Consultancy

Consultant for:

California Engineering Research, Inc.
Ceylon Cement Corporation
Industrial Development Board, Sri Lanka
Science Applications International Corporation
Solar Energy Research Institute, Golden, Colorado
Arizona Mist Inc.
Electric Power Research Institute
Arizona Public Service Company

Committee Service (Arizona State University)

University Level

Member, Parking Citations Appeals Committee (1987 - 1990)
ASU Alumni Distinguished Achievement Awards Committee (1997)
Member, Advisory Panel for Vice President for Research (1997)
Member, Search Committee for the Vice Provost for Research (1998)
Mentor, Preparing Future Faculty Program (1999)
Member, Atmospheric Sciences Certification Committee (2000-2001)
Member, Phoenix 2100 Committee (2000)
Charter Group of the Academic Council, Office of the President (2003-06)
College of Engineering, Dean Search Committee (2005)
Faculty Senate (2006-2008)
Member, Environmental Fluid Mechanics Search Committee, Department of Mathematics (2007).
Member, Advisory Panel for Vice President for Research and Economic Affairs (2008-2009)

College Level

Member, Academic Grievance Committee, College of Engineering (1990)
Chair, Committee to Evaluate the Efficacy of a Center for Environmental Fluid Dynamics (1993)
Member, Associate Dean for Research Search Committee (1993)
Chair, Chemical, Bio and Materials Engineering Chair Search Committee (1993 - 1994)
Member and Affirmative Action Representative, Electrical Engineering Chair Search (1996)
Member, Strategic Planning Committee for Retreats (1999)
Member, CEAS Academic Senate (1999- 2002)
Member, CEAS Research Advisory Board (1999-2003)
Planning Committee, High-Bay Research Building (2003)
Member, Lighthill Institute of Mathematics (University of London)/ASU Joint Program (2005)
Associate Dean's Advisory Committee for Research (2005-8)

Departmental Level

Member, Qualifying Examination Committee (1985, 1987, 1988, 1989)
Member, Mechanical Engineering Curriculum Committee (1986)
Member, Graduate Affairs Committee (1988, 1989, 1991)
Chair, Publicity Committee (1991)
Compiled the departmental graduate brochure (with A. Majumdar, 1991)
Group Representative, Fluid Mechanics Group (1991)
Member, Fluid Mechanics Search Committee (1991)
Chair, Graduate Affairs Committee (1992 - 1993)
Member, Publicity Committee (1993 - 1995)
Member, Search Committee, Material Sciences (1994)
Chair, Promotion, Tenure and Retention Committee (1994 - 1995),. Member (1992 to date)
Chair, Space and Facilities Committee (1995-1996)
Fluid Mechanics Group Representative (1995-1996)
Chair, Environmental Fluid Dynamics Search Committee (1996) - MAE
Member, Environmental Fluid Dynamics Search Committee (1996) - CEE
Member, Search Committee, Heat Transfer (1997)
Member, Graduate Affairs Committee (1996, 1997, 1998, 2001, 2002, 2003, 2004, 2005, 2006)
Member, Departmental Advisory Committee (1998)
Chair, Environmental Fluid Dynamics Search Committee (1999) - MAE
Chair, Environmental Fluid Dynamics Search Committee (2000) – MAE
Faculty Representative, MAE Assessment Fair (2002)
Vice Chair, Promotion, Tenure and Retention Committee (2003-4)
Member, Aerospace Faculty Search Committee (2003-4)
Chair, Promotion, Tenure and Retention Committee (2004-5)
MAE Advisory Committee (2006)
MAE Personnel Committee (2006)
Chair, Environmental Fluid Dynamics, Search Committee (2006-7)
MAE Personnel Committee (2007)
Chair, Environmental Fluid Dynamics, Search Committee (2007-8)
MAE Personnel Committee (2007-8)
MAE Advisory Committee (2008-2009)
MAE Personnel Committee (2008-2009)

Committee Service (University of Notre Dame)

University level:

Building Bridges Program, Faculty Mentor (2010, 2011, 2012, 2103, 2014, 2015, 2016, 2017, 2018, 2019, 2021, 2021)
Limited Submission Committee/representative from the College of Engineering (2010- 2013)
Committee to develop introductory level sustainability courses (2010-11)
Laetare medal committee (2011-2015)
Notre Dame Advanced Institute Engineering Review Committee (2013-2019)
Laetare medal committee (2014-2015)
Hesburgh Lecture Series Participant (2015-17)
Office of Research, Stewardship Panel (2015, 2018-2019)
Member, Five Pillars Project (1st Year Experience on Blessed Basil Moreau Teachings; 2015)

