ALI J. CHAMICHA

Deanship of Faculty of Engineering Kuwait College of Science and Technology 7th Ring Road, Doha District, 35004, Kuwait

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PROFESSIONAL SUMMARY

Accomplished Academic Dean, Distinguished Professor and World-Renowned Researcher with a prolific publication record and an exceptional teaching legacy, evidenced by numerous prestigious awards for both teaching excellence and research innovation. A visionary leader and educator, recognized for driving significant advancements in engineering education and research and fostering a culture of inclusivity, academic freedom, and interdisciplinary learning. Demonstrated success in strategic planning, curriculum development, and ABET and other accreditation processes. Skilled in fostering interdisciplinary collaboration, promoting innovative teaching methods, and implementing effective assessment strategies. Demonstrated success in substantial research productivity, elevating institutional local and international rankings (QS, Times, Shanghai, US News, and Webometrics), and producing graduates who are industry-ready and globally competitive. Committed to shaping the future of engineering through strategic curriculum development, cutting-edge research, and impactful community engagement.

CURRENT AND PREVIOUS POSITIONS

Dean of Engineering and in Charge of All Academic and Research Affairs at Kuwait College of Science and Technology (KCST), 7th Ring Road, Doha District, 35004, Kuwait.

Former Dean of Research, Dean of Graduate Studies, Director of the University Research Center, Prince Sultan Endowed Chair for Energy and Environment, Full Professor and Former Chairman of the Mechanical Engineering Department and Member of the Rector's Advisory Council at Prince Mohammad Bin Fahd University, Al-Khobar, Kingdom of Saudi Arabia.

EDUCATION

<u>Ph.D. in Mechanical Engineering</u>, Tennessee Technological University, Cookeville, Tennessee, USA. December 1989 (GPA: 3.9/4.0)

Dissertation Title: "Boundary-Layer Flow of a Particulate Suspension Past a Flat Plate"

<u>M.S. in Mechanical Engineering</u>, Tennessee Technological University, Cookeville, Tennessee, USA. August 1987 (GPA: 4.0/4.0)

Thesis Title: "The Asymptotic Suction Profile for a Two-Phase Suspension"

B.S. in Mechanical Engineering, Tennessee Technological University, Cookeville,

Tennessee, USA. June 1986 (GPA: 3.4/4.0)

Concentration Area: Thermal Sciences

CURRENT H-INDEX AND CITATIONS

- My current Google Scholar h-index is 148 and i10-index is 981 and my current total number of citations is 70,138.
 - https://scholar.google.com/citations?user=EnYLjDUAAAAJ&hl=en
- My current **Scopus h-index is 130** and my current total number of citations is **54,520**. https://www.scopus.com/authid/detail.uri?authorId=35568909100
- My current **Web of Science h-index is 128** and my current total number of citations is **53,352**. My Web of Science ResearcherID is **F-7018-2017**. https://publons.com/researcher/1383278/ali-j-chamkha/
- My current **ResearchGate h-index is 142** and total number of citations is **63,696**. https://www.researchgate.net/profile/Ali Chamkha2

MY RANKING STATUS

- I hold the highest h-index and total number of citations in Kuwait.
- Ranked #2 Worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport by Stanford University for the Single Year 2024.
- Ranked #3 Worldwide and #1 at the Arabic World level in Physical Chemistry by Stanford University for the Single Year 2023.
- Ranked #2 Worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport by Stanford University for the Single Year 2021.
- Ranked #5 Worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport by Stanford University for the Single Years 2020 and 2022.
- Ranked in the World's Top 0.007% Scientists, #10 worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport for Career Long Impact by Stanford University, 2024.
- Ranked in the World's Top 0.01% Scientists, #14 worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport for Career Long Impact by Stanford University, 2023.
- Ranked in the World's Top 0.018% Scientists, #20 and #23 worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport for Career Long Impact by Stanford University, 2021 and 2022, respectively.
- Ranked in the World's Top 0.023% Scientists, #21 worldwide and #1 at the Arabic World level in Mechanical Engineering and Transport for Career Long Impact by Stanford University, 2020.
- Ranked #12, #13 and #5 Worldwide and #1 at the Arabic World level in Mechanical and Aerospace Engineering by Research.com, 2022, 2023, and 2024, respectively.
- Ranked #1 in Kuwait for highest h-index, i10-index, total citations by AD Scientific Index, 2021, 2022, 2023, and 2024, respectively.
- Ranked as the most productive researcher worldwide in the scientific topics of Nanofluids, Porous Media, MHD, and Heat Transfer and 1st most cited researcher in many top international journals according to exaly.com.
- My current Research Interest Score is **36,368** which is higher than **99%** of RG members.

UNIVERSITY RANKING KNOWLEDGE

- Strategic knowledge and expertise in the following global university ranking systems:
 - 1. Academic Ranking of World Universities (Shanghai)
 - 2. Times Higher Education World University Ranking
 - 3. Quacquarelli Symonds (QS) World Universities Ranking
 - 4. US News & World Report with Quacquarelli Symonds
 - 5. Webometrics Ranking Web of Universities
- Strategic knowledge in the following regional university ranking systems:
 - 1. European Multidimensional University Ranking System
 - 2. Bulgarian Universities Ranking System
 - 3. Asian Universities Ranking System
 - 4. Turkish Universities Ranking System
 - 5. Indian Universities Ranking System
- Strategic knowledge on increasing research productivity in universities.
- Strategic knowledge on building and improving university-industry links.
- Knowledge on establishing Patents and Intellectual Property (IP) center.
- Knowledge on establishing international scientific journals.

CURRENT AND PREVIOUS EMPLOYMENT

<u>Distinguished Professor and Dean of Engineering</u>, July 2020 – Present, Kuwait College of Science and Technology (KCST), 7th Ring Road, Doha District, Kuwait.

- Currently managing all academic and research affairs in the Faculty of Engineering, Faculty of Science, Faculty of Management, and the Languages Program.
- Led the ABET Accreditation Process for our Electronics and Communications Engineering (ECE), Computer Engineering (CE) and Computer Science (CS) Programs.

<u>Dean of Research</u>, October 2016 – August 2020, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia.

Managing all research activities, establishing university research vision, providing research grants funding, and mentoring researchers.

<u>Dean of Graduate Studies</u>, March 2018 – May 2019, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia.

Administering, promoting, and overseeing all graduate programs at PMU in coordination with all University Colleges.

<u>Director of University Research Center</u>, March 2018 – August 2020, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia.

Reporting directly to the University Rector and responsible for the establishment of the Center, developing all related policies and procedures and initiating its operations in addition to managing all research staff and their research programs.

<u>Distinguished Visiting Professor</u>, December 2017 – January 2019, RAK Research and Innovation Center, American University of Ras Al Khaimah, P.O. Box 10021, Ras Al Khaimah, United Arab Emirates.

Collaborated and performed research under RAK Research and Innovation Center.

<u>Adviser to University Rector</u>, March 2017 – August 2020, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia.

Advising the University Rector on strategic university programs, projects, and plans.

<u>Prince Sultan Endowed Chair for Energy and Environment</u>, March 2016 – August 2020, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia.

<u>Chairman</u>, September 2014 – August 2016, Mechanical Engineering Department, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia. Managing the Department activities, establishing the vision and setting the strategic goals.

<u>Full Professor</u>, September 2014 – August 2020, Mechanical Engineering Department, Prince Mohammad Bin Fahd University (PMU), Al-Khobar, Kingdom of Saudi Arabia. Currently teaching heat transfer, fluid mechanics and learning outcome assessment III courses.

<u>Managing Director</u>, May 2014 – November 2014, Future Projects International for Trading and Consultation Company, Kuwait.

Managed and performed studies on establishing training and educational institutes projects.

<u>General Manager</u>, February 2014 – May 2014, Accredited Skills Institute, Kuwait. Managed the Institute activities and plans and performed various training courses.

<u>Consultant</u>, June 2013 – September 2013, Aldhabi Trading and Consultation Company, Kuwait.

Assisted in studies dealing with environmental, sugar plant and trading projects.

<u>Chief Executive Officer</u>, October 2012 – May 2014, Marat Trading and Consultation Company, Kuwait.

Managed environmental and electrical consultation projects.

<u>Full Professor</u>, January 2009 – September 2012, The Public Authority for Applied Education & Training, Kuwait.

Taught quality control, materials technology, industrial management, basic materials technology and manufacturing engineering projects courses.

