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CURRICULUM VITAE

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ADVANCED EDUCATION:

Ph.D., Engineering Science, Brown University, 1980.

M.S., Engineering Science, Brown University, 1979.

B.A.(honors) Engineering Science and Economics, Oxford University, England, 1977.

MBA (unfinished, 27 credits) University of Delaware, 1982-86.

PERSONAL INFORMATION:

Born on February 13, 1955, health excellent, married to Maria Laura (nee Garcia Silva) three children (ages 23, 19 and 14. Other activities and hobbies: master stained-glass maker, sailing, medieval and classical history.

PROFESSIONAL EXPERIENCE:

A. Permanent positions

2011-present, Professor and W. A. Tex Moncrief Chair of Engineering, Texas Christian University, Fort Worth.

2007- 2011, Professor and Chair, Mechanical Engineering. Also Robert F. McDermott Chair in Engineering, University of Texas at San Antonio.

2009-2011, Founding director of the NSF Center for Simulation, Visualization and Real-Time

Computing (SiViRT) UTSA.

2006-2007 Professor and Founding Chair, Department of Mechanical and Energy Engineering, University of North Texas.

2002-2007, Director, Southcentral Research Center (SCRC) of the National Institute for Global Environmental Change (NIGEC) at Tulane University.

1992-2003, Associate Dean for Graduate Studies and Research, School of Engineering, Tulane University.

1990-1992, Professor and Head, Department of Mechanical Engineering, Tulane University.

1990-2006 Professor, Mechanical Engineering, Tulane University.¹

1985-1990, Associate Professor, Mechanical Engineering, Univ. of Delaware.

November 1985- January 1987, Acting Chairman, Mechanical Engineering, Univ. of Delaware.

1980-1985, Assistant Professor, Mechanical and Aerospace Engineering, Univ. of Delaware.

1977 - 1980 Research Assistant, Brown University.

1978 - 1980 Supplementary Teaching Assistant, Brown University.

B. Short-term and sabbatical appointments:

July-August 2002, Visiting Professor at the Ecole Superior de Physique et Chimie Industrielles, Paris, France.

September-December 1997, Visiting Professor, Aristoteleion University, Thessaloniki, Greece.

July-August 1997, Visiting Professor, Université Claude Bernard de Lyon, France.

July-August 1995, Chercheur du Centre National de la Recherche Scientifique (CNRS), Paris, France.

June-July 1994, Chercheur du Centre National de la Recherche Scientifique (CNRS), Paris, France.

September 1989 - January 1990, Visiting Professor at the Escuela Tecnica Superior de los Ingenieros Industriales, Madrid, Spain..

September 1989 - January 1990, Visiting Professor at the Department of Applied Mathematics, Complutenses University, Madrid, Spain.

September 1989 - December 1989, Director – “Semester Program Abroad, Madrid”, University of Delaware.

July-August 1989, Chercheur Associé du Centre National de la Recherche Scientifique (CNRS), Paris, France.

January 1987 - July 1987, Chercheur Associé du Centre National de la Recherche Scientifique (CNRS), Paris, France.

Summers 1975, 1976 Esso Petroleum Co., (Exxon) Thessaloniki, Greece.

HONORS AND AWARDS:

A. Significant

W. A. Tex Moncrief Chair of Engineering, Texas Christian University, 2011.

Robert F. McDermott Distinguished Chair in Engineering, 2009-2011.

ASME Fellow, 2004.

Outstanding Researcher Award, Tulane University, 2003.

Freeman Scholar Award, ASME, 2002.

Leo S. Weil Professorship, Tulane University, 1998-2007.

Senior Fulbright Fellow, Fall 1997.

Lee H. Johnson, Excellence in Teaching Award,” Society of Tulane Engineers, 1995.

¹ The Department of Mechanical Engineering at Tulane was eliminated following the hurricane Katrina and the reorganization of the University.

ASEE, Centennial Award for Exceptional Contributions to the Society and the Profession of Engineering, 1993.

M.A. Degree (honoris causa) Oxford University, England 1983.

Casberg Scholarship, St. John's College, Oxford University, England, 1975-77

B. Others

ASME Distinguished Service Award, 2007.

ASME Distinguished Service Award as FED chair, 2006.

ASME/pi-tau-sigma, Excellence in Teaching Award, Tulane University, 2004.

Lecturer at the von Karman Institute for Fluid Dynamics, Brussels, Belgium, 2003.

ASME/pi-tau-sigma, Excellence in Teaching Award, Tulane University, 2001.

Fellowship of the French Ministry of Research and Technology (June-July 1995) "...for outstanding researchers of international recognition."

ASME, Certificate of Appreciation for Services to the Society, 1992.

ASME/pi-tau-sigma, Excellence in Teaching Award, Tulane University, 1991.

Elected to the Outstanding Young Men of America, 1988.

Fellowship of the French Ministry of Research and Technology (July-August 1989) "...for outstanding researchers of international recognition."

Schillizzi Scholar, St. John's College Oxford, 1973-77 (awarded to a student from Northern Greece for studies at Sevenoaks School and Oxford University).

Listed in Who's Who in the world, Who's Who in America, Who's Who in American Men and Women in Science, Who's Who's in Engineering, Who's Who among Greek-Americans.

EDITORIAL ACTIVITIES (Journals):

Editor: *Journal of Non-Equilibrium Thermodynamics*, 2009 –present.

Member of the Editorial Board: *Journal of Non-Equilibrium Thermodynamics*, 1997-2008.

Associate Editor: *International Journal of Exergy*, 2003-present.

Member of the Honorary Editorial Board: *Archives of Thermodynamics*, 1997-present.

Member of the Editorial Board: the *Open Journal of Mechanics*, 2006-present.

Member of the Editorial Board: *the Open Journal of Thermodynamics*, 2006-present.

Associate Editor: *Far East Journal of Applied Mathematics*, 2004-present.

Guest editor: *Powder Technology-An International Journal*, two special issues on selected papers from the 4th International Conference of Multiphase Flows, volume 125, issues 2-3 pp. 103-317.

Guest editor (with N. Thomas and Y. Matsumoto): *Experimental Fluid and Thermal Science*, special issue on selected papers from the 4th International Conference of Multiphase Flows, volume 26, pp. 593-869.

Guest editor: *Intern. Journal of Multiphase Flow*, papers from the 4th International Conference of Multiphase Flows published in two special issues, vol. 28 pp. 1823-2016.

Associate Technical Editor: ASME, *Journal of Fluids Engineering* (1988-94).

Associate Editor: *International Journal of Energy Systems* (1985-93).

OTHER PROFESSIONAL ACTIVITIES:

Member of the International Organizing Committee, International Conference on Multiphase Flow, ICMF-2010.

Chair of the Organizing Committee, 12th Intern. Gas-Solids Symposium, ASME-FED annual meeting, August 2009.

Chair, Freeman Scholar Awards Committee, ASME, (2009-2011).

