Curriculum Vita
Prof. Abdulmajeed A. Mohamad, P. Eng.
Fellow, ASME

Name and Address:
Dr. Abdulmajeed A. Mohamad
Dept. of Mechanical and Manufacturing Engineering, CEERE, Schulich School Of Engineering, Univ. of Calgary,
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Administration

Acting Dean of Engineering, Alfaisal University, Riyadh, Saudi Arabia, Oct. 2010-June 2012.
Director of Graduate Studies, Dep. Of Mechanical and Manufacturing Engineering, 2003-2007.
Chair, Thermo-Fluid Labs, 2002-2009, University of Calgary.
Centre for Environmental Engineering, Research and Education, Acting Director 2007, University of Calgary.
Committee Member of selecting and hiring of CRC chairs in Energy and Environment, Departmental Chair, University of Calgary.
Faculty Hiring Committee, University of Calgary.
University and Faculty Research Committee, University of Calgary.

Professional Societies:

Scientific Consul Member of International Centre of Heat and Mass Transfer, Jan. 2011.
The America Society for Mechanical Engineering, ASME, **Fellow member since 2006.**
APEGGA (The Association of Professional Engineers, Geologists and Geophysicist of Alberta), since 2002.

ACADEMIC PROFILE

Ph.D.: Purdue University, School of Mechanical Engineering (USA), May 1992.
GPA=5.75/6.00 Purdue University (USA) (46 credits), 1987-1989.

M.S. : June 1978, Baghdad University.
MS degree includes course work and thesis, design of a low speed wind tunnel for measuring pressure losses in pipe-elbows (experimental work).

B.S. : June 1976, Baghdad University
Ranked second out of 86 students, with average of 71.28%.

Major Courses Taken
Advanced Mathematics; Advanced Thermodynamics; Boundary Layer Theory; Bifurcation and Chaos; Combustion; Computational Methods; Convective Heat and Mass Transfer; Nonlinear Dynamics; Numerical Fluid Flow and Heat Transfer; Optics; Radiative Heat Transfer; Two-Phase Flow; Turbulent Flow.

TEACHING and WORKING EXPERIENCE

- Currently, Professor of Mechanical Engineering, ThermoFluid Labs.
- Program member, Centre for Environmental Engineering, Research and Education.

Lectured: ENGG249 (Dynamics), ENGG521(Environments for Engineers), ENME519.13 (Computational Methods for Engineers), EMME619.12 (Thermal and Co-generation Systems), ENME 341 (Fluid

Mechanics I), ENME 495 (Fluid Mechanics II). Heat Transfer; Fuel Science and Technology, Fundamentals of Energy and Environment, Computational Fluid Dynamics, etc.

- Associate Professor, Jan. 1996- June 2000, Eastern Mediterranean University.
- September 1993- January 1996, Assistant Professor, Eastern Mediterranean University.
- Research Assistant, Purdue University, School of Mechanical Engineering, Feb. 1988- May 1992.
- Assistant Lecturer, Mosul University, 1980-1985, promoted to Lecturer (Assistant Prof.) in 1985. Lectured: Applied Mathematics; Heat Transfer; Fluid Mechanics; Thermodynamics.

MS and Ph.D. Supervision:

Supervised and graduated more than 30 MS students and 20 Ph.D.
Supervising 4 Ph.D. Students and 2 MSc.