Member, Search Committee, Keogh School of Global Affairs (2016)
Research Administration Training Program, Panelist (2015, 2016)
Notre Dame Advanced Institute, Engineering Review Committee (2016)
Member, Advisory Committee, Real Estate Institute (2017-19)
Member, Steering Committee, CICS (2017-)
Member, Notre Dame Real Estate Institute Grants Committee (2018-2019)
Fellow, ND Liu Institute for Asia and Asian Studies (2018-todate)
Member, College of Engineering Dean Search Committee (2018-2019)
Fellow, Notre Dame Fitzgerald Institute for Real Estate (Dec 01, 2019 –Nov 30, 2024)
Member, Research Administration Training Program Stewardship Panel (2019)
Member, College of Engineering Dean Search Committee (2018-2019)
Member, Committee on Appointments for the Real Estate Institute (2020-2)
Coordinator, Notre Dame Chapter of the Society of Catholic Scientists (2022-)
Member, Vice President for Research's committee on President's Research Award (2023)

College Level:

National Awards Committee (2010)
Endowed Chair Review Committee (2010, 2011)
Hosting Edison Lecturers (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)
Hosting IBM Lecturers (2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019)
Joint College of Engineering and College of Science New Faculty Orientation panelist (2011)
Chair, Endowed Professor Review Committee (2014)
Member, Endowed Chair Review Committee (2018)
Member, Evaluation Committee, Hessert Laboratory/FlowPac (2019)
Departmental/College Special CAP with Keogh School (2021)
Member, Endowed Chair Review Committee, College of Engineering (2022)

Departmental Level:

Strategic planning committee (Chair, 2010)
Environmental Change Initiative, Interdepartmental Committee (2010)
Search Committee – Biology/Civil Engineering Joint Position Committee (2010-11)
Chair, Search Committee, Environmental Fluid Dynamics, (2012-13)
Search Committee, Energy Center Faculty Search Committee (2015)
Wanzek Chair Search Committee (2016)
Departmental CAP (2010-)
Graduate Committee (2019-20)
Awards Committee (2019-2022)
Host of the Don Boyer Distinguished Lecture in Environmental Fluid Mechanics (2022, 2023)
Graduate Committee (2023)

Other Service:

Slatt Undergraduate Fellowship Mentor (2011, 2016, 2017)
Undergraduate Student Advisor (2011 – to date)

TEACHING (COURSES TAUGHT)

University of Notre Dame:

Fall 2010: [CE 60410-01 & CE 40410-01: Advanced Fluid Dynamics; 10 grad students/ 2 undergrads; CIF Report: Effectiveness of teaching 4.7/5], CE 63400: Environmental Fluid Dynamics Seminar: 9 registrants; CIF Report: 4.5/5**)**

Spring 2011: [CE 60430: Fundamental of Turbulence' Effectiveness of teaching 4.8/5; 8 registrants]

Fall 2011: [CE 60411-01: Environmental Fluid Dynamics; Effectiveness of teaching 4.3/5, 12 grad students

Spring 2012: [CE 60415: Waves and Instabilities in Environmental Flows; 6 students, Effectiveness of teaching 4.7/5]

Spring 2012: [Sustainability Principles and Practices, SUS 20010-01 – co taught with Anthony Serianni, John Sitter and Andrew Wiegert]

Fall 2102: [CE 60410-01 & CE 40410-01: Advanced Fluid Dynamics; 8 grad students/ 3 undergrads; CIF Report: Effectiveness of teaching 4.2/5; Degree of Intellectual Challenge 4.9], CE 63400: Environmental Fluid Dynamics Seminar: 16 registrants, no report; Environmental Fluid Dynamics Practicum, No report**)**

Spring 2103: [CE 60430-01 & CE 40430-01: Theory of Turbulence; 5 grad students/ 3 undergrads; CIF Report: Effectiveness of teaching 4.5/5; Degree of Intellectual Challenge 4.9], CE 63400: Environmental Fluid Dynamics Seminar: 16 registrants, no report; Environmental Fluid Dynamics Practicum, No report**)**

Fall 2103: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; 6 grad students/3 undergrads; CIF Report: Effectiveness of teaching 3.9/5; Degree of Intellectual Challenge 4.7], CE 63400: Environmental Fluid Dynamics Seminar: 19 registrants, no report; Environmental Fluid Dynamics Practicum, No report**)**

Spring 2014: [CE 60415: Waves and Instabilities in Environmental Flow 3.5/5, 4 students Environmental Fluid Dynamics Seminar: 16 registrants, no report; Environmental Fluid Dynamics Practicum, No report].