Member of the Organizing Committee, APS-DFD Annual Meeting – 2008 (in charge of the

“Gallery of Fluids Motion”).

Chair of the Faculty Organizing Committee, *North American Energy Summit*, San Antonio, 2008.
Senior Advisory Board, American Society of Mechanical Engineers-Fluids Engineering Division, 2008-2013.

Past Chair of the Executive Committee, American Society of Mechanical Engineers-Fluids Engineering Division, 2006-2007.

Freeman Scholar Awards Committee, ASME, (term 2007-2013).

Chair of the Executive Committee, American Society of Mechanical Engineers-Fluids Engineering Division, (term: April 2005-November 2006).

Member of the Executive Committee, American Society of Mechanical Engineers-Fluids Engineering Division, (term 2002-2007).

Vice-Chair (elected) of the International Organizing Committee of the 5th International Conference of Multiphase Flows, Yokohama, Japan-2004.

Chair of the International Organizing Committee and General Conference Chair, 4th International Conference of Multiphase Flows – New Orleans, LA, 2001.

Corresponding Member of the International Information Center for Multiphase Flow (one of four USA members), 1999-present.

Elected to the Board of Governors for the International Conference of Multiphase Flow in June 1998 (1988-2004 as one of four delegates from North and South America)

Newcomb Fellow, Tulane University 1998-2006.

Founder and Director, Program of International Student Exchanges with University Claude Bernard of Lyon, 1994-present.

Vice Chairman (1994-96) and Chairman (1996-98) of the ASME Multiphase Flow Technical Committee.

Member of ASME-FED Honors Committee (1999-2002).

Member of Louisiana Committee on Rapid Modes of Transportation, 1999-2001 (appointed by the Governor of the State).

Co-Chairman, 32nd Society of Engineering Science Technical Meeting, November 1995.

Chairman, 1992, ASEE Southern Region, annual meeting.

Vice-President (1991-92) and President (1992-93), ASEE, Southern Region.

Registered Professional Engineering in Louisiana since 1991 and Texas since 2008.

One Patent, U.S. # 5,030,390

Chair or member of organizing committee of twenty eight (28) ASME Symposia and three A.I.Ch.E. Symposia in the area of Multiphase Flow. Of these, the Symposium on Gas-Particle Flows has been organized biennially since 1986 and attracts more than 200 attendees.

Participated in several NSF, DOE and DOD proposal review panels.

LANGUAGES:

Fluent English and Greek, conversational and reading knowledge of Spanish and French, reading knowledge of German, Italian and ancient Greek.

RESEARCH INTERESTS:

Advanced Energy Systems, Energy Conversion and Conservation, Geothermal Energy, Environmental Fluid Dynamics, Multiphase Flow, Particulate Flow, HVAC, Sediment Flow, Separation Processes, Nuclear Waste Materials Handling.

PROFESSIONAL ASSOCIATIONS:

- American Society of Mechanical Engineers (ASME),
- American Physical Society (APS),
- American Society of Heat Refrigeration and Air-conditioning Engineers (ASHRAE),
American Society of Engineering Education (ASEE),
- Society of Hispanic Professional Engineers (SHPE, founding advisor of the UNT student chapter, chapter advisor at UTSA)
- Greek Technical Chamber,
- Oxford Union Society,
- Louisiana Society of Professional Engineers,
- Sigma Xi,
- Tau Beta Pi,
- Gamma Sigma Sigma.

UNIVERSITY SERVICE (only major committees):

A. At the University of Texas at San Antonio:

University Leadership Council (2009-2010 and 2010-2011)

College of Engineering Executive Committee (2007-2011).

Chairs Council (2007-2011).

Chairs compensation ad hoc committee (2008-2009).

Chair, Faculty Organizing Committee, *North American Energy Summit*, 2007-08.

B. At the University of North Texas:

College of Engineering Executive Committee (2006-2007).

Chairs Council (as the engineering representative, 2006-2007).

Chairs compensation committee (2006-2007).

Provosts' ad hoc committee on graduate student recruitment and retention (2006).

Search committee for Associate Dean for External Affairs (2006).

Search Committee for chair of ETEC Department (2006).

C. At Tulane University

School of Engineering Promotion and Tenure Committee (chair 2004-2006).

School of Engineering, Executive Committee, 1990-2003.

School of Engineering, Research and Graduate Studies Committee, (chair) 1992-2003.

Engineering-Business Liaison Committee (co-chair) 2000-2005.

Search Committee for the Dean of the School of Public Health and Tropical Medicine (2002).

School of Engineering Research Council (chair) 1998-2000.

School of Engineering, Grievance Committee, 1990-2003.

Tulane-Xavier Center for Bioenvironmental Research (member of faculty advisory board) 1998-2006.

School of Engineering, International Studies Committee, (chair) 1996-2001.

University Committee on Research (member) 1997-2000.

University Committee on Short-term Overseas Programs (chair) 1992-97.

University Provost Search Committee 1996.

University ad hoc Committee on the re-training of Military Personnel (chair) 1993-94.

University ad hoc Committee on Materials Science and Engineering (chair) 1992-94.

University Subcommittee on Athletics Admissions 1994-95.

University Committee on Educational Policy, 1990-1993.

D. At the University of Delaware

Committee on Committees 1983-1985.

Chair, search committee for the faculty searches in 1983, 1986, 1988 and 1989.

Dean's Advisory Committee, 1985-87.

Committee on Programs Abroad, 1987-1989.

PUBLICATIONS

A. Books

1. Michaelides, E. E., *Particles, Bubbles and Drops – Their Motion, Heat and Mass Transfer*, World Scientific Publishers, New Jersey, 2006.
2. Michaelides, E. E., *Alternative Energy Sources*, (Springer, in print, 2012).

B. Articles in Refereed Journals or Books

1. Michaelides, E. E., "Non-Conventional Energy Sources for Greece", *Economicos* (In Greek), May 1977 (special edition on the energy problems).
2. Michaelides, E. E., "Priorities in Energy Conservation", *Economicos* (In Greek), January 1979.
3. Michaelides, E. E., "Separation of Non-condensables in Geothermal Installations by Means of Primary Flashing", *Trans. Geothermal Resources Council*, 4, p. 515, 1980.
4. Michaelides, E. E., "The Energy Crisis", *Economicos* (In Greek), January 1981.
5. Michaelides, E. E., "Thermodynamic Properties of Geothermal Fluids", *Trans. Geoth. Resources Council*, 5, p. 361, 1981.
6. Michaelides, E. E., "The Effect of Magnus Force on the Deposition of the Geothermal Wells", *J. of Energy Resources Technology*, 103, p. 352, 1981.
7. Michaelides, E. E., "Some Remarks on the Energy Problem", in *"Energy Alternatives for Greece"*, (ed. K. Stefanakos), p. 239, Krikos, N.Y., 1981.
8. Michaelides, E. E., "The Rejection of Waste Heat in Geothermal Power Plants", *Geothermal Energy*, 10, 2, p. 14, 1982.
9. Michaelides, E. E., and F. Fakhre-Shafaie, "A New Binary-Flashing Plant for the Production of Electricity," *Trans. Geothermal Res. Council*, 5, p. 369, 1982.
10. Michaelides, E. E., "The Influence of Noncondensable Gases on the Net Work Produced by the Geothermal Steam Power Plants", *Geothermics*, 11, 3, p. 163, 1982.
11. Michaelides, E. E., "A Novel Approach for the Determination of Critical Two- Phase Flow", in *"The Advances in Two-Phase Flows and Heat Transfer"*, (ed. S. Kakac and M. Ishii) Martinus, Nijhoff, Boston, p. 465, 1983.
12. Michaelides, E. E., "Entropy Production in Geothermal Power Plants", in *"Alternative Energy Sources III"*, ed. T.N. Veziroglu, vol. 4, p. 487, Hemisphere, 1983.