<u>Adviser to Director General of Public Authority for Industry</u>, May 2010 – May 2011 Office of the Director General of the Public Authority for Industry, Janoob Al-Surra, Kuwait.

<u>Associate Professor</u>, September 2003 – December 2008, The Public Authority for Applied Education & Training, Kuwait.

Proposed a new comprehensive and unique program of study named "Quality Engineering Technology".

Engineering Adviser, April 2003 – September 2003

Office of the Director General of the Public Authority for Applied Education & Training, Adylia, Kuwait.

<u>Adjunct Professor</u>, September 2004 – December 2008, College of Management Sciences, Kuwait University

Taught mathematics for management sciences and operations management courses.

Associate Professor, May 1997 – January 2003, Kuwait University.

Applied for promotion to the rank of Full Professor in January 2002. Promotion approved by the Department on January 22, 2003. Taught engineering dynamics, fluid mechanics,

thermodynamics, heat transfer, engineering probability and statistics, aerodynamics, graduate continuum mechanics, graduate gas dynamics, advanced aerodynamics, advanced conduction heat transfer, advanced convection heat transfer, advanced multiphase flow, and special topics in heat transfer, advanced engineering thermodynamics courses.

Assistant Professor, September 1993 – April 1997, Kuwait University.

Taught engineering dynamics, fluid mechanics, thermodynamics, heat transfer, engineering probability and statistics, graduate gas dynamics, and advanced conduction heat transfer courses.

Assistant Professor, January 1990 – May 1991, Tennessee Technological University.

Taught dynamics, fluid mechanics, thermodynamics, vibrations, and fluid mechanics laboratory courses. to Engineering students. Was associated with the university as a consultant and served on a Ph.D. graduate advisory committee.

<u>Graduate Teaching Instructor</u>, September 1987 – December 1989, Tennessee Technological University.

Taught dynamics, fluid mechanics, thermodynamics, vibrations, and fluid mechanics laboratory courses to Engineering students.

<u>Instructor</u>, Tenth and Eleventh Annual Introduction to Engineering and Computer Workshops, Tennessee Technological University (Summers of 1988 and 1989). Responsibilities included lecturing and supervising lab activities in aerodynamics, and grading assignments in various other subjects.

Graduate Teaching Assistant, September 1986 -- June 1987

Taught fluid mechanics laboratory course.

TEACHING EXPERIENCE

During my teaching career, I have taught the following courses at the undergraduate and graduate levels:

Engineering Statics Undergraduate **Engineering Dynamics** Undergraduate **Engineering Thermodynamics** Undergraduate Mechanical Vibrations Undergraduate Fluid Mechanics I and II Undergraduate Undergraduate Fluid Mechanics Lab Heat Transfer Undergraduate Aerodynamics Undergraduate **Engineering Mechanics** Undergraduate Undergraduate **Quality Control** Probability and Statistics Undergraduate Undergraduate **Operations Management** Senior Project Design Undergraduate **Industrial Management** Undergraduate **Storage Principles** Undergraduate Materials Handling Technology Undergraduate Metallic Materials I Undergraduate **Engineering Materials** Undergraduate Basic Materials Technology Undergraduate Workshop Technology Undergraduate Undergraduate **Electric Circuits**

Manufacturing Engineering Projects

Mathematics for Management Sciences

Introduction to Computers

Learning Outcome Assessment III

Undergraduate
Undergraduate

Continuum Mechanics Graduate Advanced Aerodynamics Graduate Advanced Conduction Heat Transfer Graduate Advanced Convection Heat Transfer Graduate Advanced Engineering Thermodynamics Graduate Special Topics in Heat Transfer Graduate Multiphase Flow Graduate Gas Dynamics Graduate

RESEARCH EXPERIENCE

Throughout my industry and university careers after my Ph.D. graduation in December 1989, I was and still is involved in many broad research areas. These areas include:

- Multiphase Fluid-Particle Dynamics
- Energy Systems Modelling
- Nanofluids Flow Modelling
- Transport in Porous Media
- Heat and Mass Transfer
- Magnetohydrodynamics
- Fluid-Particle Separation

<u>Graduate Instructor</u>, Department of Mechanical Engineering, Tennessee Tech University Ph.D. Dissertation research was concerned with the development of a boundary-layer theory for particulate suspension flows. The theory was applied for numerical modeling of two-phase flow past a semi-infinite flat plate.

<u>Graduate Assistant</u>, Department of Mechanical Engineering, Tennessee Tech University M.S. Thesis research was in two-phase flow. Its purpose was to investigate the possibility of developing a consistent two-phase model allowing for both inertial transport and diffusion of particles.

<u>Graduate Research Assistant</u>, Center for Electric Power, Tennessee Tech University (June 1987 -- September 1987)

• Assisted in modeling unsteady heat transfer problems.

<u>Theoretical Physics Research Assistant</u>, Physics Department, Tennessee Tech University (September 1985 -- December 1985)

- Wrote and modified FORTRAN and ACSL programs.
- Utilized SAS for large databases.

INDUSTRIAL EXPERIENCE

<u>Staff Research Engineer</u>, Fleetguard, Inc., Cookeville, Tennessee (May 1991 -- September 1993)

• Performed research in filtration and applied it for predicting performance of flat sheets, pleated media, and stacked discs.

- Developed a thermodynamic model for relative humidity and condensation rate in an air intake system of an engine.
- Developed several FORTRAN programs for design purposes.
- Served on Fleetguard's Technology Council.
- Coordinated research activities with universities and firms.
- Initiated and approved a proposal for acquiring a supercomputer.
- Completed a training course on using FLUENT and FLUENT/BFC.
- Analyzed filtration systems using FLUENT and FLUENT/BFC.
- Analyzed and designed new filtration products.
- Published several research papers on filtration and CFD.
- Taught a three-month fluid mechanics course.
- Completed short courses on DOS, Microsoft Project, and Windows.
- Completed short courses on Quality Control, FMEA, and ISO9000.
- Completed short course on Design of an experiment (Taguchi).
- Learned and used several software (SigmaPlot, WordPerfect, TableCurve, Excel, Harvard Graphics, and Microsoft Word).
- Worked as Quality Auditor.

Temporary Drafter, International Specialty Supply, Cookeville, Tennessee (August 1987)

• Designed machine drawings used in the agricultural industry.

COMPUTER EXPERTISE

ACSL, CAD/CAM, FORTRAN, PASCAL, MATLAB, FLUENT, FIDAP, COMSOL, VMS and UNIX operating systems, and several graphing software such as TECHPLOT, ORIGIN, GRAPHER and SURFER.

CONTINUING EDUCATION

- Workshop on The Art of Speed Achievement, PAAET, 28-30 November 2011.
- Workshop on Endnote, PAAET, 2009.
- Workshop on Quality Teaching, PAAET, 2008.
- Workshop on Test Construction, PAAET, 27-29 March, 2004.
- Workshop on the Curriculum Development for the Mechanical Engineering Program (Chairman for Multi-Section Courses), Kuwait University, 1996.
- Workshop on Excellence in Teaching, Kuwait University, December 1995.
- Fluid-Particle Separation: Theory and Experiments, AFS, Cookeville, TN, June 1992.
- Workshop on Power Plant instrumentation, Tennessee Technological University, July 1987.

ACHIEVEMENTS AND AWARDS

- Awarded <u>International Obada Prize for Outstanding Research and Scholarly</u> <u>Work</u> by Natural Sciences Publishing, 2023.
- Ranked #12 Worldwide and #1 at the Arabic World level in Mechanical and Aerospace Engineering by Research.com, 2022.
- Named among the World's Top 2% Scientists by Stanford University, 2020, 2021, 2022, 2023 and 2024.
- Ranked #1 in Mechanical Engineering and Transport at the Arab World Level by Stanford University, 2020, 2021, 2022, 2023 and 2024.