Fall 2104: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; 6 grad students/3 undergrads; CIF Report: Effectiveness of teaching 4.4/5; Degree of Intellectual Challenge 4.4], CE 63400: Environmental Fluid Dynamics Seminar: 19 registrants, no report; Environmental Fluid Dynamics Practicum, No report**)**

Spring 2015: [CE 60430-01: Theory of Turbulence; 6 grad students; CIF Report: Effectiveness of teaching 4.4/5; Degree of Intellectual Challenge 4.5], CE 63400: Environmental Fluid Dynamics Seminar: 19 registrants, no report; Environmental Fluid Dynamics Practicum, 14 registrants: Effectiveness of teaching 4.7/5; Degree of Intellectual Challenge 3.8**)**

Fall 2105: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; 6 grad students/3 undergrads; CIF Report: Effectiveness of teaching 4.7/5; Degree of Intellectual Challenge 4.2], CE 63400: Environmental Fluid Dynamics Seminar: 19 registrants, no report; Environmental Fluid Dynamics Practicum, Overall Effectiveness of the class – 5.0; Intellectual challenge – 3.7**)**

Spring 2016: [CE 60415: Waves and Instabilities in Environmental Flows, 9 registrants (all responded), CIF Report: Effectiveness of teaching 4.9/5; Degree of Intellectual Challenge 4.8/5] CE 63400: [Environmental Fluid Dynamics Seminar: 19 registrants, no report]; Environmental Fluid Dynamics Practicum, Overall Effectiveness of the class – 4.8; Intellectual challenge – 3.7**)**

Fall 2016: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; 7 grad students/1 undergrads; CIF Report: Effectiveness of teaching 4.8/5; Degree of Intellectual Challenge 4.5]

Spring 2017: [CE60430-01 Fundamentals of Turbulence; 10 grad students (1 audit); CIF Report: Effectiveness of teaching 5/5; Degree of Intellectual Challenge 4.2/5]; [Environmental Fluid Dynamics Practicum, Overall Effectiveness of the class – 4.5; Intellectual challenge – 4.4]

Fall 2017: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; 8 grad students/4 undergrads; CIF Report: Effectiveness of teaching 3.9/5; Degree of Intellectual Challenge 4.3]

Spring 2018: [CE 60415-01: Waves and Instabilities in Environmental Flows; 11 grad students; CIF Report: Effectiveness of teaching 4.4/5; Degree of Intellectual Challenge 4.4; Environmental Fluid Dynamics Practicum, Overall Effectiveness of the class – 4.5; Intellectual challenge – 3.3], Environmental Fluid Mechanics Seminar (no CIF)

Fall 2018: [CE 40465-01 & CE 60465-01: Mechanics of Environmental Motions; # students – 13, 4 grad students/9 undergrads; CIF Report: Composite median 4/5, Comp perc excellent or very good 66%; Degree of Intellectual Challenge, very high or extremely high 83%; Environmental Fluid Dynamics Practicum, # students – 18, Composite median 4.7/5, Comp perc excellent or very good 83%; Intellectual challenge pc excellent or very high 40%), Environmental Fluid Mechanics Seminar (no CIF)

Spring 2019: CE 60415-01: Theory of Turbulence; 6 grad students; CIF Report: Composite summary 5.0, Very Good or Excellent 100%; CE 62400 Environmental Fluid Dynamics Practicum, (Composite summary 4.0, Very Good or Excellent 72.5%); CE 63400 Environmental Fluid Mechanics Seminar (Composite summary 5.0, Very Good or Excellent 100%)

Spring 2020: CE 60415-01: Waves and Instabilities in Environmental Flows; 4 grad students; CIF Report: Composite summary 4.4, Composite Very Good or Excellent 73%, Degree of Intellectual Challenge, very high or extremely high 100%; CE 62400 Environmental Fluid Dynamics Practicum, (10 Grads, Composite summary 5.0, Comp. VG or Excellent 83%; Degree of Intellectual Challenge, Very high or Extremely High 87%); CE

63400 Environmental Fluid Mechanics Seminar (22 Grads, Composite summary 5.0, Comp. VG or Excellent 83%; Degree of Intellectual Challenge, Very high or Extremely High 87%)