Invitations and Recognitions

- Executive Member of International Centre for Heat and Mass Transfer, 2018.
- Guest editor, Progress in Computational Fluid Dynamics, 2017.
- Chaired Conference on Computational Heat and Mass Transfer, Krakow May 2018; Seoul, S. Korea, 2017; Krakow, Poland May 2016.
- Invited Prof. Tianjin University of Technology and Commerce, Summer 2016.
- Invited Prof. by Krakow University of Technology, February 2018, April 2017, May 2016;April 2015.
- Invited Prof. by King Saud University, Dec. 2014; 2015, 2016.
- Chaired Conference, 5th International Symposium on Micro and Nano Technology, May 2015, Calgary.
- Chaired Conference, 8th International Conference on Computational Heat and Mass Transfer, May 2015, Istanbul.
- Invited Prof. by Key Labs, Xian Jiaotong University, China, on the program: World-Wide Known Scholars, June, 2013.
- Chair, 5th International conference on Applications of Porous Media, Cluj, Romania. August 25-28, 2013
- External examiners for many Ph.D. theses nationally and internationally.
- Permanent reviewers for almost all thermal science, energy and computational related journals, on average of over 50 papers per year.
- Invited Prof. by Ecole Normal Superior of Cachan, France, summer 2011.
- Co-Chair 7th International Conference on Computational Heat and Mass Transfer, Istanbul, July 2011.
- Invited Professor, Universite Paul Sabatier, Toulouse, Spring-2010.
- Co-Chair 4th International Conference on Applications of Porous Media, Istanbul, Turkey, August, 2009.
- Chair of 6th International Conference on Computational Heat and Mass Transfer, Guangzhou, China, May 18-22, 2009.
- Invited Prof. by Cergy-Pontoise University, Paris, France, Summer 2009.
- Invited by South China Technical University, Guangzhou, Winter 2009.
- Chair of 5th International Conference on Computational Heat and Mass Transfer, Canomre, June 18-23, 2007
- Invited by Faculte Des Sciences and Techniques, Universite De Limoges, Limoges, France, summer 2007.
- Invited by NATO Advanced Studies Institute, Fuel Cells Technology, Cesme, Izmir, Turkey, July 22-August 4, 2007. On Micro and Nano Fluidic, August 2009.
- Invited by NSF Workshop "Frontiers in Transport Phenomena Research and Education, Energy Systems, Biological Systems, Security, IT and Nanotechnology" May 17-18, 2007, Univ. of Connecticut, USA.
- Invited Professor, Faculte Des Sciences and Techniques, Universite De Limoges, Limoges, France, summer 2006.
- Invited Professor, Universite Paul Sabatier, Toulouse, Spring-2005.

- Invited by NATO Advanced Study Institute, Microscale Heat Transfer-Fundamentals and Applications in Biological and Microelecromechanical Systems, Cesme, Turkey, July, 18-30, 2004.
- Invited Professor, ENC, Ecole Normal Superior of Cachan, France, summer 2004.
- Invited Speaker by NATO Advanced Studies, on Current Issues on Heat and Mass Transfer in Porous Media, Neptun-Olimps, Romania, 9-20 June, 2003.
- Invited by Institute fur Technicsche Mechanik, Clausthal-Zellerfeld, Germany.
- Invited Professor by Ministry of Higher Education and Scientific Research of Tunisia to lecture in Ecole Nationale d'Ingenieurs de Tunis, summer 2001, 2002.
- Invited Professor by U.F.R. Sciences et Techniques, Cergy-Pontoise Univ., France, summer 2001, 2002.
- Delivered seminar in Institute of Fluid Mechanics, Univ. of Erlangen-Nuremberg, Germany, summer 2001.
- Invited Professor by U.F.R Sciences et Techniques, Cergy-Pontoise Univ., summer 2000.
- Invited Professor by University Sud, LIMSI lab. Orsay, France, summer 2000.
- Invited Professor by Institute Universitaire de Technologie, France, summer 1998.
- Co-Chair 3rd International Conference on Applications of Porous Media, May 29-June 3rd, 2006, Marrakesh, Morocco.
- Chair, 4th International Conference on Computational Heat and Mass Transfer, Paris, May 2005.
- Co-Chair and session chair, 2nd International Conference on Applications of Porous Media, May 24-27, 2004, Evora, Portugal.
- Chair, 3rd International Conference on Computational Heat and Mass Transfer, May 26-30, Banff, Canada, 2003.
- Chair, 1st International Conference on Applications of Porous Media, June 2-8, Jerba, Tunisia, 2002.
- Chair of sessions, NATO advanced Studies Institutes, Cesma, Izmir, Turkey, June 23-July 5th, 2002.
- ASME (American Society of Mechanical Engineering) member since 1991.
- Advisory Committee, 3rd Inter. Conf. On Single Crystal Growth, Strength Problems, and Heat and Mass Transfer (ICSC-01), Obninsk, Russia, 2001.
- Co-Chair, 2nd International Conference on Computational Heat and Mass Transfer, 22nd-26th October 2001, Rio de Janeiro, Brazil.
- Editorial board member of the international journal "Hybrid Methods in Engineering", USA Begell house.
- Organized an international conference on Computational Heat and Mass Transfer, April 1999.
- Editor of the: CHMT99 Proceedings of the International Conference on Computational Heat and Mass Transfer, 26-29, April 1999, ISBN 975-8401-00-9.
- Advisory Committee, 3rd Inter. Conf. On Single Crystal Growth, Strength Problems, and Heat and Mass Transfer (ICSC-99), Obninsk, Russia.
- Reviewer for the following international journals: Int. J. Heat and Mass Transfer; Engineering Heat Transfer; Int. J. Numerical Methods in Fluids; Int. J. Numerical Methods Heat & Fluid Flow, Numerical Heat Transfer, ASME J. Heat Transfer, J. Porous Media.
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- Visiting Scholar, The University of Calgary, Canada, Dept. Mechanical Engineering, summer 1996.
- Visiting Scholar, Purdue University, School of Mechanical Engineering, summer 1995.
- Research Associate, Purdue University, School of Mechanical Engineering, May 1992- August 1993.

