

RESUME

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http://www.clarkson.edu/mae/faculty_pages/ahmadi.html

<http://webspaces.clarkson.edu/projects/fluidflow/>

<http://webspaces.clarkson.edu/projects/fluidflow/ga/ResumeIndex.htm>

<http://www.clarkson.edu/cares/>

PRESENT POSITION

Clarkson Distinguished Professor

Robert R. Hill '48 Professor of Department of Mechanical and Aeronautical Engineering

Professor of Mechanical and Aeronautical Engineering, Clarkson University

EDUCATION

B.S., Tehran University, 1965

M.S., Purdue University, 1968

Ph.D., Purdue University, 1970

RESEARCH INTERESTS

Aerosols and Colloids; Multiphase Gas-Solid, Liquid-Solid, and Gas-Liquid Flows; Particle Adhesion and Resuspension; Lung, Nose and Respiratory Deposition and Exposure; Environmental Multiphase Flows and Air Pollution; Active Flow Control; Granular Flows; Turbulence Spray; Hot-Gas Filtration; Nonlinear Random Vibrations and Vibration Control; Air Flow Management; Tribology; Continuum Mechanics; Stochastic Systems and Stochastic Stability; Earthquake Engineering and Base Isolation technology.

PROFESSIONAL EXPERIENCE

Dean, Coulter School of Engineering, Clarkson University (2005-2015)

Interim Vice Provost for Research, Clarkson University (2004-2005)

Associate Dean of Engineering for Research and Graduate Studies, Clarkson University (2004-2005)

Robert R. Hill '48 Professor of Mechanical and Aeronautical Engineering, Clarkson

University (Since 2003).

Clarkson Distinguished Professor, Clarkson University (Since 2001).

Professor of Mechanical and Aeronautical Engineering, Clarkson University (Since 1982).

Chair, Department of Mechanical and Aeronautical Engineering, Clarkson University (1991-1994).

Vice-Chairman of Fluid Mechanics and Thermal Science Group, Clarkson University (1983-1988).

Chairman of Graduate Committee, Department of Mechanical and Aeronautical Engineering, Clarkson University (1985-1991, 1997-2005).

"Faculty Research Participant at Federal Energy Technology Center (DOE-FETC)," Morgantown, WV (Several weeks in summers of 1999-2007)

"Senior National Research Council Research Associate at Federal Energy Technology Center (DOE-FETC)," Morgantown, WV (1995, Summer of 1996)

Visiting Professor, Department of Mechanical Engineering, University of Calgary, Calgary (Feb.-Dec. 1981).

Professor of Engineering, Shiraz University (1976-1981).

Dean, School of Engineering, Shiraz University (1979-1980).

Associate Dean of Engineering, Shiraz University (1975-1977).

Academic Visitor, School of Mathematics, and Department of Mechanical Engineering, University of Newcastle Upon Tyne, Newcastle (Summer, 1978).

Academic Visitor, Department of Civil Engineering, Northwestern University (Summer, 1977).

Visiting Professor, Department of Aeronautics, Imperial College, London (Summer, 1976).

Visiting Scholar, Department of Civil and Geological Engineering, Princeton University (Summer of 1975).

Visiting Scientist, Department of Physics, University of Saskatchewan, Saskatoon (1974-1975).

Associate Professor of Engineering, Shiraz University (1972-1976).

Assistant Professor of Engineering, Shiraz University (1970-1972).

TEACHING EXPERIENCE

Undergraduate:

Fluid Mechanics, Intermediate Fluid Mechanics, Statics, Rigid Body Dynamics, Gas Dynamics, Thermodynamics, Engineering Mathematics, Mechanical Vibrations, Advanced Mechanical Vibrations.

Graduate:

Particle Transport, Deposition and Removal, Stochastic Processes for Engineers, Advanced Fluid Mechanics, Theory of Boundary Layer, Mathematical Theory of Turbulence, Theoretical Acoustics, Theoretical Methods in Engineering, Numerical Solution of PDE, Advanced Vibrations, Random Vibrations, Multiphase Flow Modeling, Fluid Mechanics of Aerosols.

Short Courses Given:

Random Vibration (Worcester, July 1987)

Fluid Mechanics of Aerosols (San Diego, August 1990)

Introduction to Fluid Mechanics of Aerosols with Application to Microcontamination Control (San Jose, August 1991), (Las Vegas, July 1992), (Chicago, August 1993), (East Brunswick, August 1994)

Mechanics of Aerosols (Sharif University of Technology, June 1992)

Random Vibrations with Application to Earthquake Engineering (International Institute for Earthquake Engineering and Seismology, June 1992)

Mechanics of Aerosols, (University of Science and Technology of Iran, May-June 1995)

Random Vibrations with Applications to Earthquake Engineering, (Sharif University of Technology, May-June 1996, and May-June 1998)

Risk Assessment with Applications to Earthquake Engineering, (Sharif University of Technology, April-May 1997)

Turbulence, Aerosols and Two-phase Flows (Lappeenranta University of Technology, Lappeenranta, Finland, January 1999.

Two-Phase Flow with Application to Sediment Transport (Sharif University of Technology, April-May 1999)

Random Vibrations with Applications to Earthquake Engineering (Sharif University of Technology, April-May 2000)

Particle Transport Processes in Turbulent Flows - Particle Dispersion and Deposition (Aalborg University, Aalborg, Denmark, May 2-4, 2001)

Random Vibrations with Applications to Earthquake Engineering (Sharif University of Technology, May 2001)

Introduction to Turbulent Flows (Sharif University of Technology, June 2002)

Turbulence Modeling (Shiraz University, May 2003)

Turbulence and Turbulence Modeling (ISME, May 2004)

From Instability to Chaos and Turbulence (Khajeh Nasir Tousi University, May 2005)

Particle Transport and Deposition (Lappeenranta University of Technology, Lappeenranta, Finland, (December 2005).

Turbulence Modeling (ISME, May 2007)

PROFESSIONAL ACTIVITIES

Editorial Advisory Board, Particulate Science and Technology.

<http://www.tandfonline.com/toc/upst20/current>

<http://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=upst20>

Regional Editor, Iranica Scientia.

<http://www.scientiairanica.com/en/Content/21/%20Regional%20Editors>

<http://www.scientiairanica.com/en>

Editorial Advisory Board, International Nano Letters.

<http://www.inljournal.com/>

<http://www.inljournal.com/journal/editorial.board>

Editorial Board, ISRN Chemical Engineering.

<http://www.isrn.com/journals/chemeng/>

Editor Advisory Board, International Journal of Automotive Engineering.

<http://www.iust.ac.ir/ijae/>

<http://www.iust.ac.ir/ijae/page/16/Editorial-Board>

Editorial Board, Energy Equipment and Systems.

<http://www.energyequipsys.com/>

<http://www.energyequipsys.com/journal/editorial.board>

Editorial Advisory Board, The Open Atmospheric Science Journal.

<https://benthamopen.com/TOASCJ/home/>

<https://benthamopen.com/TOASCJ/editorial-board/>

Editorial Advisory Board, The Open Acoustics Journal.

<https://benthamopen.com/TOACJ/aims-scope/>

Editorial Advisory Board, Recent Patent in Mechanical Engineering (on Line journal).

<http://benthamsience.com/journals/recent-patents-on-mechanical-engineering/>

<http://benthamsience.com/journals/recent-patents-on-mechanical-engineering/editorial-board/#top>

Editorial Advisory Board, Journal of Seismology and Earthquake Engineering

http://www.iiées.ac.ir/English/Publication/eng_Publication_jsee.html#Editorial%20Advisory%20Board

Editorial Advisory Board, Asian Journal of Structure.

<https://www.springer.com/journal/42107>

Editorial Advisory Board, Asian Journal of Civil Engineering

<http://www.bhrc.ac.ir/Publication/AJCE/Pages/edit.htm>

Editorial Advisory Board, Iranian Journal of Science and Technology.

<http://home.shirazu.ac.ir/~journals/ijst.htm>

Editorial Board, The Persian Journal.

<http://www.thepersianjournal.com/about.html>

Editor-in-Chief, The Open Petroleum Engineering Journal (2008-2018).

<https://benthamopen.com/TOPEJ/home/>

<https://benthamopen.com/TOPEJ/editorial-board/>

Editorial Board, Journal of Computational Multiphase Flows (2010-2018).

<http://journals.sagepub.com/home/cmf>

<https://us.sagepub.com/en-us/nam/the-journal-of-computational-multiphase-flows/journal202502#editorial-board>

Editorial Advisory Board, The Uncertainties in Engineering Mechanics

Editorial Advisory Board, International Journal of Engineering Science (1997-2007).

Editor, Iranian Journal of Science and Technology (1973-1974), and (1978-1980).

Associate Editor, Iranian Journal of Science and Technology (1971-1973) and (1975-1978).

Guest Editor of Aerosol Science and Technology for Special Issue on Hot-Gas Filtration, (September 1998)

CONSULTANTSHIP

Consultant, Structural Vibrations and Earthquake Engineering (1976-1980).

Consultant to the Northland Company, Watertown, NY (Summer 1982).

Consulting for different projects, DOE-NETL (1996-2003)

SOCIETY AFFILIATION

American Society of Fluid and Thermal Engineers (ASTFE), (Fellow)

American Society of Mechanical Engineers (ASME), (Fellow)

American Society of Engineering Education

American Association for Aerosol Research

Society of Engineering Science

Interpore, Life Member

Iranian Society of Mechanical Engineers (Fellow)
Iranian Society of Civil Engineers (Fellow)
Fine Particle Society (Until 1995)
Earthquake Engineering Research Institute (Until 1992)
International Association for Structural Mechanics in Reactor Technology (Until 1990)

ADMINISTRATIVE ACTIVITIES

Dean, Coulter School of Engineering, Clarkson University (2007-2015)

Interim Dean, Coulter School of Engineering, Clarkson University (2005-2007)

Interim Vice Provost for Research, Clarkson University (2004-2005)

Associate Dean of Engineering for Research and Graduate Studies, Clarkson University (2004-2005)

Chair, Search Committee for Director of Research, Clarkson University (2004-2005)

Chair, Search Committee for Shulman Chair and Director of Center for Rehabilitation Engineering, School of Engineering, Clarkson University (2004-2005)

Chair, Dean Search Committee, School of Engineering, Clarkson University (2000-2003)

Chair, Department of Mechanical and Aeronautical Engineering, Clarkson University (1991-1993).

Chairman, Graduate Committee, Department of Mechanical and Aeronautical Engineering, Clarkson University (1985-1991, 1997- Present).

Chair, University Graduate Committee (GERIP) (1997-1999)

Vice-Chairman, Fluid Mechanics and Thermal Sciences Group, Clarkson University (1983-1988).

Dean, School of Engineering, Shiraz University, Shiraz (1979-1980).

Associate Dean of Engineering, Shiraz University, Shiraz (1975-1977).

Member of the Engineering Committee, Research Council of the Ministry of Science and Higher Education of Iran (1977-1979).

Head of Administration and Job Evaluation, Shiraz University, Shiraz (1973-1974).

THESES SUPERVISED

1. On the Random Vibration of Beams, J. Hashemi, M.S. Thesis (1972).
2. Rapid Drainage from an Unconfined Aquifer in the Vicinity of a River, H. Mostofi, M.S. Thesis (1974).
3. A Modified Quasi-Normal Theory of Turbulence, M. Murgusan, M.S. Thesis (1978).
4. Applications of Truncated Wiener-Hermite Expansion to Nonlinear Random Vibration with Application to Nonlinear Plate, A.V. Jahedi, M.S. Thesis (1980).
5. Stochastic and Deterministic Response of Structures: Applications to Containment Structures of Nuclear Power Plants, A.H. Yusefzai, M.S. Thesis (1980).
6. A Model for Turbulent Flows in Closed Conduits, P. Koppolu, M.S. Thesis (1984).
7. Thermohydrodynamic Analysis of Wide Thrust Bearings Operating in Laminar and Turbulent Flow Regimes, S.J. Chowdhury, M.S. Thesis (1985).
8. Stability Analysis of Deterministic and Random Dynamic Linear Systems, S. Abdel-Rahman, Ph.D. Thesis (1986).
9. A Functional Series Expansion Method for Response Analysis of Nonlinear Systems Subjected to Random Excitations, I.I. Orabi, Ph.D. Thesis (1986).
10. A Study on the Mechanics of Friction Noise, M.A.S. Mohamed, Ph.D. Thesis (1987).
11. Kinetic and Turbulence Models for Granular and Two-Phase Flows, D. Ma, Ph.D. Thesis (1987).
12. The Influence of Grain Size, Grain Shape and Sample Fabric on the Static Liquefaction Behavior of Saturated Granular Materials, V.B. DeGregorio, Ph.D. Thesis (1988) (Co-advisor with S. Motan).
13. Base Isolation of a Multi-Story Structure - A Comparison of Performances of Various Systems under Harmonic and Earthquake Ground Motions, F.G. Fan, M.S. Thesis (1988).
14. Computer Modeling of Transient Three-Dimensional Boiling Enhanced Mixed Convection, K.A. Elrais, Ph.D. Thesis (1988) (Co-advisor with W. Eckerle).
15. Deterministic and Probabilistic Comparative Studies of Performances of Various Aseismic Base Isolation Systems, Lin Su, Ph.D. Thesis (1989).
16. Thermodynamically Consistent Rate-Dependent Models for Turbulence, S.J. Chowdhury, Ph.D. Thesis (1990). (Currently with Bangladesh University of Engineering and Technology, Dhaka, Bangladesh).

17. Analysis of Dispersion of Small Suspended Particles in Isotropic and Sheared Turbulent Flows, H. Ounis, Ph.D. Thesis (1992). (Currently with Ali7 Incorp, Albany, NY.).
18. Thermodynamically Consistent Modeling for Rapid Granular and Turbulent Multiphase Flows, S. Abu-Zaid, Ph.D. Thesis (1990).
19. Experimental Investigation of Dust Particle Deposition in a Turbulent Channel Flow, W. Kvasnak, M.S. Thesis (1991). (Currently with GE).
20. Stochastic Response of Secondary Systems in Base-Isolated Structures, Y. Chen, M.S. Thesis (1991).
21. Passive and Active Vibration Control in a Microgravity Environment, J. Ellison, M.S. Thesis (1992). (Currently with Corning).
22. Analysis of Deposition of Spherical and Ellipsoidal Particles in Turbulent Flows, F.G. Fan, Ph.D. Thesis (1994). (Currently with Xerox).
23. Experimental Analysis of Granular Simple Shear Flows, K.E. Elliott, M.S. Thesis (1991).
24. Mechanisms of Particle Removal Due to Turbulent Flow or Substrate Acceleration, M. Soltani, M.S. Thesis (1993). (Currently with Bechtel, Baltimore, MD).
25. Transport and Deposition of Particles in a Turbulent Pipe Flows with and without Sudden Expansion, Q. Chen, M.S. Thesis (1994).
26. Computational Modeling of Particle Transport and Deposition - Microelectronic and Pharmaceutical Applications, Amy Li, Ph.D. Thesis (1994).
27. Vibration Control of Spacecraft and Space Structures from Lift-Off to On-Orbit Environments, G. Lee-Glauser, Ph.D. Thesis (1994). (Currently Vice President of Research at Syracuse University, Syracuse, NY).
28. Dispersion of Deforming Fuel Droplets in Single Stage to Orbit Combustors, W. Kvasnak, Ph.D. Thesis (1996). (Currently with GE).
29. Analysis of Transport, Deposition and Removal of Particles and Fibers in Turbulent Flows, M. Soltani, Ph.D. Thesis (1998). (Currently with Bechtel, Baltimore, MD).
30. Computer Modeling of Granular and Two-Phase Turbulent Flows, J. Cao, Ph.D. Thesis (1999).
31. Particle Transport and Deposition - An Experimental Study, J. Gayne, M.S. Thesis (1998). (Currently with Lexmark).
32. Effect of Electrostatic and Capillary Forces on Smooth and Bumpy Particle Adhesion and

- Detachment, S. Guo, M.S. Thesis (1999).
33. Computational Modeling of Aerosol Transport and Deposition - Thermophoresis and Electrophoresis Effects, C. He, Ph.D. Thesis (2000). (Currently with Corning, Corning NY).
 34. Computational Modeling of Particle and Fiber Transport, Deposition and Resuspension, H. Zhang, Ph.D. Thesis (2001). (Currently at Seagate Inc., Minneapolis-St Paul, MN).
 35. Vibration Control in Microgravity Environment with Use of Smart Materials, J. Shimmel, M.S. Thesis (2000).
 36. Numerical Computation for natural Gas Production from In-situ Hydrate Reservoir, C. Ji, M.S. Thesis (2001).
 37. From Flow and Particle Transport Modeling to Vibration Isolation, J. Ellison, Ph.D. Thesis (2001). (Currently with Corning Inc., Corning NY).
 38. Active Vibration Control of Space Structures during Lift-Off, M. Pausley, M.S. Thesis (2002). (Co-Advisor with R. Jha).
 39. Particle Removal in Cryogenic Surface Cleaning, C. Toscano, M.S. Thesis (2001). (Currently with ExxonMobil, Houston, TX).
 40. Stochastic Modeling of Turbulent Liquid Spray Formation in Free Shear Flow Fields, D. Schmidt (2002). (Currently with ExxonMobil, Houston, TX).
 41. An Experimental Setup for Propane Hydrate Formation and Dissociation within Porous Media, T.K. White, M.S. Thesis (2003).
 42. Fundamentals of Gas-Solid and Gas-Liquid Flows in Porous Media, Ali Reza Mazaheri, Ph.D. Thesis (2003). (Currently with AMA Inc., NASA Langley Research Center, Hampton, VA).
 43. Combined Active and Passive Vibration Control during Space Shuttle Lift-off, Allison Bailey, M.S. Thesis (2003). (Co-Advisor with R. Jha). (Currently with GE).
 44. Exploration of Rheology and Environmental Impact of Bauxite Residue, Elaine Humiston, M.E. Project (2003).
 45. Fundamentals of Chemical-Mechanical Polishing (CMP) Wear Mechanisms, M. Bastaninejad, M.S. Thesis (2004).
 46. Experimental Study of Immiscible Two-Phase Flow through Porous Media under the Influence of Viscous, Capillary, and Gravitational Forces, Josh Cook, M.S. Thesis (2004).

47. Structural Health Monitoring Based on EMD and the Hilbert Transform, Feng Yan, M.S. Thesis (2005).
48. BiFunctional Compounds for Copper CMP Slurries, Shravanthi Manikonda, M.S. Thesis (2005). (Co-Advisor with Y. Li).
49. Pneumonic Alveolar Cavity Transport and Deposition during Inhalation, Il-Soo Chang, M.E. Project (2005).
50. A Novel Copper CMP Slurry Based on a Mixed Surfactant Passivating System, Deensh Bundi, M.S. Thesis (2005). (Co-Advisor with Y. Li).
51. Particle Focusing with Aerodynamic Lenses, Ravi S. Chavali, M.S. Thesis (2006).
52. Analysis of Aerosol Particle Transport and Deposition in Environmental Applications, Chaoshing Liu, M.S. Thesis (2006).
53. Fundamentals and Applications of Environmental and Geophysical Multiphase Flows, Kambiz Nazridoust, Ph.D. Thesis (2006). (Currently at CIIT, Triangle Park, NC).
54. Rheological Behavior of Bauxite Residue and Bauxite Residue Derivatives, Elaine Humiston, Ph.D. Thesis (2006). (Currently at Lydall, Schenectady, NY).
55. Fundamentals of Gas-Liquid and Gas-Liquid-Solid Flow in a Bubble Column and in a Simple Shear Flow Device Wei Chen, Ph.D. Thesis (2006). (Currently at Bristol-Myers Squibb, New Brunswick, NJ).
56. Electrohydrodynamics and Particle Transport in Corotrons – Airflow and Particle Transport in Human Nasal System, Parsa Zamankhan, Ph.D. Thesis (2007). (Currently, ANSYS-FLUENT, Michigan).
57. Three-Phase Flows in Slurry Reactors with Application to Coal Liquefaction Processes, Xinyu Zhang, Ph.D. Thesis (2010). (Currently, Nottingham University, China Campus).
58. Fundamentals of Multiphase Gas-Liquid Flows in Rock Fractures, Dustin Crandall, Ph.D. Thesis (2009). (Currently, National Energy Technology Laboratory, US Department of Energy, Morgantown, WV).
59. A Study of Multiphase Flow through Porous Media with Applications to Carbon Dioxide Sequestration, Mellissa Richards, M.S. Thesis (2006). (Has received her Ph.D. in 2019 and currently is an Instructor at Clarkson University).
60. Hilbert Transform and Structural Identification, Shaoqing Xun, M.S. Thesis (2007).
61. Copper CMP Slurry, Vivek Duvvuru, M.S. Thesis (2009). (Co-Advisor with Y. Li).

62. Fundamentals of Multiphase Flows in Nanotechnology, Protective Clothing, and Self-Healing Materials, Hojat Nasr, Ph.D. Thesis (2010). (Currently GE, Cincinnati, Ohio).
63. A Computational Model for Particulate Matter Transport and Deposition in the Human Nasal Airway, Kevin Shanley, Ph.D. Thesis (2008). (Currently, New Paltz University).
64. The Transport and Deposition of Ellipsoidal Fibers in Human Tracheobronchial Airways, Lin Tian, Ph.D. Thesis (2008). (Currently, RMIT University, Melbourne Australia).
65. Nonlocal Theory and Finite Element Modeling of Nano-Composites, Ali Alavinasab, Ph.D. Thesis, (2009) (Co-advisor with Ratan Jha). (Currently, Openaka/Pure Technologies, New Jersey).
66. An Experimental and Computational Investigation of a Tube Launched MAV, Peter Coffin, MS Thesis (2011) (Co-advisor with Ratan Jha and Pier Marzocca). (Currently with Arizona State University).
67. Active Flow Control over a NACA 0015 Airfoil by Synthetic Jet Actuators, Pooya Kabiri, Ph.D. Thesis (2012) (Co-advisor with Doug Bohl). (Currently, KEVTA Fire Systems, California).
68. Computational Modeling of Fluid Flow through Fractures, Alberto Roman, Ph.D. Thesis (2012) (Co-advisor with Kathleen Issen).
69. Fundamentals and Applications of Particle Resuspension, Dispersion and Transport in Indoor Environment, Iman Goldasteh, Ph.D. Thesis (2013) (Co-advisor with Andrea Ferro). (Currently with Ford Motor Company, Detroit, MI).
70. Synchronization for the Aerodynamic Flow Control of a High Lift System with Dual Synthetic Jet Arrays, Bruce Alstrom, Ph.D. Thesis (2013) (Co-advisor with Pier Marzocca and Erik Bolt). (Currently with Calspan).
71. On Proper Orthogonal Decomposition Based Reduced Order Modeling, Fariduddin Behzad, Ph.D. Thesis (2014) (Co-advisor with Brian Helenbrook). (Currently with Bitzer Refrigeration and Air-Conditioning Industries, Atlanta, GA).
72. Computational Modeling of Performance of a Salinity Gradient Solar Pond, Minoo Mehdizadeh, MS Thesis (2014). (Currently with Bitzer Refrigeration and Air-Conditioning Industries, Atlanta, GA).
73. Experimental and Numerical Modeling in Association with Leakage of Sequestered Carbon Dioxide, Eric Gessner, M.E. Thesis (2015) (Currently with Rathyan).
74. Particle Resuspension from Floors, Daniel Wante, M.E. Thesis (2017). (Currently with Electric Boat).

75. Numerical Simulation of Particle-Laden Turbulence Flows-Environmental Applications, Behtash Tavakoli, Ph.D. Thesis (2015). (Currently with Ford Motor Company, Detroit, MI).
76. Understanding the Rolling Dynamics of Golf Ball with Asymmetric Mass, Nasim Daemi, Ph.D. Thesis (2017) (Co-advisor with Philip Yuya). (Currently with EPC Manufacturing, Saint Clair, MI). <http://epcmfg.com/index.html>
77. Design of Closed-loop Controller for Active Control of Flow over Flapped Airfoil, Sohaib Obeid, Ph.D. Thesis (In Progress). (Co-advisor with Ratan Jha).
78. On Particle-Laden Turbulent Flows- Influence of Stochastic Models and Applications to Flows in Rock Fractures. Amir A. Mofakham, Ph.D. Thesis (In progress).
79. Computational Fluid Dynamics Modeling of Particle Transport and Deposition on the International Space Station. Kaitlyn Koehler, MS Thesis (In Progress). (Co-advisor with Andrea Ferro)

RESEARCH EXPERIENCES FOR UNDERGRADUATES (Since 1998)

Vibrations Control of Aerospace Structures, J. Shimmel, (DOE, NASA) (1997, 1998)

Computational and Experimental Studies of Hot-Gas Filtration, T. White, (DOE, NSF-REU) (1998, 1999)

Cryogenic Surface Cleaning, C. Toscano, (NSF-REU) (1998,1999)

Vibration Control of Structures during Earthquakes, M. Pausley, (NSF-REU) (2000)

Experimental Study of Particle Transport, Deposition and Removal, L. Kenney, (NSF-REU) (2001)

Experimental Centrifugal Air Filtration Device, Scott M. Delivio (Honor Student) (2001-2002)

Experimental Centrifugal Air Filtration Device, Matthew A. Kotylo (2002)

Wind Flow and Pollutant Transport due to Barrel Burning, Joe Rocca, (McNair Scholar) (2002-2003)

A Model for Droplet Distortion Effects in Aerodynamic Particle Sizing Instruments, Eric Gessner (2004-2005)

Experimental Study of Particle Resuspension from Flooring, Robert Colatutto (2007).

Design and Fabrication of Aeroelastic Wind Energy Converter, Ricky Patel (2017-2018)

Study of Oscillatory Bladeless Wind Turbine, Alexander Dibella (2018-2019)

Study of Oscillatory Bladeless Wind Turbine, Jordan Griggs (2018-2019)

Performance of Oscillatory Bladeless Wind Turbine, William Beveridge (2019)

Study of H-Section Oscillatory Wind Turbine, Austin Perry (2019)

Performance of H-Section Oscillatory Wind Turbine, Bryan Asman (2019-2020)

NASA Lander Aerodynamics, Luke Gries (2020)

RESEARCH GRANTS AND CONTRACTS

"Noise Reduction," Ministry of Science and Higher Education of Iran, \$5,000 (1972-1974).

"Turbulent Flow in a Confined Wake," Shiraz University Research Council, \$2,500 (1973-1977).

"Design and Construction of an Automatic Machine for Cleaning, Weighing, and Boxing Raisin," Ministry of Science and Higher Education of Iran, \$6,000 (1975-1977).

"Stability Analysis of Mechanical Systems," Ministry of Science and Higher Education of Iran, \$6,500 (1976-1978).

"Vibration Induced by Earthquake, Applications: To Nuclear Reactor Structural Safety and Design," Atomic Energy Organization of Iran, \$300,000 (1976-1980).

"Darrieus Turbine and Aeroelastic Engines," Shiraz University Research Council, \$4,000 (1977-1978).

"Investigation of a Solar Pond for Power Production," Ministry of Power of Iran, Solar Energy Research Center of Shiraz University, and Shiraz University Research Council, \$25,000 (1978-1980).

"Aeroelastic Wind Energy Converter," Division of Research, Clarkson University, \$8,000 (1982-1983).

"Bounds on Earthquake Responses of Structures," NSF, CEE-8319036, \$42,397 (1984-1985).

"Fellowship," Union Carbide, \$9,800 (1986-1987).

"Protective Systems and Retrofit of Building Structures for Earthquake Hazard

Mitigation," SNYR, NCEER 2863021F, \$49,133 (1986-1987).

"Optimized Base Isolation Systems," SNYR, NCEER 872007, \$49,000 (1987-1988).

"Analysis of Transient Three-Dimensional Granular and Two-Phase Flows," NSF, MSM-8714687, 40 Service Units CPU Time on Supercomputer Facilities at Cornell University (1987-1989).

"Optimized Base Isolation Systems," SNYR, NCEER 88-2012, \$21,000 (1988-1989). \$4,226 (1990-1991).

"Contamination Avoidance and Removal," New York State Science and Technology Foundation, CAMP, \$27,000 (1989-1990), \$30,000 (1990-1991), \$30,981 (1991-1992), \$43,232 (1992-1993), \$28,116 (1993-1994).

"Fundamental Study of Dust Particles Adhesion to Electrical Contact of Card Edge Connector Systems," IBM-Endicott, \$150,000 (1990-1991).

"Weld Process Modeling," United Technologies Corporation, \$50,000 (1990-1992), Co-PI with D. Aidun.

"Microgravity," NSF Creativity Award EID-9017552, \$90,000 (1990-1993).

"Fundamental Study of the Mobility of Dust Particles on Surfaces of Electrical and Fiber Optic Connector Systems," IBM-Endicott, \$73,023 (1992-1993).

"A Computational Model for Coal Transport and Combustion," US Department of Energy (DOE-PETC) DE-FG22-91PC91297, \$200,000 (1991-1995).

"Vibration of Equipment on Board Space Structures with Passive and Active Mechanisms," NASA Grant NGT-50825, \$66,000 (1991-1994).

"Hybrid Fuel Dispersion and Combustion for Applications in Rocket Engines" NASA Grant NGT-51130, \$66,000 (1993-1996).

"Vibration Control of Airborne Equipment Using Smart Materials," NASA Grant NGT-51314, \$66,000 (1994-1997).

"Particle Mobility, Adhesion and Removal & Targeted Inhalation Drug Delivery," New York State Science and Technology Foundation, CAMP, \$54,250 (1994-1995).

"Particle and Fiber Transport, Adhesion and Removal," New York State Science and Technology Foundation, CAMP, \$52,000 (1995-1996).

"Ash and Pulverized Coal Deposition in Combustors & Gasifiers," US Department of Energy (DOE-FETC) DE-FG22-94PC94213, \$200,000 (1994-1998).

"Charged Particle and Fiber Transport, Adhesion and Removal," New York State Science and Technology Foundation, CAMP, \$48,000 (1996-1997).

"Particle Transport and Dispersion in a Triboelectric Separator," University of Kentucky/DOE, \$64,000 (1995-1998).

"Fiber Modeling and Removal," Xerox Corporation, \$72,000 (1995-1997).

"Charged and Magnetized Particle Deposition and Removal," New York State Science and Technology Foundation, CAMP, \$30,000 (1997-1998).

"Cryogenic CO₂ Snow Flake Surface Cleaning," New York State Science and Technology Foundation, CAMP, \$30,000 (1997-1998).