Fall 2020: CE 40465-01, AME 40465-01 & CE 60465-01: Mechanics of Environmental Motions; # students – 12, 3 grad students/9 undergrads; CIF Report: Composite summary 3.6, Comp. VG or Excellent 57%; Degree of Intellectual Challenge, Very high or Extremely High 87%; Environmental Fluid Dynamics Practicum 15 Grads, Composite summary 4.9, Comp. VG or Excellent 80%; Degree of Intellectual Challenge, Very high or Extremely High 64%), Environmental Fluid Mechanics Seminar (18 Grads, Composite summary 4.4, Comp. VG or Excellent 87%; Degree of Intellectual Challenge, Very high or Extremely High 87%)

Spring 2021: CE 60430 Theory of Turbulence, 6 Grad Students; CIF Report: Composite summary- Median 5, VG or Excellent 95.8%; Degree of Intellectual Challenge, Extremely High 100%; CE 62400 Environmental Fluid Dynamics Practicum 15 Grads, Composite summary: Median - 5, VG or Excellent 100%; Degree of Intellectual Challenge, Very high or Extremely High - 75%), Environmental Fluid Mechanics Seminar CE 63400 (22 Grads and 3 undergrads, Composite summary: Median - 5, VG or Excellent - 100%; Degree of Intellectual Challenge Very high or Extremely High - 50%).

Fall 2021: CE 40465-01, AME 40465-01 & CE 60465-01: Mechanics of Environmental Motions; # students – 10, 3 grad students/9 undergrads; CIF Report: Composite summary 4.6, Comp. VG or Excellent 82.5%; Degree of Intellectual Challenge, Very high or Extremely High 100%; Environmental Fluid Dynamics Practicum 17 Grads, Composite summary 5, Comp. VG or Excellent 88.5%; Degree of Intellectual Challenge, Very high or Extremely High 55.5%), Environmental Fluid Mechanics Seminar (25 Grads, Composite summary 5.0, Comp. VG or Excellent 100%; Degree of Intellectual Challenge, Very high or Extremely High 50%)

Spring 2022: CE 60415-01: Waves and Instabilities in Environmental Flows; 6 grad students; CIF Report: Composite summary 4.4, Composite Very Good or Excellent 73%, Degree of Intellectual Challenge, very high or extremely high 100%; CE 62400 Environmental Fluid Dynamics Practicum, (13 Grads, Composite summary 5.0, Comp. VG or Excellent 74%; Degree of Intellectual Challenge, Very high or Extremely High 50%); CE 63400 Environmental Fluid Mechanics Seminar (not reported)

Fall 2022: CE 40465-01, AME 40465-01 & CE 60465-01: Mechanics of Environmental Motions; # students – 08, 7 grad students/1 undergrads; CIF Report: Composite summary 4.9, Comp. VG or Excellent 98.3%; Degree of Intellectual Challenge, Very high or Extremely High 100%; Environmental Fluid Dynamics Practicum 17 Grads, Composite summary 5.0, Comp. VG or Excellent 84.8%; Degree of Intellectual Challenge, Very high or Extremely High 40%): CE 63400 Environmental Fluid Mechanics Seminar (28 Grads, Composite summary 5.0, Comp. VG or Excellent 91.7%; Degree of Intellectual Challenge, Very high or Extremely High 57%)

Spring 2023: CE 60430 Theory of Turbulence; 3 grad students; CIF Report: (Not reported); CE 62400 Environmental Fluid Dynamics Practicum, (17 Grads, Composite summary 5.0, Comp. VG or Excellent 88%; Degree of Intellectual Challenge, Very high or Extremely High 66%); CE 63400 Environmental Fluid Mechanics Seminar (27 Grads, Composite summary

5.0, Comp. VG or 85%; Degree of Intellectual Challenge, Very high or Extremely High 33%)

Fall 2023: AME 40465-01 & CE 60465-01: Mechanics of Environmental Motions; # students – 4, 2 grad students/2 undergrads; CIF Report: (Not reported); CE 62400 Environmental Fluid Dynamics Practicum, (18 Grads, Composite summary 5.0, Comp. VG or Excellent 93%; Degree of Intellectual Challenge, Very high or Extremely High 50%); CE 63400 Environmental Fluid Mechanics Seminar (26 Grads, Composite summary 5.0, Comp. VG or 99%; Degree of Intellectual Challenge, Very high or Extremely High 30%)