Consultations

- Cooling of Electric Motors, Canada, 2010.
- Design a heat exchanger, Canada, 2010.
- Auto-ignition of sour natural gas and flammability limits, CAPP, Calgary, 2005-2006.
- Simulation of Skim Tank with Micro Bubbles, CFD, GLRE-Solutions Ltd, Calgary, 2004-2005.
- Cleaning Tanks by High Pressure Jets, CFD, Calgary, 2006.
- Risk of fire due to natural gas line fracture, Calgary, 2000.
- Heat transfer and pressure drop in Earth tube for ventilation, Calgary 2004.

- Developed a code for NRC (Nuclear Regulatory Commission, Energy Department, USA) to simulate natural, turbulent heat and mass transfer for full scale passive cooling system, 1994-1995.
- Developed a 3D code for radiation transfer in furnaces with multi-firing-ports, 1994 (USA private consultation firm).
- Developed a code for Mitsubishi Heavy Industries, Nagasaki centre (Japan) for adsorption in a column to control pollution, 1993-1994.
- Consultation for IGT (Institute of Gas Technology, Chicago, IL, USA), developed a code to simulated combustion, convection and radiation in packed with embedded cooling tubes, 1990-1993.
- Consultation for Eclipse (IL, USA), developed multi-layer surface-ceramic burner, 1992.
- Project for Ford, Glass manufacturing division, Dearborn, Michigan, USA, 1989-1992.
- Air-conditioning consultation, 1981-1983.

AWARDS

- Averroes Award (ICOME17 meeting, July 2017) for his contribution to the education of many students around the world.
- Recognition award from Alfaisal University, June 2011.
- Graduate Educator Award, 2007, Dept. of Mechanical and Manuf. Engineering, Univ. of Calgary.
- Research Excellence 2003, Dept. of Mechanical and Manufacturing Engineering, Univ. of Calgary.
- Ministry of Higher Education and Research, 1986
- Gifted Student award from the President of Iraq, 1971.

RESEARCH EXPERIENCE

- Transports in Micro-system
- Molecular Dynamics and Lattice Boltzmann fluid flow and heat transfer simulations
- Adsorption in Fixed Porous Bed
- CFD methodology and applications
- Double diffusive modeling
- Electronic Cooling
- Energy system analysis
- Flow and Temperature Visualization Technique
- Heat transfer in manufacturing process
- Mathematical Modeling.
- Modeling tin bath in float glass manufacturing
- Mixed Convection in Liquid Metals and Ordinary Liquids
- Natural Convection
- Radiation, Combustion and Heat and Mass Transfer Porous Media
- Radiative Heat Transfer in three-dimensional Furnaces
- Solar Energy
- Stability Analysis
- Turbulent Flow Modeling

COMPUTER EXPERIANCE

- Familiar with all kinds of computers, UNIX, SUN stations, IBM PC and Macintosh and major software. Familiar with Hardware and Software of PCs.
- Familiar with FORTRAN77-90/95, VISUAL BASIC, MATHEMATICA, Basics of C/C++.