13. Michaelides, E. E., and Parikh, S., "The Prediction of Critical Mass Flux by the Use of Fanno Lines", *Nuclear Engin. and Design*, 75, p. 117, 1983.
14. Zissis, K. L. and Michaelides, E. E., "The Velocity of Sound in Two-Phase Mixtures," *Int. J. of Heat and Fluid Flow*, 4, p. 79, 1983.
15. Michaelides, E. E., "The Utilization Potential of Geothermal Energy in Developing Countries", *Renewable Sources of Energy*, 1, #3, p. 181, 1983.
16. Michaelides, E. E., "A Model for the Flow of Solid Particles in Gases," *Int. J. of Multiphase Flow*, p. 61, 10, 1984.
17. Michaelides, E. E., "The Second Law of Thermodynamics As Applied to the Energy Conversion Processes", *Int. J. of Energy Research*, 8, 3 p. 241, 1984.
18. Michaelides, E. E., and L. K. Farmer, "The Application of Geothermal Energy in the Delaware Food Industry" in *Alternative Energy Sources IV*, ed. T.N. Veziroglu, 4, p. 373, Ann Arbor, 1984.
19. Michaelides, E. E., and Martin, J. "A Critical Review of Frictional Pressure Drop Correlation for Gas-Solid Flows" in *Multiphase Flow and Heat Transfer III*, eds Veziroglu and Bergles, Elsevier, Amsterdam, 1984.
20. Scott, G. J. and Michaelides, E. E., "A Binary-Flashing Geothermal Power Plant," *Energy, The International Journal*, 9, p. 323, 1984.
21. Michaelides, E. E., "Exergy and the Conversion of Energy", *Int. J. of Mech. Eng. Educ.*, 12, p. 65, 1984.
22. Farmer, L. K. and Michaelides, E. E., "A Model for Slurry Flows Based on the Equations of Turbulence," *J. of Pipelines*, 4, p. 185, 1984. Also in "Liquid- Solid Flows and Erosion Wear in Industrial Equipment", ed. M. C. Roco, FED-13, ASME, 1984.
23. Michaelides, E. E., "A Model for the Prediction of Time-Average Quantities in Fluid- Solid Mixtures", *Archives of Mechanics*, 36, p. 393, 1984.
24. Michaelides, E. E., and Fakhre-Shafaie, F., "A Numerical Study of Geothermal Well Flow with Salts and Non-Condensables Present," *ASME, J. of Energy Resources Technology*, 108, p. 140, 1986.
25. Chang, Y., Michaelides, E. E., and Bosworth, R. J., "Heat Transfer Coefficients and Friction Factors for Banks of Flexible Vibrating Tubes in Cross-Flow" in *Heat Transfer, 1986* 6, p. 2757, 1986.
26. Michaelides, E. E., "Heat Transfer in Particulate Flows" *Intern. J. of Heat and Mass Transfer*, 29, p. 256, 1986.
27. Michaelides, E. E., and Lai, F. C., "Pressure Loss Through Return Bends in Air-Solid

- Flows," *Int. Journal of Multiphase Flows*, 13, p. 269, 1987.
28. Michaelides, E. E. and Roy, I., "An Evaluation of Several Correlations Used For the Prediction of Pressure Drop in Particulate Flows," *Int. Journal of Multiphase Flows*, 13, p. 433, 1987.
 29. Michaelides, E. E., "Motion of Particles in Gases: Average Velocity and Pressure Loss", *J. Fluids Engineering*, 109, p. 172, 1987.
 30. Westman, M.A., Michaelides, E. E., and Thompson, F.A., "Pressure Losses Due to Bends in Pneumatic Conveying," *J. of Pipelines*, 7, p. 15, 1987.
 31. Michaelides, E. E., and Lasek, A. "Fluid-Solids Flow with Thermal and Hydrodynamic Non-Equilibrium," *Int. J. Heat and Mass Transfer*, 30, p. 2263, 1987.
 32. Michaelides, E. E., "On the Drag Coefficient and the Correct Integration of the Equation of Motion of Particles in Gases", *J. Fluids Engin.* 110, p. 339, 1988.
 33. Schwartz, L.W. and Michaelides, E. E., "Gravity Flow of a Viscous Liquid down a Slope with Injection," *Physics of Fluids*, vol. 31, p. 2739, 1988.
 34. Michaelides, E. E. and Roy, I., "An Evaluation of Several Correlations used for the Prediction of Pressure Drop in Particulate Flows", *J. of Powder and Bulk Solids Techn.*, 12, pp. 15-20, 1988.
 35. Arefmanesh, A. and Michaelides, E. E., "Pressure Changes at a Sudden Expansion in Gas-Solid Flows," *Particulate Science and Technology*, 6, pp. 333-341, 1988.
 36. Michaelides, E. E., and Hearn, J.R., "Particle Flow Simulation and Efficiency of Electrostatic Precipitators," *Int. J. of Energy Systems*, 9, p. 162, 1989.
 37. Michaelides, E. E., "The Role of Vapor in Volcanic Activity" *Int. J. of Volcanology and Geothermal Research*, vol. 37, p. 251, 1989.
 38. Kumar, S, Nikitopoulos, D. E. and Michaelides, E. E., "The Effect of Bubbles on the Turbulence of a Bubbly Jet," *Experiments in Fluids*, vol. 7, p. 487, 1989.
 39. Michaelides, E. E., "Entropy, Order and Disorder" *Int. J. of Mech. Eng. Education*, vol. 17, p. 157, 1989.
 40. Chang, Y., Beris, A. N. and Michaelides, E. E., "A Numerical Study of Heat and Momentum Transfer for Tube Bundles in Cross-Flow," *Int. J. for Numerical Methods in Fluids*, 7, p. 543, 1989.
 41. Chang, Y., Beris, A. N. and Michaelides, E. E., "A Numerical Study of Heat and Momentum Transfer for Flexible Tube Bundles in Cross Flow," *Int. J. of Heat and Mass Transfer*, 32, p. 2027, 1989.
 42. Arefmanesh, A., Advani S.G. and Michaelides, E. E., "A Numerical Study of Bubble Growth