Arizona State University:

Undergraduate

Fluid Mechanics 1: Fall 1985 (students' evaluation 4.34/5; number of students 42), Fall 1986 (4.46/5, 35), Spring 1989 (3.86/5, 61), Spring 1993 (3.99/5, 75), Fall 2001 (4.32/47)
Fluid Mechanics 11: Spring 1986 (4.09/5, 42); Fall 1992 (4.41/5, 57), Spring 1995;
Dynamics: Spring 1987 (4.31/5, 17), Spring 1987 (4.51/5), Spring 1988 (3.94/5, 17)
Partial Differential Equations: Fall 1987 (4.48/5, 13), Spring 1988 (4.23/5,34), Fall 1988 (4.35/5, 19), Fall 1989 (3.99/5, 51), Spring 1998 (4.12/5, 59)
Introduction to Mechanical Engineering (Fall 2007)
Introduction to ASU – Fulton School of Engineering (3.67/5, 5)

Graduate

Fluid Dynamics: Fall 1988 (4.49/5, 18), Fall 1991 (4.32, 26), Fall 1998 (4.83,11), Fall 2003; Fall 2005 (x/19)
Ideal Fluid Flows: Spring 1989 (4.72/5, 8), Spring 1990 (4.35/5, 10)
Turbulent Shear Flows: Fall 1985 (4.61/5, 4), Fall 1989 (4.83/5, 7), Fall 1993 (4.63/5, 12), Fall 1995 (4.58/5, 5), Spring 1997 (4.80/5, 6), Fall 2000 (4.44/10)
Turbulent Modeling: Fall 1987 (4.68/5, 10), Spring 1991 (4.65/5, 11)
Linear Algebra: Fall 1984 (3.92/5, 27)
Partial Differential Equations: Spring 1985 (4.03/5, 48)
Ecosystems Engineering Seminar (*Every semester* since 1994 Fall)
Environmental Transport: Fall 1996 (cross listed)
Environmental Turbulence: Spring 1996 (cross listed)
Air Pollution: Spring 2006 (collaboratively with three others)
Geophysical Fluid Dynamics; Spring 1992 (4.58/5, 7), Fall 1993 (4.86/12), Fall 2002, Fall 2004 (4.77/11); Fall 2008 (5/9)
Environmental Fluid Dynamics: Spring 1996 (4.38/5, 12); Spring 2000 (4.69/9), Fall 2006 (4.92/5; 12)
Air Pollution (co-instruction with four others; Spring 2006 (4/5, 6)
Waves and Instabilities in Environmental Flows; Spring 2008 (5/5, 6), Spring 2009 (4.72/5, 8)

MEDIA

Television Appearances

- Why scientists are in Newfoundland to figure out — and bottle — fog, CBC News https://www.cbc.ca/news/canada/newfoundland-labrador/scientists-studying-fog-newfoundland-1.4821811
- How Coral Reefs Save Life, Greenpeace Unearthed, By Emma Howard https://youtu.be/bC-73wOaJ78
- "We are losing the web of life": why the global nature crisis is as dangerous as climate change by Emma Howard and Georgie Johnson, Greenpeace Unearthed https://unearthed.greenpeace.org/2019/05/06/nature-crisis-biodiversity-dangerous-climate-change-extinction/
- How to Build a Cooler City, PBS NEWSHOUR, **http://bit.ly/ChicagoCoping,** October 9, 2012.
- Tracking Pollution from Space, Discoveries and Breakthroughs Inside Science, Ivanhoe Broadcast News - Winter Park,FL,USA, http://www.ivanhoe.com/science/story/2008/10/489a.html, (with American Geophysical Union and American Meteorological Society).
- Heat Island and Weather, Fox 10 News (David Munsey Reporting), August 3, 2008.
- Phoenix Heat Island, Channel 12 NBC News (Melissa Gonzalo reporting), June 23, 2008.
- High Temperatures in Phoenix, Channel 12 News (Veronica Sanchez reporting), May 19, 2008.
- Urban Heat Island Project with KPNX, Channel 12 News (Two separate newscasts, Jarrid Sebasta Reporting), April 4, 2008.
- Urban Heat Island of Phoenix, Channel 5 (CBS) News (three separate newscasts, Marcy Valenzuela reporting), May 15, 2007.
- Tutela Ambiente (Rete Oro – TG, April 23, 2007).
- ATMOSPHERA Project in Phoenix (Italian National TV), April 23, 2007
- Infrastructure Reconstruction Following Sumatra Tsunami, CTV Calgary (10/21/2005)
- Tsunamis: An Anatomy of a Disaster, BBC Horizon Program (commentator and consultant, Aired on March 1, 2005, 61 million viewers around the world)
- Tsunami Surveys in Asia- Channel 15 (ABC) News Interview with Lisa Fletcher (01/23/05)
- International Tsunami Team- Channel 12 (NBC) News Interview with Tram Mai (01/18/05)
- Tsunami in Asia- Channel 15 (ABC) News Interview with Lisa Fletcher (01/02/05)
- Tsunami in Asia- Channel 15 (ABC) News (12/29/04)
- Indonesian Quake- Channel 12 (NBC) News at 5 (12/28/04)
- Fires in California- Channel 15 (ABC) News (10/14/03)
- Air Pollution research at ASU- Channel 8 (KAET/PBS) 30 minutes (May 2002 and re-run May 2003)
- Following the Phoenix Pollution Plume- Channel 15 (ABC) News (01/15/98)
- Pollution in Phoenix- Channel 12 (NBC) News (01/14/98)
- Explosive Mines- Channel 3 News (12/22/97)
- Flashfloods in Arizona- Channel 5 (CBS) News (05/13/97)