INDUSTRIAL PROJECTS:

1. Modeling of heat transfer, fluid flow in tin bath for float glass manufacturing process, Ford, Michigan, USA.
2. Passive Cooling System for AP600 Nuclear Reactor, US Energy and Westinghouse, USA.
3. Developing of Advanced Porous Boiler, IGT (Institute of Gas Technology), Chicago, USA

4. CO2 control using Zioliet Bed, Mitsubishi Heavy Industries, Nagasaki, Japan
5. Radiant Porous Burner, Eclipse, Illinois, USA
6. Radiation Transfer in Frances with multi-firing ports, Thermal Systems, USA.
7. Modeling Earth Tube, Calgary.

PUBLICATIONS:

International Journals (Graduate students on bold font):

2018

1. SA Mikhailenko, MA Sheremet, AA Mohamad, Convective-radiative heat transfer in a rotating square cavity with a local heat-generating source, International Journal of Mechanical Sciences 142, 530-540.
2. S Karimnejad, AA Delouei, M Nazari, MM Shahmardan, AA Mohamad, Sedimentation of elliptical particles using Immersed Boundary–Lattice Boltzmann Method: A complementary repulsive force model, Journal of Molecular Liquids 262, 180-193.
3. **HC Lee, S. Bawazeer** and A.A. Mohamad, Boundary conditions for Lattice Boltzmann Method with Multispeed Lattices, Computer & Fluids, Vol. 162, pp. 152-159, 2018

2017

4. A.A. Mohamad, Thermal contact theory for estimating the thermal conductivity of nanofluids and composite materials, Applied Thermal Engineering, 120, pp. 179-186.
5. **HC Lee**, AA Mohamad, LY Jiang, 2016, A detailed chemical kinetics for the combustion of H 2/CO/CH 4/CO 2 fuel mixtures, Journal Fuel, Vol. 193, pp. 294-307.

2016

6. IV Miroshnichenko, MA Sheremet, AA Mohamad, Numerical simulation of a conjugate turbulent natural convection combined with surface thermal radiation in an enclosure with a heat source, Int. J. Thermal Sciences, Vol. 109, pp. 172-181.
7. M Ziad Saghir, Amirhossein Ahadi, Abdulmajeed Mohamad, Seshasai Srinivasan, Water aluminum oxide nanofluid benchmark model Int. J. Thermal Sciences, vol. 109, pp 148-158.
8. AA Mohamad, A Tarokh, H Alansary, Heat transfer enhancement of laminar forced convection in a channel by von-Karman vortex generator, Progress in Computational Fluid Dynamics, an International Journal, Vol. 16, 5, pp. 334-338.
9. A.A. Mohamad and **KM Issa**, Application of the Lattice Boltzmann Method (LBM) to Thermal Microflows, Chapter 15 in Microscale and Nanoscale Heat Transfer: Analysis, Design, and Application, edited by M Rebay, S Kakaç, RM Cotta, 2016.
10. A.A. Mohamad, **A. Tarokh** and H. Alansary, Heat transfer enhancement of laminar forced convection in a channel by von-Karman vortex generator, Prog. In Computational Fluid Dynamics, Vo. 16, Issue 5, pp. 334-338.
11. H. Haddad, C. Abid, A.A. Mohamad, O. Rahli and **B. Bawazer**, Natural convection of silica-water nanofluids based on experimental measured thermophysical properties: critical analysis, Heat and Mass Transfer vol. 52(8), pp. 1649-1663.