- Ranked #10 out 143,311 in Mechanical Engineering and Transport World-Wide by Stanford University, 2024.
- Ranked <u>#14 out 133,525 in Mechanical Engineering and Transport World-Wide</u> by Stanford University, 2023.
- Ranked #23 out 121,447 in Mechanical Engineering and Transport World-Wide by Stanford University, 2022.
- Ranked #20 out 109,724 in Mechanical Engineering and Transport World-Wide by Stanford University, 2021.
- Ranked #21 out 92,645 in Mechanical Engineering and Transport World-Wide by Stanford University, 2020.
- Named among the <u>Top 1% Scientist</u> by Universal Scientific Education and Research Network, 2016.
- Awarded <u>ASME Students' Choice Award for Outstanding Chairman</u>, Prince Mohammad Bin Fahd University, Al-Khobar, Kingdom of Saudi Arabia, 2015.
- Awarded <u>Highly Commended Award Winner</u>, Emerald Literati Network Awards for Excellence, 2013. Winning Paper in International Journal for Numerical Methods in Heat and Fluid Flow, Volume 22, pp. 1073-1085, 2012.
- Awarded Khwarizmi International Award in Engineering, Tehran, Iran, 2012.
- Awarded <u>Most Outstanding Reviewer Award</u> for International Journal for Numerical Methods in Heat and Fluid Flow, Literati Network Awards for Excellence, 2012.
- Awarded <u>Highly Commended Award Winner</u>, Emerald Literati Network Awards for Excellence, 2012. Winning Paper in International Journal for Numerical Methods in Heat and Fluid Flow, Volume 21, pp. 418-433, 2011.
- Awarded Khalifa Award for Distinguished University Professor in Scientific Research at the Arab World Level, Khalifa Education Awards, Abu Dhabi, 2011.
- Awarded Senior Scientist Award, American Filtration and Separation Society, 2007.
- Awarded Outstanding Teaching Award, University Level, Kuwait University, 2001.
- Awarded <u>Outstanding Research Award in Basic and Applied Sciences</u>, University Level, Kuwait University, 2001.
- Awarded <u>Outstanding Teaching Award</u>, College of Engineering and Petroleum Level, Kuwait University, 2001.
- Awarded <u>Outstanding Research Award</u>, College of Engineering and Petroleum Level, Kuwait University, 2001.
- Awarded <u>Young Arab Researcher Award in Engineering Sciences</u>, Abdul-Hamid Shoman Foundation, Amman, Jordan, 1998.
- Awarded **Outstanding Teaching Award**, Kuwait University, 1997.
- Awarded Certificate for Outstanding Teaching, Kuwait University, 1996.
- Awarded Pi Tau Sigma <u>Students' Choice Award for Best ME Professor</u>, Tennessee Technological University, Cookeville, Tennessee, 1991.
- Awarded Achievement Award for Engineering & Technology, Fleetguard, Inc., 1993.
- Awarded certificate of appreciation by Tennessee Technological University, 1986.
- Awarded certificate of appreciation by the American Filtration and Separation Society, 1993.
- Awarded certificate of appreciation by ASHRAE-Kuwait, 1999.
- Completed all degrees in a **record time** of five years.
- Who's Who in the World (Millennium Edition)
- Who's Who in Science and Engineering (2nd Edition, Page 136)
- Who's Who in Science and Engineering (3rd Edition, page 155)
- Who's Who in Science and Engineering (5th Edition, page 207)
- Registered as an **Engineer-In-Training** (EIT), Certificate Number 10659.
- Profile appeared in Fluid/Particle Separation Journal, September 1993.
- Order of the Engineer

EDITORIAL BOARD SERVICES

- <u>Editor-in-Chief</u> for the Journal of Computational and Theoretical Nanoscience (2021-present)
- Editor-in-Chief for the Journal of Nanofluids (2021-present)
- <u>Member of the Editorial Advisory Board and Associate Editor</u> for the Journal of Thermal Analysis and Calorimetry (2019-present)
- Member of the Editorial Board for Advances in Mechanical Engineering (2018-2020)
- Member of the Editorial Advisory Board for Thermal Science (2018-present)
- Associate Editor for the Special Topics & Reviews in Porous Media (2018-present)
- Associate Editor for the Journal of Porous Media (2018-present)
- <u>Member of the Honorary Editorial Advisory Board</u> for Journal of Thermal Engineering (2018-present)
- <u>Guest Editor</u> for the International Journal of Numerical Methods for Heat and Fluid Flow (2018-2020), Special Issue titled "Advances in Heat Transfer Enhancement".
- <u>Guest Editor</u> for the ASME Journal of Nuclear Engineering and Radiation Science (2018-2020)
- <u>Guest Editor</u> for the ASME Journal of Thermal Science and Engineering Applications (2018-2020), Special Issue titled "Advances in Nanofluids: Modeling and Applications".
- <u>Member of the Editorial Board</u> for International Journal of Engineering Education & Research (2018-present)
- Regional Editor for Sciencia Iranica Journal (2017-present)
- Editor for Journal of Nanofluids (2016-2021)
- <u>Member of the International Editorial Board</u> for Yanbu Journal of Engineering and Science (2016-present)
- <u>Associate Editor</u> for the ASME Journal of Thermal Science and Engineering Applications (2015-2020)
- <u>Member of the Editorial Advisory Board</u> for Recent Patents on Mechanical Engineering (2015-2019)
- Member of the International Editorial Advisory Board and Editor for Journal of Applied and Computational Mechanics (2015-present)
- <u>Member of the Honrary Advisory Board</u> for Journal of Heat and Mass Transfer Research (2014-present)
- Member of the Editorial Board for Journal of Mathematical Modeling (2014-present)
- Member of the Editorial Board for Journal of Nanofluids (2013-2016)
- <u>Member of the Editorial Board</u> for International Journal of Fluids and Thermal Sciences (2012-present)
- <u>Member of the Editorial Board</u> for American Journal of Engineering and Applied Sciences (2012-present)
- <u>Associate Editor</u> for the International Research Journal of Engineering Science, Technology and Innovation (2012-present)
- <u>Member of the Editorial Board</u> for International Journal of Advanced Renewable Energy Research (2011-present)
- **Deputy Editor-in-Chief** for International Journal of Energy & Technology (2011-2016)
- <u>Member of the Editorial Board</u> for International Journal for Microscale and Nanoscale Thermal and Fluid Transport Phenomena (2011-present)
- <u>Member of the Advisory Editorial Board</u> for International Journal for Numerical Methods for Heat and Fluid Flow (2011-2023)
- <u>Member of the Editorial Board</u> for International Journal of Industrial Mathematics (2011-present)
- Editor for Communications in Numerical Analysis journal (2011-present)
- Associate Editor for Journal of Applied Fluid Mechanics (2011-2017)

- Editor for Hindawi ISRN Mechanical Engineering journal (2010-present)
- Associate Editor for International Journal of Energy & Technology (2009-2011)
- <u>International Editor-in-Chief</u> for Fluid/Particle Separation Journal (2001-2003)
- Associate Technical Editor for Fluid/Particle Separation Journal (1992-2001)

PROFESSIONAL REVIEWING SERVICES

- Reviewer for International Journal of Heat and Mass Transfer
- Reviewer for International Journal of Thermal Sciences
- Reviewer for ASME Journal of Fluids Engineering
- Reviewer for ASME Journal of Heat Transfer
- Reviewer for ASME Journal of Applied Mechanics
- Reviewer for ASME Journal of Thermal Science and Engineering Applications
- Reviewer for International Journal of Heat and Fluid Flow
- Reviewer for Numerical Heat Transfer, Part A
- Reviewer for Numerical Heat Transfer, Part B
- Reviewer for International Journal of Engineering Science
- Reviewer for International Journal for Numerical Methods in Fluids
- Reviewer for International Journal of Numerical Methods for Heat and Fluid Flow
- Reviewer for Journal of the Brazilian Society of Mechanical Sciences and Engineering
- Reviewer for Journal of the Taiwan Institute of Chemical Engineers
- <u>Reviewer</u> for Journal of Thermal Analysis Calorimetry
- Reviewer for Journal of Physics and Chemistry of Solids
- Reviewer for Meccanica Journal
- Reviewer for Physica A journal
- **Reviewer** for Chemical Engineering Journal
- Reviewer for Chemical Engineering Communications
- Reviewer for Acta Mechanica Journal
- Reviewer for Transport in Porous Media
- Reviewer for Advanced Powder Technology Journal
- Reviewer for Powder Technology Journal
- Reviewer for Journal of Molecular Liquids
- Reviewer for Computational Thermal Sciences
- Reviewer for Thermochimica Acta Journal
- Reviewer for Sciencia Iranica Journal
- Reviewer for Applied Mathematics and Mechanics Journal
- Reviewer for Journal of Porous Media
- Reviewer for Heat Transfer Engineering Journal
- Reviewer for International Journal of Fluid Mechanics Research
- Reviewer for Applied Mathematical Modelling Journal
- Reviewer for Heat and Mass Transfer Journal
- **Reviewer** for Case Studies in Thermal Engineering
- Reviewer for Journal of Heat and Mass Transfer Research
- Reviewer for Progress in Computational Fluid Dynamics
- Reviewer for Journal of Propulsion and Power Research
- **Reviewer** for Journal of Computational Physics
- **Reviewer** for Journal of Environmental Management
- **Reviewer** for Journal of Applied Fluid Mechanics
- Reviewer for The European Physical Journal Plus
- **Reviewer** for Results in Physics
- **Reviewer** for Open Physics
- Reviewer for Heliyon journal
- <u>Reviewer</u> for Sains Malaysiana journal