"Computational Modeling of Fluid Flow and Soot Buildup in High Purity Fused Silica Furnace," Corning Corporation, \$285,614 (1997-2001)

"Particle Transport and Deposition in Hot-Gas Filter Vessels - A Computational and Experimental Modeling Approach," DOE DE-FC26-98FT40447, \$164,745 (1998-2002)

"Time-Dependent Particle Image Velocimetry (PIV) Measurements via Linear Stochastic Estimation (LSE)," NSF CTS-9809784, \$85,000 (1998-2000), Co-PI with M. Glauser

"Computer Code for a Thermodynamic Model of Gas-Hydrate Decomposition in a Porous Media during Pressure Release," DOE, NETL, DE-AP26-98FT01813, \$25,000 (1998-1999)

"Computational Modeling of Chemical-Mechanical Polishing (CMP)," New York State Science and Technology Foundation, CAMP, \$47,500 (1998-2000)

"Microgravity Equipment Vibrations - A Sensitivity and Control Study," NASA Grant NGT8-52849, \$44,000 (1998-2000)

"Computational Modeling of Fuel Spray Formation in Rocket Engines" NASA Grant NGT8-52853, \$66,000 (1998-2001)

"Computer Modeling of Ash Particle Transport to Boiler Surfaces," DOE, NETL DE-AP26-99FT00308, \$25,000 (1998-2000)

"Experimental Study of Gas-Hydrate Formation and Decomposition," DOE/NETL (through University of Pittsburgh), 001060-8, \$60,000 (1999-2001)

"Advanced Computational Model for Three-Phase Slurry Reactors," US Department of Energy (DOE-NETL) DE-FG26-99FT40584, \$200,000 (1999-2002)

"Dispersion of Powder by Shear, Turbulence and Impaction in Inhalation Drug Delivery Systems," Dura Pharmaceuticals, \$47,000 (1999-2000)

"Bearing Technology for Exo-Skeletal Engine Concept," Alpha Star Corp. \$15,000 (1999-2000), Co-PI with L. Minnetyan and C. Cetinkaya

"Two-Phase Flow Measurements," DOE/NETL (Partnership Program through University of Pittsburgh), 001060-8, \$30,000 (2000-2001)

"CO2 Sequestration," DOE/NETL (Partnership Program through University of Pittsburgh), 001060-8, \$30,000 (2000-2001)

"Fundamentals of Natural Gas and Species Flows from Hydrate Dissociation- Applications to Safety and Sea Floor Instability," US Department of Energy (DOE-NETL) DE-FC26-00NT40916, \$278,183 (2000-2006)

"Heat Transfer Effects in Hot-Gas Filtration," DOE/NETL (Partnership Program through University of Pittsburgh), 001060-8, \$30,000 (2000-2001)

"Transport Models for Nano-Scale MOS devices with applications to CAD for Next-Generation ICs," NYSTAR (through CAMP), \$10,000 (2001-2002) Co-PI with M.C. Cheng and V. Privman.

"Physical Transport Models for Nano-Scale MOS Devices, with Applications to CAD for Next-Generation ICs," NRC, \$35,000 (2001-2002) Co-PI with M.C. Cheng, J.J. Liou and V. Privman.

"Computational Modeling of CO2 Sequestration," DOE/NETL (Partnership Program through University of Pittsburgh), 400960-2, \$35,000 (2001-2002)

"Experimental Modeling of CO2 Sequestration," DOE/NETL (Partnership Program through University of Pittsburgh), 400960-2, \$35,000 (2001-2002)

"Hot-Gas Filtration," DOE/NETL (Partnership Program through University of Pittsburgh), 400960-2, \$35,000 (2001-2002)

"Hydrate," DOE/NETL (Partnership Program through University of Pittsburgh), 400960-2, \$35,000 (2001-2002)

"Thermal modeling SOI devices," NYSTAR (through CAMP), \$18,000 (2002-2003) Co-PI with M.C. Cheng.

"Particle Transport, Deposition and Removal: Combined Research-Curriculum Development," NSF EEC-0087873, \$400,000 (2001-2006), (Co-PIs, C. Cetinkaya, M. McLaughlin, S. Doheny-Farina, J. Taylor, S. Dhaniyala)

“NYSTAR Center for Environmental Quality System (NY-EQS),” NYSTAR (through Syracuse University), \$1,892,000 (2003-2006) Co-PI with P. Hopke, T. Holsen, J. McLaughlin, and K. Visser

“REU: Particle Transport, Deposition and Removal: Combined Research-Curriculum Development,” NSF, \$12,000 (2002-2006).

"Computational Modeling Tools for Corona Devices Used in Electrophotographic Machines," Xerox Corporation, \$60,000 (2001-2005).

“Computational Fluid Dynamic Modeling of Fiber Transport and Deposition in the Respiratory Tract,” NIOSH (through LRRI-F), \$404,677 (2002-2006) Co-PI with P. Hopke

“Aerodynamic Lens Modeling,” Kodak Corporation, \$12,000 (2002-2003).

“Nanoparticle Transport, Aerodynamic Lens and CMP Modeling,” NYSTAR (through CAMP), \$35,000 (2003-2004)

“Heat Flow Modeling of SOI Devices & Integrated Circuits,” NYSTAR (through CAMP), \$6,800 (2003-2004) Co-PI with M.C. Cheng.

“Computational Modeling of Hot Gas Filtration with Heat Transfer,” DOE/NETL (Partnership Program through University of Pittsburgh), (C. Liu Fellowship), \$70,000 (2002-2004)

"Computational Modeling of CO₂ Sequestration," DOE/NETL (Partnership Program through University of Pittsburgh), \$70,000 (2002-2004)

"Computational Modeling of CO₂ Sequestration," DOE/NETL (Partnership Program through University of Pittsburgh), (J. Cook Fellowship), \$56,605 (2002-2005)

"Geomechanical Modeling of Fractured Reservoirs," DOE/NETL (Partnership Program through University of Pittsburgh), (D. Crandall Fellowship), \$70,000 (2003-2005)

“Transport, Deposition and Removal of Charged Nanoparticles and Aerodynamic Lens For Nano-particles,” NYSTAR (through CAMP), \$40,000.00 (2003-2005)

“NY STAR Center for Environmental Quality System/EPA Indoor Environmental Research Program Collaboration,” EPA through Syracuse University, \$300,000 (2004-2007) Co-PI with A. Ferro, P. Hopke, S. Dhaniyala, J. Taylor.

“Smart Responsive Nanocomposite for Soldier Protection,” US-ARO, \$169,250 (2005-2007) Co-PI with J. McLaughlin.

“Smart Responsive Nanocomposite for Soldier Protection,” US-ARO, \$55,291 (2005-2007) Co-PI with R. Jha and C. Cetinkaya.

“Developing Supersonic Impactor and Aerodynamic Lens for Separation and Handling of Nano-sized Particles,” DOE, \$50,000 (2006-2007)

“Strategically Targeted Research In Intelligent Built Environmental Systems - Phase 2,” EPA through Syracuse University, \$510,000, (2005-2008) Co-PI with P. Hopke and A. Ferro.

“Intelligent Control via Wireless Sensor Networks for Advanced Coal Combustion Systems” DOE, \$50,000 (2006-2007) Co-PI with A. Behal and S. Kumar.

“Computational and Experimental Techniques for Human Health and Security in Indoor Environments,” EPA, through CoE Syracuse University, CARTI, \$180,000 (2006-2008) Co-PI with J.B. McLaughlin and B. Helenbrook.

“Computational and Experimental Study of Airflow and Particulate Pollutant Transport and Concentration around the Center of Excellence Building,” EPA, Through CoE Syracuse University, CARTI, \$100,000 (2007-2008) Co-PI with Douglas Bohl.

“Glass Process Modeling,” Boeing, \$43,489, (2008-2009).

“Fabrication and Marketing of Smart Wind Turbine Blade,” VENTO TECH. Grant for Growth, \$50,000, (2008-2009) Co-PI with Bollt, Marzocca, Jha.

“Hybrid Projectile UAV,” ARDEC/IMPERIAL, \$120,000, (2008-2011), Co-PI, Marzocca, Jha.

“Computer Simulation of Medical Isolation Systems,” Isolation, \$18,000 (2008-2009).

“Advancement of Intelligent Aerospace Systems,” AFOSR, \$1,741,500 (2009-2012). (Co-PIs, Jha, Marzocca, McLaughlin, Helenbrook, Bollt, Visser, Bohl.)

“Investigation of Electrostatic Forces Caused by Walking on Floor and its Effect of Particle Resuspension in an Indoor Environment,” EPA, through CoE Syracuse University, CARTI, \$100,000 (2009-2011) Co-PI with A. Ferro.

“Smart Responsive Nanocomposites- for Soldier Protection,” ARO, \$230,326 (2009-20012) Co-PI with Cetinkaya, Aidun, Cheng, Jha, Marzocca, Moosbrugger.

“Identifying the Optimal UV-Fluence Rate and Fan Efficiency of the Haledyne Has-74 in Order to Optimize the Device Performance as a Method to Increase Productivity and Improve the Health of Room Occupants,” EPA, through CoE Syracuse University, \$17,100 (2011)

“Grants for Growth with Haledyne, LLC: Syracuse University and Clarkson University,” MDA, Grant for Growth, \$15,100 (2011).

“Metallic Materials Coatings – Enhancement,” GE, \$195,000, (2011-2013) Co-PI Krishnan, Rasmussen, Moosbrugger.

“High Strength HISC-Resistant Bolt Materials for Seawater/Cathodic Protection Service,” GE, \$312,000, (2011-2013) Co-PI Morrison, Aidun, Suni.

“GOALI: Mapping of Charge Distribution on a Non-uniformly Charged Toner Particle for Determining Fundamental Contributors of Adhesion Force,” NSF, \$300,000, (2011-2016), Co-PI with Cetinkaya and Ding.

“GE Projects for Advanced Materials and Surface,” GE, \$2,660,000, (2013-2018).

“Characterization of Particle Interaction with Non-Ideal Surfaces: Role of Particle Properties, Surface Roughness, and Humidity,” DRTA, \$950,000, (2014-2019), Co-PI with Dhaniyala and Ferro.

HONORS AND AWARDS

"Research Medal" for promotion of research, Iran (1975).

"Alborz Foundation Award" for the Distinguished Scientist of Iran (1976).

"Ministry of Science and Higher Education Award" for Excellence in Research, Tehran, Iran (1978).

"Research Medal," Tehran, Iran (1978).

"Pi Tau Sigma Distinguished Faculty Award," Clarkson University (1984).

"University Outstanding Advisor Award," Clarkson University (1986).

"Pi Tau Sigma Distinguished Faculty Teaching Award," Clarkson University (1986).

"Personal Computer Curriculum Development Award," Clarkson University (1987)

"Pi Tau Sigma Distinguished Faculty Teaching Award," Clarkson University (1988).

"Honorable Mention for Personal Computer Curriculum Development," Clarkson University (1988)

"University Outstanding Advisor Award," Clarkson University (1988).

"University Distinguished Teaching Award," Clarkson University (1988).

"Pi Tau Sigma Distinguished Faculty Teaching Award," Clarkson University (1990).

"Powder Technology of Japan Award," Tsukuba, Japan (1991)

"First Honorary Member of Iranian Academy of Science," (1996).

"First Honorary Fellow, Iranian Society of Mechanical Engineers (ISME)," (1996).

"Fellow, American Society of Mechanical Engineers (ASME)," (1997)

"Fellow, Iranian Society of Civil Engineers (ISCE)," (1999)

"First Clarkson Distinguished Professor" (2001)

"University Outstanding Advisor Award," Clarkson University (2002).

"Robert R. Hill '48 Professor of Mechanical and Aeronautical Engineering" (2002)

"Elected Prominent Figures of Iran (Chehreh Mandegar) - in Mechanical Engineering" (2003)

"Membership to Five Million Dollar Club" Clarkson University (2006)

"Omar Khyam Plaque of Honor" Scientia, Iranica, Sharif University (2006)

"The Commendable Leadership Award," Phalanx, Clarkson University (2015)

"Inducted into Phalanx, Clarkson's highest Honorary Society," Clarkson University (2015)

"Lifetime Research Achievement Award," Clarkson University (2015)

"Fluid Engineering 90th Anniversary Medal," ASME (2016)

"Freeman Scholar Award," ASME (2016)
<https://www.asme.org/about-asme/get-involved/honors-awards/literature-awards/freeman-scholar-award>

"Fellow, American Society of Thermal and Fluid Engineers" (ASTFE)," (2019)
http://www.astfe.org/tfec2019/conference_program/
http://www.astfe.org/conferences/tfec2019/TFEC2019_Conference_program.pdf

PATENTS

Aeroelastic Wind Energy Converter, Iranian Patent No. 20923 (1979) (G. Ahmadi).

Methods for Cleaning Surfaces Substantially Free of Contaminants, US Patent 6,530,823 B1 (2003) (G. Ahmadi, P.E. Lewis, A.G. Tannous, K. Makhamreh and K.H. Compton).

Apparatus for Cleaning Surfaces Substantially Free of Contaminants, US Patent 6,543,462 B1 (2003) (P.E. Lewis, G. Ahmadi, A.G. Tannous, K. Makhamreh and K.H. Compton).

Methods for Cleaning Surfaces Substantially Free of Contaminants Utilizing Filtered Carbon Dioxide, US Patent 6,719,613 (2004) (G. Ahmadi, P.E. Lewis, A.G. Tannous, K. Makhamreh and K.H. Compton).

Methods for Cleaning Utilizing Multi-Stage Filtered Carbon Dioxide, US Patent 6,945,853 B2 (2005) (G. Ahmadi, P.E. Lewis, A.G. Tannous, K. Makhamreh).

System and Method for Protecting Structures from Damage Induced by Seismic Events (2018) provisional Patent Files, Patent Pending (F. Mohammadi Tehrani and G. Ahmadi)

SYNERGISTIC ACTIVITIES

- Served as the PI for the NSF CRCRD project and developed a series of online courses on particle transport, deposition, and removal. <http://www.clarkson.edu/projects/crcrd/index.php>
- Developed an efficient computational model for Brownian diffusion of particles in laminar and turbulent flows. The method is now being used in FLUENT commercial code.
- Contributed to the development of practical methods for dilute two-phase flow analysis. The approach is being used to improve the operation and design of engineering systems in several companies (e.g., Xerox, Corning, Dura Pharmaceutical, Southern).
- Contributed to the understanding of the mechanism that controls particle deposition, transport, dispersion, and removal in turbulent flows.
- Gave many short courses on aerosols, two-phase flows, turbulence, random vibrations and vibration control in the US and abroad.

PUBLICATIONS

Three books, 703 archival papers, 1255 technical conference, and poster presentations, and 190 Invited presentations.

BOOKS

A. Razani and G. Ahmadi, "Mathematical Methods in Engineering and Science," Vol. 1, Shiraz University Press No. 87 (1977).

G. Ahmadi and A. Razani, "Mathematical Methods in Engineering and Science," Vol. 2, Shiraz University Press No. 90 (1977).

J. Y. Tu, K. Inthavong, and G. Ahmadi, "Computational Fluid and Particle Dynamics in the Human Respiratory System," Springer, New York (2013). ISBN 978-94-007-4487-5, ISBN 978-94-007-4488-2 (E-Book).

<http://www.springer.com/materials/mechanics/book/978-94-007-4487-5>

MAJOR BOOK CHAPTERS

Ahmadi, G. and Goldschmidt, V.W., Kinematic Computer Simulation of the Turbulent Dispersion of Neutrally Buoyant Particles, Developments in Mechanics, Vol. 5, pp. 201-213 (1969).

Ahmadi, G. and Goldschmidt, V.W., Dynamic Simulation of the Turbulent Diffusion of Small Particles, Hydrotransport, Vol. 1, pp. 69 (1970).

Ahmadi, G. Koh, S.L. and Goldschmidt, V.W., A Theory of Nonsimple Microfluids, Recent Advances in Engineering Science, Vol. 5 Gordon and Breach, pp. 9-20 (1970).

Ahmadi, G., Motion of Particles in a Turbulent Fluid-On the Effect of Rotation on the Dispersion Coefficient, Pneumotrasport 2, C1,1-14 Ed. N.G. Cole and H.S. Stephens, BHRA, Cranfield Bedford, U.K. (1974).

G. Ahmadi, "Nano and Micro-Particle Transport, Deposition and Removal," in "Production, Transport, and Application of Nanoparticles," Lecture Series 2007-04, Ed. By O. Chazot and P. Rambaud, von Karman Institute for Fluid Dynamics, Brussels, Belgium, (2007), pp. 1-57.

G. Ahmadi, "Particle Transport and Deposition in Respiratory Tracts," in "Production, Transport, and Application of Nanoparticles," Lecture Series 2007-04, Ed. By O. Chazot and P. Rambaud, von Karman Institute for Fluid Dynamics, Brussels, Belgium, (2007), pp. 1-25.

G. Ahmadi and R.S. Chavali, "Nano and Micro-Particle Focusing Using Aerodynamic Lenses at Normal Pressures," in "Production, Transport, and Application of Nanoparticles," Lecture Series

2007-04, Ed. By O. Chazot and P. Rambaud, von Karman Institute for Fluid Dynamics, Brussels, Belgium, (2007), pp. 1-21.

G. Ahmadi and O. Abouali, “Supersonic and Hypersonic Impactors,” in “Production, Transport, and Application of Nanoparticles,” Lecture Series 2007-04, Ed. By O. Chazot and P. Rambaud, von Karman Institute for Fluid Dynamics, Brussels, Belgium, (2007), pp. 1-21.

G. Ahmadi and J.B. McLaughlin, “Transport, Deposition and Removal of Fine Particle: Biomedical Applications,” in “Medical Applications of Colloids,” Ed. by E. Matijevic, Springer, New York, (2008) pp. 95-176.

G. Ahmadi, “Transport, Deposition and Removal of Charged Nano-Particles,” Modeling and Computation of Nanoparticles in Fluid Flows, Workshop/Lecture Series, von Karman Institute for Fluid Dynamics, Brussels, Belgium, February 9-12, 2009. Also RTO EDUCATIONAL NOTES EN-AVT-169, Modeling and Computation of Nanoparticles in Fluid Flows.

<ftp://ftp.rto.nato.int/PubFullText/RTO/EN/RTO-EN-AVT-169/EN-AVT-169-06.doc>

G. Ahmadi, “Lagrangian versus Eulerian Method for Nano-Particles,” Modeling and Computation of Nanoparticles in Fluid Flows, Workshop/Lecture Series, von Karman Institute for Fluid Dynamics, Brussels, Belgium, February 9-12, 2009. Also RTO EDUCATIONAL NOTES EN-AVT-169, Modeling and Computation of Nanoparticles in Fluid Flows.

<ftp://ftp.rto.nato.int/PubFullText/RTO/EN/RTO-EN-AVT-169/EN-AVT-169-01.doc>

G. Ahmadi, Chapter 2 – Computational Fluid Dynamics of Particle Transport and Deposition, in “Developments in Surface Contamination and Cleaning, Volume Four - Detection, Characterization, and Analysis of Contaminants,” Edited by R. Koli and K.L. Mittal, Elsevier, Amsterdam, Pages 81–105 (2012).

G. Ahmadi, Chapter 2 – Mechanics of Particle Adhesion and Removal, in “Particle Adhesion and Removal,” Edited by K.L. Mittal and R. Jaiswal, Wiley, Hoboken, Pages 81–104 (2015).

G. Ahmadi and O. Abouali, Chapter 16 – Biological Systems and Biomimetics, “16.1 - Airflow and Particle Deposition in the Upper Respiratory Airways,” Multiphase Flow Handbook, 2nd Edition, Edited by E.E. Michaelides, C.T. Crowe and J.D. Schwarzkopf, CRC Press, Taylor and Francis Group, Boca Raton, FL, Pages 887–937 (2017).

B. Nasr, S. Dhaniyala and G. Ahmadi, Chapter 2 – Particle Resuspension From Surfaces: Overview of Theoretical Models and Experimental Data, in “Developments in Surface Contamination and Cleaning: Types of Contamination and Contamination Resources,” Edited by R. Koli and K.L. Mittal, Elsevier, Amsterdam, Pages 55–84 (2017).

<https://www.sciencedirect.com/science/article/pii/B9780323431583000022>

O. G. Otukpa, M. A. Moghimi, G. Ahmadi and J. P. Meyer, Chapter 3. A Review of Conventional and Sustainable Mirror Cleaning Technologies in Parabolic Trough Collector, in “Parabolic

Troughs: Design and Applications,” Edited by H. Sebastiaan, Nova Science Publisher, New York (2020), ISBN: 978-1-53617-559-2. <https://novapublishers.com/product-tag/9781536175592/>

JOURNALS

1971

1. Ahmadi, G. and Goldschmidt, V.W., Motion of Particles in a Turbulent Fluid-The Basset History Term, Journal of Applied Mechanics, Trans. ASME, Vol. E38, pp. 561-563 (1971). <https://appliedmechanics.asmedigitalcollection.asme.org/article.aspx?articleID=1399921>
2. Ahmadi, G. and Goldschmidt, V.W., Creation of a Pseudo-Turbulent Velocity Field, Development in Mechanics, Vol. 6, pp. 291-304 (1971).
3. Ahmadi, G. and Manvi, R., Porous Sphere in a Creeping Flow, Iranian J. Sci. Tech., Vol. 1, pp. 21 (1971).
4. Ahmadi, G. and Manvi, R., Diffusion in Creeping Motion Past Spheroids, Iranian J. Sci. Tech., Vol. 1, pp. 131-144 (1971).
5. Ahmadi, G. and Farshad, M., Perturbation Solution to the Problem of General Orthotropic Rectangular Plate, 1983 Iranian J. Sci. Tech., Vol. 1, pp. 147-162 (1971).
6. Ahmadi, G. and Manvi, R., Equation of Motion for Viscous Flow through Rigid Porous Medium, Indian J. Tech., Vol. 9, pp. 441-444 (1971).
7. Ahmadi, G. Koh, S.L. and Goldschmidt, V.W., Mechanics of a Second-Order Microfluid, Iranian J. Sci. Tech., Vol. 1, pp. 233-257 (1971).

1972

8. Ahmadi, G., The Brownian Motion of Charged Particles in the Presence of a Magnetic Field, Iranian J. Sci. Tech., Vol. 1, pp. 301-310 (1972).
9. Ahmadi, G. and Manvi, R., On the Dynamic Response of an Infinite Bernoulli-Euler Beam to Random Load, J. Indust. Math., Vol. 22, pp. 65-76 (1972).
10. Shahinpoor, M. and Ahmadi, G., Stability of Cosserat Fluid Motions, Arch. Rat. Mech. Anal., Vol. 47, pp. 188-194 (1972).

11. Goldschmidt, V.W., Ahmadi, G. et al., Turbulent Diffusion of Small Particles Suspended in Turbulent Jets, Progress in Heat and Mass Transfer, Vol. 6, Ed. G. Hetsroni, Pergamon Press, pp. 487-508 (1972).

1973

12. Ahmadi, G. and Farshad, M., On the Dynamic Response of a Generally Orthotropic Plate to Random Load, Iranian J. Sci. Tech., Vol. 2, pp. 297-288 (1973).
13. Ahmadi, G. and Shahinpoor, M., Decay of the Kinetic Energy of Compressible Micropolar Fluids, Int. J. Engng. Sci., Vol. 11, pp. 885-889 (1973).
14. Ahmadi, G. and Shahinpoor, M., Uniqueness in Elastodynamics of Micropolar and Cosserat Media, Quart. J. Appl. Math., Vol. 31, pp. 257-261 (1973).
15. Ahmadi, G. and Shahinpoor, M., Universal Stability of Magneto-Cosserat Fluid Motions, Rend. Sci., Vol. A 107, pp. 343-352 (1973).
16. Ahmadi, G. and Shahinpoor, M., Decay of the Kinetic Energy of a First Order Cosserat Fluid, Rend. Sci., Vol. A 107, pp. 353-356 (1973).
17. Farshad, M. and Ahmadi, G., The Effect of Boundaries on Wave Propagation in Media with Microstructure-Reflection of Plane Waves at a Free Plane Boundary, Bull. Seismol. Soc. Amer., Vol. 63, pp. 1507-1514 (1973).
18. Ahmadi, G. and Farshad, M., Theory of Nonlocal Plates, Letters in Applied and Engineering Sciences, Vol. 1, pp. 529-541 (1973).
19. Ahmadi, G. and Razani, A., Some Optimization Problems Related to Cooling Fins, Int. J. Heat Mass Transfer, Vol. 16, pp. 2369-2375 (1973).
20. Hashemi, J. and Ahmadi, G., The Random Vibration of a Nonuniform Cantilever Beam with Concentrated Mass, Vehicle System Dynamic, Vol. 2, pp. 225-233 (1973).

1974

21. Farshad, M. and Ahmadi, G., On Vibrations of Bounded Anisotropic Inhomogeneous Elastic Media, Iranian J. Sci. Tech., Vol. 3, pp. 75-86 (1974).
22. Farshad, M. and Ahmadi, G., Effect of Boundaries on Wave Propagation in Media with Microstructure: II. Surface Waves in a Half-Space, Bull. Seismol. Soc. Amer., Vol. 64, pp. 387-392 (1974).

23. Ahmadi, G. and Shahinpoor, M., Universal Stability of Magneto Micropolar Fluid Motions, *Int. J. Engng. Sci.*, Vol. 12, pp. 657-663 (1974).
24. Ahmadi, G., Wave Propagation and Uniqueness in Elastodynamic of Micropolar Media with Stretch, *Lett. Appl. Engng. Sci.*, Vol. 2, pp. 123-131 (1974).
25. Hashemi, J. and Ahmadi, G., Response of an Infinitely Long Timoshenko Beam to Random Loads, *Indust. Math.*, Vol. 24, pp. 29-40 (1974).
26. Ahmadi, G., Dispersion of Solute in a Micropolar Pipe Flow, *Int. J. Multiphase Flow*, Vol. 1, pp. 487-490 (1974).
27. Ahmadi, G. and Farshad, M., On the Continuum Theory of Solid-Fluid Mixture - A Superimposed Model of Equipresent Constituents, *Indian J. Tech.*, Vol. 12, pp. 195-198 (1974).
28. Ahmadi, G. and Satter, M.A, On the Random Vibration of a Damped Simply Supported Beam Carrying Concentrated Masses, *Indust. Math.*, Vol. 24, pp. 19-27 (1974).
29. Ahmadi, G., Optical Properties of a Polarizable Linear Magneto-Cosserat Fluid, *Optics Comm.*, Vol. 11, pp. 385-388 (1974).
30. Ahmadi, G. and Shahinpoor, M., Universal Stability of a Dusty Gas, *Australian Chem. Engng.*, Vol. 15, pp. 5-8 (1974).
31. Ahmadi, G. and Shahinpoor, M., Decay of the Kinetic Energy of a Dusty Gas, *J. Math. Phys. Sci.*, Vol. 8, pp. 497-502 (1974).
32. Ahmadi, G., Heat Conduction in Solids with Random Initial Conditions, *J. Heat Transf. Trans. ASME*, Vol. 96, pp. 474-477 (1974).
33. Ahmadi, G. and Shahinpoor, M., Universal Stability of Thermo-Cosserat Fluid Motions, *Rend. Sci.*, Vol. A 108, pp. 1 (1974).
34. Ahmadi, G. and Shahinpoor, M., On the Foundation of Cosserat Media With Rigid Polarizable Micro-Inclusions, *Recent Advances in Engineering Science*, Edited by T.S. Chang, Vol. 6, Golden and Breach pp. 135-142 (1974).
35. Ahmadi, G., Dispersion of a Solute in Magneto-Hydrodynamic Channel Flows, *Pakistan J. Sci. Indust. Res.*, Vol. 17, pp. 189 (1974).

1975

36. Shahinpoor, M. and Ahmadi, G., Relativistic Thermodynamics of Viscous Heat Conducting Fluids, Iranian J. Sci. Tech., Vol. 3, pp. 245-247 (1975).
37. Ahmadi, G. and Firoozbakhsh, K., First Strain Gradient Theory of Thermoelasticity, Int. J. Solid Struct., Vol. 11, pp. 339 (1975).
38. Satter, M.A and Ahmadi, G., Analysis of Noise Reduction Obtainable From the Redesign of a Mechanical Assembly, J. Mech. Engng. Sci., Vol. 17, pp. 155-162 (1975).
39. Ahmadi, G., Optical Properties of Polarizable Linear Magneto-Micropolar Fluid, Int. J. Engng. Sci., Vol. 13, pp. 209-215 (1975).
40. Ahmadi, G., Micropolar Thermoelastic Stability, Lett. Appl. Engng. Sci., Vol. 3, pp. 265-277 (1975).
41. Ahmadi, G., Mechanics of a Second-Order Micro-Elastic Solid, Rheologica Acta, Vol. 14, pp. 710-714 (1975).
42. Ahmadi, G., Stability of Mean Turbulent Flow, Phys. Fluids, Vol. 18, pp. 1582-1583 (1975).
43. Ahmadi, G., Turbulent Shear Flows of Micropolar Fluids, Int. J. Engng. Sci., Vol. 13, pp. 959-964 (1975).
44. Ahmadi, G., Stability of Linear Micropolar Elastic Media, Int. J. Engng. Sci., Vol. 13, pp. 1111-1117 (1975).
45. Ahmadi, G., Theory of Nonlocal Viscoelasticity, Int. J. Nonlinear Mech., Vol. 10, pp. 253-258 (1975).
46. Ahmadi, G., Stability of Thermo-diffusive-Magneto-Hydrodynamics, Int. J. Energy Conversion, Vol. 15, pp. 35-38 (1975).
47. Ahmadi, G. and Satter, M.A, Mean Square Response of Beams to Nonstationary Random Excitation, AIAA, Vol. 13, pp. 1097-1100 (1975).
48. Ahmadi, G., Universal Stability of Thermo-Diffusive-Magneto-Cosserat Fluid Motions, Bulletin De l'Academic Polonaise Des Sciences, Vol. 23, pp. 51-59 (1975).
49. Ahmadi, G., Functional Calculus of a Transferable Scalar in a Turbulent Flow, Z. Naturforsch., Vol. 30a, pp. 1572-1576 (1975).

1976

50. Ahmadi, G., On the Stability of Thermomagnetic Fluid in a Porous Box, *Physica C*, Vol. 81C, pp. 403-408 (1976).
51. Ahmadi, G., Stability of a Micropolar Fluid Layer Heated From Below, *Int. J. Engng. Sci.*, Vol. 14, pp. 81-89 (1976).
52. Ahmadi, G., Universal Stability of Thermo-Magneto-Micropolar Fluid Motions, *Int. J. Engng. Sci.*, Vol. 15, pp. 853-859 (1976).
53. Ahmadi, G., An Approximate Method for Solving Hopf Equation of Burger's Model of Turbulence, *Appl. Sci. Res.*, Vol. 32, pp. 207-215 (1976).
54. Ahmadi, G. and Mostaghel, N., On the Stability of a Class of Nonstationary Nonlinear Random System, *Int. J. System Sci.*, Vol. 7, pp. 685-689 (1976).
55. Ahmadi, G. and Razani, A., Convective Heat Transfer in a Pipe with a Nonuniform Heat Source, *Indian J. Tech.*, Vol. 14, pp. 277-278 (1976).
56. Ahmadi, G. and Satteripour, S.A, Dynamic Stability of a Column Subjected to an Axial Random Load, *Indust. Math.*, Vol. 26, pp. 67-77 (1976).
57. Ahmadi, G., Universal Stability of Micropolar Viscoelastic Fluid Motions, *ZAMM*, Vol. 56, pp. 504-505 (1976).
58. Ahmadi, G. and Farshad, M., Dynamics of Slightly Disordered Chain, *Industrial Math.*, Vol. 26, pp. 1-10 (1976).
59. Ahmadi, G., Decay of the Energy of a Thermo-Diffusive Viscous Fluid, *J. Math. Phys. Sci.*, Vol. 10, pp. 77-80 (1976).
60. Ahmadi, G., Self-Similar Solution of Incompressible Micropolar Boundary Layer Flow over a Semi-Infinite Plate, *Int. J. Engng. Sci.*, Vol. 14, pp. 639-646 (1976).
61. Ahmadi, G., Turbulent Flow of a Cosserat Fluid, *Iranian J. Sci. Tech.*, Vol. 5, pp. 75-81 (1976).
62. Ahmadi, G., Universal Stability of Thermo-Diffusive-Magneto-Micropolar Fluid Motions, *Acta Technica CSAV*, Vol. 6, pp. 623-633 (1976).
63. Ahmadi, G., Hirose, A. and Lonngren, K.E., Field Penetration into a Plasma with Current Saturating Conductivity, *IEEE Trans. Plasma Sci.*, Vol. PS-4, pp. 255-256 (1976).
64. Ahmadi, G., Decay of the Total Energy in Magnetohydrodynamics, *Pakistan Journal of Scientific and Industrial Research*, Vol. 19, pp. 118-119 (1976).