2015

12. A.A. Mohamad, Myth about nano-fluid heat transfer enhancement, International Journal of Heat and Mass Transfer 86, 397-403, 2015.
13. A Abouei Mehrizi, AA Mohamad, Effect of the Inclination Angle and Eccentricity on Free Convection Heat Transfer in Elliptical–Triangular Annuli: A Lattice Boltzmann Approach, Numerical Heat Transfer, Part A: Applications 68 (1), 17-43, 2015.

14. **HC Lee**, A.A. Mohamad and LY Jiang, Comprehensive comparison of chemical kinetics mechanisms for syngas/biogas mixtures, Energy & Fuel 29 (9), pp. 6126-6145.
15. **HZ Hassan**, AA Mohamad, Y Alyousef, HA Al-Ansary, A review on the equations of state for the working pairs used in adsorption cooling systems, Renewable and Sustainable Energy Reviews 45, 600-609, 2015.
16. **MA Al-Rmah**, AA Mohamad, Simulation of multi-internal confined impinging jets using the lattice Boltzmann method, Applied Thermal Engineering 81, 288-296, 2015.
17. **M Mahmoodi**, YH Lee, A Mohamad, SS Park, Effect of flow induced alignment on the thermal conductivity of injection molded carbon nanotube-filled polystyrene nanocomposites, Polymer Engineering & Science 55 (4), 753-762, 2015.
18. M Nazari, H Shokri, AA Mohamad, Lattice Boltzmann simulation of natural convection in open end cavity with inclined hot wall, Applied Mathematics and Mechanics 36 (4), 523-540, 2015.
19. **M Hussain**, YL He, AA Mohamad, WQ Tao, A New Hybrid Algorithm for Numerical Simulation of VOC Emissions Using Single-Layer and Multilayer Approaches, Numerical Heat Transfer, Part B: Fundamentals 67 (3), 211-230, 2015.
20. AA Mohamad, QW Tao, YL He, **S Bawazeer**, Treatment of Transport at the Interface Between Multilayers via the Lattice Boltzmann Method, Numerical Heat Transfer, Part B: Fundamentals 67 (2), 124-134, 2015.
21. AA Mohamad, J Orfi, H Al-Ansary, Non-Darcy fluid flow and heat transfer in conduits fitted with porous media, Journal of Porous Media 18 (4), 449-453, 2015.
22. **A. Tarokh** and A.A. Mohamad, Investigation of the effects of porous media at the exit of counter flow combustion using the Lattice Boltzmann Method, Special Topics & Reviews in Porous Media, vol. 6 (3).

2014

23. AA Mohamad, H Alansary, J Orfi, Natural convection between a vertical wall exposed to solar energy and a shaded wall, Arabian Journal for Science and Engineering 39 (12), 9127-9136, 2014.
24. **HZ Hassan**, AA Mohamad, HA Al-Ansary, YM Alyousef, Dynamic analysis of the CTAR (constant temperature adsorption refrigeration) cycle, Energy 77, 852-858, 2014.
25. **HC Lee**, AA Mohamad, LY Jiang, JM Bergthorson, SD Salusbury, Numerical Simulation of Lean Premixed Stagnation Flames, ASME Turbo Expo 2014: Turbine Technical Conference and Exposition, Dusseldorf, Germany, 16-20 June, 2014.
26. **HC Lee**, LY Jiang, AA Mohamad, A review on the laminar flame speed and ignition delay time of syngas mixtures, International Journal of Hydrogen Energy 39 (2), 1105-1121, 2014.
27. A.A. Mohamad, J Orfi, H Alansary, Heat losses from parabolic trough solar collectors, International Journal of Energy Research 38 (1), 20-28, 2014.