- during Low Pressure Structural Foam Molding Process, *Polymer and Engineering Science*, 30, pp. 1330, 1990.
43. Michaelides, E. E., and Lasek, A., "Particulate Flow with Sublimation or Evaporation and with Thermal and Hydrodynamic Non-Equilibrium," *Int. J. of Heat and Mass Transfer*, 34, p. 601, 1991.
 44. Scrivens, B. G., Thompson, F.M. and Michaelides, E. E., "Study of a Port Design for Silo Blenders," *J. of Engineering for Industry*, 113, p. 343, 1991.
 45. Michaelides, E. E., Liang, L., and Lasek, A., "The Effect of Turbulence on the Phase Change of Droplets and Particles under Non-equilibrium Conditions" *Int. J. of Heat and Mass Transfer*, 34, pp. 601-609, 1992.
 46. Arefmanesh, A., Advani S.G. and Michaelides, E. E., "An Accurate Numerical Solution for Mass Diffusion Induced Bubble Growth in Viscous Liquids Containing Limited Dissolved Gas", *Int. J. of Heat and Mass Transfer*, 35, p. 1711, 1992.
 47. Michaelides, E. E., "A Novel Way of computing the Basset Term in Unsteady Multiphase Flow Computations", *Phys. of Fluids*, A4, p. 1579, 1992.
 48. Cassidy, D. N, Scrivens, B.G, and Michaelides, E. E., "An Experimental Study on the Blending of Granular Materials", *Powder Technology*, 72, 1992.
 49. Yuan, Y. and Michaelides, E. E., "Turbulence Modulation in Particulate Flows - A Theoretical Approach", *Int. J. Of Multiphase Flows*, 18, p. 779, 1992.
 50. Li. L. and Michaelides, E. E., "The Magnitude of Basset Forces in unsteady Multiphase Flow Computations," *J. Fluids Engineering*, 114, p. 352, 1992.
 51. Ryder, J. K. and Michaelides, E. E., "The Influence of Seasonal and Daily Temperature Fluctuations on the Work Produced by Geothermal Power Plants," *Int. J. of Energy Systems*, 12, pp. 68-73, 1992.
 52. Yuan, Z. and Michaelides, E. E., "Binary-Flashing Geothermal Power Plants," *J. of Energy Resources Techn.*, vol. 115, pp. 232-237, 1993.
 53. Michaelides, E. E., "Measurement of the Latent Heat of Vaporization of a Liquid," in *Experiments in Heat Transfer and Thermodynamics*, ed. R.A. Granger, Cambridge Univ. Press, 1994.
 54. Vojir D. J. and Michaelides, E. E., "Effect of the History Term on the Motion of Rigid Spheres in a Viscous Fluid," *Int. J. Multiphase Flows*, vol. 20, pp. 547-556, 1994.
 55. Michaelides, E. E., and Feng, Z.G., "Heat Transfer from a Sphere in a Non-Uniform Flow and Temperature Field," *Int. J. Heat and Mass Transfer*, vol. 37, p. 2069, 1994.
 56. Nikitopoulos, D.E. and Michaelides, E. E., "A Phenomenological Model for dispersed Bubbly Flow in Pipes," *A.I.Ch.E. Journal*, vol. 41, p. 12, 1995.

57. Michaelides, E. E., and Feng, Z.G. "The Equation of Motion of a Small Viscous Sphere in an Unsteady Flow with Interface Slip," *Int. J. Multiphase Flows*, vol. 21, p. 315, 1995.
58. Feng, Z.G and Michaelides, E. E., "The Symbolic Operator Representation applied to the Derivation of Solutions of Unsteady Heat Diffusion Problems," *Intern. Communications in Heat and Mass Transfer*, vol. 22, p. 859, 1995.
59. Michaelides, E. E. and Feng, Z.G., "Unsteady Heat Transfer from a Sphere at Small Peclet Numbers," *J. of Fluids Engin.*, vol. 118, p. 96, 1996.
60. Xu, Q. and Michaelides, E. E., "A Numerical study of the Flow over Ellipsoidal Objects inside a cylindrical Tube," *Int. J. of Numerical Methods in Fluids*, vol. 22, p. 1075, 1996.
61. Feng, Z.G. Michaelides, E. E., and Scibilia, M.-F. "The Energy Equation of a Sphere in an Unsteady and Non-Uniform Temperature Field," *Revue Generale de Thermique*, vol. 35, p. 5, 1996.
62. Seffal, R. and Michaelides, E. E., "Similarity Solutions for a Turbulent Round Jet," *J. Fluids Engineering*, vol. 118, p. 618, 1996.
63. Michaelides, E. E. and Feng, Z.-G., "Analogies between the Transient Momentum and Energy Equations of Particles," *Progr. in Energy and Combustion Science*, vol. 22, p. 147, 1996.
64. Feng, Z.G. and Michaelides, E. E., "The Use of Modified Green's Functions in Unsteady Heat Transfer," *Int. J. Heat Mass Transfer*, vol., 40, p. 2997, 1997.
65. Feng, Z.G. and Michaelides, E. E., "Unsteady Heat and Mass Transfer from a Spheroid," *A.I.Ch.E. Journal*, vol. 43, p.609, 1997.
66. Bilicki, Z. and Michaelides, E. E., "Thermodynamic Non-equilibrium in Liquid-Vapor Flows," *J. of Non-Equilibrium Thermodynamics*, vol. 22, p. 99, 1997.
67. Din X.Z. and Michaelides, E. E., "Calculation Of Long-Range Interactions In Molecular Dynamics And Monte Carlo Simulations," *J. Physical Chemistry A*, vol. 101, p. 4322,1997.
68. Michaelides, E. E., "Review-The transient Equation of Motion for Particles, Bubbles and Droplets," *J. Fluids Engin.*, vol. 119, p. 233, 1997.
69. Din X.Z. and Michaelides, E. E., "Kinetic Theory and Molecular Dynamics Simulations of Microscopic Flows," *Physics of Fluids*, vol. 9, p. 3015, 1997.
70. Kwidzinski, R., Bilicki, Z. and Michaelides, E. E., "Effect of Mechanical Non-Equilibrium on Dissipation in condensing Bubbly Flow," *Archives of Thermodynamics*, vol. 17, p. 25, 1997.
71. Din X.Z. and Michaelides, E. E., "Transport Processes of Water and Protons through Micro-Pores," *A.I.Ch.E. Journal*,_vol. 44, p. 35, 1998.