65. Ahmadi, G., Nonlocal Heat Conducting Fluids, Journal of Scientific and Industrial Research, Vol. 35, pp. 435-438 (1976).
66. Ahmadi, G., Goldschmidt, V.W. and Dean, B., A Model of Incompressible Turbulent Flow, Iranian J. Sci. Tech., Vol. 5, pp. 147-158 (1976).

1977

67. Ahmadi, G., Thermoelastic Stability of First Strain Gradient Solids, Int. J. Nonlinear Mech., Vol. 12, pp. 23-32 (1977).
68. Ahmadi, G., On the Stability of a Class of Continuous Systems with Nonstationary Random Coefficients, Int. J. System Sci., Vol. 8, pp. 1201-1207 (1977).
69. Ahmadi, G., Stability of a Hydromagnetic Fluid Layer in the Presence of Temperature and Concentration Gradients in a Rotating Frame of Reference, Energy Conversion, Vol. 16, pp. 143-147 (1977).
70. Ahmadi, G. and Satter, M.A, Mean Square Response of a Pipe Carrying Flowing Fluid To Nonstationary Random Excitations, Journal of Sound and Vibration, Vol. 54, pp. 577-581 (1977).
71. Ahmadi, G., Stability of Two Temperature Fluid Layer Heated From Below, Journal de Mecanique, Vol. 16, pp. 25-38 (1977).
72. Ahmadi, G., On the Stability of Systems of Coupled Partial Differential Equations with Random Excitation, Journal of Sound and Vibration, Vol. 52, pp. 27-35 (1977).
73. Ahmadi, G. and Razani, A., On Optimization of Circular Fins with Heat Generation, Journal of Franklin Institute, Vol. 303, pp. 211-218 (1977).
74. Ahmadi, G., Optical Properties of Magneto-Nonlocal Fluids, Optics Communications, Vol. 21, pp. 220-224 (1977).
75. Ahmadi, G., Irreversibility of Electrostatic Plasma Turbulence, Indian Journal of Physics, Vol. 51A, pp. 33-35 (1977).
76. Ahmadi, G. and Satteripour, S.A, On the Stability of Differential Equations with Random Coefficients, Industrial Mathematics, Vol. 27, pp. 1-11 (1977).
77. Ahmadi, G. and Sabzevari, A., On the Stability of Suspension Bridges in Random Winds, J. Industrial Aerodynamics, Vol. 2, pp. 105-111 (1977).
78. Ahmadi, G., On the Stability of Nonstationary Stochastic Differential Equations, Iranian J.

Sci. and Tech., Vol. 6, pp. 75-80 (1977).

79. Ahmadi, G., On the Two Temperature Theory of Heat Conducting Fluids, Mechanics Research Communications, Vol. 4, pp. 209-217 (1977).
80. Satter, M.A and Ahmadi, G., Experimental Investigation of Noise Radiation from a Circular Plate Covered by Polyurethane Foam, Journal of Applied Acoustics, Vol. 10, pp. 113-120 (1977).
81. Ahmadi, G. and Vafai, A., A Generalized Linear Theory of Wood, Journal of Fiber Science and Technology, Vol. 10, pp. 255-261 (1977).
82. Ahmadi, G., On the Stability of Two Temperature Theory of Heat Conducting Fluid Motions, Letters Appl. Engng. Sci., Vol. 5, pp. 321-333 (1977).
83. Shahinpoor, M., Tadhbakhsh, I.G. and Ahmadi, G., Seismic Response of Hills, Bull. Seismol. Soc. America, Vol. 67, pp. 1665-1666 (1977).
84. Ahmadi, G., Theory of Second-Order Micropolar Fluids, Bull. de l'Academie Polonaise des Sciences, Vol. 25, pp. 15-24 (1977).
85. Shahinpoor, M. and Ahmadi, G., Stability of Cosserat Fluid Motions-II On The N-th Order Cosserat Fluid, Acta Mechanics, Vol. 28, pp. 153-163 (1977).
86. Shahinpoor, M., Tadhbakhsh, I.G. and Ahmadi, G., Seismic Response of Hills, Iranian J. Sci. Tech., Vol. 6, pp. 199-203 (1977).
87. Ahmadi, G. and Satter, M.A, On Random Vibration of a Simply Supported Beam Carrying Concentrated Masses, J. Aeronautical Society of India, Vol. 29, pp. 75-77 (1977).
88. Shahinpoor, M. and Ahmadi, G., Universal Stability of Thermo-Cosserat Fluid Motions, Institute Lombardo Rend. Sc., Vol. A 111, pp. 241-249 (1977).

1978

89. Ahmadi, G. and Satter, M.A, Stability of a Pipe Carrying Time-Dependent Flowing Fluid, J. Franklin Institute, Vol. 305, pp. 1-9 (1978).
90. Ahmadi, G. and Morshedi, A.M., A., Stability of Stochastic Chemical Systems, J. Franklin Institute, Vol. 306, pp. 77-86 (1978).
91. Ahmadi, G., Aeroelastic Wind Energy Converter, Energy Conversion, Vol. 18, pp. 115-120 (1978).
92. Ahmadi, G., Heat Conducting Microfluids, Indian Journal of Technology, Vol. 16, pp.

15-17 (1978).

93. Ahmadi, G. and Shahinpoor, M., Decay of the Energy of a First Order Cosserat Fluid with Heat and Mass Transfer, Iranian J. Sci. Tech., Vol. 7, pp. 21-24 (1978).
94. Sabzevari, A. and Ahmadi, G., Further Studies on the Stability of Suspension Bridges in Random Winds, J. Industrial Aerodynamics, Vol. 2, pp. 323-330 (1978).
95. Ahmadi, G., Some Preliminary Results on Performance of a Small Vertical-Axis Cylindrical Wind Turbine, Wind Engineering, Vol. 2, pp. 65-74 (1978).
96. Ahmadi, G., On Functional Methods for Studying Heat Conduction in Solids With Random Conductivity, Letters in Heat and Mass Transfer, Vol. 5, pp. 167-173 (1978).
97. Ahmadi, G., Tadjbakhsh, I.G. and Farshad, M., On the Response of Nonlinear Plates to Random Loads, Acoustica, Vol. 48, pp. 316-322 (1978).
98. Ahmadi, G. and Mostaghel, N., On the Stability of Columns Subjected to Non-Stationary Random or Deterministic Support Motion, Earthquake Engineering and Structural Dynamics, Vol. 6, pp. 321-326 (1978).
99. Ahmadi, G., On the Theory of Extensible Nematic Liquid Crystals, Molecular Crystals and Liquid Crystals, Vol. 47, pp. 209-223 (1978).
100. Ahmadi, G., A Perturbation Method for Studying Heat Conduction in Solid With Random Conductivity, ASME Trans. J. Applied. Mechanics, Vol. 45, pp. 933 (1978).
101. Ahmadi, G., On the Stability of Stochastics Linear Difference-Differential Equations, Industrial Mathematics, Vol. 28, pp. 1-13 (1978).
102. Ahmadi, G. and Sohrabpour, S., Theory of Micropolar Plasticity, Iranian J. Sci. Tech., Vol. 7, pp. 135-140 (1978).
103. Ahmadi, G., Earthquake Response of Linear Continuous Systems, Nuclear Engineering and Design, Vol. 50, pp. 327-345 (1978).
104. Ahmadi, G., Linear Theory of Second-Order Micropolar Elastic Solids, Acta Technica CSAV, No. 4, pp. 369-380 (1978).

1979

105. Ahmadi, G., Mean Square Stability of Linear Difference Equations, Applied Mathematics and Computation, Vol. 5, pp. 233-241 (1979).
106. Ahmadi, G. and Morshedi, A.M., Optimization of Noisy Functionals, Industrial

- Mathematics, Vol. 29, pp. 89-104 (1979).
107. Ahmadi, G., Stability of a Cosserat Fluid Layer Heated From Below, *Acta Mechanica*, Vol. 31, pp. 243-252 (1979).
 108. Ahmadi, G. and Sohrabpour, S., Elasto-Viscoplastic-Viscous Theories of Granular and Porous Media, *Int. J. Nonlinear Mechanics*, Vol. 14, pp. 133-142 (1979).
 109. Ahmadi, G., On the Application of Critical Excitation Method to Aseismic Design, *Journal of Structural Mechanics*, Vol. 7, pp. 55-63 (1979).
 110. Shahinpoor, M. and Ahmadi, G., A Note on the Free Energy of Granular Media, *Iranian J. Sci. Tech.*, Vol. 7, pp. 191-193 (1979).
 111. Farshad, M. and Ahmadi, G., Influence of Loading Behaviour on the Stability of Cylindrical Shells, *J. Sound Vibration*, Vol. 62, pp. 533-540 (1979).
 112. Ahmadi, G., Mechanics of Blood Flow - A Review, *Iranian J. Sci. Tech.*, Vol. 7, pp. 161-189 (1979).
 113. Akbarzadeh, A. and Ahmadi, G., Underground Thermal Storage in the Operation of Solar Ponds, *Energy*, Vol. 4, pp. 1119-1125 (1979).
 114. Ahmadi, G., Generation of Artificial Time Histories Compatible with a Given Response Spectra, *SM Archive*, Vol. 4, pp. 207-239 (1979).
 115. Ahmadi, G., On the Mean Square Stability of a Class of Nonstationary Coupled Partial Differential Equations, *Ingenieur Archiv*, Vol. 48, pp. 213-219 (1979).
 116. Mostaghel, N. and Ahmadi, G., Smooth Site Dependent Spectra, *Nuclear Engineering and Design*, Vol. 53, pp. 263-300 (1979).
 117. Shahinpoor, M. and Ahmadi, G., M., Free Energy of Granular Materials in Static Equilibrium, *J. Appl. Mech. ASME*, Vol. 46, pp. 944-945 (1979).
 118. Ahmadi, G., An Oscillatory Wind Energy Converter, *Wind Engineering*, Vol. 3, pp. 207-215 (1979).
 119. Ahmadi, G., Special Theories of Heat Conducting Microfluids, *Bull. de l'Academie Polonaise des Sciences*, Vol. 27, pp. 1-12 (1979).
 120. Ahmadi, G. and Satter, M.A., Response of Plate to Nonstationary Random Load, *J. Acoustical Society of America*, Vol. 65, pp. 926-930 (1979).
 121. Ahmadi, G., Earthquake Response of Nonlinear Plates, *Nuclear Engineering and Design*,

Vol. 54, pp. 407-417 (1979).

122. Ahmadi, G. and Koh, S.L., A Theory of Second-Order Thermo-Microelasticity, Iranian J. Sci. Tech., Vol. 7, pp. 195-202 (1979).

1980

123. Ahmadi, G., Performance of a Low-Cost Cross-Wind-Axis Sail-Wind Turbine, Energy, Vol. 5, pp. 1045-1052 (1980).
124. Ahmadi, G. and Akbarzadeh, A., Computer Simulation of the Performance of a Solar Pond in the Southern Part of Iran, Solar Energy, Vol. 24, pp. 143-151 (1980).
125. Ahmadi, G., Mechanics of Saturated Granular Materials, Int. J. Nonlinear Mechanics, Vol. 15, pp. 251-262 (1980).
126. Ahmadi, G., A Note on the Wiener-Hermite Representation of the Earthquake Ground Acceleration, Mechanics Research Communications, Vol. 7, pp. 7-12 (1980).
127. Ahmadi, G., Mean Square Response of a Duffing Oscillator to a Modulated White Noise Excitation by the Generalized Method of Equivalent Linearization, J. Sound and Vibration, Vol. 71, pp. 9-15 (1980).
128. Ahmadi, G. and Firoozbakhsh, K., First Strain Gradient Theory of Granular Materials, Mehanika, Vol. 6, pp. 50-65 (1980).
129. Ahmadi, G. and Nowroozi, A.A., Earthquake Risk Analysis of Iran-I: Frequency-Magnitude Correlations for Various Seismotectonic Provinces, J. Earth & Space Phys., Vol. 9, pp. 27-48 (1980).
130. Ahmadi, G. and Nowroozi, A.A., Earthquake Risk Analysis of Iran-III: Intensity Estimates for Various Return Periods and Epicentral Distances, The Bulletin of the Iranian Petroleum Institute, Bulletin No. 80, pp. 1-13 (1980).
131. Ahmadi, G. and Mostaghel, N., Stability and Upper Bound to Response of Tall Structures to Earthquake Support Motion, J. Struct. Mech., Vol. 8, pp. 151-159 (1980).
132. Ahmadi, G. and Hirose, A., Functional Calculus in Strong Plasma Turbulence, J. Plasma Physics, Vol. 24, pp. 489-501 (1980).

1981

133. Ahmadi, G. and Akbarzadeh, A., On the Development of Salt Concentration Profile in a

- Solar Pond, Energy, Vol. 6, pp. 369-382 (1981).
134. Ahmadi, G., and Hirose, A., Distortion of Velocity Gradient by Anomalous Viscosity, IEEE Trans. Plasma Sci. P5-9, pp. 21-24 (1981).
 135. Ahmadi, G., A Generalized Continuum Theory for Porous Elastic Solids, Scientia Sinica, Vol. 24, pp. 179-188 (1981).
 136. Ahmadi, G., Nonstationary Random Vibration of Nonlinear System with a Setup Spring, Acoustica, Vol. 48, pp. 50-53 (1981).
 137. Ahmadi, G., On Statistical Theories of Turbulent Flow of Micropolar Fluids, Acta Mechanica, Vol. 39, pp. 127-138 (1981).
 138. Ahmadi, G., A Possible Continuum Theory for Densification and Liquefaction of Saturated Sand, Math. Geology, Vol. 13, pp. 37-52 (1981).
 139. Ahmadi, G., The Performance of an Aeroelastic Wind Energy Converter, Indian J. Tech., Vol. 19, pp. 387-389 (1981).
 140. Ahmadi, G., A Linear Theory of Heat Conducting Nematic Liquid Crystals, Bull. de l'Academic Polanaise des Science, Vol. 29, pp. 39-44 (1981).
 141. Ahmadi, G., The Micropolar Fluid Model of Incompressible Turbulent Flows, Indian J. Tech., Vol. 19, pp. 425-428 (1981).
 142. Ahmadi, G. and Nowroozi, A.A., Earthquake Risk Analysis of Iran-II: Probabilistic Seismic Risks for Various Magnitudes, J. Earth & Space Phys., Vol. 10, pp. 1-18 (1981).
 143. Ahmadi, G., Micropolar Model of Turbulence and Free Shear Flows, Strojnický Casopis, Vol. 32, pp. 409-424 (1981).
 144. Ahmadi, G., Mostaghel, N., and Nowroozi, A.A., Earthquake Risk Analysis of Iran-IV: Peak Ground Acceleration Risks for Various Return Periods and Focal Distances, The Bulletin of the Iranian Petroleum Institute, Bulletin No. 82, pp. 1-21 (1981).
 145. Ahmadi, G. and Mostaghel, N., Construction of Site Dependent Design Spectra, Bull. New Zealand Nat. Soc. Earthquake Engng., Vol. 14, pp. 244-253 (1981).
 146. Ahmadi, G., Performance of a Small Low Speed Darrieus Type Rotor, Revue Roumaine Sci. Tech., Mécanique Appliquée, Vol. 26, pp. 489-494 (1981).
 147. Ahmadi, G., Squeeze Film Theory for Cosserat Fluids, ZAMM, Vol. 61, pp. 215-220 (1981).

1982

148. Mostaghel, N. and Ahmadi, G., Estimation of a Peak Horizontal Ground Acceleration Based on Peak Accelerations of the Components, *Bull. Seismol. Soc. Am.*, Vol. 72, pp. 637-642 (1982).
149. Ahmadi, G., A Generalized Continuum Theory for Granular Materials, *Int. J. Nonlinear Mech.*, Vol. 17, pp. 21-33 (1982).
150. Ahmadi, G. and Glockner, P.G., Approximate Stability Criteria for Some Second-Order Linear Differential Equations with Stationary-Gaussian Random Coefficients, *J. Appl. Mech. Trans. ASME*, Vol. 49, pp. 648-649 (1982).
151. Ahmadi, G., Shafts with Minimum Angle of Twist, *Arabian J. Sci. Engng.*, Vol. 7, pp. 261-263 (1982).
152. Ahmadi, G., Dispersion of Solute in a Channel Flow of Nonlocal Fluids, *Acta Technica*, Vol. 94, pp. 157-162 (1982).
153. Ahmadi, G., A Continuum Theory for Two-Phase Media, *Acta Mechanica*, Vol. 44, pp. 299-317 (1982).
154. Ahmadi, G., A Continuum Theory of Smectic-A Liquid Crystals, *J. Rheology*, Vol. 26, pp. 535-556 (1982).
155. Ahmadi, G. and Mostaghel, N., Bounds on Earthquake Response of Elastic Columns, *Earthquake Engng. Struct. Dynamics*, Vol. 10, pp. 769-777 (1982).
156. Ahmadi, G. and Glockner, P.G., Dynamic Simulation of the Performance of an Inflatable Greenhouse in the Southern Part of Alberta, Part 1-Analysis and Average Winter Conditions, *Agricultural Meteorology*, Vol. 27, pp. 155-180 (1982).
157. Ahmadi, G., Kessey, K.O. and Glockner, P.G., Dynamic Simulation of the Performance of an Inflatable Greenhouse in the Southern Part of Alberta, Part II-Comparisons with Experimental Data, *Agricultural Meteorology*, Vol. 27, pp. 181-190 (1982).
158. Yousafzai, A.H. and Ahmadi, G., Deterministic and Stochastic Earthquake Response Analysis of the Containment Shell of a Nuclear Power Plant, *Nuclear Engng. Design*, Vol. 72, pp. 309-320 (1982).
159. Ahmadi, G., Functional Formulation of Magneto-Hydrodynamic Turbulence in a Rotating Frame of Reference, *J. Math. Phys. Sci.*, Vol. 16, pp. 453-461 (1982).

1983

160. Jahedi, A. and Ahmadi, G. Application of Wiener-Hermite Expansion to Nonstationary Random Vibration of a Duffing Oscillator, *J. Appl. Mech. Trans. ASME*, Vol. 50, pp. 436-442 (1983).
161. Ahmadi, G., Stochastic Earthquake Response of Structures on Sliding Foundation, *Int. J. Engng. Sci.*, Vol. 21, pp. 93-102 (1983).
162. Ahmadi, G. and Glockner, P.G., Ponding Instability of Inflated Imperfect Cylindrical Membranes, *ASCE, J. Struct. Div.*, Vol. 109, pp. 297-313 (1983).
163. Ahmadi, G., Tadjbakhsh, I.G. and Saibel, E.A., A Numerical Technique in the Hydrodynamic Theory of Foil Bearing, *Int. J. Engng. Sci.*, Vol. 21, pp. 781-789 (1983).
164. Ahmadi, G., Performance of an Angular Flange Aeroelastic Wind Energy Converter, *J. Energy, AIAA.*, Vol. 7, pp. 285-288 (1983).
165. Ahmadi, G., Application of Wiener-Hermite Expansion to Strong Plasma Turbulence, *Z. Naturforsch.*, Vol. 38a, pp. 583-584 (1983).
166. Ahmadi, G. and Glockner, P.G., Dynamic Stability of a Kelvin-Viscoelastic Column, *ASCE, J. Eng. Mech. Div.*, Vol. 109, pp. 990-999 (1983).
167. Ahmadi, G. and Shahinpoor, M., A Continuum Theory for Fully Saturated Porous Elastic Materials, *Int. J. Nonlinear Mech.*, Vol. 18, pp. 223 (1983).
168. Ahmadi, G. and Shahinpoor, M., A Note on Collision Operators in Rapid Granular Flows of Rough Inelastic Particles, *Powder Tech. J.*, Vol. 35, pp. 119-122 (1983).
169. Ahmadi, G., Lubrication Theory for Cosserat Fluids, *Acta Technica CSAV* No. 4, pp. 375-385 (1983).
170. Ahmadi, G. and Shahinpoor, M., Towards a Turbulent Modeling of Rapid Flows of Granular Materials, *Powder Tech. J.*, Vol. 35, pp. 241-248 (1983).
171. Ahmadi, G. and Glockner, P.G., Ponding Instability of Air-supported Elastic Spherical Membranes, *Arch. Mech. Engng. Trans.*, Vol. 31, pp. 361-378 (1983).
172. Ahmadi, G. and Glockner, P.G., Collapse by Ponding of Pneumatic Elastic Spherical Caps Under Distributed Loads, *Canadian J. Civil Engng.*, Vol. 10, pp. 740 (1983).
173. Ahmadi, G., Generalized Continuum Theory for Flow of Granular Materials, In *Advances in the Mechanics and Flow of Granular Materials*, Vol. II, Ed. M. Shahinpoor, Trans. Tech. Publ. pp. 497-527 (1983).

174. Ahmadi, G. and Shahinpoor, M., A Kinetic Theory for Rapid Flow of Rough Inelastic Spherical Particles and the Evolution of Fluctuations, In Advances in the Mechanics and Flow of Granular Materials, Vol. II, Ed. M. Shahinpoor, Trans. Tech. Publ. pp. 641-664 (1983).
175. Ahmadi, G. and Shahinpoor, M., A Kinetic Model for Rapid Flows of Granular Materials, Int. J. Nonlinear Mechanics, Vol. 19, pp. 177-186 (1983).

1984

176. Ahmadi, G. and Mostaghel, N., On Dynamics of a Structure with a Frictional Foundation, J. de Mechanique Theoreque et Appliquee., Vol. 3, pp. 271-285 (1984).
177. Ahmadi, G. and Glockner, P.G., Effect of Imperfection on Ponding Instability, ASCE, J. Eng. Mech. Div., Vol. 110, pp. 1167-1173 (1984).
178. Ahmadi, G. and Glockner, P.G., Dynamic Simulation of the Performance of an Inflatable Greenhouse in the Southern Part of Alberta, III. Effects of Cloudiness Factor, Agricultural and Forest Meteorology, Vol. 31, pp. 183-191 (1984).
179. Ahmadi, G., Nowroozi, A.A. and Mostaghel, N., Seismic Acceleration Risk Analysis of Iran, Proceeding of the Eighth World Conference on Earthquake Engineering July 21-28, 1984, Vol. 1, Prentice-Hall, Englewood Cliffs, New Jersey. pp. 69-76. (1984).
180. Ahmadi, G., Some Test Results on Aeroelastic Wind Energy Converter, Iranian J. Sci. Tech., Vol. 9, pp. 103-109 (1984).

1985

181. Ahmadi, G., A Generalized Continuum Theory for Multiphase Suspension Flows, Int. J. Engng. Sci., Vol. 23, pp. 1-25 (1985).
182. Ahmadi, G., On the $k-\epsilon$ Modeling of Turbulence, Int. J. Engng. Sci., Vol. 23, pp. 849-856 (1985).
183. Ahmadi, G., Thermodynamics of Multi-Temperature Fluids with Applications to Turbulence Modeling, Appl. Math. Model, Vol. 9, pp. 271-274 (1985).
184. Mean Square Stability of Delay - Differential Equations with Nonstationary Random Coefficients, Int. J. Control., Vol. 42, pp. 1131-1140 (1985).
185. Ahmadi, G., A Turbulence Model for Rapid Flows of Granular Materials. Part I. Basic Theory, Powder Technology, Vol. 44, pp. 261-268 (1985).

186. Ma, D. and Ahmadi, G., A Turbulence Model for Rapid Flows of Granular Materials. Part II. Simple Shear Flows, Powder Technology, Vol. 44, pp. 269-279 (1985).

1986

187. Ahmadi, G., Bounds on Response of a Class of Coupled Linear Partial Differential Equations, J. Sound Vibration, Vol. 110, pp. 381-393 (1986).
188. Abdel-Rahman, S.Z. and Ahmadi, G., Stability Analysis of Nonautonomous Linear Systems by a Matrix Decomposition Method, Int. J. System Science, Vol. 17, pp. 1645-1660 (1986).
189. Ahmadi, G., A Review of Methods for Stochastic Earthquake Response Analysis of Linear Multi-degree-of-Freedom Structures, Arabian J. Sci. Engng., Vol. 10, pp. 87-100 (1986).
190. Ma, D. and Ahmadi, G., An Equation of State for Dense Rigid Sphere Gases, J. Chem. Phys., Vol. 84, pp. 3449-3450 (1986).
191. Ahmadi, G., Bounds on Earthquake Response of Structures, ASCE, J. Engng. Mech., Vol. 112, pp. 351-369 (1986).
192. Ahmadi, G., On Stability of Cylindrical Shells Subjected to Random Loadings, J. Sound Vibration, Vol. 107, pp. 83-95 (1986).
193. Abdel-Rahman, S.Z. and Ahmadi, G., Stability of Elastic Frames Subjected to Earthquake Excitations, Earth. Engng. Struct. Dyn., Vol. 14, pp. 455-474 (1986).
194. Ma, D. and Ahmadi, G., A Kinetic Model for Granular Flows of Nearly Elastic Particles in Grain-Inertia Regime, Int. J. Bulk Solid Storage in Silos, Vol. 2, pp. 8-16 (1986).
195. Nowroozi, A.A. and Ahmadi, G., Analysis of Earthquake Risk in Iran Based on Seismotectonic Provinces, Tectonophysics, Vol. 122, pp. 89-114 (1986).
196. Ma, D. and Ahmadi, G., A Simple Kinetic Model for Granular Flows, in Advancements in Aerodynamics, Fluid Mechanics, and Hydraulics, Edited by R.E. Arndt et al., ASCE Publ., pp. 329-336 (1986).
197. Chowdhury, S.J. and Ahmadi, G., Thermohydrodynamic Analysis of Wide Thrust Bearings Operating in Laminar Inertial Flow Regimes, Tribology International, Vol. 19, pp. 281-288 (1986).

1987

198. Ahmadi, G., On Mechanics of Incompressible Multiphase Suspensions, *Advances in Water Resources*, Vol. 10, pp.32-43 (1987).
199. Orabi, I.I. and Ahmadi, G., Nonstationary Response Analysis of a Duffing Oscillator by the Wiener-Hermite Expansion Method, *J. Appl. Mech. Trans. ASME*, Vol. 54, pp.434-440 (1987).
200. Ahmadi, G., On Material Frame-Indifference of Turbulence Closure Models, *Geophys. Astrophys. Fluid Dynamics*, Vol. 38, pp.131-144 (1987).
201. Abdel-Rahman, S.Z. and Ahmadi, G., Stability of Frames Subjected to a Vertical Sinusoidal Base Excitation, *Engineering Structures*, Vol. 9, pp.193-200 (1987).
202. Su, L. and Ahmadi, G., Response of a Frictional Base Isolator to Random Earthquake Excitations, in *Seismic Engineering, Recent Advances in Design, Analysis, Testing and Qualification Methods*, Edited by T-H Liu and A. Marr, PVP-Vol. 127, ASME, pp. 399-404 (1987).
203. Orabi, I.I. and Ahmadi, G., Response of Structures to Horizontal-Vertical Earthquakes, in *Dynamics of Structures*, Edited by J.M. Roesset, ASCE, pp. 27-38 (1987).
204. Su, L., Ahmadi, G., and Tadjbakhsh, I.G., A Comparative Study of Different Base Isolators, in *Dynamics of Structures*, Edited by J.M. Roesset, ASCE, pp. 15-26 (1987).
205. Orabi, I.I. and Ahmadi, G., A Function Series Expansion Method for Response Analysis of Nonlinear Systems Subjected to Random Excitations, *Int. J. Nonlinear Mech.*, Vol. 22, pp. 451-465 (1987).
206. Orabi, I.I. and Ahmadi, G., An Iterative Method for Non-Stationary Response Analysis of Nonlinear Random Systems. *J. Sound Vibration*, Vol. 119, pp. 145-157 (1987).
207. Orabi, I.I. and Ahmadi, G., Equivalence of Single-Term Wiener-Hermite and Equivalent Linearization Techniques. *J. Sound Vibration*, Vol. 118, pp. 307-311 (1987).
208. Su, L., Orabi, I.I. and Ahmadi, G., Response of a Sliding Structure to Earthquake Excitation, in *Structures and Stochastic Methods*, Edited by A.S. Cakmak, Elsevier, Amsterdam, pp. 73-82 (1987).
209. Ahmadi, G., Almost-sure Stability of a Class of Distributed Parameter Systems Subjected to Random Excitations, *Dynamics and Stability of System*, Vol. 2, pp. 1-17 (1987).
210. Moussavi, M, Yen, T.F. and Ahmadi, G., Leaching Kinetics in a Semi-Homogenous Matrix, *Iranian J. Sci. Tech.*, Vol. 11, pp. 117-125 (1987).

211. Busnaina, A.A., Ahmadi, G. and Chowdhury, S.J., Two-equation Turbulence Model Consistent with the Second Law, AIAA J., Vol. 25, pp. 1543-1544 (1987).
212. Orabi, I.I. and Ahmadi, G., Horizontal-Vertical Response Spectra for El Centro 1940 Earthquake, Archive of Mechanics, Vol. 39, pp. 589-603 (1987).

1988

213. Su, L. and Ahmadi, G., Earthquake Response of Linear Continuous Structures by the Method of Evolutionary Spectra, Engineering Structures, Vol. 10, pp. 47-56 (1988).
214. Orabi, I.I. and Ahmadi, G., Response of Structures Subjected to Horizontal Vertical Random Earthquake Excitations, Soil Dynamics Earthquake Engineering, Vol. 7, pp. 9-14 (1988).
215. Su, L. and Ahmadi, G., Response of Frictional Base Isolation Systems to Horizontal-Vertical Random Earthquake Excitations, Probabilistic Engineering Mechanics, Vol. 3, pp. 12-21 (1988).
216. Chowdhury, S.J. and Ahmadi, G., Thermohydrodynamic Analysis of Wide Thrust Bearings Operating in Turbulent Inertia Flow Regimes, J. Tribology, Trans. ASME, Vol. 110, pp. 327-334 (1988).
217. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., Performances of Various Base Isolation Systems for a Shear Beam Structure, in Seismic, Shock, and Vibration Isolation, Edited by H. Chung and N. Mostaghel, PVP-Vol. 147, ASME, pp. 1-7 (1988).
218. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., A Probabilistic Comparative Study of Various Base Isolation Systems - Nonstationary Earthquake Excitation, in Probabilistic Methods in Civil Engineering, Edited by P.D. Spanos, ASCE, pp.416-419 (1988).
219. Ahmadi, G., Thermodynamically Consistent k-Z Models for Compressible Turbulent Flows, Applied Mathematical Modeling, Vol. 12, pp. 391-397 (1988).
220. Ahmadi, G. and Hayday, A.A., A Probability Density Closure Model for Turbulence, Acta Mechanica, Vol. 72, pp. 55-71 (1988).
221. Su, L., Orabi, I.I. and Ahmadi, G., Nonstationary Earthquake Response of a Sliding Rigid Structure, Int. J. Engineering Science, Vol. 26, pp. 1013-1026 (1988).
222. Orabi, I.I. and Ahmadi, G., Response of the Duffing Oscillator to a Non-Gaussian Excitation, J. Applied Mechanics, Trans. ASME, Vol. 55, pp. 740-743 (1988).
223. Ma, D. and Ahmadi, G., A Kinetic Model for Rapid Granular Flows of Nearly Elastic

Particles Including Interstitial Fluid Effects, Powder Technology, Vol. 56, pp. 191-207 (1988).