2013

28. **MA Al Rmah**, AA Mohamad, Simulation of Multiple Confined Impinging Jets on a Heated Plate Using the Lattice Boltzmann Method, ASME 2013 International Mechanical Engineering Congress and Exposition, Vol. 8A, San Diago, California, Nov. 15-21, 2013.
29. **HZ Hassan**, AA Mohamad, Thermodynamic analysis and theoretical study of a continuous operation solar-powered adsorption refrigeration system, Energy 61, 167-178, 2013.
30. HR Ashorynejad, AA Mohamad, M Sheikholeslami, Magnetic field effects on natural convection flow of a nanofluid in a horizontal cylindrical annulus using Lattice Boltzmann method, International Journal of Thermal Sciences 64, 240-250, 2013.
31. Proceedings of the 5th International Conference on Applications of Porous Media, Editors: AA Mohamad, I Pop, RT Trîmbiţaş, TS Groşan, Presa Universitară Clujeană, Romania, 2013.
32. **A Tarokh**, AA Mohamad, L Jiang, Simulation of conjugate heat transfer using the lattice Boltzmann method, Numerical Heat Transfer, Part A: Applications 63 (3), 159-178, 2013.

33. A. A. Mohamad, Lattice Boltzmann Method to Simulate Micro-Scale Flows and Transports, The 4th Int. Symposium on Micro and Nano Technolgy (Keynote) 8-12 October 2013, Shanghai, China.

2012

34. **HZ Hassan**, AA Mohamad, HA Al-Ansary, Development of a continuously operating solar-driven adsorption cooling system: thermodynamic analysis and parametric study, Applied Thermal Engineering 48, 332-341, 2012.
35. **HZ Hassan**, AA Mohamad, A review on solar cold production through absorption technology, Renewable and Sustainable Energy Reviews 16 (7), 5331-5348, 2012.
36. AA Mohamad, **A Kuzmin**, The Soret Effect with the D1Q2 and D2Q4 Lattice Boltzmann Model, Int. J. Nonlinear Sci. Numer. Simul. 13 (3), 289-293, 2012.
37. **HZ Hassan**, AA Mohamad, A review on solar-powered closed physisorption cooling systems, Renewable and Sustainable Energy Reviews 16 (5), 2516-2538, 2012.
38. **HZ Hassan**, AA Mohamad, GE Atteia, An algorithm for the finite difference approximation of derivatives with arbitrary degree and order of accuracy, Journal of Computational and Applied Mathematics 236 (10), 2622-2631, 2012.
39. **KM Issa**, AA Mohamad, Lowering liquid-solid interfacial thermal resistance with nanopatterned surfaces, Physical Review E 85 (3), 031602, 2012.
40. LB Younis, AA Mohamad, Unsteady fluid dynamics flow and heat transfer in cross flow over a heated cylinder embedded in a porous medium, Journal of Porous Media 15 (3), 2012.
41. M. A. Mujeebu, M. Z. Abdullah, M.Z.A. Bakar and A. A. Mohamad, A Mesoscale Premixed LPG Burner with Surface Combustion in Porous Ceramic Foam, J. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 34, pp. 9-18, 2012 (IF=0.843).
42. M. A. Mujeebu, M. Z. Abdullah and A. A. Mohamad, Development of Energy Efficient Porous Medium Burners on Surface and Submerged Combustion, Energy, Vol. 36, 8, pp. 5132-5139 (IF=3.487).
43. E. Martinez, A. Marcos, A. Al Kassier and A. A. Mohamad, Mathematical Model of a Laboratory-Scale Plant for Slaughter house Effluents, Applied Energy, Vol 95, pp. 210-219 (IF=5.106).
44. K. Issa, A. A. Mohamad, Pressure Effects on Liquid-Solid Interfacial Thermal Resistance, Proc. Of 3rd Int. conf. on Nanotechnology: Fundamentals and Applications, Montreal, Quebec, Canada,7-9, August, 2012, paper No. 332.

2011

45. MA Mujeebu, MZ Abdullah, AA Mohamad, Development of energy efficient porous medium burners on surface and submerged combustion modes, Energy 36 (8), 5132-5139, 2011.
46. **A Kuzmin**, I Ginzburg, AA Mohamad, The role of the kinetic parameter in the stability of two-relaxation-time advection–diffusion lattice Boltzmann schemes, Computers & Mathematics with Applications 61 (12), 3417-3442, 2011.
47. A.A. Mohamad, Lattice Boltzmann method: fundamentals and engineering applications with computer codes, Springer Science **(Book),** 2011.
48. **A Kuzmin**, ZL Guo, AA Mohamad, Simultaneous incorporation of mass and force terms in the multi-relaxation-time framework for lattice Boltzmann schemes, Philosophical Transactions of the Royal Society of London A: Mathematical ...2011.
49. RMN Muhad, MZ Abdullah, MA Mujeebu, MZA Bakar, R Zakaria, A.A. Mohamad, The development and performance analysis of partially premixed LPG porous medium combustor, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects 33, 13, pp. 1260-1270, 2011.
50. **HZ Hassan**, AA Mohamad, R Bennacer, Simulation of an adsorption solar cooling system, Energy 36 (1), 530-537, 2011.