Radio

- Sri Lanka Tsunami and Coral Poaching (Science Show on ABC Radio National, Australia, March 31, 2007 with Robyn Williams: http://www.abc.net.au/rn/scienceshow/stories/2007/1882488.htm)
- Tsunami Data Points to the Value of Reefs, All Things Considered, National Public Radio, December 26, 2006 (Christopher Joyce Reporting).
- Tsunami Warning after the Tonga Quake – KTAR Radio, Phoenix (May 3, 2006)
- Effects of Corals Reefs on Tsunamis, Earthwatch Radio, Wisconsin (Elizabeth Katt-Reinders reporting), 2005 (aired over 100 stations worldwide)
- Effects of Corals Reefs on Tsunami Destruction – Swedish Broadcasting Corporation (Aug 17, 2005; Sven Börjesson Interviewing)
- Air Pollution in Phoenix – KAET Radio (Jan 23, 1998)

Arizona State University Press

- In the Spotlight – ASU Insight, Vol. 28 (3), August 3, 2007.
- Fernando finds human causes in Tsunami devastation, ASU Insight, May 2006.
- ASUs Fernando applies expertise to Tsunami research, ASU Insight, April 14, 2006.
- Reef mining made tsunami damage worse, Fernando says. ASU Insight, August 19, 2005.
- Advanced Tsunami Warning System is the Researcher's goal for SE Asia (Full Circle, Spring 2005)
- The Wave (ASU Research Magazine by Diane Boudreau, and the writer received an IABC (International Association of Business Communicators) Silver Quill during the Southern Regional Conference, Sep 24, Kansas City)
- Engineer Visits Homeland to Decipher Tsunami Secrets, (ASU Magazine, Spring 2005)
- Professor Returns to Sri Lanka in Quest for Tsunami Clues, (ASU insight, Summer 2005)
- Professor returns to Sri Lanka in quest for Tsunami clues (ASU Highlights, Summer 2005)
- Professor Aides in Tsunami Research (State Press, Jan 23 2005)
- Sri Lankan Reconstruction Moving Swiftly (State Press, Jan 18, 2005)
- Quest for information leads Fernando back to Sri Lanka (ASU Insight, Jan 14, 2005)
- Research Shows Tsunami Destructive path in Sri Lanka (ASU Insight, June 24, 2005)
- The Wave, ASU Research Magazine (Spring 2005 Issue)
- CEAS Researchers Help Determine Ozone Violation Boundaries for the State of Arizona (Full Circle, Spring 2003)
- NASA satellites help scientists sniff out pollution (ASU Insight, December 14, Front page).
- ASU Researchers Get Cleaner Air-Pollution Picture (The State Press, January 16th, 2008, page 3).
- In the News, Joe Fernando recounts his conclusions....(ASU Insight, January 18, 2008)
- ASU Model to Help Fix Nuclear Plant Problems (State Press, March 17, 2008, page 5).