- Reviewer for Demonstratio Mathematica
- Reviewer for CFD Letters
- Reviewer for Nuclear Science and Technique
- Reviewer for Propulsion and Power Research
- Reviewer for Applied Nanoscience
- Reviewer for Bollettino di Geofisica Teorica e Applicata
- Reviewer for Mathematics and Computers in Simulation
- Reviewer for Arabian Journal for Science and Engineering
- Reviewer for Transport in Porous Media
- Reviewer for Special Topics & Reviews in Porous Media
- Reviewer for Physics of Fluids
- Reviewer for Journal of Zhejiang University-SCIENCE A
- Reviewer for Mathematics and Computers in Simulation
- **Reviewer** for European Journal of Mechanics B/Fluids
- Reviewer for Computer Methods in Applied Mechanics and Engineering
- Reviewer for Journal of Applied Mathematics and Computations
- Reviewer for International Journal of Fluids and Thermal Sciences
- Reviewer for Advances in Mechanical Engineering
- Reviewer for Journal of the Association of Arab Universities for Basic and Applied Sciences
- Reviewer for Colloids and Surfaces A: Physicochemical and Engineering Aspects
- Reviewer for International Journal of Applied and Computational Mathematics
- Reviewer for World Journal of Nano Science and Engineering
- Reviewer for Journal of Nanofluids
- Reviewer for Computers & Mathematics with Applications
- Reviewer for International Journal of Energy & Technology
- Reviewer for Nonlinear Analysis: Modelling and Control
- Reviewer for International Journal of Heat & Technology
- Reviewer for International Journal of the Physical Sciences
- Reviewer for Journal of Petroleum and Gas Engineering
- Reviewer for Communications in Numerical Methods in Engineering
- Reviewer for Journal of Mathematical and Physical Sciences
- Reviewer for Communications in Nonlinear Science and Numerical Simulations
- Reviewer for Alexandria Engineering Journal
- Reviewer for Informatics in Medicine Unlocked Journal
- Reviewer for Thermal Science, Belgrade
- **Reviewer** for Canadian Journal of Physics
- Reviewer for Canadian Journal of Chemical Engineering
- Reviewer for Latin American Applied Research Journal
- Reviewer for Mathematical and Computer Modelling
- Reviewer for Mathematical Problems in Engineering
- Reviewer for International Journal of Industrial Mathematics
- Reviewer for Hindawi Journal of Applied Mathematics
- Reviewer for Hindawi ISRN Mechanical Engineering journal
- Reviewer for The Open Transport Phenomena Journal
- **Reviewer** for Chinese Journal of Physics
- Reviewer for Physica Scripta Journal
- Reviewer for Journal of Computational and Applied Mechanics
- Reviewer for Il Nuovo Cimento B
- **Reviewer** for Applied Mathematics Research Express
- Reviewer for Korean Journal of Computational and Applied Mathematics
- Reviewer for Fluid/Particle Separation Journal
- Reviewer for Mechanics Research Communications
- Reviewer for Kuwait Foundation for the Advancement of Science (KFAS)

- Reviewer for Research Administration at Kuwait University
- Reviewer for Iraq Research and Development Initiative Round III Grant Competition
- <u>Reviewer</u> for International Journal of Microscale and Nanoscale Thermal and Fluid Transport Phenomena
- Reviewer for SRX Physics
- Referee for International Contest for Engineering Inventions, Kuwait, October 2007 and October 2008.
- Referee for The Prince Outstanding Factories Award, Kuwait, 2007 and 2010.
- Referee for KEFAS Scientific Award, Kuwait, November 2007.
- Referee for International Contest for Engineering Inventions, Kuwait, October 2008.
- <u>Vice Chairman of the Scientific Committee</u> for the 2004 International Mechanical Engineering Conference (IMEC-2004) held in Kuwait, December 5-8, 2004.
- Chaired several technical sessions at the IMEC-2004 meeting.
- <u>Member of the Scientific Committee</u> for the American Filtration and Separation Society, 2009-present.
- <u>Member of the International Scientific Committee</u> for The 6th IASME / WSEAS International Conference on Continuum Mechanics (CM '11) held in Cambridge, United Kingdom, February 23-25, 2011.
- <u>Member of the International Scientific Committee</u> for The 6th IASME / WSEAS International Conference on Water Resources, Hydraulics & Hydrology (WHH '11) held in Cambridge, United Kingdom, February 23-25, 2011.
- <u>Member of the International Scientific Committee</u> for The 5th IASME / WSEAS International Conference on Geology and Seismology (GES '11) held in Cambridge, United Kingdom, February 23-25, 2011.
- <u>Member of the International Scientific Committee</u> for International Symposium on Convective Heat and Mass Transfer in Sustainable Energy (CONV-09) held in Tunisia, April 26- May 01, 2009.
- <u>Member of the International Scientific Committee</u> for The 4th IASME / WSEAS International Conference on Water Resources, Hydraulics & Hydrology (WHH '09) held in United Kingdom, February 24-26, 2009.
- <u>Member of the International Scientific Committee</u> for The 4th IASME / WSEAS International Conference on Continuum Mechanics (CM'09) held in United Kingdom, February 24-26, 2009.
- <u>Member of the International Scientific Committee</u> for The 6th WSEAS International Conference on Fluid Mechanics (FLUIDS'09) held in China, January 10-12, 2009.
- <u>Member of the International Scientific Committee</u> for The 5th WSEAS International Conference on Fluid Mechanics (FLUIDS'08) held in Mexico, January 25-27, 2008.
- <u>Member of the International Scientific Committee</u> for The 6th IASME/WSEAS International Conference on Fluid Mechanics and Aerodynamics (FMA'08) held in Greece, August 20-22, 2008.
- <u>Member of the International Scientific Committee</u> for 3rd International Conference on Applications of Porous Media held in Morocco, May 29- June 03, 2006.
- <u>Member of the International Scientific Committee</u> for 3rd IASME / WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment held in Greece, August 20-22, 2005.
- Member of the Education and Publication Committees for AFS
- Vice Chairman and Faculty Advisor for ASME Kuwait Chapter (1994-1995)
- Chaired technical sessions at the 1992-1996 and 1998 AFS meetings.
- Co-chaired the 1993 AFS Education Conference.
- Reviewed papers for and chaired a technical session at the first and second International Conference on Energy Research and Development, Kuwait, 1998 and 2002.
- Appointed <u>Treasurer and a member of the Board of Governors</u> for ASHRAE-Kuwait, 1998.

HONORS AND SOCIETIES

- Elected as <u>Fellow of the Academy of Engineering and Technology for the Developing</u> <u>World (AETDEW)</u>, 2024.
- Served as <u>Panel Member of the European Research Council (ERC) Starting Grants in Engineering</u> for two cycles (2022 and 2024)
- Phi Kappa Phi -- National Honor Society
- Tau Beta Pi -- National Engineering Honor Society
- Sigma Xi -- The Scientific Research Society
- NSPE -- National Society of Professional Engineers
- AIAA -- American Institute of Aeronautics and Astronautics
- ASME -- American Society of Mechanical Engineering
- AFS -- American Filtration and Separation Society
- ANS -- American Nano Society
- SES -- Society of Engineering Science
- TAS -- Tennessee Academy of Science
- ASHRAE -- American Society for Heating, Refrigeration and Air conditioning Engineers

DEPARTMENTAL ACTIVITIES AT PMU

- Chaired the ME Department (2014 2016).
- Chaired the ME Department Graduate Committee (2014 2016).
- Chaired the **ME Department Promotion Committee** (2014 2016).
- Chaired the **ME Department ABET Accreditation Committee** (2014 2016).
- Served on the **ME Department Research Committee** (2014-2016)
- Served as **Deputy Chair of University Research Committee on Policies** (November 2015).
- Supported ASME Students Chapter in their Trips and Projects (2014 2016).
- Proposed a **New ME Undergraduate Program** Benchmarked with Similar Programs in other Universities.
- Interviewed and **Recruited New Faculty** Members (2014 2016).
- Served Faculty, Students, College, University, and the Community through Various Activities (2014 2016).
- Served as a Member of the College of Engineering Council (2014 2016).
- Served as a Member of the College of Engineering Industry Advisory Board (2014 2016).