1989

224. Ahmadi, G., A Two-Equation Turbulence Model for Compressible Flows Based on the Second Law of Thermodynamics. J. Non-Equilibrium Thermodynamics, Vol. 14, pp. 45-59 (1989).
225. Su, L., Orabi, I.I. and Ahmadi, G., Hysteretic Column under Earthquake Excitations, ASCE, Journal of Engineering Mechanics, Vol. 115, pp. 33-51 (1989).
226. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., A Comparative Study of Performances of Various Base Isolation Systems - Part I: Shear Beam Structure, Earthquake Engng. Struct. Dyn., Vol. 18, pp. 11-32 (1989).
227. Lin, B.C., Tadjbakhsh, I.G., Papageorgiou, A. and Ahmadi, G., Response of Base-Isolated Buildings to Random Excitations Described by the Clough-Penzien Spectral Model, Earthquake Engng. Struct. Dyn., Vol. 18, pp. 49-62 (1989).
228. Ounis, H. and Ahmadi, G., Dispersion of Small Rigid Spheres in a Turbulent Flow Field, in Mechanics of Two-Phase Flows, Taiwan University Press, Taipei, pp. 12-17 (1989).
229. Orabi, I.I. and Ahmadi, G., Statistical Response of a Class of Hysteretic Systems, Iranian J. Sci. Tech., Vol. 13, pp. 157-173 (1989).
230. Tannous, A.G., Ahmadi, G. and Valentine, D.T., A Thermodynamically Consistent Two-Equation Model for Turbulent Buoyant Flows, Appl. Mathematical Modeling, Vol. 13, pp. 194-202 (1989).
231. Su, L. and Ahmadi, G., Effect of Nonuniformity on Earthquake Response of a Shear Beam Structure, in Recent Advances in Engineering Science, Edited by S.L. Koh and C.G. Speziale, Springer-Verlag, Berlin, pp. pp. 76-83 (1989).
232. Fan, F.G., Ahmadi, G., Mostaghel, N. and Tadjbakhsh, I.G., A Comparison of Performances of Various Frictional Base Isolation Systems, in Computer Utilization in Structural Engineering, Edited by J.K. Nelson, Jr., ASCE, New York, pp. 121-130 (1989).
233. Fan, F.G., Ahmadi, G., Mostaghel, N. and Tadjbakhsh, I.G., Fourier and Response Spectra for Base-Isolated Structures, in Seismic, Shock, and Vibration Isolation - 1989, Edited by H. Chung and F. Fujita, PVP-Vol.181, ASME, pp. 29-33 (1989).
234. Abu-Zaid, S. and Ahmadi, G., A Study of Chaos in Double-Diffusive Convection in the Presence of Noise, Appl. Mathematical Modeling, Vol. 13, pp. 291-297 (1989).

235. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., Comparative Study of Base Isolation Systems, ASCE, Journal of Engineering Mechanics, Vol. 115, pp.1976-1992 (1989).
236. Abu-Zaid, S. and Ahmadi, G., Analysis of Rapid Shearing of Two-Phase Mixtures by a Rate-Dependent Model, in Mechanics of Two-Phase Flows, Edited by R.S.L. Lee and F. Drust, National Taiwan University Press, Taipei, pp. 222-225 (1989).
237. Ahmadi, G., Mostaghel, N. and Nowroozi, A.A., Earthquake Risk Analysis of Iran-V: Probabilistic Seismic Risks for Various Peak Ground Accelerations, Iranian J. Sci. Tech., Vol. 13, pp. 115-156 (1989).
238. Ounis, H. and Ahmadi, G., Motions of Small Rigid Spheres in Simulated Random Velocity Field, ASCE, Journal of Engineering Mechanics, Vol. 115, pp. 2107-2121 (1989).
239. Abdel-Rahman, S.Z. and Ahmadi, G., Stability of a Frame Subjected to a White Noise Base Excitation, Soil Dynamics and Earthquake Engineering, Vol. 8, pp. 166-175 (1989).

1990

240. Lin, B.C., Tadjbakhsh, I.G., Papageorgiou, A. and Ahmadi, G., Performance of Earthquake Base-Isolation Systems, ASCE J. Engng Mech. Div., Vol. 116, 446-461 (1990).
241. Su, L. and Ahmadi, G., Nonstationary Random Responses of a Nonlinear Oscillator, Arabian J. Sci. Engng., Vol. 15, 65-72 (1990).
242. Abu-Zaid, S. and Ahmadi, G., A Simple Kinetic Model for Rapid Granular Flows Including Frictional Losses, ASCE J. Engng. Mech., Vol. 116, 379-389 (1990).
243. Ahmadi, G. and Ma, D., A Thermodynamical Formulation for Dispersed Multiphase Turbulent Flows, Part I: Basic Theory, Int. J. Multiphase Flows, Vol. 16, 323-340 (1990).
244. Ma, D. and Ahmadi, G., A Thermodynamical Formulation for Dispersed Multiphase Turbulent Flows, Part II: Simple Shear Flows for Dense Mixtures, Int. J. Multiphase Flows, Vol. 16, 340-351 (1990).
245. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., A Probabilistic Comparative Study of Various Base Isolation Systems, Mechanics Struct. Machines, Vol. 18, 107-133 (1990).
246. DeGregorio, V.B., Ahmadi, G., A Model for Dilatation, Densification and Static Liquefaction of Loose Sand, J. Mathematical Geology, Vol. 22, 1-13 (1990).
247. Ounis, H. and Ahmadi, G., Analysis of Dispersion of Small Spherical Particles in a Random Velocity Field, ASME J. Fluid Engng., Vol. 112, 114-120 (1990).

248. Fan, F.G. and Ahmadi, G., Loss of Accuracy and Nonuniqueness of Solutions Generated by Equivalent Linearization and Cumulant-Neglect Methods, *J. Sound Vibrat.*, Vol. 137, 385-401 (1990).
249. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., Responses of Base-Isolated Shear Beam Structures to Random Excitations, *J. Probabilistic Engng. Mech.*, Vol. 5, pp. 35-46 (1990).
250. Su, L., Ahmadi, G. and Tadjbakhsh, I.G., A Comparative Study of Performances of Various Base Isolation Systems, Part II: Sensitivity Analysis, *Earth. Engng. Struct. Dyn.*, Vol. 19, pp. 21-33 (1990).
251. Fan, F.G. and Ahmadi, G., Floor Response Spectra for Base-Isolated Structures, *Earth. Engng. Struct. Dyn.*, Vol. 19, pp. 377-388 (1990).
252. Ounis, H. and Ahmadi, G., A Comparison of Brownian and Turbulence Diffusions, *Aerosol Science Technology*, Vol. 13, pp. 47-53 (1990).
253. Abu-Zaid, S. and Ahmadi, G., A Rate-Dependent Thermodynamical Model for Rapid Granular Flows, *J. Non-Newtonian Fluid Mech.*, Vol. 35, pp. 15-35 (1990).
254. Ahmadi, G., A Rate-Dependent Model for Compressible Turbulent Flows, *J. Non-Equilibrium Thermodynamics*, Vol. 15, pp. 87-102 (1990).
255. Mohamed, M.A.S., Ahmadi, G. and Loo, F.T.C., A Study on the Mechanics of Fatigue-Dominated Friction Noise, *J. Vibration Acoustics*, *Trans. ASME*, Vol. 112, pp. 222-229 (1990).
256. Fan, F.G. and Ahmadi, G., Random Response Analysis of a Frictional Base Isolation System, *ASCE J. Engng. Mech.*, Vol. 116, pp. 1881-1901 (1990).
257. Fan, F.G., Ahmadi, G. and Tadjbakhsh, I.G., Multi-Story Base-Isolated Buildings under a Harmonic Ground Motion. Part I: A Comparisons of Various Systems, *Nuclear Engng and Design*, Vol. 123, pp. 1-16 (1990).
258. Fan, F.G., Ahmadi, G. and Tadjbakhsh, I.G., Multi-Story Base-Isolated Buildings Under a Harmonic Ground Motion. Part II: Sensitivity Analysis, *Nuclear Engng and Design*, Vol. 123, pp.17-26 (1990).
259. Tannous, A.G., Ahmadi, G. and Valentine, D.T., Two-Equation Thermodynamical Model for Turbulent Buoyant Flows. Part II: Numerical Experiments, *Applied Math. Modeling*, Vol. 14, pp.576-587 (1990).
260. Fan, F.G. and Ahmadi, G., Nonstationary Kanai-Tajimi Models for El Centro 1940 and Mexico City 1985 Earthquakes, *J. Probabilistic Engng. Mech.*, Vol. 5, pp.171-181 (1990).

261. Abuzeid, S., Busnaina, A.A. and Ahmadi, G., Eulerian and Lagrangian Simulations of Particle Deposition From a Point Source in a Turbulent Channel Flow, *Particulate Sci. Technology*, Vol. 8, pp.145-166 (1990).
262. Ahmadi, G. and Fan, F.G., An Overview of Aseismic Base Isolation Design Strategy, *Iranian J. Science Technology*, Vol. 14, pp.247-267 (1990).

1991

263. Su, L. and Ahmadi, G., Performance of a Sliding Resilient-Friction Base Isolation System for a Shear Beam Structure, *ASCE J. Engng. Mech.*, Vol. 117, pp. 165-181 (1991).
264. Fan, F.G., Ahmadi, G., Mostaghel, N. and Tadjbakhsh, I.G., Performance Analysis of Aseismic Base Isolation Systems for a Multi-Story Building, *Soil Dynamics and Earthquake Engineering*, Vol. 10, pp. 152-171(1991).
265. Abu-Zaid, S. and Ahmadi, G., A Thermodynamical Formulation for Heat Conducting Jeffreys and Maxwell Polymeric Fluids, *Int. J. Nonlinear Mech.*, Vol. 26, pp. 275-278 (1991).
266. Ounis, H., Ahmadi, G. and McLaughlin, J.B., Brownian Diffusion of Submicrometer Particles in the Viscous Sublayer, *J. Colloid Interface Science*, Vol. 143, pp. 266-277 (1991).
267. Abuzeid, S., Busnaina, A.A. and Ahmadi, G., Wall Deposition of Aerosol Particles in a Turbulent Channel Flow, *J. Aerosol Science*, Vol. 22, pp. 43-62 (1991).
268. Abu-Zaid, S. and Ahmadi, G., Analysis of Granular Simple Shear Flow with a Rate-Dependent Model, *Powder Technology*, Vol. 67, pp. 1-9 (1991).
269. Ahmadi, G. and Chowdhury, S.J., A Rate-Dependent Algebraic Stress Model for Turbulence, *Applied Math. Modelling*, Vol. 15, pp. 516-524 (1991).
270. Ounis, H. and Ahmadi, G., Motions of Small Particles in a Turbulent Simple Shear Flow Field Under Microgravity Condition, *Physics of Fluids A*, Vol. 3, pp. 2559-2570 (1991).
271. Ahmadi, G., Thermodynamics of Turbulence, *Iranian J. Sci. Technology*, Vol. 15, pp. 67-84 (1991).
272. Mohamed, M.A.S., Ahmadi, G. and Loo, F.T.C., Detection of Asperity Dynamic Impacts on Lightly Loaded Random Surfaces, *Wear*, Vol. 146, pp. 377-387 (1991).
273. Ounis, H., Ahmadi, G. and McLaughlin, J.B., Dispersion and Deposition of Brownian

Particles From Point Sources in a Simulated Turbulent Channel Flow, *J. Colloid Interface Science*, Vol. 147, pp. 233-250 (1991).

274. Ahmadi, G., A Thermodynamically Consistent Rate-Dependent Model for Turbulence, Part I - Formulation, *Int. J. Non-Linear Mech.*, Vol. 26, pp. 595-607 (1991).
275. Abu-Zaid, S. and Ahmadi, G., A Thermodynamically Consistent Stress Transport Model for Rotating Turbulent Flows, *Geophys. Astrophys. Fluid Dynamics*, Vol. 61, pp. 109-125 (1991).

1992

276. Fan, F.G. and Ahmadi, G., Seismic Responses of Secondary Systems in Base-Isolated Structures, *Engineering Structures*, Vol. 14, pp. 35-48 (1992).
277. Su, L. and Ahmadi, G., Equipment Response Spectra for Base-Isolated Shear Beam Structures, *Nuclear Engineering and Design*, Vol. 132, pp. 287-308 (1992).
278. Elrais, K.A., Eckerle W., Ahmadi, G. and Eraslan, A.H., Simulation of Transient Three-Dimensional Natural Convection and Saturated Pool Boiling, *Int. J. Numerical Methods Heat Fluid Flow* 2, pp. 139-154 (1992).
279. Li, A. and Ahmadi, G., Dispersion and Deposition of Spherical Particles from Point Sources in a Turbulent Channel Flow, *Aerosol Science Technology*, Vol. 16, pp. 209-226 (1992).
280. Chen, Y. and Ahmadi, G., Wind Effects on Base-Isolated Structures, *ASCE J. Engng. Mech.*, Vol. 118, pp. 1708-1727 (1992)
281. Su, L. and Ahmadi, G., Probabilistic Responses of Base-Isolated Structures to El Centro 1940 and Mexico City 1985 Earthquakes, *Engineering Struct.*, Vol. 14, pp. 217-230 (1992).
282. Ounis, H., Ahmadi, G. and McLaughlin, J.B., Numerical Simulation of Brownian Particle Diffusion in a Turbulent Channel Flow, In "Advances in Micromechanics of Granular Materials," Ed. by H.H. Shen et al., Elsevier, Amsterdam, pp. 433-442 (1992).
283. Chowdhury, S.J. and Ahmadi, G., A Thermodynamically Consistent Rate-Dependent Model for Turbulence, Part II - Numerical Results, *Int. J. Non-Linear Mech.*, Vol. 27, pp.705-718 (1992).
284. Abu-Zaid, S. and Ahmadi, G., A Stress Transport Model for Granular Flows in a Rotating Frame, *Int. J. Engng. Sci.*, Vol. 30, pp.1483-1495 (1992).
<http://www.sciencedirect.com/science/article/pii/002072259290159E>

285. Chen, Y. and Ahmadi, G., Stochastic Earthquake Response of Secondary Systems in Base-Isolated Structures, *Earthquake Engng. Struct. Dyn.*, Vol. 21, pp. 1039-1057 (1992).

1993

286. Ma, D., Ahmadi, G. and Eraslan, A., A Computer Code for Analyzing Transient Three Dimensional Rapid granular Flows in Complex Geometries, *Computers Fluids*, Vol. 22, pp.25-50 (1993).
287. Li, A. and Ahmadi, G., Deposition of Aerosols on Surfaces in a Turbulent Channel Flow, *Int. J. Engng. Sci.*, Vol. 31, pp. 435-451 (1993).
288. Fan, F.G. and Ahmadi, G., A Sublayer Model for Turbulent Deposition of Particles in Vertical Ducts with Smooth and Rough Surfaces, *J. Aerosol Science*, Vol. 24, pp. 45-64 (1993).
289. Li, A. and Ahmadi, G., Computer Simulation of Deposition of Aerosols in a Turbulent Channel Flow with Rough Wall, *Aerosol Science Technology*, Vol. 18, pp. 11-24 (1993).
290. Ounis, H., Ahmadi, G. and McLaughlin, J.B., Brownian Particle Deposition in a Directly Simulated Turbulent Channel Flow, *Physics of Fluids A*, Vol. 5, pp. 1427-1432 (1993).
291. Li, A. and Ahmadi, G., Aerosol Particle Deposition with Electrostatic Attraction in a Turbulent Channel Flow, *J. Colloid Interface Science*, Vol. 158, pp. 476-482 (1993).
292. Chowdhury, S.J. and Ahmadi, G., Analysis of Mixing Layer by Rate-Dependent Turbulence Model, *ASCE, Journal of Engineering Mechanics*, Vol. 119, pp. 1700-1706 (1993).
293. Kvasnak, W., Ahmadi, G., Bayer, R.G. and Gaynes, M.A., Experimental Investigation of Dust Particle Deposition in a Turbulent Channel Flow, *J. Aerosol Science*, Vol. 24, pp. 795-815 (1993).
294. Paff, W.G. and Ahmadi, G., On Convergence of Karhunen-Loeve Series Expansion for a Brownian Particle, *ASME J. Appl. Mech.*, Vol. 60, pp. 783-784 (1993).
295. Lee-Glauser, G. and Ahmadi, G., Vibration of Satellite Subsystem During Orbiter Lift-Off, *Int. J. Space Struct.*, Vol. 8, pp. 167-176 (1993).
296. Abu-Zaid, S. and Ahmadi, G., Analysis of Rapid Shear Flows of Granular Materials by a Kinetic Model Including Frictional Losses, *Powder Technology*, Vol. 77, pp. 7-17 (1993).
297. Ahmadi, G., Overview of Digital Simulation Procedures for Aerosols Transport in

Turbulent Flows, in "Particles in Gases and Liquids 3: Detection, Characterization, and Control," Ed. by K.L. Mittal, Plenum Press, New York pp. 1-21 (1993).

298. Lee-Glauser, G. and Ahmadi, G., Dynamic Response Spectra for an Aerospace Payload and Its Attachments, AIAA J. Spacecraft Rocket, Vol. 30, pp. 784-786 (1993).

1994

299. Li, A., Ahmadi, G., Bayer, R.G. and Gaynes, M.A., Aerosol Particle Deposition in an Obstructed Turbulent Duct Flow, J. Aerosol Science, Vol. 25, pp. 91-112 (1994).
300. Chen, Y. and Ahmadi, G., Performance of High Damping Rubber Bearing Base Isolation System for a Shear Beam Structure, Earthquake Engng. Struct. Dyn., Vol. 23, pp. 729-744 (1994).
301. Soltani, M. and Ahmadi, G., On Particle Adhesion and Removal Mechanisms in Turbulent Flows, J. Adhesion Science Technology, J. Adhesion Science Technology, Vol. 7, pp. 763-785 (1994).
302. Ahmadi, G., Overview of Computational and Analytical Modeling of Particle Transport and Deposition in Turbulent Flows, Scientia Iranica, Vol. 1, pp. 1-23 (1994).
303. Fan, F.G. and Ahmadi, G., On the Sublayer Model for Turbulent Deposition of Aerosol Particles in the Presence of Gravity and Electric Fields, J. Aerosol Science Technology, Vol. 21, pp. 49-71 (1994).
304. Lee-Glauser, G. and Ahmadi, G., Simulated Orbiter Lift-Off Acceleration: A Stochastic Model, Acta Astronautica, Vol. 35, pp. 19-26 (1994).
305. Lee-Glauser, G. and Ahmadi, G., Vibration Isolation of a Launch Vehicle Payload and its Subsystem, ASCE J. Aerospace Engineering, Vol. 8, pp. 1-8 (1994).
306. Massoudi, M. and Ahmadi, G., Rapid Flow of Granular Materials with Density and Fluctuation Energy Gradients, International Journal of Non-Linear Mechanics, Vol. 29, pp. 487-492 (1994).
307. Soltani, M. and Ahmadi, G., Particle Removal Mechanisms under Base Acceleration, J. Adhesion, Vol. 44, pp. 161-175 (1994).

1995

308. Soltani, M., Ahmadi, G., Bayer, R.G. and Gaynes, M.A., Particle Detachment Mechanisms from Rough Surfaces Under Substrate Acceleration, J. Adhesion Science Technology, Vol.

- 9, pp. 453-473 (1995).
309. Fan, F.G. and Ahmadi, G., Dispersion of Ellipsoidal Particles in an Isotropic Pseudo-Turbulent Flow Field, *ASME J. Fluid Engineering*, Vol. 117, pp. 154-161 (1995).
 310. Soltani, M. and Ahmadi, G., Direct Numerical Simulation of Particle Entrainment in Turbulent Channel Flow, *Physics Fluid A*, Vol. 7, pp. 647-657 (1995).
 311. Ellison, J., Ahmadi, G. and C. Grodsinsky, C., Evaluation of Active and Passive Vibration Control Mechanism in a Microgravity Environment, *AIAA J. Spacecraft and Rockets*, Vol. 32, pp. 375-376 (1995).
 312. Lee-Glauser, G. and Ahmadi, G., Simulated Orbiter Lift-Off Acceleration: A Stochastic Model, *Acta Astronautica*, Vol. 35, pp. 19-26 (1995).
 313. Lee-Glauser, G. and Ahmadi, G., Vibration Isolation of a Lunch Vehicle Payload and its Subsystem, *ASCE J. Aerospace Engineering*, Vol. 8, pp. 1-8 (1995).
 314. Ellison, J., Ahmadi, G. and C. Grodsinsky, C., Stochastic Model for Microgravity Excitation, *ASCE J. Aerospace Engineering*, Vol. 8, pp.100-106 (1995).
 315. Fan, F.G. and Ahmadi, G., Analysis of Particle Motion in the Near-Wall Shear layer Vortices: Application to Turbulent Deposition Process, *J. Colloid Interface Science*, Vol. 172, pp. 263-277 (1995).
 316. Abu-Zaid, S. and Ahmadi, G., A Thermodynamically Consistent Rate-Dependent Model for Turbulent Two-Phase Flows, *Int. J. Nonlinear Mech.*, Vol. 30, pp. 509-529 (1995).
 317. Fan, F.G. and Ahmadi, G., A Sublayer Model for Wall Deposition of Ellipsoidal Particles in Turbulent Streams, *J. Aerosol Science*, Vol. 26, pp. 813-840 (1995).
 318. Li, A. and Ahmadi, G., Computer Simulation of Particle Deposition in the Upper Tracheobronchial Tree, *Aerosol Science Technology*, Vol. 23, pp. 201-223 (1995).
 319. Soltani, M. and Ahmadi, G., Particle Detachment from Rough Surfaces in Turbulent Flows, *J. Adhesion*, Vol. 51, pp. 87-103 (1995).
 320. Li, A., Ahmadi, G., Gaynes, M.A. and Bayer, R.G., Aerosols Particle Deposition in a Recirculating Region, *J. Adhesion*, Vol. 51, pp. 105-123 (1995).
 321. Cao, J. and Ahmadi, G., Gas-Particle Two-Phase Turbulent Flow in a Vertical Duct, *Int. J. Multiphase Flows*, Vol. 21, pp. 1203-1228 (1995).
 322. Ellison, J., Ahmadi, G., Regel, L. and Wilcox, W., Particle Motion in a Liquid Under g-Jitter Excitation, *Microgravity Sci. Technology*, Vol. 8, pp. 140-147 (1995).

323. Ahmadi, G., Overview of Base Isolation, Passive and Active Vibration Control Strategies for Aseismic Design of Structures, Scientia Iranica, Vol. 2, pp. 99-116 (1995).
324. Kvasnak, W. and Ahmadi, G., Fibrous Particle Deposition in a Turbulent Channel Flow - An Experimental Study, Aerosol Sci. Technology, Vol. 23, pp. 641-652 (1995).
325. Domey, J., Aidun, D.K., Ahmadi, G., Regel, L.L., and Wilcox, W.R., Numerical Simulation of the Effect of Gravity on Weld Pool Shape, Welding Research Supplement, pp. 263s-268s (1995).

1996

326. Abu-Zaid, S. and Ahmadi, G., Analysis of Turbulent Simple Shear Flows of Two-Phase Mixtures, Iranian J. Sci. Technology, Vol. 20 B, pp.1-24 (1996).
327. Cao, J., Ahmadi, G. and Massoudi, M., Gravity Granular Flows of Slightly Frictional Particles Down an Inclined Bumpy Chute, Journal of Fluid Mechanics, Vol. 316, pp.197-221 (1996).
328. Lee-Glauser, G., Ahmadi, G. and Layton, J.B., Satellite Active and Passive Vibration Control During Lift-Off, AIAA J. Spacecraft Rocket, Vol. 33, pp.428-432 (1996).
329. Kvasnak, W. and Ahmadi, G., Deposition of Ellipsoidal Particles in Turbulent Duct Flow, Chemical Engng. Science, Vol. 51, pp. 5137-5148 (1996).
330. Abu-Zaid, S. and Ahmadi, G., A Rate-Dependent Model for Dilute and Dense Turbulent Flows of Two-Phase Solid-Liquid Mixtures, Powder Technology, Vol.89, pp. 45-56 (1996).

1997

331. Chen, Q., and Ahmadi, G., Deposition of Particles in a Turbulent Pipe Flow, J. Aerosol Science, Vol. 28, pp. 789-796 (1997).
332. Fan, F.G., Soltani, M., Ahmadi, G. and S. Hart, Flow-Induced Resuspension of Rigid-Link Fibers from Surfaces, Aerosol Sci. Technology, Vol. 27, pp. 97-115 (1997).
333. Lee-Glauser, G.J., Horta, L.G. and Ahmadi, G., Integrated Passive/Active Vibration Absorber for Multistory Buildings, J. Structural Engineering, Vol. 123, pp. 499-504 (1997).
334. Soltani, M., Fan, F.G., Ahmadi, G. and S. Hart, Detachment of Rigid-Link Fibers with

Linkage Contact in a Turbulent Boundary Layer Flow, J. Adhesion Sci. Technol., Vol. 11, pp. 1017-1937 (1997).

- 335. Fan, F.G., Ahmadi, G. and Noori, M., A Thermodynamically Consistent Model for Hysteretic Material, Iranian J. Sci. Technol., Vol. 21 B, pp. 257-278 (1997).
- 336. Smith, D.H., Powell, V., Ahmadi, G. and Ibrahim, H., Analysis of Operational Filtration Data, Part I. Ideal Candle Filter Behavior, Powder Technology, Vol. 94, pp. 15-21 (1997).
- 337. Ellison, J., Ahmadi, G. and C. Grodsinsky, C., Stochastic Response of Passive Vibration Control Systems to g-Jitter Excitation, Microgravity Science Technology, Vol. 10, 2-12 (1997).

1998

- 338. Soltani, M., Ounis H., Ahmadi, G. and McLaughlin, J.B. Direct Simulation of Charged Particle Deposition in a Turbulent Flow, Int. J. Multiphase Flow, Vol. 24, pp. 77-94 (1998).
- 339. Smith, D.H., Powell, V. and Ahmadi, G. Analysis of Operational Filtration Data, Part II. Incomplete Cleaning of Candle Filters, Powder Technology, Vol. 97, pp. 139-145 (1998).
- 340. Elliott, K.E., Ahmadi, G. and Kvasnak, W., Couette Flows of Granular Monolayer - An Experimental Study, J. Non-Newtonian Fluid Mechanics, Vol. 74, pp. 89-111 (1998).
- 341. Ahmadi, G. and Smith, D.H., Particle Transport and Deposition in a Hot-Gas Cleanup Pilot Plant, Aerosol Science and Technology, Vol. 29, pp. 183-205 (1998).
- 342. Ahmadi, G. and Smith, D.H., Gas Flow and Particle Deposition in the Hot-Gas Filter Vessel at the Tidd 70 MWE PFBC Demonstration Plant, Aerosol Science and Technology, Vol. 29, pp. 206-223 (1998).
- 343. Smith, D.H., Powell, V. Ahmadi, G. and M. Ferer, Analysis of Operational Filtration Data, Part III. Re-entrainment and Incomplete Cleaning of Dust Cake, Aerosol Science and Technology, Vol. 29, pp. 224-235, (1998).
- 344. Smith, D.H. and Ahmadi, G., Problem and Progress in Hot-Gas Filtration for Pressurized Fluidized Bed Combustor (PFBC) and Integrated Gasification Combined Cycle (IGCC), Aerosol Science and Technology, Vol. 29, pp. 163-169 (1998).
- 345. He, C. and Ahmadi, G., Particle Deposition with Thermophoresis in Laminar and Turbulent Duct Flows, Aerosol Science and Technology, Vol. 29, pp. 525-546 (1998).
- 346. Ahmadi, G. and Chen, Q., Dispersion and Deposition of Particles in a Turbulent Pipe Flow with Sudden Expansion, J. Aerosol Science, Vol. 29, pp. 1097-1116 (1998).

347. Ahmadi, G., Particle Transport and Filtration in a Pilot Plant Hot-Gas Cleaning System, J. Iranian Mech. Eng., Vol. 3, pp. 21-28 (1998).
348. Asgharian, B. and Ahmadi, G., Effect of Fiber Geometry on Deposition in Small Airways of the Lung, Aerosol Science and Technology, Vol. 29, pp. 459-474 (1998).

1999

349. He, C. and Ahmadi, G., Particle Deposition in a Nearly Developed Turbulent Duct Flow with Electrophoresis, J. Aerosol Science, Vol. 30, pp. 739-758 (1999).
350. Soltani, M. and Ahmadi, G., Detachment of Rough Particles with Electrostatic Attraction From Surfaces in Turbulent Flows, J. Adhesion Sci. Technol., Vol. 13, pp. 325-355 (1999).
351. Zhang, F., Busnaina, A.A., and Ahmadi, G., Particle Adhesion and Removal in Chemical Mechanical Polishing and Post-CMP Cleaning, J. Electrochemical Soc., Vol. 147, pp. 2665-2669 (1999).
352. Soltani, M. and Ahmadi, G., Charged Particle Trajectory Statistics and Deposition in a Turbulent Channel Flow, Aerosol Science Technology, Vol. 31, pp. 170-186 (1999).
353. Ellison, J., Ahmadi, G. and Kehoe, M.W. Vibration Control of Airborne Equipment Using a Circular Ring, In Stochastics Structural Dynamics, Ed. Spencer, Jr., B.F., and Johnson, E.A., Balkenma, Rotterdam (1999).

2000

354. Ahmadi, G. and Li, A., Computer Simulation of Particle Transport and Deposition Near a Small Isolated Building, J. Wind Energy Industrial Aerodynamics, Vol. 84, pp. 23-46 (2000).
355. Soltani, M., Ahmadi, G. and Hart, S. C., Electrostatic Effects on Resuspension of Rigid-Link Fibers in Turbulent Flows, Colloids Surfaces, Vol. 165, pp. 189-208 (2000).
356. Zhang, H. and Ahmadi, G., Aerosol Particle Transport and Deposition in Vertical and Horizontal Turbulent Duct Flows, J. Fluid Mechanics, Vol. 406, pp. 55-80 (2000).
357. Aidun, D.K., Domey, J.J. and Ahmadi, G., Effect of High Gravity on Weld Fusion Zone Shape, Welding Research Supplement, pp. 1-s-4s, June (2000).
358. Vafai, A., Hamidi, M. and Ahmadi, G., A Simple Method for Analysis of Sliding Structures Considering Variation of Friction Coefficient, J. Earthquake Engng., Vol. 4, pp. 233-250 (2000).

(2000).