72. Feng, Z.G. and Michaelides, E. E., "Motion of a Permeable Sphere at Finite but Small Reynolds Numbers," *Phys. of Fluids*, vol. 10, p.1375, 1998.
73. Feng, Z.-G. and Michaelides, E. E. "Transient Heat Transfer from a Particle with Arbitrary Shape and Motion," *J. Heat Transfer*, vol. 120, p. 674, 1998.
74. Bilicki, Z., Kardas, D. and Michaelides, E. E., "Relaxation Models for Wave Phenomena in Liquid-Vapor Bubble flow in Channels," *J. Fluids Engineering*, vol. 120, p. 369, 1999.
75. Feng, Z.G. and Michaelides, E. E., "Unsteady Mass Transport from a Sphere immersed in a porous Medium at finite Peclet Numbers," *Int. J. of Heat and Mass Transf.*, vol. 42, p. 536, 1999.
76. Munoz, J. R and Michaelides, E. E. "The Impact of the Model of the Environment in Exergy Analyses," *J. of Energy Resources Technology*, pp. 268-276, 1999.
77. Feng, Z.-G. and Michaelides, E. E., "A Numerical study on the Transient Heat Transfer from a Sphere at high Reynolds and Peclet Numbers," *Int. J. of Heat and Mass Transf.*, vol. 43, p. 219, 2000.
78. Feng, Z.-G. and Michaelides, E. E., "Mass and heat transfer from fluid spheres at low Reynolds numbers," *Powder Technology*, vol. 112, pp. 63-69, 2000.
79. Feng, Z.-G. and Michaelides, E. E., "Drag coefficients of viscous spheres at intermediate and high Reynolds numbers," *J. Fluids Eng.*, vol. 123, pp. 841-849, 2001.
80. Feng, Z-G. and Michaelides, E. E., "Heat and mass transfer coefficients of viscous spheres," *Int. J. Heat and Mass Transf.* vol. 44, pp. 4445-4454, 2001.
81. Tsega, Y., Michaelides, E. E. and Eschenazi, E. V., "Particle dynamics and mixing in the frequency driven 'Kelvin cat eyes' flow," *Chaos*, vol. 11, pp. 351-358, 2001.
82. Feng, Z.-G. and Michaelides, E. E., "Inter-particle forces and lift on a particle attached to a solid boundary in suspension flow," *Physics of Fluids*, vol. 14, pp. 49-60, 2002.
83. Feng, Z.-G. and Michaelides, E. E., "Hydrodynamic Force on Spheres in Cylindrical and Prismatic Enclosures," *Int. J. Multiphase Flow*, vol. 28, pp. 479-496, 2002.
84. Feng, Z.-G. and Michaelides, E. E., "Fluid dynamics of a sphere in an arbitrary electric field," *Powder Technology.*, vol. 125, pp. 192-199, 2002.
85. Michaelides, E. E., "Analytical Expressions," in *Transport Processes in Bubbles, Drops and Particles*, eds. DeKee and Chhabra, Taylor Francis, New York, 2002.
86. Gay, M. and Michaelides, E. E., "Effect of the history term on the transient energy equation of a sphere," *Int. J. Heat Mass Transf.*, vol. 46, pp. 1575 - 1586, 2003.
87. Michaelides, E. E., "Freeman Scholar Paper - Hydrodynamic force and heat/mass transfer

- from particles, bubbles and drops,” *J. Fluids Eng.*, vol. 125, pp. 209-238, 2003.
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93. Feng, Z.-G., and Michaelides, E. E., “*Proteus*: – An efficient computational scheme for the simulation of dense particulate flows,” 5th World Congress on Particle Technology, Orlando, 2006.
94. Mao, S.-L., Patton, E. and Michaelides, E. E. “Large-Eddy simulation of the net ecosystem-atmosphere exchange of CO₂ in a canopy,” American Geophysical Union meeting, San Diego, 2006.
95. Kartushinsky, A., Michaelides, E. E. and Zaichik, L. The RANS, PDF & TBL simulations of turbulent gas-solid particle flow in vertical pipe (2006) ASME Joint U.S. - European Fluids Engineering Meeting (FEDSM2006), Miami 2006, Paper FEDSM2006-98036, pp. 1-13.
96. Michaelides, E. E., and Mirshams, R., “An Innovative Mechanical and Energy Engineering Curriculum,” ASEE Annual Conference, Hawaii, 2007.
97. Michaelides, E. E., and Mirshams, R., “Mechanical and Energy Engineering Department at UNT – An innovation to Engineering Education,” ASEE Gulf-Southwest section annual meeting, Padre Island, 2007.
98. (invited lecture) Feng Z. G. and Michaelides, E. E., “Inclusion of Heat/Mass Transfer Computations in DNS Studies for Particle Laden Flows,” IUTAM, Symposium, Istanbul, Turkey, June, 2007.
99. (invited lecture) Michaelides, E. E., “Analogies in the transient equation of motion and energy equation for particles, bubbles and drops,” Colloquium Jean Bataille, Lyons France, June 2007.
100. Feng, Z.-G. and Michaelides, E. E., “A Direct Numerical Simulation Method for the Study of Heat/Mass and Momentum Interactions in Particulate Flows,” 6th Int. Conf. on Multiphase Flow, Leipzig, Germany, July 2007.
101. Kartushinski, A., Michaelides, E. E., and Zaichick, L., Comparison of the Simulations of Turbulent Particulate Flow in Pipes Using the TBL, RANS and PDF Methods,” 6th Int. Conf. on Multiphase Flow, Leipzig, Germany, July 2007.
102. (invited lecture) Hussainov, M., Kartushuinski, A. Rudi, U., Shceglov, I., and Michaelides, E. E., Deposition of Fine Solid Particles in Laminar, Flat-Plate boundary Layers, Joint ASME-JSME Fluids Engineering Meeting, San Diego CA, July 2007.

103. Michaelides, E. E., "The Chernobyl accident and the transport of radionuclides released," ASME meeting, San Antonio, November, 2007.
104. Michaelides, E. E., "The accident in the Chernobyl power plant," SACCESS meeting, San Antonio, March 2008.
105. Michaelides, E. E. "Renewable energy sources and hydrogen as a solution to the energy challenge of the future," *Joint meeting of Canary Islands, San Antonio*, February 2008.
106. Michaelides, E. E. "Energy storage – The Hydrogen Economy" *North American Energy Summit*, San Antonio, May 2008.
107. Michaelides, E. E. and Davis, A.P. "Geothermal power extraction from abandoned oil wells in Texas," TREIA annual meeting, Austin TX, Nov. 2008.
108. Michaelides, E. E. and Davis, A.P., "Geothermal Power From Dry Wells" Clean Technology Conference and Exposition, Houston, TX, May 2009.
109. (invited lecture) Michaelides and Feng, Z.-G. "Application of the Immersed Boundary Method and Direct Numerical Simulation for the Heat Transfer from Particles," 12th international Symposium on Gas-Particle Flows," Veil CO, Aug. 2009.
110. Michaelides, E. E. "The future of geothermal energy – power plants and resources." Symposium on Geothermal Energy, San Antonio, TX, Sept. 2009.
111. (invited lecture) Michaelides, E. E. "The next generation of geothermal power plants," TREIA annual Conference, Austin TX, Nov. 2009.
112. Michaelides, E. E. "The DNS-IB method for particulate flow and heat transfer simulation," DOE contractors annual meeting, June 2009, Morgantown, West Virginia.
113. (invited lecture) Michaelides, E. E., "New Directions for Geothermal Energy," UT-System Workshop on Alternative Energy, Dallas, May 2010.
114. Roig, A. and Michaelides, E.E., "A re-interpretation of the Odar and Hamilton data on the history terms of the equation of motion," ICMF-2010, May 2010, Tampa, FL.
115. Davis, A., Michaelides, E. E., and Feng, Z.-G., "Particle Velocity near Vertical Boundaries – A Source of Uncertainty in Two-Fluid Models," ICMF-2010, May 2010, Tampa, FL.
116. Kartushinsky, A and Michaelides, E.E., "RANS Modeling of a Particulate Turbulent Downward Jet," ICMF-2010, May 2010, Tampa, FL.
117. (keynote lecture) Michaelides, E. E. and Feng, Z.-G., "Direct Numerical Simulations of Particulate Flows that Include Momentum, Heat and Mass Exchanges" ICMF-2010, May 2010, Tampa, FL.