UNIVERSITY ACTIVITIES AT PMU

- Served as a Member of the **Faculty Affairs Committee** (2018 2020).
- Served as a Member of the Council of Institutional Strategic Partnerships (2019 2020).
- Served as a Member of the PMU Rector's Advisory Council (2017 2020).
- Served as a Member of the **Academic Collaborations Council** (2017 2020).
- Served as a Member of the **Knowledge Project Advisory Committee** (2017 2020).
- Served on Quality and Accreditation Committee (2017 2020).
- Served as the Convener of **University Research Council** (2017 2020).
- Served as the Convener of University Conferences, Symposia and Workshops Committee (2017 2020).
- Served on University-Aramco Cooperation Committee (2017 2020).

- Served on Accreditation and Ranking Committee (2016 2017).
- Served as the Convener of **Research and Endowed Chairs Committee** (2016 2017).
- Served on University Strategic Plan Executive Committee (2016 2020).
- Served on Senior Management Group, Senior Administrative Group and Senior Academic Group (2016 2020).
- Served on New Academic Projects Founding Committee (2016 2020).
- Served as the Convener University Graduate Studies Standing Committee (2016 2020).
- Served on Establishment of College of Medicine Committee (2016 2020).
- Served as the Convener of **University Conference Committee** (2016 2020).
- Served on University Governance Committee (2016 2020).
- Served on the Center for Peace and Tolerance Committee (2016 2020).
- Established the **PMU Patent Center** (December 2016).
- Served on the **Saudi Vision 2030 Committee** (2016 2020).
- Served as a Member of the **University Scientific Council** (2016 2020).
- Served as a Member of the **University Deans' Council** (2016 2020).
- Proposed Complete Curricula for Three New B.Sc. Programs (December 2016).

DEPARTMENTAL ACTIVITIES AT PAAET

- Served on the **Promotion Committee** (2003-2007, 2009, 2010)
- Served on the Curriculum Development Committee (2003-2004, 2009-2012)
- Served on the **Research Committee** (2003-2012)
- Served as **President of Department Scientific Society** (2004-2007)
- Served as Chairman of ABET Committee (2009-2012)

DEPARTMENTAL ACTIVITIES AT KUWAIT UNIVERSITY

- Served on university-level Salary Adjustment Committee for Scientific Assistants (Fall 1997).
- Chaired a college-level committee for common Engineering courses (1998-1999).
- Served on **Teaching Schedule Committee** (1997-1998) and (1998-1999).
- Served as Annual Report Coordinator (1996-1997) and (1997-1998).
- Served on Departmental Research Committee (1993-1994, 1999-2000).
- Served on College Research Committee (1993-1994).
- Served on **Student Advisory Committee** (1993-2003).
- Served on **Computer Committee** (1993-1994).
- Chairman of Departmental Research Committee (1994-1997).
- Thermodynamics and Dynamics Coordinator (1994-1995) and (1998), respectively.
- Engineering Conference Coordinator (Spring 1994).
- ASME-Kuwait Vice Chairman and Faculty Advisor (1994-1995).
- Member of the Center for Research and Experimental Thermal Sciences (CRETS).
- Served on the **Teamwork Committee for ABET 2000** (Fall 1997).
- Served on Curriculum Development Committee for ABET 2000 (1997-1998).
- Served on Alumni Committee for ABET 2000 (1999-2000).
- Served on Outcome Assessment Committee for ABET 2000 (2000-2003).
- Served on Academic Development Committee for ABET 2000 (2000-2001).
- Served on Laboratory Committee (2000-2003).
- Served as Thermofluids Teaching Area Group Coordinator (2000-2002)
- Served on the Department Budget Committee (1998-1999).
- Supervisor of the Department Energy Laboratory (2000-2003)

- Served on **Undergraduate Program Committee** (2001-2003).
- Served on **Graduate Program Committee** (2001-2002).
- Served on **Student Advisement Committee** (2001-2003).

COMMUNITY SERVICE ACTIVITIES

- Taught a five-days short course entitled "Managerial and Technical Report Writing Skills," Ministry of Communications, Kuwait, Costa Del Sol Hotel, 28/9-2/10/2014.
- Taught a three-days short course entitled "Strategic Planning Skills," PIC Managers, Kuwait, Holiday Inn-Salmiya, 19-21/8/2014.
- Taught a five-days short course entitled "Time and Self-Management Skills," Kuwait, Accredited Skills Institute, 23-27/3/2014.
- Taught a three-days short course entitled "Leadership, Planning and Outstanding Customer Service," Kuwait, Accredited Skills Institute, 8-10/3/2014.
- Participated in a two-days Conference/Workshop on **Filtration and Separation** with training lectures entitled "**Industrial Filtration**," Kuwait, Radisson Blue Hotel, 16-17/12/2013.
- Participated in a two-days Conference/Workshop on **Business Ethics** with training lectures entitled "**Business Ethics and Decision Making**," Kuwait, Regency Hotel, 24-25/11/2013.
- Taught a three-days short course entitled "Skills for Executive Control over Operational and Productive Processes," Kuwait, Costa Del Sol Hotel, 20-22/05/2013.
- Taught (with Dr. A. Aloraier) a five-days short course entitled "Leadership and Management Skills," Kuwait, Ebn Al-Haitham Center, PAAET, 13-17/11/2011.
- Taught (with Dr. A. Aloraier) a five-days short course entitled "Leadership and Management Skills," Kuwait, Ebn Al-Haitham Center, PAAET, 27-31/3/2011.
- Taught (with Dr. A. Aloraier) a five-days short course entitled "Leadership and Management Skills," Kuwait, Ebn Al-Haitham Center, PAAET, 5-9/12/2010.
- Taught (with Dr. A. Aloraier) a five-days short course entitled "Strategic Planning," Kuwait, Ebn Al-Haitham Center, PAAET, 7-11/11/2010.
- Taught (with Dr. Abu Yizid) a five-day short course entitled "Design, Operation and Maintenance of Air Conditioning and Refrigeration Systems," Kuwait, 17-21/3/2006.
- Taught a two-days short course entitled "Quality Audits," Kuwait, May 2006.
- Taught a two-days short course entitled "Quality Audits," Kuwait, April 2006.
- Taught a two-days short course entitled "Quality Management," Kuwait, May 2005.
- Taught a two-days short course entitled "Quality Management," Kuwait, January 2005.
- Taught a three-months short course entitled "**Materials Technology**," PAAET, Kuwait, 1/3/-1/6/2005.
- Taught (with Professor J. Al-Hajji) a five-day short course entitled "Valves Technology," Kuwait, 14-18/12/2002.
- Taught (with Professor J. Al-Hajji) a five-day short course entitled "Flow Measurements and Valve Selection for Optimum System Performance," Kuwait, 9-13/3/2002.
- Taught (with Dr. I. Khorshid) a five-day short course entitled "Filtration and Separation Technology," Kuwait, 12-16/1/2002.
- Taught (with Dr. O. Al-Hawaj) a five-day short course entitled "Pumps and Pressurized Piping Systems: Performance, Computer Selection and Applications," Kuwait, 15-19/5/1999.
- Taught (with Dr. M. Eleshaky) a five-day short course entitled "Flow Measurements and Valve Selection for Optimum System Performance," Kuwait, 12-16/12/1998.

- Taught (with Dr. S. Kassab and Dr. M. Eleshaky) a five-day short course entitled "Flow Measurements and Valve Selection for Optimum System Performance," Kuwait, 28/3-1/4/1998.
- Taught (with Professor T. Al-Sahhaf) a five-day short course entitled "Industrial Filtration," Kuwait, 8-12/3/1997.