51. M. A. Mujeebu, M. Z. Abdullah, M. Z. Abu Bakar and A. A. Mohamad, Development of Premixed Burner Based on Stabilized Combustion within Discrete Porous Medium, J. Porous Media, vol. 14, 10, pp. 909-917.

2010

52. MA Mujeebu, MZ Abdullah, AA Mohamad, MZA Bakar, Trends in modeling of porous media combustion, Progress in Energy and Combustion science 36 (6), 627-650, 2010.
53. AA Mohamad, R Bennacer, M El-Ganaoui, Double dispersion, natural convection in an open end cavity simulation via Lattice Boltzmann Method, International Journal of Thermal Sciences 49 (10), 1944-1953, 2010.
54. **H Rosyid**, R Koestoer, N Putra, AA Mohamad, Sensitivity analysis of steam power plant-binary cycle, Energy 35 (9), 3578-3586, 2010.
55. MA Mujeebu, MZ Abdullah, MZA Bakar, AA Mohamad, Combustion in Porous Inert Media, Combustion Synthesis: Novel Routes to Novel Materials, 195, 2010.
56. A Marcos, A Al-Kassir, AA Mohamad, F Cuadros, F López-Rodríguez, Combustible gas production (methane) and biodegradation of solid and liquid mixtures of meat industry wastes, Applied Energy 87 (5), 1729-1735, 2010.
57. **A Kuzmin**, AA Mohamad, Multirange multi-relaxation time Shan–Chen model with extended equilibrium, Computers & Mathematics with Applications 59 (7), 2260-2270, 2010.
58. E. M. Bartholameuz, J.P.A. Hettiaratchi, A. A. Mohamad and S. Kumar, Leaf Composting in Cold Climates: a Theoretical and an Experimental Evaluation, **Int. J. Environmental Technology and Management, Vol. 13, No. 3-4, 2010, pp. 222-233.**

59. A. A. Mohamad and A. Kuzmin, A Critical Evaluation of Force Term in Lattice Boltzmann Method, Natural Convection Problem, **Int. J. Heat and Mass Transfer, vol.53, 5-6, 990-996, 2010**.
60. A. A. Mohamad, R. Bennacer and M. El-Ganaoui, Double dispersion, natural convection in an open end cavity simulation via Lattice Boltzmann Method**, Int. J. Thermal Sciences, Vol. 49, 0, pp. 1944-1953**.
61. K. M. Mohamed and A. A. Mohamad, On the Development of Hybrid Atomistic-Continuum Methods for Dense Fluids, **Macrofluidics and Nanofluidics, vol. 8, 3, 283-302, 2010**.
62. A. Al-Kassir, J. Ganan-Gomez j, A. A. Mohamad, et al., A Study of Energy Production from Cork Residues: Sawdust, Sandpaper Dust and Triturated Wood, **Energy, vol .35, 1, 382-386, 2010**.
63. A. Marcos, A. AL-Kassir and A. A. Mohamad, et al., Combustible Gas Production (Methane) and Biodegradation of Solid and Liquid of Meat Industry Wastes, **Applied Energy, Vol. 87, 5, pp. 1729-1735, 2010.**
64. A. A. Alamyane and A. A. Mohamad, Simulation of Forced Convection in Channel with Extended Surfaces by Lattice Boltzmann Method, **Computer and Mathematics with Applications (CMA) , vol. 59, pp. 2421-2430, 2010.**
65. K. M. Mohamed and A. A. Mohamad, A Molecular Dynamics Study of Heat Dissipation in Single-Walled Carbon Nanotubes (SWNT), 19th Int. Conf. on the Discrete Simulation of Fluid Dynamics (DSFD 2010), Rome, Italy, July 5-9.
66. H. Rosyid, R. Koestoer, N. Putra, Nasruddin, A. A. Mohamad, and Yanuar, Sensitivity Analysis of Steam Power Plant-Binary Cycle, **J. Energy, 35, 8, pp. 3578-3586**.
67. M.A. Mujeebu, M.Z. Abdullah, M.Z. Abu Bakar, and A. A. Mohamad, Mesoscale Premixed LPG Burner with Surface Combustion in Porous Ceramic Foam, Energy Sources, Part: A Recovery, Utilization, and Environmental Effects (in press).
68. M.A. Mujeebu, M.Z. Abdullah, M.Z. Abu Bakar, and A. A. Mohamad, Trends in Modelling of Porous Media Combustion, **Progress in Energy and Combustion Sciences, Vol. 36, 6, pp. 627-650**.
69. R.M.N. Muhad, M.Z. Abdullah, A. A. Mohamad, M.A. Mujeebu and Abu Bakar, R. Zakaria, 3-D Numerical Modelling and Experimental Investigation of Partial-Premix Type Porous Medium Burner Using LPG Fuel, **J. Porous Media, vol 13, 7, pp. 655-669**.