- 359. Fan, F.G. and Ahmadi, G., Wall Deposition of Small Ellipsoids from Turbulent Air Flows - A Brownian Dynamics Simulation, *J. Aerosol Science*, Vol. 31, pp. 1205-1229 (2000).
- 360. Cao, J. and Ahmadi, G., Gas-Particle Two-Phase Flow in Horizontal and Inclined Ducts, *Int. J. Engineering Science*, Vol. 38, pp. 1961-1981 (2000).
- 361. Soltani, M. and Ahmadi, G., Direct Numerical Simulation of Curly Fibers in Turbulent Channel Flow, *Aerosol Science Technology*, Vol. 33, pp. 392-418 (2000).
- 362. Ahmadi, G., He, C., Ban, H. and Stencel, J.M., Air Flow and Particle Transport in Triboelectric Coal/Ash Cleaning System-Counter Flowing Straight Duct Design, *Particulate Science Technology*, Vol. 18, pp. 213-256 (2000).
- 363. Shams, M., Ahmadi, G. and Rahimzadeh, H., A Sublayer Model for Deposition of Nano- and Micro-Particles in Turbulent Flows, *Chemical Engineering Science*, Vol. 55, pp. 6097-6107 (2000).
- 364. Zhang, H. and Ahmadi, G., Aerosol Particle Removal and Re-entrainment in Turbulent Flows- A Direct Numerical Simulation Approach, *J. Adhesion*, Vol. 74, pp. 441-493 (2000).
- 365. Ahmadi, G., Ji, C., and Smith, D.H., "A Simple Model for Natural Gas Production from Hydrate Decomposition," *Annals of the New York Academy of Sciences*, Vol. 912, pp. 420-427 (2000).
<http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.2000.tb06796.x/full>

2001

- 366. Ji, C., Ahmadi, G. and Smith, D.H., Natural Gas Production from Hydrate Decomposition by Depressurization, *Chemical Engineering Science*, Vol. 56, pp. 5801-5814 (2001).
- 367. Ahmadi, G. and Xia, X., A Model for Mechanical Wear and Abrasive Particle Adhesion During the Chemical Mechanical Polishing Process, *Journal Electrochemical Society*, Vol. 148, pp. G99-G109 (2001).
- 368. Rofooei, F.R., Mobarake, A. and Ahmadi, G., Generation of Artificial Earthquake Records with a Nonstationary Kanai-Tajimi Model, *Engineering Structures*, Vol. 23, pp. 827-837 (2001).
- 369. Zhang, H., Ahmadi, G., Fan, F.-G. and McLaughlin, J.B., Ellipsoidal Particles Transport

and Deposition in Turbulent Channel Flows, International Journal Multiphase Flows, Vol. 27, pp. 971-1009 (2001).

<http://www.sciencedirect.com/science/article/pii/S0301932200000641>

- 370. Vafai, A., Hamidi, M. and Ahmadi, G., Numerical Modeling of MDOF Structures with Sliding Supports Using Rigid-Plastic Link, Earthquake Engineering Structural Dynamics, Vol. 30, pp. 27-42 (2001).
- 371. Zhang, H. and Ahmadi, G., Particles Transport and Deposition in the Hot-Gas Filter Vessel at Wilsonville, Powder Technology, Vol. 116, pp. 53-68 (2001).
- 372. Ahmadi, G. and Q. Chen, Numerical Particles Transport and Dispersion in Turbulent Pipe Flows, Iranian Journal of Science and Technology, Transaction B, Vol. 25, pp. 199-219 (2001).
- 373. Shams, M., Ahmadi, G. and Rahimzadeh, H., Transport and Deposition of Flexible fibers in Turbulent Duct Flows, Journal of Aerosol Science, Vol. 32, pp. 525-547 (2001).
- 374. <http://www.sciencedirect.com/science/article/pii/S0021850200000999>
- 375. Zhang, H. and Ahmadi, G., Aerosol Particle Removal and Re-entrainment in Turbulent Flows- A Direct Numerical Simulation Approach, in "Particle Adhesion: Application and Advances," Edited by D.J.Quesnel, D.S. Rimai and L.H.Sharpe, Taylor and Francis, New York (2001) pp. 441-493.
- 376. Ahmadi, G. and He, C. Simulation of Particles Transport and Deposition in a Combustor, Chemical Engineering Communication, Vol. 187, pp. 23-53 (2001).
- 377. Ellison, J., Ahmadi, G. and Kehoe, M.W. Passive Vibration Control of Airborne Equipment Using a Circular Ring, Journal Sound and Vibration, Vol. 246, pp. 1-28, (2001).

2002

- 378. Ahmadi, G. and Smith, D.H., Analysis of Steady State Filtration and Backpulse Process in a Hot-Gas Cleanup Filter Vessel, Aerosol Science and Technology, Vol. 36, pp. 665-677 (2002).
- 379. Aghababaii Mobarake, A., Rofooei, F.R., and Ahmadi, G., Simulation of Earthquake Records Using Time-Varying ARMA (2,1) Model, Probabilistic Engineering Mechanics, Vol. 17, pp. 15-34 (2002).
- 380. Mansoori, Z., Saffar-Avval, M., Basirat Tabrizi, H and Ahmadi, G., Modeling of Heat Transfer in Turbulent Gas-Solid Flow, International Journal Heat Mass and Transfer, Vol. 45, pp. 1173-1184 (2002).

381. Aidun, D.K., Doomey, J.J., and Ahmadi, G., Digital Simulation of a Stationary and a Linear Weld, Metallurgical and Materials Transaction B, Vol. 33B, pp. 101-110 (2002).
382. Mazaheri, A.R. and Ahmadi, G., Modeling the Effect of Bumpy Abrasive Particles on Chemical Mechanical Polishing, Journal Electrochemical Society, Vol. 149, pp. G370-G375 (2002).
383. Ji, C., Ahmadi, G. and Smith, D.H., Experimental and Computational Study of Fluid Flow Phenomena in Carbon Dioxide Sequestration, Journal of Energy and Environment Research, Vol. 2, pp. 99-108 (2002).
384. Marzbanrad, J., Ahmadi, G., Hojjat, Y. and Zohoor, H., Optimal Active Control of a Vehicle Suspension System including Time Delay and Preview for Rough Roads, Journal of Vibration and Control, Vol. 8, pp. 967-991 (2002).
385. Shams, M., Ahmadi, G. and Smith, D.H., Computational Modeling of Flow and Sediment Transport and Deposition in Meandering Rivers, Advances in Water Resources, Vol. 25, pp. 689-699 (2002).
386. Mansoori, Z., Saffar-Avval, M., Basirat Tabrizi, H., Ahmadi, G., and Lain. S., Thermo-Mechanical Modeling of Turbulent Heat Transfer in Gas-Solid Flows Including Particle Collisions, International Journal of Heat and Fluid Flow, Vol. 23, pp. 792-806 (2002).
387. Ahmadi, G. and Smith, D.H., Gas Flow and Particle Deposition in the Hot-Gas Filter Vessel of the Pinon Pine Project, Powder Technology, Vol. 128, pp. 1-10 (2002).
388. Gamwo, I.K., Halow, J.S. and Ahmadi, G., Nonisothermal Simulation of Flows in the Hot-Gas Filter Vessel at Wilsonville, Particulate Science and Technology, Vol. 20, pp. 45-58 (2002).
389. Yip, W.K., Shen, M., Cheng, M.C., Fithen, R and Ahmadi, G., Hydrodynamic Modeling of Short-Channel Devices Using an Upwind Flux Vector Splitting Scheme, Computer Methods Appl. Mech. Engrg., Vol. 191, pp. 5427-5445 (2002).
390. Shams, M., Rahimzadeh, H., and Ahmadi, G., Deposition of Various Shapes Particles on a Rough Surface in Turbulent Flows, IJE Transaction B, Vol. 15, pp. 299-310 (2002).
391. Xia, X. and Ahmadi, Surface Removal Rate in Chemical-Mechanical Polishing, Particulate Science Technology, Vol. 20, pp. 187-196 (2002).
392. Khechfe, H., Noori, M., Huo, Z., Kelly, J.M. and Ahmadi, G., An Experimental Study on the Seismic Response of Base-Isolated Secondary Systems, ASME Journal of Pressure Vessel Technology, Vol. 124, 81-88 (2002).

2003

- 393. Ji, C., Ahmadi, G. and Smith, D.H., Constant Rate Natural Gas Production from a Well in a Hydrate Reservoir, *Energy Conversion and Management*, Vol. 44, pp. 2403-2423 (2003).
- 394. Mazaheri, A.R., Ahmadi, G., and Gamwo, I., Hot-Gas Flow and Particles Transport and Deposition in a Candle Filter Vessel, *Advanced Powder Technology*, Vol. 14, pp. 111-125 (2003).
- 395. Cheng, M.C., Wettimuny, R., Habitz, P. and Ahmadi, G., Thermal Simulation for SOI Devices Using Thermal-Circuit Models and Device Simulation, *Solid-State Electronics*, Vol. 47, pp. 345–351 (2003).
- 396. Hamidi, M., El Naggar, M.H., Vafai, A., and Ahmadi, G., Seismic Isolation of Buildings with Sliding Concave Foundation (SCF), *Earthquake Engineering Structural Dynamics*, Vol. 32, pp. 15-29 (2003).
- 397. Mazaheri, A.R. and Ahmadi, G., A Model for Effect of Colloidal Forces on Chemical Mechanical Polishing, *Journal Electrochemical Society*, Vol. 150, pp. G233-G239 (2003).
- 398. Ahmadi, G., He, C., Smith, D.H. and Ramer, E., Gas Flow and Particle Transport and Deposition in a Pilot –Scale Furnace, *Particulate Science Technology*, Vol. 21, pp. 375-386 (2003).
- 399. Jha, R., Pausley, M. and Ahmadi, G., Optimal Active Control of Launch Vibration of Space Structures, *AIAA Journal Spacecraft and Rockets*, Vol. 40, pp. 868-874 (2003).
- 400. Abouali, O., Alishahi, M.M., Emdad, H. and Ahmadi, G., Dual-Code Thin-Layer Parabolized Navier-Stokes Strategy for Supersonic Flow over Spinning Bodies, *AIAA Journal Spacecraft and Rockets*, Vol. 40, pp. 893-897 (2003).
- 401. Toscano, C. and Ahmadi, G., Particle Removal Mechanisms in Cryogenic Surface Cleaning, *J. Adhesion*, Vol. 79, 175-201 (2003).
- 402. Ahmadi, G., Mazahri, A.R. and, Smith, D.H. A Model for Multiphase Flows through Poroelastic Media, *Journal Porous Media*, Vol. 6, pp. 249-262 (2003).

2004

403. Ahmadi, G., Ji, C. and Smith, D.H., Numerical Natural Gas Production from Methane Hydrate Dissociation, *Journal of Petroleum Science and Engineering*, Vol. 41, pp. 269-285 (2004).
404. Schmidt, R., Glauser, M. and Ahmadi, G., Flow and Turbulence Condition in the Wake of an H-Section in Cross-Flow, *Journal of Fluids and Structures*, Vol. 19, pp. 193-207 (2004).
405. Chrigui, M., Sadiki, A. and Ahmadi, G., Study of Interaction in Spray between evaporating Droplets and Turbulence Using Second-Order Turbulence RANS Modelling and a Lagrangian Approach, *Progress in Computational Fluid Dynamics*, Vol. 4, pp. 162-174 (2004).
406. Kvasnak, W., Ahmadi, G. and Schmidt, D.J., An Engineering Model for the Fuel Spray Formation of Deforming Droplets, *Atomization and Spray*, Vol. 14, pp. 289-339 (2004).
407. Mansoori, Z., Saffar-Avval, M., Basirat Tabrizi, H., and Ahmadi, G., Experimental Study of Turbulent Gas-Solid Heat Transfer with Different Particle Temperatures, *Experimental Thermal and Fluid Science*, Vol. 28, pp. 655-665 (2004).
408. Marzbanrad, J., Ahmadi, G., and Jha, R., Optimal Preview Active Control of Structures During Earthquake, *Engineering Structures*, Vol. 26, pp. 1463-1471 (2004).
409. Cheng, M.C., Yu, F., Habitz, P. and Ahmadi, G., Analytical Heat Flow Modeling of Silicon-On-Insulator Devices, *Solid State Electronics*, Vol. 48, pp. 415-426 (2004).
410. Marzbanrad, J., Ahmadi, G., Zohoor, H., and Hojjat, Y., Stochastic Optimal Preview Control of a Vehicle Suspension, *Journal of Sound and Vibration*, Vol. 275, pp. 973-990 (2004).
411. Cheng, M.C., Yu, F., Jun, L., Shen, M. and Ahmadi, G., Steady-State and Dynamic Thermal Models for Heat Flow Analysis of Silicon-on-Insulator MOSFETs, *Microelectronics Reliability*, Vol. 44, pp. 381-396 (2004).
412. Yu, F., Cheng, M.C., Wettimuny, R., Habitz, P. and Ahmadi, G., Modeling of Thermal Behavior in Silicon-On-Insulator Structures, *IEEE Transaction on Electron Devices*, Vol. 51, pp. 83-91 (2004).
413. Ferer, M., Ji, C., Bromhal, G.S., Cook, J., Ahmadi, G. and Smith, D. H., Cross-Over from Capillary Fingering to Viscous Fingering for Immiscible Unstable Flows: Experiment and Modeling, *Physical Review E*, Vol. 70, 016330, pp. 1-7 (2004).
414. Zamankhan, P., Ahmadi, G. and Fan, F-G. Coupling Effects of the Flow and Electric Fields in Electrostatic Precipitators, *J. Applied Physics*, Vol. 97, pp.7002-7010 (2004).

2005

415. Liu, C. and Ahmadi, G., Computer Simulation of Pollutant Transport and Deposition near Peace Bridge, *Particulate Science and Technology*, Vol. 23, pp. 109-127 (2005).
416. Bastaninejad, M. and Ahmadi, G., Modeling the Effects of Abrasive Size Distribution, Adhesion, and Surface Plastic Deformation on Chemical-Mechanical Polishing, *J. Electrochemical Soc.*, Vol. 152, pp. G720-G730 (2005).
417. Zerai, B., Saylor, B.Z., Kadambi, J.R., Oliver, M.J., Mazaheri, A.R., Ahmadi, G., Bromhal, G.S., and Smith, D.H., Flow Characterization Through a Network Cell Using Particle Image Velocimetry, *Transport in Porous Media*, Vol. 69, pp. 159-181 (2005).
418. Shams, M., Mosavi, Naeunian, M., Ahmadi, G., Mathematical Simulation of Flexible Fiber Dispersion in a Homogenous Turbulent Flow, *Japan Society of Mechanical Engineers (JSME) International Journal, Series B, Fluid and Thermal Engineering.*, Vol. 48, No.3, pp. 555-561 (2005).
419. Ahmadi, G., Zhang, H., Han, R. and Greenspan, B., Removal of Particle Pairs from a Plane Surface, *J. Adhesion*, Vol. 81, pp. 189-212 (2005).
420. Mansoori, Z., Saffar-Avval, M., Basirat Tabrizi, H., Dabir, B., and Ahmadi, G., Inter-Particle Heat Transfer in a Riser of Gas-Solid Turbulent Flows, *Powder Technology*, Vol. 159, pp. 35-45 (2005).
421. Mazaheri, A.R., Zerai, Ahmadi, G., Kadambi J.R., Saylor, B.Z., Oliver M., Bromhal, G.S., Smith, D.H., Computer Simulation of Flow through a Lattice Flow-Cell Model, *Advances in Water Resources*, Vol. 28, pp. 1267-1279 (2005).
422. Abouali, O. and Ahmadi, G., A Model for Supersonic and Hypersonic Impactor, *J. Nanoparticle Research*, Vol. 7, pp. 75-94 (2005).
423. Mazaheri, A.R. and Ahmadi, G., Uniformity of the Fluid Flow Velocities within Hollow Fiber Membranes of Blood Oxygenation Devices, *Artificial Organ*, Vol. 30, pp. 10-15 (2005).
424. Wang, Z., Hopke, P., Baron, P., Ahmadi, G., Cheng, Y., Deye, G., and Su, W-C., Fiber Classification and the Influence of Average Air Humidity, *Aerosol Science and Technology*, Vol. 39, pp. 1056-1063 (2005).
425. Zhang, X. and Ahmadi, G., Eulerian-Lagrangian Simulations of Liquid-Gas-Solid Flows in Three-Phase Slurry Reactors, *Chemical Engineering Science*, Vol. 60, pp. 5089-5104 (2005). <http://www.sciencedirect.com/science/article/pii/S0009250905003337>

2006

- 426. Liu, C. and Ahmadi, G., Transport and Deposition of Particles Near a Building Model, *Building and Environment*, Vol. 41, pp. 828–836 (2006).
- 427. Zamankhan, P., Ahmadi, G., Wang, Z., Hopke, P.K., Su, W-C., Cheng, Y-S., and Leonard, D., Airflow and Deposition of Nano-Particles in human Nasal Cavity, *Aerosol Science and Technology*, Vol. 40, pp. 463-476 (2006).
- 428. Zamankhan, P., Ahmadi, G. and Fan, F-G. Variations of Airflow and Electric Fields in a Corona Device during Charging of a Moving Dielectric Substrate, *J. Imaging Science Technology*, Vol. 50, pp. 375-385 (2006).
- 429. Nazridoust, K. and Ahmadi, G., Airflow and Pollutant Transport in Street Canyons, *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 94, pp. 491-522 (2006).
- 430. Ahmadi, G., Recent Advances in Multiphase Flows Through Porous and Fractured Media, *Asian Journal of Civil Engineering*, Vol. 7, pp. 321-334 (2006).
- 431. Nazridoust, K., Ahmadi, G., and Smith, D.H., A New Friction Factor Correlation for Laminar, Single-Phase Flows through Rock Fractures, *Journal of Hydrology*, Vol. 329, pp. 315-328 (2006).
- 432. Ahmadi, G., Cao, J., Schneider, L., and Sadiki, A. A Thermodynamic Formulation for Chemically Active Multiphase Turbulent Flows, *International Journal Engineering Science*, Vol. 44, pp. 699-720 (2006).
- 433. Rostami, M., Ardeshtir, A., Ahmadi, G. and Thomas, P.G., Can the History Force Be Neglected for the Motion of Particles at High Subcritical Reynolds Number Range? *International Journal of Engineering, Transaction B*, Vol. 119, pp. 23-34 (2006).
- 434. Mazaheri, A.R., and Ahmadi, G., Particle Transport and Deposition Analysis in a Demonstration-Scale Hot-Gas Filter Vessel with Alternate Designs, *Advanced Powder Technology*, Vol. 17, pp. 623-639 (2006).

2007

- 435. Ahmadi, G., Guo, S., and Zhang, X., Particle Adhesion and Detachment in Turbulent Flows Including Capillary Forces, *J. Particulate Science Technology*, Vol. 25, pp. 59-76 (2007).

436. Ahmadi, G. and Guo, S., Bumpy Particle Adhesion and Removal in Turbulent Flows Including Electrostatic and Capillary Forces, *Journal of Adhesion*, Vol. 83, pp. 1-23 (2007).
437. Zamankhan, P., Ahmadi, G. and Fan, F-G. Effects of Corotron Size and Parameters on the Dielectric Substrate Surface Charge, *J. Electrostatics*, Vol. 65, pp. 707-720 (2007).
438. Tian, L. and Ahmadi, G., Particle Deposition in Turbulent Duct Flows - Comparisons of Different Model Predictions, *J. Aerosol Science*, Vol. 38, pp. 377-397 (2007).
439. Ahmadi, G., Ji, C. and Smith, D.H., Production of Natural Gas from Methane Hydrate by a Constant Downhole Pressure Well, *Energy Conversion and Management*, Vol. 48, pp. 2053-2068 (2007).
440. Ahmadi, G., Ji, C. and Smith, D.H., Natural Gas Production from Hydrate Dissociation: An Axisymmetric Model, *Journal of Petroleum Science and Engineering*, Vol. 58, pp. 245-258 (2007).
441. Zhang, H., Ahmadi, G., and Asgharian, B., Transport and Deposition of Angular Fibers in Turbulent Channel Flows, *Aerosol Science Technology*, Vol. 41, pp. 529-548 (2007).
442. Nikbakht, A., Abouali, O. and Ahmadi, G., Nano-Particle Beam Focusing in Aerodynamic Lenses – An Axisymmetric Model, *Scientia Iranica*, Vol. 14, pp. 263-272 (2007).
443. Jia, X., McLaughlin, J.B., Ahmadi, G. and Kontomaris, K., Lattice Boltzmann simulations of contact line Pinning, *International Journal of Modern Physics C*, Vol. 18, pp. 595-601 (2007).
444. Abouali, O. and Ahmadi, G., Three-Dimensional Simulation of Airflow and Nano-Particle Beam Focusing in Aerodynamic Lenses, *International Journal of Engineering, Transaction B*, Vol. 120, pp. 45-54 (2007).
445. Rostami, M., Ardeshtir, A., Ahmadi, G. and Thomas, P.G., Development of a Low-Cost and Safe PIV for Mean Flow Velocity and Reynolds Stress Measurements, *International Journal of Engineering, Transaction B*, Vol. 120, pp. 105-116 (2007).
446. Zare, A., Abouali, O. and Ahmadi, G., Computational Investigation of Airflow, Shock Wave and nano-Particle Separation in Supersonic and Hypersonic Impactors, *J. Aerosol Science*, Vol. 38, pp. 1015-1-30 (2007).
447. Nazridoust, K. and Ahmadi, G., Computational Modeling of Methane Hydrate Dissociation in a Sandstone Core, *Chemical Engineering Science*, Vol. 62, pp. 6155-6177 (2007).

448. Nasr, H., and Ahmadi, G., The Effect of Two-Way Coupling and Inter-Particle Collisions on Turbulence Modulation in a Vertical Channel Flow, *International Journal of Heat and Fluid Flow*, Vol. 28, pp. 1607-1517 (2007).
449. Salmanzadeh, M., Rahnama, M. and Ahmadi, G., Particle Transport and Deposition in a Duct Flow with a Rectangular Obstruction, *Journal of Particulate Science and Technology*, Vol. 25, pp. 401-412 (2007).
450. Zhang, X. and Ahmadi, G., Effects of Capillary Force and Surface Deformation on Particle Removal in Turbulent Flows, *Journal of Adhesion Science and Technology*, Vol. 21, pp. 1581-1611 (2007).

2008

451. Mousavi Belfeh-Teymouri, B., and Ahmadi, G., Identification of the Near Wall Collapsing Bubble Jet Using and opposite Secondary Wall, *Journal of Fluid Science and Technology*, Vol. 3, pp. 207-218 (2008).
452. Tamayol, A., Firoozabadi, F. and Ahmadi, G., Effects of Inlet Position and Baffle Configuration on Hydraulic Performance of Primary Settling Tanks, *ASCE Journal of Hydrology*, Vol. 134, pp. 1004-1009 (2008).
453. Tamayol, A., Firoozabadi, F. and Ahmadi, G., Determination of Settling Tank Performance using and Eulerian-Lagrangian Method, *Journal of Applied Fluid Mechanics*, Vol. 1, pp. 43-54 (2008).
454. Mazaheri, A.R., Ahmadi, G., and Gamwo, I., Temperature Distribution in a Demonstration-Scale Filter Vessel With and Without Ash Bridging, *Advanced Powder Technology*, Vol. 19, pp. 101-117 (2008).
455. Zhang, X. Ahmadi, G., Qian, J. and Ferro, A. Particle Detachment, Resuspension and Transport due to Human Walking in Indoor Environments, *Journal of Adhesion Science and Technology*, Vol. 22, pp. 591-621 (2008).
<http://www.tandfonline.com/doi/abs/10.1163/156856108X305624>
456. Crandall, D., Ahmadi, G., Leonard, D., Ferer, M., and Smith, D.H., A New Stereolithography Experimental Porous Flow Device, *Review of Scientific Instrumentation*, Vol. 79, pp. 044501-1-6 (2008).
457. Alavinasab, A., Jha, R., Ahmadi, G., Cetinkaya, C. and Sokolov, I., Computational Modeling of Nano-Structured Glass Fibers, *Computational Materials Science*, Vol. 44, 622-627 (2008).

458. Sahebnaasagh, M.R., Esfahanian, V., Gitipour, S., Ahmadi, G., and Ashrafi, K., Simulation of Plume Patterns Associated with Different Atmospheric Temperature Profiles, *Asian Journal of Chemistry*, Vol. 20, pp. 6551-6564 (2008).
459. Nasrollahi, A., Salehi Neyshabouri, S.A.A., Ahmadi, G., and Namin, M.M., Numerical Simulation of Particle Saltation Process, *Particulate Science and Technology*, Vol. 26, pp. 529-550 (2008).
460. Rostami, M., Ardeshtir, A., Ahmadi, G. and Thomas, P.G., On the Effect of Gravitational and Hydrodynamic Forces on Particle Motion in a Quiescent Fluid at High Particle Reynolds Numbers, *Canadian Journal of Physics*, Vol. 86, pp. 791-799 (2008).
<http://www.nrcresearchpress.com/doi/10.1139/p07-198#.WqYIFq6nHcs>
461. Shanley, K.T., Zamankhan, P., Ahmadi, G., Hopke, P.K., and Cheng, Y-S., Numerical Simulations Investigating the Regional and Overall Deposition Efficiency of the Human Nasal Cavity, *Inhalation Toxicology*, Vol. 20, pp. 1093-1100 (2008).
462. Shams, M., Ahmadi, G. and Smith, D.H., Sensitivity of Flow and Sediment Transport in Meandering Rivers to Scale Effects and Flow Rate, *Environmental Engineering Science*, Vol. 25, pp. 747-756 (2008).
463. Wang, Z., Hopke, P., Ahmadi, G., Cheng, Y-S., Deye, G., and Baron, P., Fibrous Particle Deposition in Human Nasal Passage: The Influence of Particle Length, Flow Rate, and Geometry of Nasal Airway, *Journal of Aerosol Science*, Vol. 39, pp. 1040-1054 (2008).
464. Sadathosseini, S.H., Mousaviraad, S.M., Firoozabadi, B., Ahmadi, G., Numerical Simulation of Free-Surface Waves and Wave Induced Separation, *Scientia Iranica*, Vo. 15, pp. 323-331 (2008).

2009

465. Marzbanrad, J., and Ahmadi, G., Hybrid Preview Control of Structures under Earthquake Excitations, *Asian J. Civil Engineering*, Vol. 10, pp. 57-78 (2009).
466. Crandall, D., Ahmadi, G., Ferer, M., and Smith, D.H., Distribution and Occurrence of Localized-Bursts in Two-Phase Flow through Porous Media, *Physica A*, Vol. 388, pp. 574_584 (2009).
467. Inthavong, K., Tu, J., and Ahmadi, G., Computational Modelling of Gas-Particle Flows with Different Particle Morphology in the Human Nasal Cavity, *J. Computational Multiphase Flows*, Vol. 1, pp. 57-82 (2009).
<http://journals.sagepub.com/doi/abs/10.1260/175748209787387061>

468. Abouali, O., Nikbakht, A., Ahmadi, G., and Saadabadi, S., Three-Dimensional Simulation of Brownian Motion of Nano-Particles in Aerodynamic Lenses, *Aerosol Science and Technology*, Vol. 43, pp. 205-215 (2009).
<http://www.tandfonline.com/doi/full/10.1080/02786820802587888>
469. Razmi, A., Firoozabadi, B., and Ahmadi, G., Experimental and Numerical Approach to Enlargement of Performance of Primary Settling Tanks, *Journal of Applied Fluid Mechanics*, Vol. 2, pp. 1-12 (2009).
470. Moshfegh, A., Shams, M., Ahmadi, G., and Ebrahimi, R., A Novel Surface-Slip Correction for Microparticles Motion, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Vol. 345, pp. 112–120 (2009).
471. Esfahanian, V., Mahmoodi Darian, H., Babazadeh, H., Aghvami, M., Pasandeh, R., Torabi, F., and Ahmadi, G., Numerical Simulation of Electrolyte Particles Trajectory to Investigate Battery Cover Design Characteristics, *Journal of Power Sources*, Vol. 191, pp. 139-143 (2009).
472. Nasr, H., Ahmadi, G. and McLaughlin, J.B., A DNS Study of Effects of Particle–Particle Collisions and Two-Way Coupling on Particle Deposition and Phasic Fluctuations, *Journal of Fluid Mechanics*, Vol. 640, pp. 507–536 (2009).
473. Asadi, B., Saidi, M. H., Taeibi-Rahni M., and Ahmadi, G., Computational Simulation of Hydrodynamic Convection in Rising Bubble under Microgravity Condition, *International Journal of Engineering, Transactions A: Basics*, Vol. 22, pp. 295-305 (2009).
474. Afshar, H., Shams, M., Nainian, S.M.M., and Ahmadi, G., Microchannel Heat Transfer and Dispersion of Nanoparticles in Slip Flow Regime with Constant Heat Flux, *International Communications in Heat and Mass Transfer*, Vol. 36, pp. 1060-1066 (2009).
475. Saidi, M. H., Taeibi-Rahni M., Asadi, B., and Ahmadi, G., Computational Simulation of Marangoni Convection under Microgravity Condition, *Scientia Iranica, Transaction B: Mechanical Engineering* Vol 16, 513-524 (2009).
476. Crandall, D., Ahmadi, G., and Smith, D.H., Comparison of Experimental and Numerical Two-Phase Flows in a Porous Micro-Model, *J. Computational Multiphase Flows*, Vol. 1, pp. 325-340 (2009). <http://journals.sagepub.com/doi/abs/10.1260/1757-482X.1.4.325>
477. Shahidian, A., Ghassemi, M., Khorasanizade, S., Abdollahzade, M., and Ahmadi, G., Flow Analysis of Non-Newtonian Blood in a Magnetohydrodynamic Pump, *IEEE Transactions on Magnetics*, Vol. 45, pp. 2667–2670 (2009).
478. Firoozabadi, B., Dadfar, R., Pirali, A.P., and Ahmadi, G., Effect of Different Geometries in Simulation of 3D Viscous Flow in Francis Turbine Runners, *Scientia Iranica*, Vol. 16, pp. 363-369 (2009).

2010

479. Behzad, F., Mansoori, Z., Saffar-Avval, M., Basirat Tabrizi, H., and Ahmadi, G. Thermal Stochastic Collision Model in Turbulent Gas-Solid Pipe Flows, *International Journal of Heat and Mass Transfer*, Vol. 53 pp. 1175-1182 (2010).
480. Azizi, S., Hosseini, S.H., Ahmadi, G., and Moraveji, M., Numerical Simulation of Particles Segregation in Bubbling Gas-Fluidized Beds, *Chemical Engineering & Technology*, Vol. 33, pp. 421-432 (2010).
481. Crandall, D., Ahmadi, G., and Smith, D.H., Computational Modeling of Fluid Flow through a Fracture in Permeable Rock, *Transport in Porous Media*, Vol. 84, pp. 493-510 (2010).
482. Jafari, S., Salmanzadeh, M., Rahnama, M., and Ahmadi, G., Investigation of Particle Dispersion and Deposition in a Channel with a Square Cylinder Obstruction Using the Lattice Boltzmann Method, *Journal of Aerosol Science*, Vol. 41, pp.198-206 (2010).
483. Hosseini, S.H., Ahmadi, G., Rahimi, R., Zivdar, M. and Nasr Esfahany, M., CFD Studies of Solid Hold-up Distribution and Circulation Pattern in Gas-Solid Fluidized Beds, *Powder Technology*, Vol. 200, 202-215 (2010).
484. Jalaal, M., Esmailzadeh, E., and Ahmadi, G., Numerical Investigation on Effect of Tip Angle on Settling of a Conical Shape Particle, *Journal of Numerical Simulations*, Vol. 2, 63-77 (2010).
485. Moshfegh, A., Shams, M., Ahmadi, G., and Ebrahimi, R., A New Expression for Spherical Aerosol Drag in Slip Flow Regime, *J. Aerosol Science*, Vol. 31, pp. 384-400 (2010).
486. Hamzehei, M., Rahimzadeh, H., and Ahmadi, G., Computational and Experimental Study of Heat Transfer and Hydrodynamics in a 2D Gas-Solid Fluidized Bed Reactor, *Industrial Engineering and Chemical Research*, Vol. 49, pp. 5110–5121 (2010).
487. Rafee, R., Rahimzadeh, H., and Ahmadi, G., Numerical Simulations of Airflow and Droplet Transport in a Wave-plate Mist Eliminator, *Chemical Engineering Research and Design*, Vol. 88, pp. 1393-1404 (2010).
488. Jalaal, M., Ganji, D.D. and Ahmadi, G., Analytical Investigation on Acceleration Motion of a Vertically Falling Spherical Particle in Incompressible Newtonian Media, *Advanced Powder Technology*, Vol. 21, pp. 298-304 (2010).