INVITED PRESENTATIONS

- "Transport of Nanofluids with Applications." Invited Distinguished Plenary Speaker, Third International Conference on Mechanics, Materials and Energy (MME 2024), Rabat, Morocco, May 20-22, 2024.
- "Transport of Nanofluids with Applications." Invited Distinguished Keynote Speaker, The Second Edition of the Arab Conference on Mechanics & Engineering, Biskra, Algeria, December 10-12, 2023.
- "Transport of Nanofluids with Applications." Invited Distinguished Keynote Speaker, Ninth Science and Technology Exchange Program (STEP), Isfahan, Iran, September 30-October 2, 2023.
- "Transport of Nanofluids with Applications." Invited Distinguished Keynote Speaker, Second International Conference of Mathematics and its Applications (ICMA2021), Abha, Saudi Arabia, October 19-20, 2021.
- "Modeling and Applications of Nanofluids." Invited Distinguished Keynote Speaker, Second International Conference on Energy, Power, Petroleum and Petrochemical Engineering (E3PE 2019), Beirut, Lebanon, April 3-5, 2019.
- "Modeling of Nanofluids Transport and Applications." Invited Distinguished Keynote Speaker, First International Conference on Energy Systems Engineering 2017 (ICESE17), Karabuk, Turkey, November 2-4, 2017.
- "Nanofluids' Theory and Applications." Invited Distinguished Keynote Speaker, The 4th International Conference of Mathematical Sciences (ICMS), Putrajaya, Malaysia, November 15-17, 2016.
- "Development of a Multiphase Filtration Theory." Invited Keynote Speaker, The 22nd Annual International Conference on Mechanical Engineering, Shahid Chamran University, Ahvas, Iran, May 22-24, 2014.
- "Heat Transfer Characteristics of Nanofluids." Invited Keynote Speaker, Basrah International Conference for Mechanical Engineering, University of Basrah, Iraq, May 8-10, 2014.
- "A Unified Filtration Model Based on Multiphase Flow Theory." Invited Speaker, Islamic Azadi University, Tehran, February 6, 2012.
- "A Systematic Approach to Filtration Modeling." Invited Keynote Speaker, ICoMS 2007, Johr Bahru, Malaysia, May 28-29, 2007.
- "Reality of Scientific Research in the State of Kuwait." Abdul-Hamid Shoman Foundation, Amman, Jordan, November 27, 1999.
- "Computer-Aided Modeling of Fluid Systems." Invited Speaker, Society of Automotive Engineers, Tennessee Tech. University Chapter, USA, November 5, 1992.

UNIVERSITY, COLLEGE & DEPARTMENT PRESENTATIONS

- "The Art of Writing Scientific and Research Papers", Prince Mohammad Bin Fahd University, May 4, 2017.
- "Effective Leadership and Strategic Planning", Prince Mohammad Bin Fahd University, October 19, 2015.
- "Heat Transfer Characteristics and Applications of Nanofluids", College of Engineering, Prince Mohammad Bin Fahd University, March 8, 2015.

- "Critical Thinking The Art of Problem Solving and Argumentation", Production Engineering Technology Department, PAAET, October 5, 2010.
- "A Multiphase Theory for Filtration Modeling", Production Engineering Technology Department, PAAET, February 22, 2009.
- "ABET Accreditation Requirements", Production Engineering Technology Department, PAAET, January 18, 2009.
- "Mathematical Modeling and Experimental Verification of Multiphase Flows", College of Technological Studies, PAAET, 2006.

REFEREED JOURNAL PUBLICATIONS

- 1. **A.J. Chamkha** and J. Peddieson, "Boundary-Layer Flow of a Particulate Suspension Past a Flat Plate", <u>International Journal of Multiphase Flow</u>, Volume 6, pp. 805-808, 1991.
- 2. **A.J. Chamkha**, "Exact Solutions for Hydromagnetic Flow of a Particulate Suspension," **AIAA Journal**, Volume 30, No. 7, pp. 1922-1924, 1992.
- 3. **A.J. Chamkha**, "Convective Heat Transfer of a Particulate Suspension," <u>AIAA</u>

 <u>Journal of Thermophysics and Heat Transfer</u>, Volume 6, No. 3, pp. 551-553, 1992.
- 4. **A.J. Chamkha** and J. Peddieson, "Singular Behavior in Boundary-Layer Flow of a Dusty Gas", **AIAA Journal**, Volume 30, No. 12, pp. 2966-2968, 1992.
- 5. **A.J. Chamkha**, "Unsteady Flow of a Power-Law Dusty Fluid with Suction," **ASME Journal of Fluids Engineering**, Volume 115, No. 2, pp. 330-333, 1993.
- 6. **A.J.** Chamkha, "Thermal Flat Plate Boundary-Layer Solutions For a Particulate Suspension with a Finite Volume Fraction," <u>International Journal of Multiphase Flow</u>, Volume 19, No. 3, pp. 539-540, 1993.
- 7. M. Allaham, J. Peddieson and **A.J. Chamkha**, "Simulation of Collection Efficiencies For Shallow Filters", <u>Fluid/Particle Separation Journal</u>, Volume 6, pp. 119-122, 1993.
- 8. **A.J. Chamkha**, "Temperature and Heat Transfer Solutions for Aeromagnetic Dusty Gas Flow," <u>AIAA Journal of Thermophysics and Heat Transfer</u>, Volume 7, No. 3, pp. 529-531, 1993.
- 9. **A.J. Chamkha**, "Thermal Convection in a Particle-Laden Boundary Layer Flow Past a Flat Plate," **Mechanics Research Communications**, Volume 21, pp. 457-464, 1994.
- 10. **A.J. Chamkha**, "Flow of Non-Newtonian Particulate Suspension with a Compressible Particle Phase," <u>Mechanics Research Communications</u>, Volume 21, pp. 645-654, 1994.
- 11. **A.J. Chamkha**, "Transient Power-Law Fluid Flow in a Porous Medium Channel," **Fluid/Particle Separation Journal**, Volume 7, No. 1, pp. 4-7, 1994.
- 12. **A.J. Chamkha**, "Power-Law Dusty-Fluid Flow Between Two Parallel Porous Plates," <u>Fluid/Particle Separation Journal</u>, Volume 7, pp. 184-187, 1994.
- 13. **A.J. Chamkha**, "Unsteady Flow of a Dusty Conducting Fluid Through a Pipe," Mechanics Research Communications, Volume 21, No. 3, pp. 281-288, 1994.

- 14. **A.J. Chamkha** and J. Peddieson, "Boundary Layer Theory for a Particulate Suspension," <u>ASME Journal of Fluids Engineering</u>, Volume 116, pp. 147-153, 1994. This paper won the 1995 Kinslow Research Award in the College of Engineering at Tennessee Technological University.
- 15. **A.J. Chamkha**, "Analytical Solutions For Flow of a Dusty Fluid Between Two Porous Flat Plates," <u>ASME Journal of Fluids Engineering</u>, Volume 116, pp. 354-356, 1994.
- 16. **A.J. Chamkha**, "Effects of Particulate Diffusion on the Thermal Flat Plate Boundary Layer of a Two-Phase Suspension," **ASME Journal Heat Transfer**, Volume 116, pp. 236-239, 1994.
- 17. **A.J. Chamkha**, "Two-Phase Thermal Asymptotic Suction Profile," <u>ASME Journal Heat Transfer</u>, Volume 116, pp. 270-272, 1994.
- 18. **A.J. Chamkha**, J. Peddieson and M. Allaham, "Evaluation of a Finite Difference Method for Filtration", <u>Fluid/Particle Separation Journal</u>, Volume 8, No. 1, pp. 22-28, 1995.
- 19. M. Allaham, J. Peddieson and A.J. Chamkha, "Applications of the Method of Characteristics to Filtration Simulations", <u>Fluid/Particle Separation Journal</u>, Volume 8, No. 2, pp. 125-131, 1995.
- 20. M. Allaham, J. Peddieson and **A.J. Chamkha**, "Filtration Solutions for Variable Inputs". <u>Separations Technology</u>, Volume 5, pp. 105-113, 1995.
- 21. **A.J. Chamkha**, "Time-Dependent Two-Phase Channel Flow Due to an Oscillating Pressure Gradient" **Fluid/Particle Separation Journal**, Volume 8, pp. 196-203, 1995.
- 22. **A.J. Chamkha**, "Hydromagnetic Two-Phase Flow in a Channel," <u>International</u> <u>Journal of Engineering Science</u>, Volume 33, pp. 437-446, 1995.
- 23. **A.J. Chamkha**, "Unsteady Hydromagnetic Two-Phase Pipe Flow," <u>Fluid/Particle</u> <u>Separation Journal</u>, Volume 8, pp. 204-210, 1995.
- 24. **A.J. Chamkha**, "Compressible Two-Phase Boundary-Layer Flow with Finite Particulate Volume Fraction," <u>International Journal of Engineering Science</u>, Volume 34, pp. 1409-1422, 1996.
- 25. **A.J.** Chamkha, "Magnetohydrodynamics of a Particulate Suspension," <u>AIAA</u>
 <u>Journal of Propulsion and Power</u>, Volume 12, pp. 438-440, 1996.
- 26. **A.J.** Chamkha, "Compressible Dusty-Gas Boundary-Layer Flow Over a Flat Surface," **ASME Journal of Fluids Engineering**, Volume 118, pp. 179-185, 1996.
- 27. **A.J. Chamkha**, "Solutions for Fluid-Particle Flow and Heat Transfer in a Porous Channel," <u>International Journal of Engineering Science</u>, Volume 34, pp. 1423-1439, 1996.
- 28. **A.J. Chamkha**, "Non-Darcy Hydromagnetic Free Convection From a Cone and a Wedge in Porous Media," <u>International Communications in Heat and Mass Transfer</u>, Volume 23, pp. 875-887, 1996.
- 29. **A.J.** Chamkha, "Steady and Transient Magnetohydrodynamic Flow and Heat Transfer in a Porous Medium Channel." <u>Fluid/Particle Separation Journal</u>, Volume 9, pp. 129-135, 1996.