118. Feng, Z.-G. and Michaelides, E. E., 2010, "Simulation Of The Particle-Wall Collisions In A Viscous Fluid Using A Resolved Discrete Particle Method," Proceedings of the ASME 3rd Joint US-European Fluids Engineering Summer Meeting, FEDSM-ICNMM 2010, August 1-5, 2010, Montreal, Canada.
119. Michaelides, E. E., "Geothermal Energy from Abandoned Oil and Gas Wells," International Workshop on Alternative Energy Sources, College Station, TX, January 2011.
120. Kartushinsky, A.I. , E.E. Michaelides, Y.A. Rudi, S.V. Tisler, I.N. Shcheglov, and A. Shablinskya, Two-Phase Boundary Layers, Euromech Colloquium on Dynamics of Non-spherical Particles in Fluid Turbulence, Udine, Italy, March 2011.
121. Feng, Z-G, Michaelides, E. E., and Mao, Shaolin, 2011, "A multilevel simulation approach to derive the slip boundary condition of the solid phase in two-fluid models," 64th Annual Meeting of the APS Division of Fluid Dynamics, Baltimore, Maryland.

D. Books and Proceedings Edited

1. "Fundamental Aspects of Gas-Liquid Flows", ASME December 1985.
2. "Fundamentals of Gas-Liquid Flows" (with M. P. Sharma), ASME, November 1988.
3. "Turbulence Modulation in Dispersed Multiphase Flows" (with D. E. Stock) ASME, 1989.
4. "Turbulence Modification in Two-Phase Flows" (with T. Fukano and A. Serizawa) ASME, 1991.
5. "Measurement and Modeling of Environmental Flows" (with Sherif, Davis, Stock and Khalighi, Celik and Kumar) ASME, November 1992.
6. "Gas-Solid Flows 1993" (with Stock, Reeks, Tsuji, Gautam and Jurewicz) ASME, June 1993.
7. "Liquid-Solid Flows-1994" (with Roco, Joseph and Khalighi) ASME, June 1994.
8. "Gas-Particle Flows," (with Stock, Reeks, Tsuji and Gautam) ASME-FED 228, August 1995.
9. "Heat Mass and Momentum Transfer in Environmental Flows" (with Sherif, Stock, Davis, Meroney, Peterson and Celik), ASME HTD-321, 1995.
10. "Proceedings of the Annual Meeting of the Society of Engineering Science," (with D. Hui) New Orleans, 1995.
11. "Gas-Particle Flows-1997" (with Stock, Reeks, and Tsuji) ASME-FED 145, June 1997.
12. "Liquid-Solid Flows-1997" (with Roco, Joseph and Khalighi) ASME, FED 148, June 1997.
13. "Gas-Particle Flows-1999" (with Stock and Tsuji) Published in CD_ROM ASME-FED, June 1999.

14. "Dispersed flows in combustion, incineration and propulsion systems," (with Nikitopoulos, Acharya and O'Hern) Proceedings of the ASME-FED, November 2000.
15. "Proceedings of the ICMF-2001" a collection of 539 papers from the 4th Int. Conference on Multiphase Flow, New Orleans, 2001 (in CD-ROM).

RESEARCH CONTRACTS AND GRANTS (P.I., unless listed otherwise, also funds rounded to the nearest thousand)

1. University of Delaware Research Foundation, "New models for Critical Two-Phase Flow", 1-81 to 6-82, \$8,000.
2. DOE, "Studies on alternative Cycles for Geothermal Power Plants," 5-81 to 5-84, \$96,500.
3. University of Delaware Research Foundation "Studies on Particulate Flows", 1-82 to 6-83, \$9,000.
4. DuPont "Research Studies on Pipe Fittings for Pneumatic Conveying" 9-81 to 3-88, (a series of five smaller grants with a total of \$160,000).
5. DuPont "Experimental Studies on Teflon Heat Exchangers" 1-84 to 6-87, \$170,000.
6. UNI-DEL Foundation "Research Equipment for Fluid Dynamics" (co-P.I. with Professor F.A. Kulacki as P.I. in 1984-85, then P.I. in 1985-88) 1-84 to -88 \$340,000.
7. University of Delaware Research Foundation "Particulate Transport in Electric Fields" 1-85 to 6-86 (Co-PI with Professor J. H. Davidson) \$11,500.
8. DuPont "Analytical and Numerical Studies on Teflon Heat Exchangers" 7-85 to 6-88, \$69,000.
9. State of Delaware/DOE "Applications of Teflon Heat Exchangers" 1-86 to 12-87 \$104,000.
10. DuPont "Mixing of Particulates in Silo-Blenders-Effect of Valves and Gates", 7-88 to 3-90, \$40,000.
11. Delaware Office for International Development, "Study in France, Travel Grant" 1988-1989, \$2,500.
12. NASA, "Particulate Flows related to Coastal Erosion Processes," 1991-1994, \$69,000.
13. NASA, "Establishment of Louisiana Space Consortium-LaSPACE", (co-P.I. in a team of eight Louisiana Scientists, P.I. Dr. Wefel), 1991-1995, total funding \$408,000 per year for four years.
14. Shell Foundation "Support for the Mechanical Engineering Department at Tulane," \$48,000 (16k per year for three years) 1990-1993.