70. A. Tarokh, A. A. Mohamad and L. Jiang, Non-premixed CH4 combustion in porous media, ASME Internatio**nal Mechanical Engineering Congress and Exposition, NOV 13-19, 2009 Lake Buena Vista, FL, USA, Vol. 3, pp. 197-204.**

71. S. Huang, A. A. Mohamad, and K. Nandakumar, Numerical simulation of Unsteady Flow in a Multistage Centrifugal Pup using Sliding Mesh Technique, **Progress in Computational Fluid Dynamics, Vol. 10, 4, pp. 239-245.**

2009

72. G. Falcucci, G. Chiatti, S. Succi, A. A. Mohamad and A. Kuzmin, Rupture of a ferrofluid droplet in external magnetic fields using a single-component lattice Boltzmann model for nonideal fluids, , **Physical Review E, Vol.79, Issue: 5 Article Number: 056706 Part: Part 2, MAY 2009.**

73. S. Huang and A. A. Mohamad, 2009, Modelling of Cavitation Bubble Dynamics in Multicomponent Mixtures, **J. Fluid Engineer, March 2009, Vol. 131, 3, pp. 031301**.

74. N. DeAlwis, A. A. Mohamad and A. Mehrota, Exergy Analysis of Direct and Indirect Combustion of Methanol by Utilizing Solar Energy or Waste Heat, **J.Energy & Fuel, 23 (3), pp. 1723-1733, 2009.**

75. A. A. Mohamad, Lattice Boltzmann Method for Heat Diffusion in Axis-Symmetric Geometries, **Progress in Computational Fluid Dynamics, Vo. 9, Issue 8, pp. 490-494.**

76. R. Bennacer, A. A. Mohamad and M. El Ganaoui, Thermodiffusion in Porous Media: Multi-Domain Constititant Separation, **Int. J. Heat and Mass Transfer, March 2009, Vol. 52, issue 7-8, pp. 1725-1733**.

77. L. B. Y. Aldabbag and A. A. Mohamad, A Three Dimensional Numerical Simulations of Impinging Jet Arrays on a Moving Plate, **Int. J. Heat and Mass Transfer, vol. 52, issue 21-22, pp. 4894-4900.**

78. L. B. Y. Aldabbagh and A. A. Mohamad, Mixed Convection in an Impinging Laminar Single Square jet, **ASME J. Heat Transfer, vol. 131, Issue 2, 02201, Feb. 2009**.

79. A. A. Mohamad and S. Succi, A Note on Equilibrium Boundary Conditions in Lattice Boltzmann Fluid Dynamic Simulations, **Eur. Physics J. Special Topics, 171, 213-221, 2009.**

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