489. Hamzehei, M., Rahimzadeh, H., and Ahmadi, G., Studies of Gas Velocity and Particles Size Effects on Fluidized Bed Hydrodynamics with CFD Modeling and Experimental Investigation, *Journal of Mechanics*, Vol. 26, pp. 267-278 (2010).
490. Salmanzadeh, M., Rahnama, M., and Ahmadi, G., Effect of Sub-Grid Scales on Large Eddy Simulation of Particle Deposition in a Turbulent Channel Flow, *Aerosol Science and Technology*, Vol. 44, pp.796-806 (2010).
<http://www.tandfonline.com/doi/full/10.1080/02786826.2010.492052>
491. Azizi, S., Hosseini, S.H., Moraveji, M., and Ahmadi, G., CFD Modeling of a Spouted Bed Hydrodynamics with a Porous Draft Tube, *Particuology*, Vol. 8, pp. 415–424 (2010)
492. Ghassemi, M., Shahidian, A., Ahmadi, G., and Hamian, S., A New Effective Thermal Conductivity Model for a Bio-Nanofluid (Blood with Nanoparticle Al₂O₃), *International Communication in Heat and Mass Transfer*, Vol. 88, pp. 1393–1404 (2010).
493. Hosseini, S. H., Ahmadi, G., Saeedi Razavi, B. and Zhong, W., Computational Fluid Dynamic Simulation of Hydrodynamic Behavior in a Two-Dimensional Conical Spouted Bed, *Energy & Fuels*, Vol. 24, pp. 6086–6098 (2010).
494. Dadfar, R., Firoozabadi, B., and Ahmadi, G., Effect of Different Configurations on 3-D Analysis of Flow through Stay Vanes and Guide Vanes of Francis Turbine, *Scientia Iranica*, Vol. 17, pp. 418-432 (2010).

2011

495. Zhang, X. and Ahmadi, G., Effects of Electrostatic and Capillary Forces and Surface Deformation on Particle Detachment in Turbulent Flows, *Journal of Adhesion Science and Technology*, Vol. 25, pp. 1175-1210 (2011).
<http://www.tandfonline.com/doi/abs/10.1163/016942410X549906>
496. Ferer, M., Crandall, D., Ahmadi, G., and Smith, D.H., Two-phase flow in a rough fracture: Experiment and modeling, *Physical Review E*, Vol. 84, pp. 016316-1-8 (2011).
497. Shanley, K.T. and Ahmadi, G., A Numerical Model for Simulating the Motions of Ellipsoidal Fibers Suspended in Low Reynolds Number Shear Flows, *Aerosol Science and Technology*, Vol. 45, pp. 838-848 (2011).
<http://www.tandfonline.com/doi/full/10.1080/02786826.2011.566293>
498. Moghadas, H., Abouali, O., Faramarzi, A., and Ahmadi, G., Numerical Investigation of Septal Deviation Effect on Deposition of Nano/Microparticles in Human Nasal Passage, *Respiratory Physiology and Neurobiology*, Vol. 177, pp. 9-18 (2011).
499. Rafati Salehi, A., Hosseini, S. H., Shojaei, S., and Ahmadi, G., CFD Studies of Pressure

Drop and Increasing Capacity in MellapakPlus 752.Y Structured Packing, Chemical Engineering and Technology, Vol. 44, pp. 1402-1412 (2011).

500. Abouali, O., Bayatpour, D., Ghaffariyeh, A., and Ahmadi, G., Simulation of Flow Field during Irrigation/Aspiration in Phacoemulsification Using Computational Fluid Dynamics, J. Cataract Refractive Surgery, Vol. 37, pp.1530-1538 (2011).
501. Alvandifar. N., Akbar. M., Mansoori, Z, Saffar-Avval, M., and Ahmadi, G., Turbulence Modulation for Gas - Particle Flows in Vertical and Horizontal Channels Using an Eulerian-Lagrangian Approach, International Journal of Heat and Mass Transfer, Vol. 22, pp. 826-833 (2011).
502. Shojaee, S, Hosseini, S.H., Rafati Saleh, A., and Ahmadi, G., Prediction of Effective Area in Structured Packings by CFD, IE&C Research, Vol. 50, pp. 10833–10842 (2011).
503. Dehestani, M., Vafai, A., Mofid, M., and Ahmadi, G., On the Dynamic Response of a Half-Space Subjected to a Moving Mass, Mathematics and Mechanics of Solids, DOI: 0.1177/1081286511420899, pp.1-19 (2011).
<http://mms.sagepub.com/content/early/2011/09/29/1081286511420899.full.pdf+html>
504. Ahangar, S., Rezazadeh, Gh., Shabani, R., Ahmadi, G., and Toloei, A., On the stability of a Microbeam Conveying Fluid Considering Modified Couple Stress Theory, International Journal of Mechanics and Materials in Design, Vol. 7, pp. 27–342 (2011).
505. Coffin, P., Ahmadi, G., Jha, R., and Marzocca, P., Experimental In-Flight Rolling MAV Wing Deployment and Aerodynamic Characterization, SAE International Journal of Aerospace, Vol. 4, pp. 1106-1114 (2011).

2012

506. Afshar, H., Shams, M., Nainian, S.M.M., and Ahmadi, G., Two-Phase Study of Fluid Flow and Heat Transfer in Gas-Solid Flows (Nanofluids), Applied Mechanics and Materials, Vols. 110-116, pp. 3878-3882 (2012).
507. Tian, L., Ahmadi, G., Wang, Z., and Hopke, P.K., Transport and Deposition of Ellipsoidal Fibers in Low Reynolds Number Flows, J. Aerosol Science, Vol. 45, pp. 1-18 (2012).
<http://www.sciencedirect.com/science/article/pii/S0021850211001571>
508. Salmanzadeh, M., Ahmadi, G., and Rahnama, M., Transport and Deposition of Evaporating Droplets in a Ventilated Environment, Particulate Science and Technology, Vol. 30, pp. 17–31 (2012).

509. Ehtram, M.A., Basirat Tabrizi, H., Mesbah, M., Ahmadi, G., and Agha Mirsalimi, M., Experimental study on the effect of connecting ducts on demisting cyclone efficiency, *Experimental Thermal and Fluid Science*, Vol. 39, pp. 26-36 (2012).
<http://www.sciencedirect.com/science/article/pii/S0894177112000039>
510. Jalaal, M., Ganji, D.D., and Ahmadi, G., An Analytical Study on Settling of Non-Spherical Particles, *Asia-Pacific Journal of Chemical Engineering*, Vol. 7, pp. 63-72 (2012).
511. Saeedi Vahdat, A., Rezazadeh, Gh., and Ahmadi, G., Thermoelastic Damping in a Micro-Beam Resonator Tunable with Piezoelectric Layers, *Acta Mechanica Solida Sinica*, Vol. 25, pp. 73–81 (2012).
<http://www.sciencedirect.com/science/article/pii/S0894916612600081>
512. Salmanzadeh, M., Zahedi, Gh., Ahmadi, G., Marr, D., and Glauser, M., Effect of Thermal Plume Adjacent to the Body on the Movement of Indoor Air Aerosol Particles, *Journal of Aerosol Science*, Vol. 53, pp. 29–39 (2012).
<http://www.sciencedirect.com/science/article/pii/S0021850212000973>
513. Abouali, O., Erfan Keshavarzian, E., Farhadi Ghalati, P., Faramarzi, A., Ahmadi, G., and Hadi Bagheri, M., Micro and Nanoparticle Deposition in Human Nasal Passage Pre and Post Virtual Maxillary Sinus Endoscopic Surgery, *Respiratory Physiology & Neurobiology*, Vol. 181, pp. 335-345. (2012).
<http://www.sciencedirect.com/science/article/pii/S1569904812000638>
514. Abouali, O. and Ahmadi, G., Computer Simulations of Natural Convection of Single Phase Nanofluids in Simple Enclosures: A Critical Review, *Applied Thermal Engineering*, Vol. 36, pp. 1-13 (2012).
<http://www.sciencedirect.com/science/article/pii/S1359431111006934>
515. Hosseini, S.H., Shojaei, S, Ahmadi, G., and Zivdar, M., Computational Fluid Dynamics Studies of Dry and Wet Pressure Drops in Structured Packings, *Journal of Industrial & Engineering Chemistry*, Vol.18, pp. 1465–1473 (2012). <http://www.sciencedirect.com/science/article/pii/S1226086X12000937>
516. Modareszadeh, A., Abouali, O., Ghaffarieh, A., and Ahmadi, G., Saccade Movements Effect on the Intravitreal Drug Delivery in Vitreous Substitutes: A Numerical Study, *Biomechanics and Modeling in Mechanobiology*, Published Online (Springer), 12 May (2012). DOI 10.1007/s10237-012-0398-3.
517. Tian, L. and Ahmadi, G., Transport and Deposition of Micro- and Nano-Particles in Human Tracheobronchial Tree by an Asymmetric Multi-Level Bifurcation Model, *Journal of Computational Multiphase Flows*, Vol.4, pp. 159-182 (2012).
<http://journals.sagepub.com/doi/abs/10.1260/1757-482X.4.2.159>

518. Bagheri, G.H., Salmanzadeh, M., Golkarfard, V., and Ahmadi G., Simulation of Solid Particle Behavior in a Heated Cavity at High Rayleigh Numbers, *Aerosol Science and Technology* Vol. 46, pp.1382-1293 (2012).
519. Goldasteh, I., Ahmadi, G., and Ferro, A., A Model for Removal of Compact, Rough, Irregularly Shaped Particles from Surfaces in Turbulent Flows, *Journal of Adhesion*, Vol. 88, pp. 766-786 (2012).
<http://www.tandfonline.com/doi/full/10.1080/00218464.2012.694278>
520. Zhang, X. and Ahmadi, G., Numerical Simulations of Liquid-Gas-Solid Three-Phase Flows in Microgravity, *Journal of Computational Multiphase Flows*, Vol. 4, pp. 41-63 (2012). <http://journals.sagepub.com/doi/abs/10.1260/1757-482X.4.1.41>
521. Roman, A., Ahmadi, G., Issen, K.A., and Smith, D.H., Permeability of Fractured Media under Confining Pressure: A Simplified Model, *The Open Petroleum Engineering Journal*, Vol. 5, pp. 36-41 (2012).
<http://benthamscience.com/open/topej/articles/V005/36TOPEJ.pdf>
522. Azizi, S., Mowla, D., and Ahmadi, G., Numerical Evaluation of Turbulence Models for Dense to Dilute Gas-Solid Flows in Vertical Conveyor, *Particuology*, Vol. 10, pp. 553–561 (2012). <http://www.sciencedirect.com/science/article/pii/S1674200112001083>
523. Guran, A. and Ahmadi, G., An Enhanced Numerical Solution of the Lorenz System By Means of the Differential Quadrature Method, *Applied Mathematics, Informatics, and Mechanics*, Vol. 17, pp. 18-34 (2012).
524. Tavakoli, B., Abouali, O., Bagheri, M.H., Yazdi, M., and Ahmadi, G., Micro-particles Transport and Deposition in Realistic Geometry of Human upper Airways, *International Journal of Engineering, Transaction A*, Vol. 4, pp.315-322 (2012).
<http://www.ije.ir/fulltext/%7Bc0bb05bd3cf830fc7c186f25521cdf5%7D/01273/25/>

2013

525. Tian, L. and Ahmadi, G., Fiber Transport and Deposition in Human Upper Tracheobronchial Airways, *Journal of Aerosol Science*, Vol. 60, pp. 1-20 (2013).
526. Jia, X., McLaughlin, J.B., Derksen, J., and Ahmadi, G., Simulation of a Mannequin's Thermal Plume in a Small Room, *Computers and Mathematics with Application*, Vol. 65, pp. 287-295 (2013).
527. Coffin, P., Ahmadi, G., Jha, R. and Marzocca, P., Deployment Dynamics of a Rolled Micro Air Vehicle Wing, *AIAA Journal of Aircraft*, Vol. 50, pp. 130-139 (2013).

528. Rahimi, M.R., Azizi, N., Hosseini, S.H., and Ahmadi, G., CFD Study of Hydrodynamics Behavior of a Vibrating Fluidized Bed Using Kinetic-Frictional Stress Model of Granular Flow, *Korean Journal of Chemical Engineering*, Vol. 30, pp. 761-770 (2013).
529. Hassan, M., Sadri, R., Ahmadi, G., Dahari, M.B., Kazi, S.N., Safaei, M.R., and Sadeghinezhad, E., Numerical Study of Entropy Generation in a Flowing Nanofluid Used in Micro- and Minichannels, *Entropy*, Vol. 15, pp. 144-155 (2013).
530. Nazridoust, K., Ahmadi, G., Liu, C., Ferro, A.R., McAuley, T.R., Jaques, P.A., and Hopke, P.K., Distribution of Nanoparticles near a Major U.S. and Canada Trade Bridge: Comparison of Simulations with Field Data, *Aerosol and Air Quality Research*, Vol. 13, pp. 3-12 (2013).
531. Sajadi, B., Saidi, M.H., Ahmadi, G., Kenney, S.M., and Taylor, J., On the Induced Airflow and Particle Resuspension Due to a Falling Disk, *Particulate Science and Technology*, Vol. 31, pp. 190-198 (2013).
532. Rahimi, M.R., Azizi, N., Hosseini, S.H., and Ahmadi, G., CFD Simulation of Cylindrical Spouted Beds by the Kinetic Theory of Granular Flow, *Journal of Powder Technology*, Vol. 246, pp. 303-316 (2013).
533. Majlesara, M., Salmanzadeh, M., and Ahmadi, G., A Model for Particles Deposition in Turbulent Inclined Channels, *Journal of Aerosol Science*, Vol. 64, pp. 37-47 (2013).
534. Ehtram, M.A., Basirat Tabrizi, H., Ahmadi, G., Safari, M., and Agha Mirsalim, M., Investigation of Fine Droplet Generation from Hot Engine Oil by Impinging Gas Jets onto Liquid Surface, *Journal of Aerosol Science*, Vol. 65, pp. 49-57 (2013).
535. Mahdavianesh, M., Noghrehabadi, A.R., Behbahaninejad, M., Ahmadi, G. and Dehghanian, M., Lagrangian Particle Tracking: Model Development, *Life Science Journal*, Vol. 10, pp. 34-42 (2013).
536. Mahdavianesh, M., Noghrehabadi, A.R., Behbahaninejad, M., Ahmadi, G. Nirooei, M.H. and Etminan, A., Diffusion of Nano Particles in Viscous Sub-layer, *Life Science Journal*, Vol. 10, pp. 105-109 (2013).
537. Goldasteh, I., Ahmadi, G., and Ferro, A., Monte Carlo Simulation of Micron Size Spherical Particle Removal and Resuspension from Substrate under Fluid Flow. *Journal of Aerosol Science*, Vol. 66, pp. 62-71 (2013).
538. Esfahanian, V., Salavatipour, A., Harsini, I., Haghani, A., Pasandeh, R., Shahbazi, A., and Ahmadi, G., Numerical Analysis of Flow Field around NREL Phase II Wind Turbine by a Hybrid CFD/BEM Method, *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 120, pp. 29-36 (2013).

539. Shafeie, H., Abouali, O., Jafarpur, K., and Ahmadi, G., Numerical Study of Heat Transfer Performance of Single-Phase Heat Sinks with Micro Pin-Fins Structures, *Applied Thermal Engineering*, Vol. 58, pp. 68-76 (2013).
540. Ghodsi, S.R., Esfahanian, V., Shamsodini, R., Ghodsi, S.M., and Ahmadi, G., Blood Flow Vectoring Control in Aortic Arch Using Full and Partial Clamps, *Computer in Biology and Medicine*, Vol. 43, pp. 1134-1141 (2013).
541. Bahramian, A., Olazar, M. and Ahmadi, G. Effect of Slip Boundary Conditions on the Simulation of Micro-particle Velocity Fields in a Conical Fluidized Bed, *AIChE* Vol. 59, pp. 4502-4518 (2013).
542. Goldasteh, I., Ahmadi, G., and Ferro, A., Wind Tunnel Study and Numerical Simulation of Dust Particle Resuspension from Indoor Surfaces in Turbulent Flows, *Journal of Adhesion*, Vol. 27, pp. 1563-1579 (2013).
<http://www.tandfonline.com/doi/full/10.1080/01694243.2012.747729#.Utw6uuIo4W4>

2014

543. Goodarzi, M., Safaei, M.R., Vafai, K., Ahmadi, G., Dahari, M., Kazi, S.N., and Jomhari, N., Investigation of Nanofluid Mixed Convection in a Shallow Cavity Using a Two-phase Mixture Model, *International Journal of Thermal Sciences*, Vol. 75, pp. 204-220 (2014).
<http://dx.doi.org/10.1016/j.ijthermalsci.2013.08.003>
544. Alavinasab, A., Jha, R., and Ahmadi, G., Modeling of Carbon Nanotube Composites Based on Nonlocal Elasticity Approach, *International Journal for Computational Methods in Engineering Science and Mechanics* Vol. 15, pp. 17-25 (2014).
545. Ghahramani, E., Abouali, O., Emdad, H., and Ahmadi, G., Numerical Analysis of Stochastic Dispersion of Micro-Particles in Turbulent Flows in A Realistic Model of Human Nasal/Upper Airway, *Journal of Aerosol Science*, Vol. 67, pp. 188-206. (2014).
546. Moslemi, A. and Ahmadi, G., Study of Hydraulic Performance of Drill Bits Using a Numerical Particle Tracking, *SPE Drilling & Completion*, SPE 169812, pp. 1-8. (2014).
547. Kashefi, A., Mahdinia, M., Firoozabadi, B., Amirkhosravi, M., Ahmadi, G. and Saidi, M.S., Multidimensional Modeling of the Stenosed Carotid Artery: A Novel CAD Approach Accompanied by an Extensive Lumped Model, *Acta Mechanica Sinica*, Vol. 30, pp. 259-273 (2014). <http://link.springer.com/article/10.1007%2Fs10409-014-0047-4>
548. Goldasteh, I., Ahmadi, G., and Ferro, A., Human-Induced Flow field and Resultant Particle Resuspension and Transport During Gait Cycle, *Building and Environment*, Vol. 77, pp. 101-109 (2014).

<http://www.sciencedirect.com/science/article/pii/S0360132314000766>

549. Sadri, R., Ahmadi, G., Togun, H., Dahari, M.B., Kazi, S.N., Sadeghinezhad, E. and Zubir, N., An Experimental Study on Thermal Conductivity and Viscosity of Nanofluids Containing Carbon Nanotubes, *Nanoscale Research Letter*, Vol. 9/151, pp. 1-16 (2014).
<http://www.nanoscalereslett.com/content/9/1/151>
550. Modarreszadeh, A., Abouali, O., Ghaffarieh, A., and Ahmadi, G., Physiology of Aqueous Humor Dynamic in the Anterior Chamber due to Rapid Eye Movement, *Physiology and Behavior*, Vol. 135, pp. 112–118 (2014).
<http://www.sciencedirect.com/science/article/pii/S0031938414002947>
551. Naseri, A., Abouali, O., Farhadi Ghalati, P. and Ahmadi, G., Numerical Investigation of Regional Particle Deposition in the Upper Airway of a Standing Male Mannequin in Calm Air Surroundings, *Computer in Biology and Medicine*, Vol. 52, pp. 73-81 (2014).
552. Eftekharian, E., Dastan, A., Abouali, O., Meigolinedjad, J. and Ahmadi, G., A Numerical Investigation into the Performance of Two Types of Jet Fans in Ventilation of an Urban Tunnel under Traffic Jam Condition, *Tunnelling, and Underground Space Technology*, Vol. 44, pp. 56-67 (2014).
553. Rahmanian, B., Safaei, M.R., Kazi, S.N., Ahmadi, G., Oztop, H.F., and Vafai, K., Investigation of Pollutant Reduction by Simulation of Turbulent Non-Premixed Pulverized Coal Combustion, *Applied Thermal Engineering*, Vol. 73, pp. 1220-1233 (2014).
554. Dastan, A., Abouali, O., and Ahmadi, G., CFD Simulation of Total and Regional Fiber Deposition in Human Nasal Cavities, *Journal of Aerosol Science*, Vol. 69, pp. 132-149 (2014).
555. Faramarzi, A., Baradaranfar, M.H., Abouali, O., Atighechi, S., Ahmadi, G., Farhadi, P., Keshavarzian, E., Behniafard, N., and Baradaranfar, A., Numerical Investigation of the Flow Field in Realistic Nasal Septal Perforation Geometry, *Allergy and Rhinology*, Vol. 5, pp. e70-e77 (2014).
556. Andarwa, M., Basirat Tabrizi, H., and Ahmadi, G., Effect of Correcting Near-Wall Forces on Nanoparticle Transport in a Microchannel, *Particuology*, Vol. 16, pp. 84-90 (2014).
<http://www.sciencedirect.com/science/article/pii/S1674200114000170>
557. Yazdani A., Normandie M., Yousefi M., Saidi M.S., and Ahmadi G., Transport and Deposition of Pharmaceutical Particles in Three Commercial Spacer–MDI Combinations, *Computers in Biology and Medicine*, Vol. 54, pp. 145–155 (2014).
<http://www.sciencedirect.com/science/article/pii/S0010482514002030>

558. Jafari, M., Mansoori, Z, Saffar-Avval, M., Ahmadi, G., and Ebadi, A., Modeling and Numerical Investigation of Erosion Rate for Turbulent Two-Phase Gas-Solid Flow in Horizontal Pipes, Powder Technology, Vol. 267, pp. 362–370 (2014).
<http://www.sciencedirect.com/science/article/pii/S0032591014007049>
559. Qian, J., Tavakoli, B., Goldasteh, I, Ahmadi, G., and Ferro, A.R., Building Removal of Particulate Pollutant Plume during Outdoor Resuspension Event, Building and Environment, Vol. 75, pp. 161-169 (2014).
560. Saadabadi, S., Abouali, O., Emadad, H., and Ahmadi, G., Investigation of the Effect of Nozzle Shape on Supersonic/Hypersonic Impactors Designed For Size Discrimination of Nanoparticles, Particuology, Vol. 16, pp. 60–68 (2014).
<http://www.sciencedirect.com/science/article/pii/S1674200114000194>
561. Hosseini, S.H., Ahmadi, G., and Olazar, M., CFD Study of Particle Velocity Profiles Inside a Draft Tube in a Cylindrical Spouted Bed With Conical Base, Journal of Taiwan Institute of Chemical Engineers, Vol. 45, pp. 2140-2149 (2014).
<http://www.sciencedirect.com/science/journal/18761070/45/5>
562. Esfahanian, V., Ansari, A.B., Bahramian, H., Kheirkhah, P., and Ahmadi, G., Design Parameters Study on the Performance of Lead-Acid Batteries, Journal of Mechanical Science and Technology, Vol. 28, pp. 2221-2229 (2014).
<http://link.springer.com/article/10.1007%2Fs12206-014-0123-5#page-1>
563. Barati, R., Salehi Neyshabouri, S.A.A., and Ahmadi, G., Development of Empirical Models with High Accuracy for Estimation of Drag Coefficient of Flow around a Smooth Sphere: An Evolutionary Approach, Powder Technology, Vol. 257, pp. 11-19 (2014).
<http://www.sciencedirect.com/science/article/pii/S003259101400182X>

2015

564. Tavakol, M.M., Abouali, O., Yaghoubi, M. and Ahmadi, G., Stochastic Dispersion of Ellipsoidal Fibers in Various Turbulent Fields, Journal of Aerosol Science, Vol. 80, pp. 27-44 (2015).
<http://www.sciencedirect.com/science/article/pii/S0021850214001748>
565. Jafari, M., Mansoori, Z, Saffar-Avval, M., and Ahmadi, G., The Effects of Wall Roughness on Erosion Rate in Gas-Solid Turbulent Annular Pipe Flow, Powder Technology, Vol. 271, pp. 248-254 (2015).
<http://www.sciencedirect.com/science/article/pii/S0032591014009346>
566. Behzad, F., Helenbrook, B., and Ahmadi, G. On the Sensitivity and Accuracy of Proper-Orthogonal-Decomposition-Based Reduced-Order Models for Burgers Equation, Computer and Fluids, Vol. 106, pp. 19-32 (2015).

<http://www.sciencedirect.com/science/article/pii/S0045793014003867>

567. Bozorgnezhad, A., Shams, M., Kanani, H., Hasheminasab, M.R., and Ahmadi, G., The Experimental Study of Water Management in the Cathode Channel Of Single-Serpentine Transparent Proton Exchange Membrane Fuel Cell by Direct Visualization, *J. Hydrogen Energy*, Vol. 40, pp. 2808-2832 (2015).
<http://www.sciencedirect.com/science/article/pii/S0360319914034806>
568. Togun, H., Ahmadi, G., Abdulrazzaq, T., Shkarah, A.J., Kazi, S.N., Badarudin, A, and Safaei, Thermal Performance of Nanofluid in Ducts with Double Forward-Facing Steps, *Journal of the Taiwan Institute of Chemical Engineers*, Vol. 47, pp. 28-42 (2015).
<http://www.sciencedirect.com/science/article/pii/S1876107014003101>
569. Amiri, A., Sadri, R., Shanbedi, M., Ahmadi, G., Chew, B.T., Kazi, S.N., and Dahari, M., Performance Dependence of Thermosyphon on the Functionalization Approaches: An Experimental Study on Thermo-Physical Properties of Graphene Nanoplatelet-Based Water Nanofluids, *Energy Conversion and Management*, Vol. 92, pp. 322-330 (2015).
<http://www.sciencedirect.com/science/article/pii/S0196890414010905>
570. Amiri, A., Sadri, R., Ahmadi, G., Chew, B.T., Kazi, S.N., Shanbedi, M., and Sadat Alehashemd, M., Synthesis of Polyethylene Glycol-Functionalized Multi-Walled Carbon Nanotubes with Microwave-Assisted Approach for Improved Heat Dissipation, *RSC Advances*, Vol. 5, pp. 35425-35434 (2015).
571. Hosseini, S.H., Fattahi, M., and Ahmadi, G., Hydrodynamics Studies of a Pseudo 2D Rectangular Spouted Bed by CFD, *Powder Technology*, Vol. 279, pp. 301-309 (2015).
<http://www.sciencedirect.com/science/article/pii/S0032591015002879>
572. Bahmanzadeh, H., Abouali, O., Faramarzi, A., and Ahmadi, G., Numerical Simulation of Airflow and Micro-Particle Deposition in Human Nasal Airway Pre- and Post-Virtual Sphenoidotomy Surgery, *Computer in Biology and Medicine*, Vol. 61, pp. 8-18 (2015).
<http://www.sciencedirect.com/science/article/pii/S0010482515000931>
573. Tavakol, M.M., Abouali, O., Yaghoubi, M. and Ahmadi, G., Dispersion and Deposition of Ellipsoidal Particles in a Fully Developed Laminar Pipe Flow Using Non-Creeping Formulations for Hydrodynamic Forces and Torques, *International Journal of Multiphase Flow*, Vol. 75, pp. 54-67 (2015).
<http://www.sciencedirect.com/science/article/pii/S0301932215001032>
574. Yarmand, H., Gharehkhani, S., Ahmadi, G., Seyed Shirazi, S.F. Baradaran, S., Montazer, E., Mohd Zubir, M.N., Sadat Alehashem, M, Kazi, S.N., and Dahari, M., Graphene Nanoplatelets–Silver Hybrid Nanofluids for Enhanced Heat Transfer, *Energy Conversion and Management*, Vol. 100, pp. 419-428 (2015).
<http://www.sciencedirect.com/science/article/pii/S0196890415004707>

575. Roman, A., and Ahmadi, G., Computational Study of Fluid Flow through an Idealized Fracture under Confining Stresses, *Journal of Porous Media*, Vol. 18, pp. 493-506 (2015).
<http://www.dl.begellhouse.com/journals/49dcde6d4c0809db,65c04e4f7624624a,2068e5e849a35dff.html>
576. Roman, A., and Ahmadi, G., Computational Modeling of Fluid Flow through a Fractured Media under Overburden Pressures, *Journal of Petroleum Engineering*, Vol. 5, pp. 25-43 (2015).
577. Amiri, A., Sadri, R., Shanbedi, M., Ahmadi, G., Kazi, S.N., Chew, B.T., Nashrul, M., and Zubir, M., Synthesis of Ethylene Glycol-Treated Graphene Nanoplatelets with One-Pot, Microwave-Assisted Functionalization for Use as a High-Performance Engine Coolant, *Energy Conversion and Management*, Vol. 92, pp. 322-330 (2015).
<http://www.sciencedirect.com/science/article/pii/S0196890414010905>
578. Talebizadeh, P., Babaie, M., Kenny, E., Rahimzadeh, H., Inthavong, K., Ahmadi, G., and Brown, R., Influence of Pipe Length and Flow Rate on Nano-Particle Deposition in Laminar Circular Pipe Flows, *International Journal of Energy and Environment*, Vol. 6, pp. 357-366 (2015). http://www.ijee.ieefoundation.org/vol.6_issue4_2015.htm
579. Tavakol, M.M., Abouali, O., Yaghoubi, M. and Ahmadi, G., Numerical Simulation of Wave Propagation in a Realistic Model of the Human External Ear, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol. 18, pp. 1797–1810 (2015).
<http://www.tandfonline.com/doi/full/10.1080/10255842.2014.974578>
580. Goldasteh, I., Ahmadi, G., and Ferro, A., Particle Detachment from Rough Surfaces in Turbulent Flows: An Analytical Expression for Resuspension Fraction, *Journal of Particulate Science and Technology*, Vol. 33, pp. 539-545 (2015).
581. Amiri, A., Sadri, R., Shanbedi, M., Ahmadi, G., Kazi, S.N., Chew, B.T., Nashrul, M., and Zubir, M., Microwave-Assisted Direct Coupling of Graphene Nanoplatelets with Poly Ethylene Glycol and 4-Phenylazophenol Molecules for Preparing Stable-Colloidal System, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Vol. 487, pp. 131-141 (2015). <http://www.sciencedirect.com/science/article/pii/S092777571530220X>
582. Talebizadeh, P., Rahimzadeh, H., Babaie, M., Javadi Anaghizi, S., Ghomi, H., Ahmadi, G., and Brown, R., Evaluation of Residence Time on Nitrogen Oxides Removal in Non-Thermal Plasma Reactor, *PLOS ONE*, DOI:10.1371, journal pone 0140897, pp. 1-16 (2015).
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140897>
583. Fadaei, M., Abouali, O., Emdad, H., Faramarzi, M., and Ahmadi, G., Numerical Simulation of Wave Propagation in a Realistic Model of the Human External Ear, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol. 18, pp. 1797–1810 (2015).
<http://www.tandfonline.com/eprint/7ZFMTaKGdbXw4NFD4mC/full>