- 30. **A.J. Chamkha**, "Steady Parallel Flow of a Power-Law Dusty Fluid." <u>Fluid/Particle Separation Journal</u>, Volume 9, pp. 228-238, 1996.
- 31. **A.J. Chamkha**, "MHD Free Convection from a Vertical Plate Embedded in a Thermally Stratified Porous Medium." Fluid/Particle Separation Journal, Volume 9, pp. 195-206, 1996.
- 32. M. Elsayed and **A.J. Chamkha**, "Analysis and Performance of Radial Flow Rotary Desiccant Dehumidifiers". **ASME Journal of Solar Energy Engineering**, Volume 119, pp. 35-43, 1997.
- 33. **A.J. Chamkha**, "Solar Radiation Assisted Natural Convection in a Uniform Porous Medium Supported by a Vertical Flat Plate." **ASME Journal of Heat Transfer**, Volume 119, pp. 89-96, 1997.
- 34. **A.J. Chamkha**, "Unsteady Free Convection Flow in a Porous Medium Channel Subjected To a Transverse Magnetic Field". **Fluid/Particle Separation Journal**, Volume 10, pp. 22-27, 1997.
- 35. **A.J. Chamkha**, "Hydromagnetic Free Convection Flow Over an Inclined Plate caused by Solar Radiation". <u>AIAA Journal of Thermophysics and Heat Transfer</u>, Volume 11, pp. 312-315, 1997.
- 36. **A.J. Chamkha**, "A Note on Unsteady Hydromagnetic Free Convection From a Vertical Fluid Saturated Porous Medium Channel." **ASME Journal of Heat Transfer**, Volume 119, pp. 638-641, 1997.
- 37. **A.J. Chamkha**, "Unsteady Flow of an Electrically Conducting Dusty-Gas in a Channel Due to an Oscillating Pressure Gradient." **Applied Mathematical Modelling**, Volume 21, pp. 287-292, 1997.
- 38. **A.J. Chamkha**, "Transient Non-Newtonian Flow of a Suspension with a Compressible Particle Phase." **Mechanics Research Communications**, Volume 24, pp. 41-47, 1997.
- 39. **A.J. Chamkha**, "Similarity Solution for Thermal Boundary Layer on a Stretched Surface of a Non-Newtonian Fluid". <u>International Communications in Heat and Mass Transfer</u>, Volume 24, pp. 643-652, 1997.
- 40. **A.J. Chamkha**, "Similarity Solutions for Buoyancy-Induced Flow of a Power-Law Fluid over a Horizontal Surface Immersed in a Porous Medium". **International Communications in Heat and Mass Transfer**, Volume 24, pp. 805-814, 1997.
- 41. **A.J. Chamkha**, "Hydromagnetic Flow and Heat Transfer of a Heat-Generating Fluid over a Surface Embedded in a Porous Medium". <u>International</u> <u>Communications in Heat and Mass Transfer</u>, Volume 24, pp. 815-825, 1997.
- 42. **A.J.** Chamkha, "MHD Free Convection from a Vertical Plate Embedded in a Thermally Stratified Porous Medium with Hall Effects." **Applied Mathematical Modelling**, Volume 21, pp. 603-609, 1997.
- 43. M. Al-Aradah, **A.J. Chamkha**, and K. Khanafer "Flow and Heat Transfer of a Non-Newtonian Fluid in a Porous Medium." <u>Fluid/Particle Separation Journal</u>, Volume 10, pp. 67-72, 1997.
- 44. **A.J. Chamkha**, "Numerical Investigation for a Two-Phase Compressible Boundary Layer." **Fluid/Particle Separation Journal**, Volume 10, pp. 160-170, 1997.

- 45. **A.J. Chamkha**, "Transient MHD Free Convection from a Porous Medium Supported by a Surface." <u>Fluid/Particle Separation Journal</u>, Volume 10, pp. 101-107, 1997.
- 46. **A.J.** Chamkha, "Non-Darcy Fully Developed Mixed Convection in a Porous Medium Channel with Heat Generation/Absorption and Hydromagnetic Effects," Numerical Heat Transfer, Part A, Volume 32, pp. 653-675, 1997.
- 47. **A.J. Chamkha**, "Hydromagnetic Natural Convection from an Isothermal Inclined Surface Adjacent to a Thermally Stratified Porous Medium." <u>International Journal of Engineering Science</u>, Volume 35, pp. 975-986, 1997.
- 48. **A.J. Chamkha** and H. Ramadan, "Analytical Solutions for the Two-Phase Free Convection Flow of a Particulate Suspension Past an Infinite Vertical Plate". **International Journal of Engineering Science**, Volume 36, pp. 49-60, 1998.
- 49. **A.J. Chamkha**, "Hydromagnetic Plane and Axisymmetric Flow Near a Stagnation Point with Heat Generation". <u>International Communications in Heat and Mass Transfer</u>, Volume 25, pp. 269-278, 1998.
- 50. **A.J. Chamkha**, "Particulate Viscous Effects on the Compressible Boundary-Layer Two-Phase Flow Over a Flat Plate." <u>International Communications in Heat and Mass Transfer</u>, Volume 25, pp. 279-288, 1998.
- 51. K. Khanafer and **A.J. Chamkha**, "A Numerical Investigation for Hydromagnetic Natural Convection in a Square Porous Medium-Filled Enclosure". <u>Fluid/Particle Separation Journal</u>, Volume 11, pp. 25-38, 1998.
- 52. **A.J. Chamkha** and K. Khanafer, "A Numerical Study For the Two-Phase Compressible Boundary-Layer Flow Over an Isothermal Surface". **Fluid/Particle Separation Journal**, Volume 11, pp. 107-115, 1998.
- 53. **A.J. Chamkha**, "Effects of Particulate Diffusion on the Compressible Boundary-Layer Flow of a Two-Phase Suspension Over a Horizontal Surface." **ASME Journal of Fluids Engineering**, Volume 120, pp. 146-151, 1998.
- 54. **A.J. Chamkha**, "Mixed Convection Flow along a Vertical Permeable Plate Embedded in Porous Medium in the Presence of a Transverse Magnetic Field". Numerical Heat Transfer, Part A, Volume 34, pp. 93-103, 1998.
- 55. **A.J. Chamkha**, "Hydromagnetic Mixed Convection Stagnation Flow with Suction and Blowing". <u>International Communications in Heat and Mass Transfer</u>, Volume 25, pp. 417-426, 1998.
- 56. **A.J. Chamkha**, "Unsteady Hydromagnetic Flow and Heat Transfer on a Non-Isothermal Stretching Sheet Immersed in a Porous Medium". <u>International Communications in Heat and Mass Transfer</u>, Volume 25, pp. 899-906, 1998.
- 57. K. Khanafer and **A.J. Chamkha**, "Hydromagnetic Natural Convection from an Inclined Porous Square Enclosure with Heat Generation". <u>Numerical Heat Transfer</u>, Part A, Volume 33, pp. 891-910, 1998.
- 58. **A.J. Chamkha**, "Magnetohydrodynamic Free Convection Flow Over a Vertical Wedge Due to Solar Radiation". <u>Fluid/Particle Separation Journal</u>, Volume 11, pp. 266-283, 1998.