15. NSF “Hydrodynamics of Particulate Flows through Membranes and Interphases” (Co- P.I. in a team of researchers from Tulane, UNO and LSU with P.I. Dr. Papadopoulos) 1992-1997, EEM’s expenditures total \$134,000.
16. LEQSF “Hydrodynamics of Particulate Flows through Membranes and Interphases” (Co- P.I. in a team of researchers from Tulane, UNO and LSU with P.I. Dr. Papadopoulos) 1992-1997, EEM’s expenditures total \$178,000.
17. LASPACE “Turbulence Modulation by Embedded Particles”, 1993-1994, \$5,000.
18. TRW “Support for Studies in Energy and the Environment”, 1993-1998, (a series of three smaller grants with a total of \$165,000).
19. NASA “Particulate Flows in Propulsion Systems” (Co-P.I. in a group from LSU, Xavier and Southern Universities with P.I. Dr. Acharya of LSU), 1994-2000, EEM’s expenditures total \$122,000.
20. LEQSF “Particulate Flows in Propulsion Systems” (Co-P.I. in a group from LSU, Xavier and Southern Universities with P.I. Dr. Acharya of LSU), 1994-2000, EEM’s expenditures total \$107,000.
21. LASPACE “Spurious Solutions in Two-Phase Codes,” 1995-1996, \$5,200.
22. NSF (Infrastructure Program) “Renovations of Engineering Facilities” (co-PI in a team of five Tulane School of Engineering faculty) total funding, \$667,000.
23. DOE (Environmental Management) “Collaborative Research with IREP and CREM in Belarus on the Transport and Fate of Radionuclides following the Chernobyl Accident” (a series of three grants) 1994-1997, \$232,000.
24. DOE (through the Center for Bioenvironmental Research) “Transport and Fate of Radionuclides and Pollutants in Aquatic Environments,” (a series of two grants, with co-P.I.’s Drs. Luna, Ramer and Steinberg) 1996-1998, \$365,000.
25. Louisiana Education Quality Support Fund “Graduate Fellowships to Support future Leaders in Engineering,” 1996-2000, \$272,000.
26. Louisiana Education Quality Support Fund “Graduate Fellowships to Support future Leaders in Engineering,” 1997-2001, \$408,000.
27. TRW “Research Evaluation of Nuclear Waste Storage Facilities,” 1996-1998, total funding \$200,000 EEM’s expenditures total \$40,000.
28. Louisiana Education Quality Support Fund “Graduate Fellowships to Support future Leaders in Engineering,” 1998-2002, \$340,000.
29. DOD “Experimental and Analytical Studies on the Transport of Cohesive Sediment,” 1998-2001, total funding \$468,000.

30. Louisiana Education Quality Support Fund “Graduate Fellowships to Support future Leaders in Engineering,” 1999-2003, \$408,000.
31. DOD-DTRA (through the Center for Bioenvironmental Research) “Extension of Studies on the Transport of Pollutants and Sediments,” 1999-2000 (co-P.I.’s Drs. Fauci and Steinberg), \$61,000.
32. Louisiana Board of Regents “Graduate Fellowships to Support the new Generation of Leaders in Engineering,” 2000-2004, \$340,000.
33. DOD-ONR “Sedimentation and Resuspension Studies for the Mississippi River and the Louisiana Environment,” 1999-2001 (co-P.I.’s Drs. Eschenazi and Steinberg), \$399, 000.
34. DOD-ONR “A five-year B.S./M.S. program between Xavier and Tulane Universities of Louisiana,” 1999-2002 (co-P.I. Dr. Eschenazi), \$124, 000.
35. DOD-ONR “Support for the 4th International Conference on Multiphase Flow,” 2001-2002, \$10,000.
36. Louisiana Board of Regents “Graduate Fellowships to Support the new Generation of Leaders in Engineering,” 2001-2005, \$350,000.
37. NSF “Support for the 4th International Conference on Multiphase Flow,” 2001-2002, \$35,000.
38. Louisiana Board of Regents “Graduate Fellowships to Support the new Leaders in Engineering,” 2002-2006, \$280,000.
39. DOE “Fundamental studies on the sediment transport in rivers,” 2002-2003, 96,000.
40. USGS “Modeling of the sedimentation processes and Sediment Transport,” 2002-2003, \$38,500.
41. DOE “Support for the Tulane-Xavier BS/MSE 5-year program,” 2002-2003, \$72,000.
42. Louisiana Board of Regents “Graduate Fellowships to Support the new Leaders in Engineering,” 2003-2007, \$216,000.
43. Entergy Inc. “Preliminary work to establish the Tulane Energy Institute,” 2002-2003, \$70,000 (co-P.I. with Dr. McFarland as P.I.).
44. DOE-NIGEC, “Funding for the Southcentral Regional Center for FY 03-04,” 2003-2004, \$1,109,000.
45. DOE-NIGEC, “Improvement of the accuracy of carbon flux measurements,” 2003-2004, \$92,000.
46. DOE-NIGEC, “Funding for the Southcentral Regional Center for FY 04-05,” 2004-2005, \$1,254,000.

47. DOE-BER, "The use of Computational Fluid Dynamics for the improvement of the accuracy of carbon flux measurements," 2004-2006, \$458,000.
48. Entergy Inc. "The Tulane-Entergy, Energy Institute," endowment of \$5,000,000, 2004-2008 (co-P.I. with Dr. McFarland as P.I.).
49. DOE-NIGEC, "Funding for the Southcentral Regional Center of NIGEC for FY 05-06," 2005-2006, \$1,453,000.
50. DOE-NIGEC, "Pilot project- the governing equations for Eddy-Covariance Method (ECM)," 2004-2006, \$92,000.
51. DOE-BER "The use of Computational Fluid Dynamics for the improvement of the accuracy of carbon flux measurements," 2006-2007, \$107,000.
52. Xinwen Mining Group, "Development of A Low-Pressure Pneumatic Coal Conveying and Separation System" 2008-2010 \$565,000 (co-P.I., with Dr. F. F. Chen as P.I.).
53. DOE "Use of an Accurate DNS Particulate Flow Method to Supply and Validate Boundary Conditions for the MFIX Code" 2009-2011, \$200,000.
54. NSF "Integrating High Performance Computing in Research and Education for Simulation, Visualization and Real-Time Prediction" 2009-2014, \$5,000,000.
55. NSF (through UTSA) "Cooling of electronic components with nanofluids" 2011-2014, 179,000.

GRADUATE STUDENTS SUPERVISED (with thesis or dissertation topic)

1. K. L. Zissis, M.S., 1982, "Velocity of Sound in Two-Phase Mixtures."
2. S. R. Parikh, M.S., 1983, "Critical Two-Phase Flow."
3. M. A. Degliobizzi, M.S., 1983, "Experimental Studies on the Feeding of Solid Particles in a Pneumatic Conveying System."
4. L. K. Farmer, M.S., 1983, "A Model for Slurry Transport Based on the Equations of Turbulence."
5. F. Shafaie, Ph.D., 1984, "Modeling of Geothermal Well Flow."
6. J. Martin, M.S., 1984, "Evaluation of Material Entrance Region Design in Positive Pressure Pneumatic Conveying Systems."
7. C. Lai, M.S., 1985, "Pressure Drop Through Return Bends in Pneumatic Conveying Systems."
8. W. K. Harris, M.S., 1986, "Investigation of Heat Transfer Coefficients in Teflon Heat Exchangers."