584. Amiri, A., Ahmadi, G., Shanbedi, M., Savari, M., Kazi, S.N., and Chew, B.T., Microwave-Assisted Synthesis of Highly-Crumpled, Few-Layered Graphene and Nitrogen-Doped Graphene for Use as High-Performance Electrodes in Capacitive Deionization, Scientific Report, Vol. 5, 17503; doi: 10.1038/srep17503 (2015).
<http://www.nature.com/articles/srep17503>
585. Eftekharian, E. Abouali, O. and Ahmadi, G., An Improved Correlation for Pressure Drop in a Tunnel under Traffic Jam Using CFD. Journal of Wind Engineering and Industrial Aerodynamics. Vol. 143, pp. 34–41 (2015).
<http://www.sciencedirect.com/science/article/pii/S0167610515001051>
586. Saidi, M., Basirat Tabrizi, H., Grace, J.R., and Ahmadi, G., Hydrodynamic and Mixing Characteristics of Gas–Solid Flow in a Pulsed Spouted Bed, Industrial Engineering and Chemistry Research, Vol. 54, pp.7933–7941(2015).
<http://pubs.acs.org/doi/ipdf/10.1021/acs.iecr.5b01645>
587. Moshfegh, A., Ahmadi, G., and Jabbarzadeh, A., Thermostatic and Rheological Responses of DPD Fluid to Extreme Shear under Modified Lees-Edwards Boundary Condition, The European Physical Journal E, Vol. 38(12), pp. 1-12 (2015).
<http://www.ncbi.nlm.nih.gov/pubmed/26701709>
<http://link.springer.com/article/10.1140%2Fepje%2Fi2015-15134-0>

2016

588. Daemi, N., S. Henning, Gibert, J., Yuya, P., and Ahmadi, G., On Generalized Rolling of Golf Balls Considering an Offset Center of Mass and Rolling Resistance: A Study of Putting, Sports Eng. (ISEA), Vol 19, pp 35-46 (2016) DOI 10.1007/s12283-015-0186-2.
<http://link.springer.com/article/10.1007%2Fs12283-015-0186-2>
589. Amiri Delouei, A., Nazari, M., Keyhani, M.S., and Ahmadi, G., A Non-Newtonian Direct Numerical Study for Stationary and Moving Objects with Various Shapes: An Immersed Boundary-Lattice Boltzmann Approach, Journal of Aerosol Science, Vol. 93, pp. 45-62 (2016). <http://www.sciencedirect.com/science/article/pii/S0021850215001822>
590. Ahmadi, M.A., Hasanvand, M.Z., Shokrollahzadeh Behbahani, S., Nourmohammad, A., Vahidi, A., Amiri, M., and Ahmadi, G., Effect of Operational Parameters on the Performance of Carbonated Water Injection: Experimental and Numerical Modeling Study, Journal of Supercritical Fluids, Vol. 107, pp. 542-548 (2016).
<http://www.sciencedirect.com/science/article/pii/S0896844615300656>

591. Tian, L. and Ahmadi, G., Transport and Deposition of Nano-Fibers in Human Upper Tracheobronchial Airways, *Journal of Aerosol Science*, Vol. 91, pp. 22-32 (2016).
<http://www.sciencedirect.com/science/article/pii/S0021850215001457>
592. Goodarzi-Ardakani, V., Taeibi-Rahni, M., Salimi, M.R., and Ahmadi, G. Computational Simulation of Temperature and Velocity Distribution, *Respiratory Physiology & Neurobiology*, Vol 223, pp. 49-58 (2016).
<http://www.sciencedirect.com/science/article/pii/S1569904816300015>
593. Rashid, S., Bovand, M., Esfahani, J.A., and Ahmadi, G., Discrete Particles Model for Al_2O_3 –Water Nanofluid around a Triangular Obstacle, *Applied Thermal Engineering*, Vol 100, pp. 39-54 (2016).
<http://www.sciencedirect.com/science/article/pii/S1359431116300266>
594. Sayyah, A., Horenstein, M.N., Mazumder, M.K., and Ahmadi, G., Electrostatic Force Distribution on an Electrodynamic Screen, *J. Electrostatics*, Vol. 81, pp. 24-36 (2016).
<http://www.sciencedirect.com/science/article/pii/S0304388616300080>
595. Sajjadi, H., Tavakoli, B., Ahmadi, G., Dhaniyala, S., Harner, T., and Holsen, T.M., Computational Fluid Dynamics (CFD) Simulation of a Newly Designed Passive Particle Sampler, *Environmental Pollution*, Vol. 214, pp. 410-418 (2016).
<http://www.sciencedirect.com/science/article/pii/S026974911630286X>
596. Rahiminejad, M., Haghighi, A. Dastan, A., Abouali, O., Farid, M., and Ahmadi, G., Computer Simulations of Pressure and Velocity Fields in a Human Upper Airway during Sneezing, *Computer in Biology and Medicine*, Vol. 71, pp. 115-127 (2016).
<http://www.sciencedirect.com/science/article/pii/S0010482516300129>
597. Hosseini, S.H., Fattahi, M., and Ahmadi, G., CFD Study of Hydrodynamic and Heat Transfer in a 2D Spouted Bed: Assessment of Radial Distribution Function, *Journal of the Taiwan Institute of Chemical Engineers*, Vol. 58, pp. 107-116 (2016).
<http://www.sciencedirect.com/science/article/pii/S1876107015002977>
598. Sajjadi, H., Salmanzadeh, M., Ahmadi, G., and Jafari, S., Simulations of Indoor Airflow and Particle Dispersion and Deposition by the Lattice Boltzmann Method Using LES and RANS Approaches, *Building and Environment*, Vol. 102, pp. 1-12 (2016).
<http://www.sciencedirect.com/science/article/pii/S0360132316300762>
599. Safaei, M.R., Ahmadi, G., Goodarzi, M.S., Safdari Shadloo, S., Goshayeshi, H.R., and Dahari, M., Heat Transfer and Pressure Drop in Fully Developed Turbulent Flows of Graphene Nanoplatelets–Silver/Water Nanofluids, *Fluids*, Vol. 1, 20, doi: 10.3390/fluids1030020, pp. 1-12 (2016). <http://www.mdpi.com/2311-5521/1/3/20/html>
<http://www.mdpi.com/2311-5521/1/3/20> <http://www.mdpi.com/2311-5521/1/3/20/pdf>

600. Tian, L. and Ahmadi, G., On Nano-Ellipsoid Transport and Deposition in the Lung First Bifurcation-Effect of Slip Correction, *Journal of Fluids Engineering*, Vol. 138, pp. 101101-1-14 (2016).
601. Afshar, H., Shams, M., Nainian, S.M.M., and Ahmadi, G., Effect of Dispersed Nanoparticles on Thermophysical Properties of Nanofluid and Heat Transfer Coefficients, *Journal of Applied Fluid Mechanics*, Vol. 9, pp. 165-171 (2016).
http://jafmonline.net/web/guest/home?p_p_id=JournalArchive_WAR_JournalArchive_INSTANCE_nvhn&p_p_action=0&p_p_state=maximized&p_p_mode=view&JournalArchive_WAR_JournalArchive_INSTANCE_nvhn_form_page=main_form&selectedVolumeId=68&selectedIssueId=233
602. Tian, L. and Ahmadi, G., Brownian Diffusion of Fibers, *Aerosol Science and Technology*, Vol. 138, pp. 474-486 (2016).
<https://www.tandfonline.com/doi/full/10.1080/02786826.2016.1165340>
603. Asharfi, M., Shams, M., Bozorgnezhad, A., and Ahmadi, G., Simulation and Experimental Validation of Droplet Dynamics in Microchannels of PEM Fuel Cells, *Heat and Mass Transfer*, Vol. pp. 1-16, doi:10.1007/s00231-016-1771-z (2016).
<http://link.springer.com/article/10.1007/s00231-01>
604. Saidi, M., Basirat Tabrizi, H., Ahmadi, G., Grace, J.R., and Iim Lim, C., Hydrodynamics of Pulsed Spouted Beds: Effects of Pulsation Waveform, Amplitude and Frequency, *Drying Technology, An International Journal*, Vol. 34, pp. 1546-1557 (2016).
<http://www.tandfonline.com/doi/abs/10.1080/07373937.2015.1135942?journalCode=ldrt20> <http://www.tandfonline.com/doi/full/10.1080/07373937.2015.1135942>
605. Tian, L. and Ahmadi, G., Transport and Deposition of Nano-Fibers in Human Upper tracheobronchial Airways, *Journal of Aerosol Science*, Vol. 91, pp. 22-32 (2016)
606. Rashid, S., Bovand, M., Ahmadi, G., and Esfahani, J.A., Effects of Trap and Reflect Particle Boundary Conditions on Particle Transport and Convective Heat Transfer for Duct Flow - A Two-Way Coupling of Eulerian-Lagrangian Model, *Applied Thermal Engineering*, Vol 108, pp. 368-377 (2016).
<http://www.sciencedirect.com/science/article/pii/S1359431116312558>
607. Safaei, M.R., Ahmadi, G., Goodarzi, M.S., Kamyar, A., and Kazi, S.N., Boundary Layer Flow and Heat Transfer of FMWCNT/Water Nanofluids over a Flat Plate, *Fluids*, Vol. 1, 31, doi: 10.3390/fluids1040031, pp. 1-13 (2016).
<http://www.mdpi.com/2311-5521/1/4/31>
<http://www.mdpi.com/2311-5521/1/4/31/pdf>
608. Fattahi, M., Hosseini, S.H., and Ahmadi, G., CFD Simulation of Transient Gas to Particle Heat Transfer for Fluidized and Spouted Regimes, *Applied Thermal Engineering*, Vol. 105, pp. 385-396 (2016).

609. Tavan, Y., Hosseini, S.H., and Ahmadi, G., Toward Energy Key Indicators in Ethane Sweetening Process, *Applied Thermal Engineering*, Vol. 107, pp. 880-887 (2016).
<http://www.sciencedirect.com/science/article/pii/S1359431116311917>
610. Bahmanzadeh, H., Abouali, O., and Ahmadi, G., Unsteady Particle Tracking of Micro-Particle Deposition in the Human Nasal Cavity under Cyclic Inspiratory Flow, *Journal of Aerosol Science*, Vol. 101, pp. 86-103 (2016).
<http://www.sciencedirect.com/science/article/pii/S0021850216302440>
611. Setarehshenas, N., Hosseini, S.H., Nasr Esfahany, M., and Ahmadi, G., Impacts of Solid-Phase Wall Boundary Condition on CFD Simulation of Conical Spouted Beds Containing Heavy Zirconia Particles, *Journal of the Taiwan Institute of Chemical Engineers*, Vol. 64, pp. 146-156 (2016).
<http://www.sciencedirect.com/science/article/pii/S1876107016300529>
612. Hosseini, S.H., Shokry, E., Ahmadian Hosseini, A.J., Ahmadi, G., and Calautit, J.K., Evaluation of Airflow and Thermal Comfort in Buildings Ventilated With Wind Catchers: Simulation of Conditions in Yazd City, Iran, *Energy for Sustainable Development*, Vol. 35, pp. 7-24 (2016).
<http://www.sciencedirect.com/science/article/pii/S0973082616304252>
613. Bozorgnezhad, A., Shams, M., Kanani, H., Hasheminasab, M. and Ahmadi, G., Two-Phase Flow and Droplet Behavior in Microchannels of PEM Fuel Cell, *International Journal of Hydrogen Energy*, Vol. 41, pp. 19164-19181 (2016).
<http://www.sciencedirect.com/science/article/pii/S0360319916327549>
614. Talebizadeh, P., Rahimzadeh, H., Ahmadi, G., Brown, R., and Inthavong, K., Time History of Diesel Particle Deposition in Cylindrical Dielectric Barrier Discharge Reactors, *Journal of Nanoparticle Research*, Vol. 18:378, pp. 1-13 (2016) DOI 10.1007/s11051-016-3667-8.
<http://link.springer.com/article/10.1007/s11051-016-3667-8>
615. Talebizadeh, P., Rahimzadeh, H., and Ahmadi, G., Study of the Thermophoresis Effect on the Deposition of Nano-Particles from Diesel Engine Exhaust after the Dilution Tunnel, *Modares Mechanical Engineering*, Vol. 16, pp. 383-390 (2016) (in Persian).
http://mme.modares.ac.ir/article_14539.html
616. Talebizadeh, P., Rahimzadeh, H., and Ahmadi, G., Numerical Investigation of Nano-Particle Dispersion and Deposition in Fully Developed Laminar Pipe Flows, *Amirkabir Journal of Science and Research - Mechanical Engineering*, Vol., pp. (2016) (in Persian).
http://mej.aut.ac.ir/article_762.html

2017

617. Keshavarz, S.A., Salmanzadeh, M., and Ahmadi, G., Computational Modeling of Time-Resolved Exposure Level Analysis of a Heated Breathing Manikin with Rotation in a Room, *Journal of Aerosol Science*, Vol. 103, pp. 117–131 (2017).
<https://www.sciencedirect.com/science/article/pii/S0021850216302622>
618. Amiri Delouei, A., Nazari, M., Keyhani, M.S., and Ahmadi, G., Direct-Forcing Immersed Boundary – Non-Newtonian Lattice Boltzmann Method for Transient Non-Isothermal Sedimentation, *Journal of Aerosol Science*, Vol. 104, pp. 106-122 (2017).
<http://www.sciencedirect.com/science/article/pii/S0021850216302099>
619. Rastegar, V., Ahmadi, G., and Babu, S.V., Filtration of Aqueous Colloidal Ceria Slurries Using Fibrous Filters – An Experimental and Simulation Study, *Separation and Purification Technology*, Vol. 176, pp. 231-242 (2017).
<http://www.sciencedirect.com/science/article/pii/S138358661632682X>
620. Amouei Torkmahalleh, M., Askari, M., Gorjinezhad, S., Eroglu, D., Obaidullah, M., Rajab Habib, A., Godelek, S., Kadyrov, S., Kahraman, O., Zare Pakzad, N., and Ahmadi, G., Key Factors Impacting Performance of a Salinity Gradient Solar Pond Exposed to Mediterranean Climate, *Solar Energy*, Vol. 142, pp. 321-329 (2017).
<http://www.sciencedirect.com/science/article/pii/S0038092X16306442?np=y>
621. Tian, L., Ahmadi, G., and Tu, J., Mobility of Nanofiber, Nanorod, and Straight-Chain Nanoparticles in Gases, *Aerosol Science and Technology*, Vol. 51, pp. 578-601 (2017).
<http://dx.doi.org/10.1080/02786826.2017.1280596>
<https://doi.org/10.1080/02786826.2017.1280596>
622. Sajjadi, H., Salmanzadeh, M., Ahmadi, G., and Jafari, S., Lattice Boltzmann Method and RANS Approach for Simulation of Turbulent Flows and Particle Transport and Deposition, *Particuology*, Vol. 30, pp. 62-72 (2017).
<https://authors.elsevier.com/a/1USd95yggNDmho>
623. Sadri, R., Zangeneh Kamali, K., Hosseini, M., Zubir, N., Kazi, S.N., Ahmadi, G., Dahari, M., Huang, N.M. and Golsheikh, A.M., Experimental Study on Thermo-Physical and Rheological Properties of Stable and Green Reduced Graphene Oxide Nanofluids: Hydrothermal Assisted Technique, *Journal of Dispersion Science and Technology*, Vol. 38, pp. 1302-1310 (2017). <https://doi.org/10.1080/01932691.2016.1234387>
<http://www.tandfonline.com/eprint/Acc7wQRZw3i4JJE67Vpu/full>
624. Kone, J-P., Zhang, X., Yan, Y., Hu, G. and Ahmadi, G., Three-dimensional Multiphase Flow Computational Fluid Dynamics Models for Proton Exchange Membrane Fuel Cell: A Theoretical Development, *Journal of Computational Multiphase Flows*, Vol. 9, pp. 3-25 (2017). DOI: 10.1177/1757482X17692341.
<http://journals.sagepub.com/doi/full/10.1177/1757482X17692341>

625. Kesavan, J., Humphreys, P., Nasr, B., Ahmadi, G., Knox, C.K., Valdes, E., Rastogi, V. and Dhaniyala, S., Experimental and Computational Study of Reaerosolization of 1 to 5 μm PSL Microspheres Using Jet Impingement, *Aerosol Science and Technology*, Vol. 51, pp. 377-387 (2017). <http://dx.doi.org/10.1080/02786826.2016.1265081>
<http://www.tandfonline.com/doi/full/10.1080/02786826.2016.1265081>
626. Amiri, A., Shanbedi, M., Ahmadi, G., and Rozali, S., Transformer Oils-Based Graphene Quantum Dots Nanofluid as a New Generation of Highly Conductive and Stable Coolant, *International Communication in Heat and Mass Transfer*, Vol. 83, pp. 40-47 (2017).
627. Bayatpour, D., Abouali, O., Ghaffarieh, A., and Ahmadi, G., In Silico Investigation of Cornea Deformation during Irrigation/Aspiration in Phacoemulsification in Cataract Surgery, *Medical Engineering and Physics*, Vol. 43, pp. 77-85 (2017).
<http://www.sciencedirect.com/science/article/pii/S1350453317300620>
628. Nasirei, A., Abouali, O., and Ahmadi, G., Effect of Turbulent Thermal Plume on Aspiration Efficiency of Micro-Particles, *Building and Environment*, Vol. 118, pp. 159-172 (2017).
<http://www.sciencedirect.com/science/article/pii/S0360132317301166>
629. Sadri, R., Hosseini, M., Kazi, S.N., Bagheri, S., Zubir, N., Ahmadi, G., Dahari, M., and Zaharinie, T., A Novel, Eco-Friendly Technique for Covalent Functionalization of Graphene Nanoplatelets and the Potential of their Nanofluids for Heat Transfer Applications, *Chemical Physics Letters*, Vol. 675, pp. 92-97 (2017).
<http://www.sciencedirect.com/science/article/pii/S0009261417301999>
630. Sajjadi, H., Salmanzadeh, M., Ahmadi, G., and Jafari, S., Turbulent Indoor Airflow Simulation Using Hybrid LES/RANS Model Utilizing Lattice Boltzmann Method, *Computers and Fluids*, Vol. 150, pp. 66-73 (2017).
<http://www.sciencedirect.com/science/article/pii/S0045793017301093>
631. Kiani, M., Rahimi, M.R., Hosseini, S.H., and Ahmadi, G., Mixing and Segregation of Solid Particles in a Conical Spouted Bed: Effect of Particle Size and Density, *Particuology*. Vol. 32, pp. 132-140, (2017).
<http://www.sciencedirect.com/science/article/pii/S1674200117300238>
632. Parvaz, F., Hosseini, S.H., Ahmadi, G., and Elsayed, K., Impacts of the Vortex Finder Eccentricity on the Flow Pattern and Performance of a Gas Cyclone, *Separation and Purification Technology*, Vol. 178, pp. 1-13, (2017).
<http://www.sciencedirect.com/science/article/pii/S1383586617313692>
633. Tavakol, M.M., Ghahramani, E., Abouali, O., Yaghoubi, M. and Ahmadi, G., Deposition Fraction of Ellipsoidal Fibers in a Model of Human Nasal Cavity for Laminar and Turbulent Flows, *Journal of Aerosol Science*, Vol. 113, pp. 52-70 (2017).
<http://www.sciencedirect.com/science/article/pii/S0021850217300861>

634. Sadri, R., Hosseini, M., Kazi, S.N., Bagheri, S., Ahmed, S.M., Ahmadi, G., Zubir, N., Sayuti, M., and Dahari, M., Study of Environmentally Friendly and Facile Functionalization of Graphene Nanoplatelet and Its Application in Convective Heat Transfer, *Energy Conversion and Management*, Vol. 150, pp. 26-36 (2017).
<http://www.sciencedirect.com/science/article/pii/S0196890417306714>
635. Mahmoodi, B., Hosseini, S.H., Ahmadi, G., and Raj, A., CFD Simulation of Reactor Furnace of Sulfur Recovery Units by Considering Gas Acid, *Applied Thermal Sciences*, Vol. 123 pp. 699-710, (2017).
<http://www.sciencedirect.com/science/article/pii/S1359431117303423>
636. Naseri, A., Abouali, O. and Ahmadi, G., Effect of Turbulent Thermal Plume on Aspiration Efficiency of Microparticles, *Building and Environment*, Vol. 118, pp. 159-172 (2017).
<http://www.sciencedirect.com/science/article/pii/S0360132317301166>
637. Shah, D., Aldamzharov, B., Bukayeva, A., Amouei Torkmahalleh, M. and Ahmadi, G., Intermolecular Interactions and its Effect within Cr^{3+} -Containing Atmospheric Particulate Matter Using Molecular Dynamics Simulations, *Atmospheric Environment*, Vol. 166, pp. 334-339 (2017). <http://www.sciencedirect.com/science/article/pii/S1352231017304739>
638. Naseri, A., Shaghaghian, S., Abouali, O. and Ahmadi, G., Numerical Investigation of Transient Transport and Deposition of Microparticles under Unsteady Inspiratory Flow in Human Upper Airways, *Respiratory Physiology & Neurobiology*, Vol. 244, pp. 56-72 (2017). <http://www.sciencedirect.com/science/article/pii/S1569904817300447>
639. Ghahramani, E., Abouali, O., Emdad, H. and Ahmadi, G., Numerical Investigation of Turbulent Airflow and Microparticle Deposition in a Realistic Model of Human Upper Airway Using LES, *Computer and Fluids*, Vol. 157, pp. 43-54 (2017).
<http://www.sciencedirect.com/science/article/pii/S0045793017302748>
640. Motie Shirazi, M., Abouali, O., Emdad, H., Navabizadeh, M. and Ahmadi, G., Numerical and Analytical Investigation of Irrigant Penetration into Dentinal Microtubules, *Computer in Biology and Medicine*, Vol. 89, pp. 1-17 (2017).
<http://www.sciencedirect.com/science/article/pii/S1569904817300447>
641. Obeid, S., Jha, R., and Ahmadi, G., RANS Simulations of Aerodynamic Performance of NACA 0015 Flapped Airfoil, *Fluids*, Vol. 2, pp. 1-27 (2017), doi:10.3390/fluids2010002.
<http://www.mdpi.com/2311-5521/2/1/2>
642. Rastegar, V., Ahmadi, G., and Babu, S.V., Effect of Flow Velocity on Fiber Efficiency and Particle Residence Time during Filtration of Aqueous Dispersions - An Experimental and Simulation Study, *Particulate Science and Technology*, Vol., pp. 1-10 (2017), doi.org/10.1080/02726351.2017.1352637
<https://doi.org/10.1080/02726351.2017.1352637>

643. Talebizadeh, P., Rahimzadeh, H., Ahmadi, G., Brown, R., and Inthavong, K., Numerical Investigation of Nano-Particle Dispersion and Deposition in Fully Developed Laminar Pipe Flows, *AUT Journal of Mechanical Engineering*, Vol. 1, pp. 11-20 (2017).
http://ajme.aut.ac.ir/article_762.html
644. Mirbod, P., Wu, Z., and Ahmadi, G., Laminar Flow Drag Reduction on Soft Porous Media, *Scientific Report*, DOI:10.1038/s41598-017-17141-3 (2017).
<https://www.nature.com/articles/s41598-017-17141-3>
645. Monjezi, M., Saidi, M.S. and Ahmadi, G., Submicron Particle Deposition in Pulmonary Alveoli during Cyclic Breathing, *Scientia Iranica*, Vol. 24, pp. 1975-1984 (2017).
http://scientiairanica.sharif.edu/article_4292.html

2018

646. Sadri, R., Hosseini, M., Kazi, S.N., Bagheri, S., Abdelrazek, A.H., Ahmadi, G., Zubir, N., Ahmad, R., and Abidin, N.I.Z., A Facile, Bio-Based, Novel Approach for Synthesis of Covalently Functionalized Graphene Nanoplatelet Nano-Coolants toward Improved Thermo-Physical and Heat Transfer Properties, *Journal of Colloid and Interface Science*, Vol. 509, pp. 140-152 (2018).
<http://www.sciencedirect.com/science/article/pii/S0021979717308202>
647. Shanley, K.T., Ahmadi, G., Hopke, P.K., and Cheng, Y-S., Simulated Airflow and Rigid Fiber Behavior in A Realistic Nasal Airway Model, *Particulate Science and Technology*, Vol. 36, pp. 131-140 (2018). <https://doi.org/10.1080/02726351.2016.1208694>
<http://www.tandfonline.com/doi/full/10.1080/02726351.2016.1208694>
648. Dalton, L.E., Crandall, D., Shanley, K., Gill, M., Rosenbaum, E., Moore, J., Ahmadi, G., Kutcho, B. and Chipkin, J., Foamed Cement Generation Methods: Insights from Macro-Porosity and Void Distribution, *ACI Materials Journal*, Vol. 115, pp. (2018). doi: 10.14359/51701101.
649. Bidabadia, M., Vahabzadeh Bozorga, M., Bordbar, V. and Ahmadi, G., Flame Propagation through Heterogeneous Combustion of Hybrid Aluminum-Boron Poly-disperse Particle Suspensions in Air, *Fuel*, Vol. 215, pp. 714-725 (2018).
<https://www.sciencedirect.com/science/article/pii/S0016236117315338>
650. Jiang, Y., Lu, L., Ferro, A.R., and Ahmadi, G., Analyzing Wind Cleaning Process on The Accumulated Dust on Solar Photovoltaic (PV) Modules on Flat Surfaces, *Solar Energy*, Vol. 159, pp. 1031-1036 (2018).
<https://www.sciencedirect.com/science/article/pii/S0038092X17307673>

651. Afra, B., Nazari, M., Keyhani, M.S., Amiri Delouei, A., and Ahmadi, G., An Immersed Boundary-Lattice Boltzmann Method Combined With a Robust Lattice Spring Model for Solving Flow–Structure Interaction Problems, *Applied Mathematical Modelling*, Vol. 55, pp. 502-521 (2018).
<https://www.sciencedirect.com/science/article/pii/S0307904X17306315>
652. Parvaz, F., Hosseini, S.H., Elsayed, K., and Ahmadi, G., Numerical Investigation of Effects of Inner Cone on Flow Field, Performance and Erosion Rate of Cyclone Separators, *Separation and Purification Technology*, Vol. 201, pp. 223-237 (2018).
<https://www.sciencedirect.com/science/article/pii/S1383586617335591>
653. Amani, P., Amani, M., Ahmadi, G., Mahian, O., and Wongwises, S., A Critical Review on the Use of Nanoparticles in Liquid-Liquid Extraction, *Chemical Engineering Science*, Vol. 183, pp. 148-176 (2018).
<https://www.sciencedirect.com/science/article/pii/S0009250918301192>
654. Moghimi, M.A., and Ahmadi, G., Wind Barriers Optimization for Minimizing Collector Mirror Soiling in a Parabolic Trough Collector Plant, *Applied Energy*, Vol. 225, pp. 413-423 (2018). <https://www.sciencedirect.com/science/article/pii/S0306261918307207>
655. Pirhadi, M., Sajadi, B., Ahmadi, G., and Malekian, D., Phase Change and Deposition of Inhaled Droplets in the Human Nasal Cavity under Cyclic Inspiratory Airflow, *Journal of Aerosol Science*, Vol. 118, pp. 64-81 (2018).
<https://www.sciencedirect.com/science/article/pii/S0021850217304159?via%3Dihub>
656. Talebizadeh Sardari, P., Rahimzadeh, H., Ahmadi, G., and Giddings, D., Nano-particle Deposition in the Presence of Electric Field, *Journal of Aerosol Science*, Vol. 126, pp. 169-179 (2018).
<https://www.sciencedirect.com/science/article/pii/S0021850218301381>
657. Setarehshenas, N., Hosseini, S.H., and Ahmadi, G., Optimization and Kinetic Model Development for Photocatalytic Dye Degradation, *Arabian Journal for Science and Engineering*, Vol. 43, pp. 5785–5797 (2018).
<http://link.springer.com/article/10.1007/s13369-017-3010-4>
658. Mofakham, A.A., Stadelman, M., Ahmadi, G., Shanley, K.T., and Crandall, D., Computational Modeling of Hydraulic Properties of a Sheared Single Rock Fracture, *Transport in Porous Media*, Vol. 124, pp. 1-30 (2018).
<https://link.springer.com/article/10.1007/s11242-018-1030-5>
659. Barati, R., Salehi Neyshabouri, S.A.A., and Ahmadi, G., Issues in Eulerian-Lagrangian Modeling of Sediment Transport under Saltation Regime, *International Journal of Sediment Research*, Vol. 33, pp. 441–461 (2018).
<https://www.sciencedirect.com/science/article/pii/S1001627917302901>

660. Rasteh, M., Farhadi, F. and Ahmadi, G., Empirical Models for Minimum Fluidization Velocity of Particles with Different Size Distribution in Tapered Fluidized Beds, *Powder Technology*, Vol. 338, pp. 563-575 (2018).
<https://www.sciencedirect.com/science/article/pii/S0032591018305758>
661. Yang, S., Zhang, X., Wang, B., Huang, H., Zhao, Z., Wang, X., Yu, K. and Ahmadi, G., A Practical Low-Cost Approach to Build Membrane Electrode Assemblies Using Decal Transfer Technique, *Energy Procedia*, Vol. 145, pp. 458-463 (2018).
<https://www.sciencedirect.com/science/article/pii/S1876610218300997>
662. Konea, J.P., Zhang, X., Yan, Y., Hud, G. and Ahmadi, G., CFD Modeling and Simulation of PEM Fuel Cell Using OpenFOAM, *Energy Procedia*, Vol. 145, pp. 64-69 (2018).
<https://www.sciencedirect.com/science/article/pii/S1876610218300122>
663. Sadri, R., Mallah, A.R., Hosseini, A.R., Ahmadi, G., S.N. Kazi, Dabbagh, A., Yeong, C.H., Ahmad, R. and Yaakup, N.A., A Facile, Bio-Based, CFD Modeling of Turbulent Convection Heat Transfer of Nanofluids Containing Green Functionalized Graphene Nanoplatelets Flowing in A Horizontal Tube: Comparison with Experimental Data, *Journal of Molecular Liquids*, Vol. 269, pp. 152-159 (2018).
<https://www.sciencedirect.com/science/article/pii/S0167732218316258>
664. Malekian, D., Sajadi, B., Ahmadi, G. and Pirhadi, M., A Numerical Study of Electric Force Effects on Detachment and Deposition of Particles Due To a Falling Disk, *Journal of Aerosol Science*, Vol. 124, pp. 133-145 (2018).
<https://www.sciencedirect.com/science/article/pii/S0021850218301162>
665. Amiri, A., Naraghi, M., Ahmadi, G., Soleymaniha, M., and Shanbedi, M., A Review on Liquid-Phase Exfoliation for Scalable Production of Pure Graphene, Wrinkled, Crumpled and Functionalized Graphene and Challenges, *FlatChem*, Vol. 6, pp. 40-71 (2018).
<https://www.sciencedirect.com/science/article/pii/S2452262718300047>
666. Haghighifard, H.R., Tavakol, M.M. and Ahmadi, G., Numerical Study of Fluid Flow and Particle Dispersion and Deposition Around Two Inline Buildings, *Journal of Wind Engineering & Industrial Aerodynamics*, Vol. 179, pp. 385–406 (2018).
<https://www.sciencedirect.com/science/article/pii/S0167610518302460>
667. Sajjadi, H., Salmanzadeh, M., Ahmadi, G., and Jafari, S., Investigation of Particle Deposition and Dispersion Using Hybrid LES/RANS Model Based On Lattice Boltzmann Method, *Scientia Iranica, Transactions B: Mechanical Engineering*, Vol. 25, pp. 3173-3182 (2018).
http://scientiairanica.sharif.edu/article_20723.html
668. Farokhipor, A., Mansoori, Z, Saffar-Avval, M., and Ahmadi, G., Numerical Modeling of Sand Particle Erosion in Return Bends in Gas-Particle Two-Phase Flow, *Scientia Iranica, Transactions B: Mechanical Engineering*, Vol. 25, pp. 3231-3242 (2018).

http://scientiairanica.sharif.edu/article_20889.html

669. Rasoulina, M.A., Rasteh, A., Farokhipor, A., Mansoori, Z, Saffar-Avval, M., Haj, A. and Ahmadi, G., Numerical 3D Simulation of Developing Turbulent Stratified Gas-Liquid Flow in Curved Pipes Consisting of Entrained Particles through This Type of Flow, Scientia Iranica, Transactions B: Mechanical Engineering, Vol. 25, pp. 3243-3257 (2018).
http://scientiairanica.sharif.edu/article_20890.html
670. Soroushian, A., Ahmadi, G., and Amiri, S., A Class of Synchronized Nonlinear Two-DOF Systems with Closed-Form Solution, Scientia Iranica, Transactions B: Mechanical Engineering, Vol. 25, pp. 3258-3273 (2018).
http://scientiairanica.sharif.edu/article_20891.html
671. Zhang, X. and Ahmadi, G., Numerical Simulations on Gas-Liquid-Particle Flows in Three-Phase Slurry Reactors under Gravity Variation, Scientia Iranica, Transactions B: Mechanical Engineering, Vol. 25, pp. 3197-3209 (2018).
http://scientiairanica.sharif.edu/article_20892.html
672. Afra, B., Nazari, M., Keyhani, M.S., and Ahmadi, G., Direct Numerical Simulation of Freely Falling Particles by Hybrid Immersed Boundary - Lattice Boltzmann- Discrete Element Method, Particulate Science and Technology, (2018).
<https://doi.org/10.1080/02726351.2018.1536092>
<https://www.tandfonline.com/eprint/77YCkKCrtBiJFzT7dcvU/full?target=10.1080/02726351.2018.1536092>
673. Behzad, F., Helenbrook, B., and Ahmadi, G. The Multi-Level Proper Orthogonal Decomposition. AIAA Journal, Vol. 56, pp. 4423-4436 (2018).