University of Notre Dame Press

- Professors Explore Technology's impact, Observer, October 13th, 2010. http://www.ndsmcobserver.com/news/professors-explore-technology-s-impact-1.1686908

- Friedman to address recent book at Forum's signature event http://www.ndsmcobserver.com/news/friedman-to-address-recent-book-at-forum-s-signature-event-1.1742176
- New paper describes how weather affects the scale of urban noise pollution http://newsinfo.nd.edu/news/22057-new-paper-describes-how-weather-affects-the-scale/
- Fernando plays key role in NATO program on climate change and national security of-urban-noise-pollution/ http://newsinfo.nd.edu/news/22056-fernando-plays-key-role-in-nato-program-on-climate-change-and-national-security/
- Engineering Professors Receive MURI grants, August 2011 http://newsinfo.nd.edu/news/22131-engineering-professors-receive-muri-grants/
- Course lays ground for new minor, Observer, August 26th, 2011. http://www.ndsmcobserver.com/news/course-lays-ground-for-new-minor-1.2566051
- Walling off the Noise, Autumn Notre Dame Magazine, http://magazine.nd.edu/news/26002-walling-off-noise/
- Answers Blowing in the Wind, Notre Dame Magazine, Spring 2014, http://magazine.nd.edu/news/44891/
- Fernando to Receive an Honorary Doctorate from Grenoble, http://engineering.nd.edu/news-publications/pressreleases/fernando-to-receive-honorary-doctorate-from-grenoble
- Green Lab Spotlight: Environmental Fluid Dynamics Group, Notre Dame Sustainability News
- Blowing in the Right Direction: Notre Dame Professor Wins Department of Energy Funding as Part of International Consortium on Wind Energy Forecasting http://research.nd.edu/news/55231-blowing-in-the-right-direction-notre-dame-professor-wins-department-of-energy-funding-as-part-of-international-consortium-on-wind-energy-forecasting/.
- Engineering Faculty Receive DURIP Grants Totaling More than $1.8 Million - https://engineering.nd.edu/news-publications/pressreleases/engineering-faculty-receive-durip-grants-totaling-more-than-1.8-million
- Fernando to receive a honorary degree.- https://engineering.nd.edu/news-publications/pressreleases/fernando-to-receive-honorary-degree-from-university-of-dundee
- Cooling down Chicago: How green and cool roofs could impact urban climate http://news.nd.edu/news/67500-cooling-down-chicago-how-green-and-cool-roofs-could-impact-urban-climate/.
- Fernando Honored for Academic Excellence and Commitment to Common Good - https://engineering.nd.edu/news-publications/engineering-newswire/fernando-honored-for-academic-excellence-and-commitment-to-common-good (Office of the Provost, November 8, 2016)
- Notre Dame Researchers focus their attention on the understudied Indian Ocean, http://ceees.nd.edu/stories/our-stories/notre-dame-researchers-focus-their-attention-on-the-understudied-indian-ocean, March 02, 2017.
- Perdigão: Capturing the complexities of mountain winds (Notre Dame Newswire); https://research.nd.edu/news/perdigao-capturing-the-complexities-of-mountain-winds/
- Researchers receive $2.9 million for 5-year monsoon study (Notre Dame Newswire) https://news.nd.edu/news/researchers-receive-29-million-for-5-year-monsoon-study/

- Mysteries of Indian monsoon probed in Bay of Bengal https://ceees.nd.edu/news/mysteries-of-indian-monsoon-probed-in-bay-of-bengal
- Clearing up predictions, https://www.nd.edu/stories/clearing-up-predictions/ (Notre Dame website lead story, October 30, 2018.
- #AeroMechND faculty members Kenneth Christensen and Harindra Joseph Fernando are members of a consortium proposing an Energy-Water Corridor along the US-Mexico border to promote economic growth, innovation and prosperity.
- Notre Dame engineers part of consortium proposing US-Mexico 'energy-water corridor' in lieu of border wall, https://news.nd.edu/news/notre-dame-engineers-part-of-consortium-proposing-us-mexico-energy-water-corridor-in-lieu-of-border-wall/
- Study aims to improve capturing wind power for energy production by Jessica Sieff, https://news.nd.edu/news/study-aims-to-improve-capturing-wind-power-for-energy-production/ May 16, 2019.
- An Oasis at the Border, Notre Dame Magazine, Summer 2019 (p.13). https://research.nd.edu/news/notre-dame-researchers-receive-department-of-defense-research-equipment-awards/ (September 23, 2019)
- Marine fog comes under focus in new five-year study, by Jessica Seiff (ND): https://engineering.nd.edu/news/marine-fog-comes-under-focus-in-new-five-year-study/ and https://ceees.nd.edu/news/marine-fog-comes-under-focus-in-new-five-year-study/
- Harindra Joseph Fernando elected as Fellow of the American Geophysical Union, https://engineering.nd.edu/news/harindra-joseph-fernando-elected-as-american-geophysical-union-fellow/
- ND Engineering Research Video (at the Purdue-ND Football Game, September 18, 2021) https://notredame.box.com/s/n00y4od7i09olv0u78yn19imxz8tglfs
- Data from months in a fog paint a clearer picture for future forecasts by Nina Welding: https://news.nd.edu/news/data-from-months-in-a-fog-paint-a-clearer-picture-for-future-forecasts/ (University of Notre Dame News, October 27, 2021)