9. M. A. Westman, M.S. 1986, "Effect of 90° Bends in Pneumatic Conveying."
10. H. Q. Gong, M.S. 1987, "Simulation of Turbulent Bubbly Jets."
11. M. D. Marcozzi, M.S. 1987, "Computation of a Supersonic Axisymmetric Inlet Flow."
12. S. Kumar, M.S., 1988 "Experimental Investigation of Turbulence in Bubbly Jets."
13. A. Arefmanesh, M.S. 1987, "The Flow of Air-Solid Mixtures through Expansions."
14. H. B. Meyer, Ph.D. 1988 "Numerical and Experimental Investigation of a Hypersonic Shaped Charge Jet" (co-advisor with Dr. Danberg).
15. Y. Chang, Ph.D. 1988, "Heat Transfer through Vibrating Flexible Tubes."
16. B. G. Scrivens, M.S. 1988, "Modeling of Air-Solid Mixtures in Hoppers."
17. A. Etzel, M.S. 1989 "Turbulence Measurements over a Plate with embedded Particles."
18. J. Cassidy, M.S. 1990, "Gravity Flow of Granular Materials."
19. Z. Plazaola, M.S. 1990, "Vapor-Liquid Non-Equilibrium in Flow through Convergent Passages."
20. A. Arefmanesh, Ph.D. 1991, "Manufacturing of Structural Foams" (co-advisor with Dr. Advani).
21. J.-P. Ganty, Thesis Dipl. Ingénieur, 1992, Ecole Supérieure de Hydraulique, Grenoble, France, "Effect of Basset Forces on Particle Motion."
22. N. Nayyar, M.S. 1993 "Particle Jet Flows."
23. B.G. Scrivens, Ph.D. 1992, "Flow Patterns Gravity in Granular Material Flows."
24. Q. Xu, M.S.E., 1993 "Deformation of Droplets in Capillaries."
25. X.-D. Din, M.S.E., 1993 "Molecular Dynamics modeling of Flows in Porous Media."
26. Z.-G. Feng, M.S.E., 1993 "Modeling of Flows in Porous Media."
27. S. F. Wiegand, M.S.E. 1995 "The Drag Coefficient of axisymmetric Dendrites."
28. Q. Xu, Ph.D. 1995 "A Study on the Flow of Ellipsoids in Cylindrical Tubes."
29. O. Pimenov, M.S.E., 1996 "Fate and Transport of Radionuclides, in Forest Fires."
30. X. D. Din, Ph.D. 1996 "Non-continuous modeling of Flows in Porous Media."

31. Z.-G. Feng, Ph.D. 1996 “Unsteady Heat Transfer from Particles.”
32. N. Henn, Thesis Dipl. Ingeneur, 1996, Universite Claude Bernard, Lyon I, France, “Effect of the History Terms on the Dispersion of Particles.”
33. S. M. Fitzpatrick, M.S.E. 1997 “Particulate Flows related to Coastal Erosion Processes.”
34. O. Melkozerova, M.S.E. 1997, “Transport and Fate of Radionuclides in Sediments following the Chernobyl Accident.”
35. Y. Tsega, M.S.E. 1998, “Non-linear aspects and chaos in the motion of particles in fluids.”
36. R. Seffal, Ph.D., 1998, “The Effect of Large-Scale Structures on the Motion of Particles in an Axisymmetric Round Jet.”
37. G. Atzampos, M.S.E. 1998, “Experimental and Analytical Studies on the Resuspension of Sediments.”
38. P. Koukios, M.S.E., 1999, “Sedimentation Problems in Nuclear Waste Storage Facilities.”
39. R. Farish M.S.E. 2000 “The Effects of large-scale Structures on bubble Condensation and Phase Transition.”
40. J. R. Martin M.S.E. 1999, “Measurements of shear stress with a PIV.”
41. S. R. Niyrenda, MSE 1999, “Studies on the Resuspension of Cohesive Sediments.”
42. J. D. Nolen, Ph.D. 2001 “The Effect of Flow Turbulence on the Coagulation of Platelets in Blood” (co-advisor, Dr. Gaver).
43. M. Gay, MSE, 2002, “Effect of the history terms on the transient energy equation of particles.”
44. Z.-J. Xu, Ph.D, 2003, “Numerical simulations of particulate sedimentation processes”
45. J. R. Martin, Ph.D., 2004 “Gravity currents through bends-the saltwater intrusion.”
46. L. Craig, MSE, 2005 “Lift forces in particles exerted by their proximity to a wall.”
47. R. Farish, Ph.D. 2005 “The effect of surface slip on the drag of fine particles and bubbles.”
48. Steven Duck, M.S. 2006 “An analytical approach for the determination of unsteady drag for nano- and micro-particles.”
49. Adam Baran, part-time student, Ph. D. 2008, “Thermodynamics of the densification of liquid rocket propellants.”
50. Muriele Dugay, 2007, Thesis Dipl. Ingeneur, Universite Claude Bernard, Lyon I, France “The influence of the History terms on the heat transfer from micro- and nano-particles.”

51. Adelina Popruga-Davis, MS 2009, "Geothermal power from abandoned oil wells."
52. Bradley Denton, MS 2011 (requirements completed) "Testing of particulate flow through filters."
53. Mey Cabrejos-Davy, MS, 2010, "The effect of the history terms on the heat transfer from fine particles at finite Peclet numbers."
54. Shamsul Al-Tomal, MS 2011 "Entropy production in Geothermal Power Plants and Optimization of the Plants."
55. Erem Ugras, MS, 2011 "Exergy of Solar Radiation and its Potential in the south Texas Area."
56. John Zigtema, MS 2011 (exp.) "Interaction of a geothermal well operation with the surrounding geological strata"
57. Stephanie Koch-Lingo MS 2011 "Heat transfer in microtubes with micro- and nano-particles."
58. Adam Roig, MS 2011 (exp) "History terms in the double-diffusion processes involving droplets."
59. Bakhtosh Edrisi, MS 2012 (exp.) "Binary-Flashing geothermal power plants."
60. Jason Brubacker, MS 2012 (exp.) "Geothermal energy from abandoned oil and gas."
61. Maria Andersson, MS. 2012, (exp.) "Power from pairs of abandoned oil and gas wells."
62. Hector Esparza, MS. 2012 (exp.) "Quantification of uncertainty in the heat transfer of nanofluids."

COURSES TAUGHT

A. Undergraduate

1. Thermodynamics I
2. Thermodynamics II
3. Thermal Sciences-I (including laboratory)
4. Fluid Mechanics I
5. Heat Transfer
6. Energy Conversion
7. Two-Phase Flow
8. Mathematical Optimization and its Engineering Uses
9. Engineering Science Laboratory
10. The Chernobyl Catastrophe and its Aftermath
11. Engineering Economics
12. Design of Thermal Power Plants
13. Engineering Ethics.

14. Alternative Energy Sources.

B. Graduate

1. Advanced Thermodynamics
2. Two-Phase Flow
3. Experimental Fluid Dynamics
4. Turbulence
5. Statistical Mechanics and Thermodynamics
6. Thermal Power Plants
7. Energy and Ecology
8. Fluid Mechanics
9. Computational Fluid Dynamics (CFD)
10. Alternative Energy Sources.