2019

674. Hosseini, S.H., Rezaei, M.J., Bag-Mohammadi, M., Zendehboudi, A., and Ahmadi, G., Prediction of Frost Layer over Flat Plates under Natural and Forced Convection Conditions Using Intelligent and Least-Square Fitting Approaches, Applied Thermal Engineering, Vol. 148, pp. 33-42 (2019).
<https://www.sciencedirect.com/science/article/pii/S1359431118347987>
675. Nikookara, H., Abouali, O., Eghtesad, M., Sadrizadeh, S., and Ahmadi, G., Enhancing Drug Delivery to Human Trachea Through Oral Airway Using Magnetophoretic Steering of Microsphere Carriers Composed of Aggregated Superparamagnetic Nanoparticles and Nanomedicine: A Numerical Study, Journal of Aerosol Science, Vol. 127, pp. 63-92 (2019).
<https://www.sciencedirect.com/science/article/pii/S0021850218301940>

676. Schmidt, D.J., Kvasnak, W., and Ahmadi, G., A Model for Fuel Spray Formation with Atomizing Air, *Fluids*, Vol., pp. (2019). <https://www.mdpi.com/2311-5521/4/1/20>
<http://www.mdpi.com/2311-5521/4/1/20/pdf>
677. Mashayekhii, M., Estekanchi, H.E., Vafai, H. and Ahmadi, G., An Evolutionary Optimization-Based Approach for Simulation of Endurance Time Load Functions, *Engineering Optimization*, Vol. 51, pp. 2069-2088 (2019).
<https://doi.org/10.1080/0305215X.2019.1567724>.
<https://www.tandfonline.com/doi/full/10.1080/0305215X.2019.1567724>
678. Zarnaghsh, A. Abouali, O., Emdad, H., and Ahmadi, G., A Numerical Study of the Train-Induced Unsteady Airflow in a Tunnel and its Effects on the Performance of Jet Fans. *Journal of Wind Engineering and Industrial Aerodynamics*. Vol. 187, pp. 1-14 (2019).
<https://www.sciencedirect.com/science/article/pii/S0167610518307335>
<https://www.sciencedirect.com/science/article/pii/S0167610518307335?dgcid=coauthor>
679. Mahian, O., Kolsi, L., Amani, M., Estelle, P., Ahmadi, G., Kleinstreuer, C., Marshall, J.S., Siavashi, M., Taylor, R.A., Niazmand, H., Wongwises, S., Hayat, T., Kolanjiyil, A., Kasaeian, A. and Pop, I., Recent Advances in Modeling and Simulation of Nanofluid Flows-Part I: Fundamental and Theory, *Physics Reports*, Vol. 790, pp. 1-48 (2019).
<https://doi.org/10.1016/j.physrep.2018.11.004>
<https://www.sciencedirect.com/science/article/pii/S0370157318303302?via%3Dihub>
<https://www.sciencedirect.com/science/article/pii/S0370157318303302?dgcid=coauthor>
<https://www.sciencedirect.com/science/article/pii/S0370157318303302>
680. Mahian, O., Kolsi, L., Amani, M., Estelle, P., Ahmadi, G., Kleinstreuer, C., Marshall, J.S., Taylor, R.A., Abu-Nada, E., Rashidi, S., Niazmand, H., Wongwises, S., Hayat, T., Kasaeian, A. and Pop, I., Recent Advances in Modeling and Simulation of Nanofluid Flows-Part II: Applications, *Physics Reports*, Vol. 791, pp. 1-59 (2019).
<https://doi.org/10.1016/j.physrep.2018.11.003>
<https://www.sciencedirect.com/science/article/pii/S0370157318303296?via%3Dihub>
<https://www.sciencedirect.com/science/article/pii/S0370157318303296>
681. Mahmoodi, B., Hosseini, S.H., and Ahmadi, G., CFD–DEM Simulation of a Pseudo-Two-Dimensional Spouted Bed Comprising Coarse Particles, *Particuology*, Vol. 43, pp. 171-180 (2019).
<https://www.sciencedirect.com/science/article/pii/S1674200118300671?via%3Dihub>
<https://authors.elsevier.com/a/1YbKI5yqgNLO-->
<https://www.sciencedirect.com/science/article/pii/S1674200118300671?dgcid=author>
682. Tavan, Y., Hosseini, S.H., and Ahmadi, G., Energy and Exergy Analysis of Intensified Condensate Stabilization Unit with Water Draw Pan, *Applied Thermal Engineering*, Vol. 155, pp. 49-58 (2019).
<https://www.sciencedirect.com/science/article/pii/S1359431118364366>
<https://www.sciencedirect.com/science/article/pii/S1359431118364366?dgcid=author>

683. Zendehboudi, A., Hosseini, S.H., and Ahmadi, G., Modeling of Frost Thermal Conductivity on Parallel Surface Channels, Measurements, Vol. 140, pp. 293-304 (2019).
<https://www.sciencedirect.com/science/article/pii/S0263224119302702?dgcid=author>
<https://www.sciencedirect.com/science/article/pii/S0263224119302702>
684. Talebizadeh, P., Rahimzadeh, H., Ahmadi, G., Moghimi, M., Inthavong, K., and Esapour, M., Nano-particle Deposition in Axisymmetric Annular Pipes with Thread, Journal of Particulate Science and Technology, Vol., pp. 1-8 (2019).
<https://doi.org/10.1080/02726351.2019.1613705>
685. Mirzaee, H., Rafee, R., and Ahmadi, G., Inertial Impaction of Particles on a Circular Cylinder for a Wide Range of Reynolds and P Numbers: A Comparative Study, Journal of Aerosol Science, Vol. 135, pp. 86-102 (2019).
<https://www.sciencedirect.com/science/article/pii/S0021850219300813?via%3Dihub>
<https://www.sciencedirect.com/science/article/pii/S0021850219300813?dgcid=coauthor>
686. Asadi, B., Saidi, M. H., Taeibi-Rahni M., K., Javadi, K., and Ahmadi, G., Investigation of Hydrodynamically Dominated Membrane Rupture, Using Smoothed Particle Hydrodynamics–Finite Element Method, Fluids, Vol. 4, pp. 1-17 (2019).
doi:10.3390/fluids4030149. <https://www.mdpi.com/2311-5521/4/3/149/htm>
687. Farokhipour, A., Mansoori, Z., Rasteh, A., Rasoulina, M.A., Saffar-Avval, M. and Ahmadi, G., Study of Erosion Prediction of Turbulent Gas-Solid Flow in Plugged Tees via CFD-DEM, Powder Technology, Vol. 352, pp. 136-150 (2019).
<https://www.sciencedirect.com/science/article/pii/S0032591019303067?via%3Dihub>
688. Mofakham, A.A. and Ahmadi, G., Particles Dispersion and Deposition in Inhomogeneous Turbulent Flows Using Continuous Random Walk Models, Physics of Fluids, Vol. 31, pp. 083301-1-13 (2019). <https://doi.org/10.1063/1.5095629>
<https://aip.scitation.org/doi/10.1063/1.5095629>
689. Izadi, T., Mehrabian, M.A., Abouali, O., and Ahmadi, G., 3-D Numerical Analysis of Train-Induced Flow Inside Four Ventilated Underground Subway Stations and Connecting Tunnels. Journal of Wind Engineering and Industrial Aerodynamics. Vol. 193, pp. 1-16 (2019). <https://doi.org/10.1016/j.jweia.2019.103974>
<https://www.sciencedirect.com/science/article/pii/S0167610519305744?via%3Dihub>
<https://www.sciencedirect.com/science/article/pii/S0167610519305744?dgcid=coauthor>
690. Hayati, H., Soltani Goharrizi, A., Salmanzadeh, M., and Ahmadi, G., Numerical modeling of Particle Motion and Deposition in Turbulent Wavy Channel Flows, Scientia Iranica, Transactions B: Mechanical Engineering, Vol. 26, pp. 2229-2240 (2019).
http://scientiairanica.sharif.edu/issue_1067_1096.html
http://scientiairanica.sharif.edu/article_21405.html

691. Bluestein, A.M., Venters, R., Bohl, D., Helenbrook, B., and Ahmadi, G., Turbulent Flow through a Ducted Elbow and Plugged Tee Geometry: An Experimental and Numerical Study, ASME Journal of Fluids Engineering, Vol. 141, pp. 81101-1-14 (2019).
<https://asmedigitalcollection.asme.org/fluidsengineering/article-abstract/141/8/081101/454549/Turbulent-Flow-Through-a-Ducted-Elbow-and-Plugged?redirectedFrom=fulltext>
692. Fattahi, M., Hosseini, S.H., Ahmadi, G. and Parvareh, A., Numerical Simulation of Heat Transfer Coefficient around Different Immersed Bodies in a Fluidized Bed Containing Geldart B Particles, International Journal of Heat and Mass Transfer, Vol. 141, pp. 353-366 (2019). <https://www.sciencedirect.com/science/article/pii/S0017931019307069>
693. Nasr, B., Ahmadi, G., Ferro, A. and Dhaniyala, S., Overview of Mechanistic Particle Resuspension Models: Comparison with Compilation of Experimental Data, Journal of Adhesion Science and Technology, Vol.33, pp. 2631-2660 (2019).
<https://doi.org/10.1080/01694243.2019.1650989>
694. Dong, J., Tian, L., and Ahmadi, G., Numerical Assessment of Respiratory Airway Exposure Risks to Diesel Exhaust Particles, Experimental and Computational Multiphase Flow, Vol. 1, pp. 51-59 (2019).
<https://link.springer.com/article/10.1007/s42757-019-0005-2>
695. Tavan, Y., Hosseini, S.H., Ahmadi, G., and Olazar, M., Mathematical model and Energy Analysis of Ethane Dehydration in a Two-layer Packed Bed Adsorption, Particuology, Vol. 47, pp. 33-44 (2019).
<https://www.sciencedirect.com/science/article/pii/S1674200119300380>
696. Sajadi, B., Saidi, M.H., and Ahmadi, G., Numerical Evaluation of the Operating Room Ventilation Performance: Ultra-Clean Ventilation (UCV) Systems, Scientia Iranica, Transactions B: Mechanical Engineering, Vol. 26, pp. 2394-2406 (2019).
http://scientiairanica.sharif.edu/article_21083_dc7acd0cd6fdf25617a27a29ccb357ec.pdf
http://scientiairanica.sharif.edu/article_21083.html
697. Hosseini, R, Roohi, R, and Ahmadi, G, Parametric Study of a Novel Oscillatory Wind Turbine, Energy Equipment and Systems, Vol. 7, No. 4, pp. 377-387 (2019).
<http://energyequipsys.ut.ac.ir/>
- 698.

2020

699. Parvaz, F., Hosseini, S.H., Elsayed, K., and Ahmadi, G., Influence of the Dipleg Shape on the Performance of Gas Cyclones, Separation and Purification Technology, Vol. 239, pp. 1-12 (2020). <https://doi.org/10.1016/j.seppur.2020.116553>

<https://www.sciencedirect.com/science/article/pii/S1383586619319094?dgcid=author>
<https://www.sciencedirect.com/science/article/pii/S1383586619319094?via%3Dihub>

700. Nasrollahi, A., Salehi Neyshabouri, S.A.A., Ahmadi, G., and Namin, M.M., Numerical Simulation of Incipient Particle Motion, International Journal of Sediment Research, Vol. 35, pp. 1-14 (2020). <https://doi.org/10.1016/j.ijsrc.2019.07.006>
<https://www.sciencedirect.com/science/article/pii/S1001627918303809?via%3Dihub>
701. Mofakham, A.A. and Ahmadi, G., On Random Walk Models for Simulation of Particle-Laden Turbulent Flows, International Journal of Multiphase Flow, Vol. 122, pp. (2020).
<https://www.sciencedirect.com/science/article/pii/S0301932219306366?dgcid=author>
<https://doi.org/10.1016/j.ijmultiphaseflow.2019.103157>
702. Nasr, B., Ahmadi, G., Ferro, A. and Dhaniyala, S., A Model for Particle Removal from Surfaces with Large-scale Roughness in Turbulent Flows, Aerosol Science and Technology, Vol. 54, pp. 291-303 (2020).
<https://doi.org/10.1080/02786826.2019.1692126>
<https://www.tandfonline.com/doi/full/10.1080/02786826.2019.1692126>
<https://www.tandfonline.com/eprint/RDP2GCE5IIENJ8BDFX5M/full?target=10.1080/02786826.2019.1692126>
703. Kiasadegh, M., Abouali, O., Emdad, H., and Ahmadi, G., Transient Numerical Simulation of Airflow and Fibrous Particles in a Human Upper Airway Model, Journal of Aerosol Science, Vol. 140, pp. (2020). <https://doi.org/10.1016/j.jaerosci.2019.105480>
<https://www.sciencedirect.com/science/article/pii/S0021850219305841?via%3Dihub>
704. Hosseinie, R., Roohi, R., and Ahmadi, G., Parametric Study and Performance Analysis of a Swinging Sail Wind Machine, Energy Conversion and Management, Vol. , pp. (2020).
<https://www.sciencedirect.com/science/article/pii/S0196890419314608?via%3Dihub>
<https://doi.org/10.1016/j.enconman.2019.112452>
705. Rashidi, I., Kolsi, L., Ahmadi, G., Mahian, O., Wongwises, S., and Abu-Nada, E., Three-Dimensional Modelling of Natural Convection and Entropy Generation in a Vertical Cylinder under Heterogeneous Heat Flux Using Nanofluids International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 30, pp. 119-142 (2020).
<https://www.emerald.com/insight/0961-5539.htm>
<https://www.emerald.com/insight/content/doi/10.1108/HFF-12-2018-0731/full/html>
<https://doi.org/10.1108/HFF-12-2018-0731>
706. Abolhassantash, M., Tavakol, M.M., Abouali, O., Yaghoubi, M. and Ahmadi, G., Deposition Fraction of Ellipsoidal Fibers in the Human Nasal Cavity- Influence of Non-Creeping Formulation of Hydrodynamic Forces and Torques, International Journal of Multiphase Flow, Vol. 126, pp. (2020).
<https://doi.org/10.1016/j.ijmultiphaseflow.2020.103238>

707. Farokhipour, A., Mansoori, Z., Saffar-Avval, M. and Ahmadi, G., 3D Computational Modeling of Sand Erosion in Gas-Liquid-Particle Multiphase Annular Flows in Bends, *Wear*, Vol. 450-451, pp. (2020). <https://doi.org/10.1016/j.wear.2020.203241>
708. Haddadi, M.M., Hosseini, S.H., Rashtchian, D., and Ahmadi, G., CFD Modeling of Immiscible Liquids Turbulent Dispersion in Kenics Static Mixers: Focusing on Droplet Chinese Journal of Chemical Engineering, Vol. 28, pp. 348-361 (2020).
<https://doi.org/10.1016/j.cjche.2019.07.020>
<https://www.sciencedirect.com/science/article/pii/S1004954119308171?via%3Dihub>
709. Hosseini, S.H., Valizadeh, M., Rezaei, M.J., Bag-Mohammadi, M., Ahmadi, G., and Olazare, M., An Ensemble Model to Predict the Minimum Spouting Velocity for Two Types of Spouted Beds, *Particulate Science and Technology*, Vol. 239, pp. 1-12 (2020).
<https://doi.org/10.1080/02726351.2020.1775737>
710. Farokhipour, A., Mansoori, Z., Rasoulia, M.A., Rasteh, A., Saffar-Avval, M. and Ahmadi, G., Study of Particle Mass Loading Effects on Sand Erosion In A Series Of Fittings, *Wear*, Vol. 450-451, pp. (2020). <https://doi.org/10.1016/j.powtec.2020.06.040>
<https://www.sciencedirect.com/science/article/pii/S0032591020305593?dgcid=coauthor>
711. Obeid, S., Jha, R., and Ahmadi, G., NARMAX Identification Based Closed-Loop Control of Flow Separation over NACA 0015 Airfoil, *Fluids*, Vol. 5, pp. (2020), doi:10.3390/fluids5030100 <https://www.mdpi.com/2311-5521/5/3/100>
712. Mofakham, A.A. and Ahmadi, G., Improved Discrete Random Walk Stochastic Model for Simulating Particle Dispersion and Deposition in Inhomogeneous Turbulent Flows, *Journal of Fluids Engineering*, Vol. 142, pp. 101401-1-14 (2020).
<https://asmedigitalcollection.asme.org/fluidsengineering/article-standard/142/10/101401/1084593/>
713. Kiasadegh, M., Emdad, H., Ahmadi, and G., Abouali, Transient numerical simulation of airflow and fibrous particles in a human upper airway model, *Journal of Aerosol Science*, Vol. 140, pp. (2020). <https://doi.org/10.1016/j.jaerosci.2019.105480>
<https://www.sciencedirect.com/science/article/pii/S0021850219305841>
714. Estekanchi, H.E., Mashayekhii, M., Vafai, H., Ahmadi, G., Mirfarhadi, S.A., and Harati. M., A State-Of-Knowledge Review on the Endurance Time Method, *Structures*, Vol. 27, pp. 2288-2299 (2020). <https://doi.org/10.1016/j.istruc.2020.07.062>
<https://www.sciencedirect.com/science/article/pii/S2352012420303751?via%3Dihub>
715. Mirzaee, H., Rafee, R., Rashidi, S. and Ahmadi, G., Evaluation of Different Numerical Models for Prediction of Pressure Drop in Laminar Nanofluid Flows, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, Vol., pp., (2020).
<https://doi.org/10.1080/15567036.2020.1810178>

716.

2021

717. Tian, L., and Ahmadi, G., Computational Modeling of Fiber Transport in Human Respiratory Airways—A Review, Experimental and Computational Multiphase Flow, Vol. 2, pp. (2021). <https://doi.org/10.1007/s42757-020-0061-7>
<https://link.springer.com/article/10.1007%2Fs42757-020-0061-7>

In Press

718. Tohidi, R., Sajadi, B., and Ahmadi, G., The Effect of Nasal Airway Obstruction on the Dispersion and Deposition of Inhaled Volatile Droplets in the Human Nasal Cavity: A Numerical Study, Journal of Aerosol Science, Vol., pp. (2020).
<https://doi.org/10.1016/j.jaerosci.2020.105650>
719. Tabe, R., Rafee, R., Valipour, M.S. and Ahmadi, G., Investigation of Airflow at Different Activity Conditions in a Realistic Model of Human Upper Respiratory Tract, Computer Methods in Biomechanics and Biomedical Engineering, Vol., pp., (2020).

Submitted

720. Ramezani, M., Nazari, M., M.M. Shahmardan, M.M., and Ahmadi, G., Experimental Study and Visualization of Impacting Spherical Hydrophobic Particles on an Air – Liquid Interface, Journal of Colloid and Interface Science, Vol., pp. (2019). (Under Review).
721. Naseri. A., Abouali, O., Emdad, H., Mehrabi, S., and Ahmadi, G., Assessing the Effect of High Ambient Airflow Velocity on the Human Intrathoracic Pressure during Cyclic Breathing, Respiratory Physiology & Neurobiology, Vol., pp. (2019).
722. Moshkdayan, K., Bahmanzadeh. H. Abouali, O., Faramarzi, M., Sadrizadeh, S., and Ahmadi, G., In-Silico Investigation of Airflow and Micro-Particle Deposition in Human

Nasal Airway Pre- and Post-Virtual Transnasal Sphenoidotomy Surgery, Clinical Biomechanics, Vol., pp. (2019).

723. Alavinasab, A., Ahmadi, G., and Jha, R., Effects of Nonlocal Small Scale Parameters on Behavior of Carbon Nanotube Beams, International Journal for Computational Methods in Engineering Science and Mechanics. (Under Review).
724. Sajadi, B., Saidi, M.H., Ahmadi, G., and Ferro, A., Numerical Modeling of Particles Resuspension due to Human Walking, Journal of Aerosol Science, (Under Review).
725. Kehs, J., Bohl, D. and Ahmadi, G., Experimental Study of Airflow around the Syracuse CoE Building submitted to the Journal of Fluids Engineering, ASME Journal of Fluid Engineering (Under Review).

In preparation

1. Alavinasab, A., Ahmadi, G., and Jha, R., First- and Second-order Nonlocal Elasticity Based Beam Models for Carbon Nanotube, (To be submitted).

Conference Papers and Presentations: 1250

Invited Talks: 190

Highlights of Accomplishments of Goodarz Ahmadi, Dean of Coulter School of Engineering at Clarkson University, 2005-2015

Ahmadi has served as Dean of Coulter School of Engineering at Clarkson University, fall 2005-June 2015. Here is a brief summary of his activities as Dean.

Strategic Plan

Upon his appointment as Dean of Engineering, Ahmadi formed groups of faculty members and staff and performed a detailed analysis of strengths, opportunities, weaknesses, and threats (SWOT) of the school as well as aspiration of the faculty and staff. The SWOT analysis formed the basis for developing the strategic plan for the school of engineering. The developed strategic plan was presented to the Board of Trustees and was approved. A detailed implementation plan was also developed that guided the school activities. At that time, the enrollment was low, student retention was fluctuating at about 85%, and the research activities were relatively low. There were very few endowed professorships and endowed chairs at the school.

Enrollment

During Ahmadi's tenure as Dean of Engineering, the CSoE freshmen enrollment has grown from 320 to about 450-500 freshmen. The quality of incoming students in connection with their SAT and ranking at their high schools has also increased. As a result, the number of students in the school has grown from 1100 to 1800 in fall 2014, which is an increase of more than 50%. This achievement was due to the diligence of the University Admission Office as well as Engineering Department Chairs and faculty who have been involved in the school open houses and other recruiting activities.

Faculty Recruiting

Ahmadi worked with the Department Chairs to hire first-class new faculty members. During the 2014-2015 academic year, the CSoE hired 11 new faculty members all the first choices of the search committees. In the preceding years, five new faculty members were typically hired every year. Six of the new faculty members received the National Science Foundation CAREER award, which was the highest number in the history of Clarkson. The number of faculty at CSoE has grown from about 65 to about 83 in 2015.

Faculty and Student Diversity

Every effort was made to improve the diversity at the CSoE. As a result, the CSoE became among the top 50 schools in the percentage of the number of female faculty members in the US. The School also recruited several first-class minority faculty members.

In 2007, the number of female students in CSoE was about 12%, well below the national average. The percentage has been improving, and in 2015 the percentage was more than 19%, which was higher than the national average. The percentage of minority students has also increased to about 9%, which was a record for the student body at Clarkson.

Endowed Chair and Professorship

Ahmadi worked with the President and Provost in fundraising efforts to establish six new endowed

Chairs and Professorships at the Coulter of Engineering. In addition, several other endowed Chairs were in the works. The establishment of endowed professorships has built the faculty morale and also has been instrumental in recruiting top faculty members, as well as in retaining star faculty members at the school.

Student Retention and Revision of First Curriculum

Ahmadi, in collaboration with the Associate Dean of Engineering and the Dean of Arts and Sciences, initiated a serious revision of the first-year engineering curriculum. The revised program, which has been in place since 2012, allows for flexibility for the freshmen in taking their science courses with appropriate preparation. Also, taking Biology instead of a second chemistry course became optional for several engineering degree programs. In addition, the school has developed a new course on engineering and society for first-year engineering students. This course provided the students with the fundamentals of engineering in their first year and also tied engineering to society. This is a perfect course for introducing engineering students to the concept of “Technology Serving Humanity” that has been the motto of Coulter School of Engineering.

As a result of these revisions, as well as other measures taken by the University, the freshmen retention had increased significantly. Historically, the engineering freshman retention used to be around 85%, which was lower than the school of business. Student retention of different schools at Clarkson as well as the entire university in 2010-2014 academic years are shown in Figure 1. It is seen that the student retention of the entire university was reached 92.8% in 2014. Also, engineering student retention has continuously increased and reached 93.8%, which was the highest among all schools changing the historical trend at Clarkson.

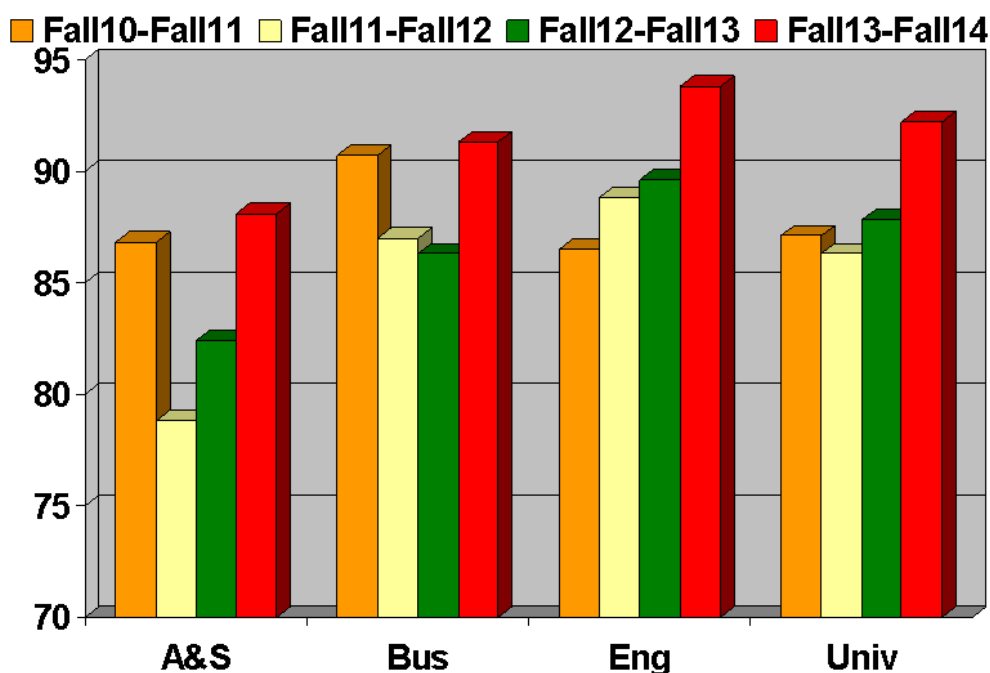


Figure 1. Time history of freshmen retention.

New Engineering Minors

Another part of the strategic plan that was successfully put in place was the establishment of

several new minors for engineering students. These were: Biomedical Engineering and Biomedical Science and Technology, Sustainable Energy Systems Engineering, and Software Engineering, Business, (minor in innovation and entrepreneurship was in process). An engineering student could complete his/her degrees in four years in one of the 9 majors currently offered and also complete one and possibly two of the minors.

New Graduate Programs

An interdisciplinary Ph.D. program in advanced materials science and engineering was developed and approved by New York State and has been offered since 2010. Earlier, interdisciplinary MS and Ph.D. programs in Environmental Science and Engineering were established. In addition, a new MS program on Big Data was developed and that has been offered as MS in science.

Tenure and Promotion

During Ahmadi's tenure as Dean, 18 faculty members have received tenure and were promoted to associate professorship. Also, Six faculty members were promoted to full professorship. In addition, six faculty members received endowed professorship/endowed Chair. It is noteworthy that all tenure and promotion cases recommended by CSoE during that period were approved. This was achieved by establishing the proper mentoring structure for the new faculty member at all engineering department with the help of Department Chairs and faculty mentors.

SPEED

The participation of undergraduates in Student Projects for Engineering Experience and Design (SPEED) team projects has grown by more than 30% during the 2005-2015 period. By 2015 sixteen SPEED teams provided hands-on experiences for engineering students in all disciplines. Roughly a third of engineering students were involved with the SPEED projects every year. The experiential learning that SPEED provided for our engineering students an important pillar of their education.

REU

The participation in gaining research experiences for undergraduates (REU) was grown by more than 30-40%. The faculty members with active research projects were encouraged to involve undergraduates in their research work. That provides our students with invaluable research experiences. A faculty committee was formed to work with the office of the Dean to promote REU at the CSoE. A series of courses were developed to formalized REU activities at the school. The faculty committee developed a 1 credit course on research methods that they have been teaching voluntarily.

Research

The engineering faculty research funding was doubled from about \$6 million to about \$12 million in 2005-2013. In 2015 the research funding was reduced to about \$9 million due to the cut back in federal funding.

CSoE also provides seed grants to teams of faculty members in the school (and other Clarkson faculty members) in innovative and cutting edge areas of research related to advanced materials, energy and environment, and bio/rehabilitation engineering.

Industrial Partnership

Strong partnerships between several major companies and the CSoE have been established. These include GE Oil and Gas, AECOM, IBM, Snap-On and extra. Executives of these companies and 12 others serve on the CSoE Dean Leadership Council (DLC). The DLC has been seriously involved with the strategic planning of the school and provided invaluable advice and resources to move the CSoE forward. The partnership has also lead to significant research funding in the school.

ABET Review

CSoE has eight engineering programs, and also the engineering management program that runs through the School of Business. All nine programs that were reviewed by ABET in 2015 were accredited for six years. In addition to early preparation and continuous improvement of the program, the self-study files were prepared a year early, and a mock review by some veteran ABET reviewers was done a year earlier.