- Marine fog comes under focus in new five-year study, by Jessica Seiff (ND): https://engineering.nd.edu/news/marine-fog-comes-under-focus-in-new-five-year-study/ and https://ceees.nd.edu/news/marine-fog-comes-under-focus-in-new-five-year-study/
- Harindra Joseph Fernando elected as Fellow of the American Geophysical Union, https://engineering.nd.edu/news/harindra-joseph-fernando-elected-as-american-geophysical-union-fellow/ 2021
- ND Engineering Research Video (at the Purdue-ND Football Game, September 18, 2021) https://notredame.box.com/s/n00y4od7i09olv0u78yn19imxz8tglfs
- Data from months in a fog paint a clearer picture for future forecasts by Nina Welding: https://news.nd.edu/news/data-from-months-in-a-fog-paint-a-clearer-picture-for-future-forecasts/ (University of Notre Dame News, October 27, 2021)

- Professor's research provides a clearer understanding of fog by Simon Vogel, The Observer, Friday, November 5, 2021, https://ndsmcobserver.com/2021/11/professors-research-provides-a-clearer-understanding-of-fog/
- Designing climate-resilient cities in at-risk communities by Jessica Sieff https://news.nd.edu/news/designing-climate-resilient-cities-in-at-risk-communities/ (Same story appeared below)

[https://engineering.nd.edu/news/designing-climate-resilient-cities-in-at-risk-communities/; https://ceees.nd.edu/news/designing-climate-resilient-cities-in-at-risk-communities/]

- Professors research resilient farmlands, housing in coastal areas and cities (Notre Dame Observer by Caroline Collins); https://ndsmcobserver.com/2022/11/professors-research-resilient-farmlands-housing-in-coastal-areas-and-cities/

Arizona/Indiana/National/International Press

- Surf is up at ASU (Arizona Republic, February, 1998)
- ASU Enlisted in Effort to Battle Terror (East Valley Tribune, Monday May 19, 2003)
- Professor takes Expertise to Disaster Site (Arizona Republic, Front Page, Jan 10, 2005)
- Sri Lankans seek Tsunami Answers, lean on ASU Professor (Arizona Republic, Jan 12, 2005)
- Marines Tackle Sri Lankan Debris (Arizona Republic, Jan 13, 2005)
- The Man who Saved his Village (Arizona Republic, Jan , 2005)
- Sri Lanka: Coastal development helps tsunamic havoc-study. Reuters, January 9, 2005 (Maggie Fox, Health and Science Correspondent Reporting)
- ASU Professor Visits Tsunami Destruction (Arizona Republic,Jan 11, 2004)
- Youthful Marines Grow up Fast at disaster (Jan 15, 2005)
- Disaster in Asia Reverberates Here, (Arizona Republic, Dec 30, 2005)
- East Valley Friends, Relatives feel Impact of Asian Tragedy (Arizona Republic, Dec 31, 2004)
- Scientist Share Information on Tsunami (Arizona Republic Jan, 16, 2005)
- Republic Joins ASU Professor in Sri Lanka (Arizona Republic, Jan 12, 2005)
- Scientists to study whet a part of Sri Lanka was spared (Knight Rider, Jan 6, 2005, by Seth Bornstein) – also appeared in Centre Daily Times, Tallahassee Democrat, Myrtle Beach Sun-News, Lexington Herald-Leader
- Rushed Reporter arrived in Sri Lanka (Chandler Republic, Jan 12, 2005)
- Tsunami Scientists Hear Stories (Arizona Republic, Jan 21, 2005)
- ASU Professor Joins the Tsunami Studies (Arizona Republic, February 14th, 2005)
- Seeking answers, hope amid site of devastation (Jan. 9, 2005) www.azcentral.com/specials/special11/articles/0107asuteam09.html
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