- 59. **A.J. Chamkha**, "Magnetohydrodynamic Mixed Convection from a Rotating Cone Embedded in a Porous Medium with Heat Generation". **Journal of Porous Media**, Volume 2, pp. 87-106, 1999.
- 60. **A.J. Chamkha**, "Hydromagnetic Three-Dimensional Free Convection on a Vertical Stretching Surface with Heat Generation or Absorption". **International Journal of Heat and Fluid Flow**, Volume 20, pp. 84-92, 1999.
- 61. H. Ramadan and **A.J. Chamkha**, "Two-Phase Free Convection Flow Over an Infinite Permeable Inclined Plate with Non-Uniform Particle-Phase Density". International Journal of Engineering Science, Volume 37, pp. 1351-1367, 1999.
- 62. **A.J. Chamkha** and K. Khanafer, "Non-Similar Combined Convection Flow Over a Vertical Surface Embedded in a Variable Porosity Medium". **Journal of Porous Media**, Volume 2, pp. 231-249, 1999.
- 63. K. M. Khanafer and A.J. Chamkha, "Mixed Convection Flow in a Lid-Driven Enclosure Filled with a Fluid-Saturated Porous Medium". <u>International Journal of Heat and Mass Transfer</u>, Volume 42, pp. 2465-2481, 1999.
- 64. H.S. Takhar, **A.J. Chamkha**, and G. Nath, "Unsteady Flow and Heat Transfer on a Semi-infinite Flat Plate with an Aligned Magnetic Field". **International Journal of Engineering Science**, Volume 37, pp. 1723-1736, 1999.
- 65. **A.J. Chamkha**, "Effect of Combined Particle-Phase Diffusivity and Viscosity on the Compressible Boundary Layer of a Particulate Suspension over a Flat Surface". **ASME Journal of Heat Transfer**, Volume 121, pp. 420-429, 1999.
- 66. **A.J. Chamkha** and A.-R.A. Khaled, "Nonsimilar Hydromagnetic Simultaneous Heat and Mass Transfer by Mixed Convection From a Vertical Plate Embedded in a Uniform Porous Medium". **Numerical Heat Transfer, Part A**, Volume 36, pp. 327-344, 1999.
- 67. **A.J. Chamkha** and C. Issa, "Mixed Convection Effects on Unsteady Flow and Heat Transfer Over a Stretched Surface". <u>International Communications in Heat and Mass Transfer</u>, Volume 26, No. 5, pp 717-728, 1999.
- 68. **A.J. Chamkha** and J. A. Adeeb, "Oscillatory Natural Convection Flow of a Two-Phase Suspension Over a Surface in the Presence of Magnetic Field and Heat Generation Effects". **International Journal of Fluid Mechanics Research**, Volume 26, pp. 643-659, 1999.
- 69. H.S. Takhar, **A.J. Chamkha** and G. Nath, "Unsteady Axisymmetric Stagnation-Point Flow of a Viscous Fluid on a Cylinder". <u>International Journal of Engineering Science</u>, Volume 37, pp. 1943-1957, 1999.
- 70. **A.J. Chamkha**, "Transient Hydromagnetic Non-Darcy Free Convection From a Vertical Fluid Saturated Porous Medium Channel." **Fluid/Particle Separation Journal**, Volume12, pp. 155-160, 1999.
- 71. **A.J. Chamkha** and A.-R.A. Khaled, "Similarity Solutions for Hydromagnetic Mixed Convection Heat and Mass Transfer for Hiemenz Flow Through Porous Media". **International Journal of Numerical Methods for Heat & Fluid Flow**, Volume 10, pp. 94-115, 2000.

- 72. **A.J. Chamkha,** "The Stokes Problem for a Dusty Fluid in the Presence of Magnetic Field, Heat Generation and Wall Suction Effects". **International Journal of Numerical Methods for Heat & Fluid Flow**, Volume 10, pp. 116-133, 2000.
- 73. **A.J. Chamkha** and A.-R.A. Khalid, "Hydromagnetic Simultaneous Heat and Mass Transfer by Mixed Convection from a Vertical Plate Embedded in a Stratified Porous Medium with Thermal Dispersion Effects". **Heat and Mass Transfer**, Volume 36, pp. 63-70, 2000.
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RESEARCH GRANTS

- Principal Sole Investigator, "Compressible Two-Phase Boundary-Layer Flow," Grant # EPM-079. Starting January 7, 94 and ending January 6, 96, funding from Kuwait University, Amount about U.S. \$16,000.
- Principal Sole Investigator, "Fluid-Particle Flow in Channels and Pipes," Grant # EPM-082. Starting July 1, 94 and ending June 30, 96, funding from Kuwait University, Amount about U.S. \$21,000.
- Principal Investigator, "Particulate Removal from a Porous Medium," (Co-investigator: Dr. Taher Al-Sahhaf) Grant # EM-101. Starting March 1, 1996, and ending February 28, 1997, funding from Kuwait University, Amount about U.S. \$7,500.
- Principal Sole Investigator, "Compressible Fluid/Particle Boundary-Layer Flow with Finite Particle Volume Fraction over Non-Isothermal Flat Surface," Grant # EM-105. Starting December 1, 1996, and ending November 30, 1998, funding from Kuwait University. Amount about U.S. \$35,000.
- Principal Sole Investigator, "Hydromagnetic Flow and Heat Transfer of Two Immiscible Fluids in a Channel Filled with a Porous Medium," Grant # EM-121. Starting October 1, 1997, and ending September 30, 1998, funding from Kuwait University. Amount about U.S. \$8,000.
- Co-Investigator, "Numerical Modeling of Filtration Processes with Spatially-Dependent Dispersion and Superficial Velocity Under Constant and Time-Dependent Contamination Source," (Principal Investigator: Dr. Ali Al-Mudhaf) Grant # TS-05-02. Starting May 20, 2005, and ending February 22, 2007, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$15,000.
- Principal Investigator, "Thermo-Solutal Convection in a Porous Medium-Filled Enclosure Under Various Thermal and Concentration Boundary Conditions," (Coinvestigator: Dr. Ali Al-Mudhaf) Grant #TS-05-005. Starting July 22, 2005, and ending September 22, 2006, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$15,000.
- Principal Sole Investigator, "Double-Diffusive Mixed Convection in Non-Newtonian Power-Law Fluids along a Surface Embedded in a Non-Darcian Porous Medium," Grant # TS-07-04. Starting October 3, 2007, and ending October 5, 2008, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$18,000.
- Co-Investigator, "Natural Convective MHD Flow of a Micropolar Fluid over a Permeable Surface with Heat Generation or Absorption," (Principal Investigator: Dr. Mohey-Eldin M. Khedr and co-investigator: Dr. Mohamad Bayomi) Grant # TS-07-15. Starting December 15, 2007, and ending December 15, 2008, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$15,000.
- Principal Sole Investigator, "Combined Convection Heat and Mass Transfer in Non-Newtonian Fluids along a Wedge Embedded in a Porous Medium in the Presence of Radiation and Chemical Reaction," Grant #TS-09-08. Starting July 25, 2009, and ending July 25, 2010, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$16,000.

• Co-Investigator, "Melting Effect on Mixed Convection Flow of a Non-Newtonian Fluid along a Vertical Cone in Porous Media," (Principal Investigator: Dr. Abdulkareem Aloraier) Grant # TS-10-04. Starting June 6, 2010, and ending September 6, 2011, funding from The Public Authority for Applied Education and Training. Amount about U.S. \$16,000.

SENIOR PROJECTS SUPERVISED

- Musaed Al-Aradah, "Flow and Heat Transfer of a Non-Newtonian Fluid in a Porous Medium," August 1994.
- Haifa Saleh, "Natural Non-Newtonian Convection Flow Over a Vertical Plate Adjacent to a Porous Medium", January 1997.
- Manal Hashem, "Natural Convection Flow of Power-Law Fluids in Vertical Porous Medium Channels", January 1997.
- Hisham Al-Obaid, "g-Jitter Induced Hydromagnetic Free Convection in a Porous Medium Channel", June 1997.
- Ahmed Al-Shatti, "Design and Performance of an Air-Conditioning Split System", July 1997.
- Ashraf Al-Qattan, "Piping Network", August 1997.
- Sherifa Marafi, "Mixed Convection Flow Over a Rotating Cone with Variable Wall Heat Flux Embedded in Porous Media", November 1997.
- Majed Majeed, "Mixed Convection Heat Transfer from a Rotating Porous Cone in Porous Media maintained at Constant Heat Flux", December 1997.
- Muneera Matter, "Mixed Convection Heat Flow of a Non-Newtonian Fluid Over a Rotating Cone in Porous Media", June 1998.
- Ismail Behbahani, "Natural Convection of a Particulate Suspension Through an Annular Duct for Various Wall Heating Conditions", January 2002.
- Bader Al-Kharafi, "The Components and Operation of Pumps", January 2002.

M.Sc. THESES AND PROJECTS SUPERVISED

- Hassan Ramadan, "Free Convection Flow of a Particulate Suspension Over an Inclined Isothermal Surface", 1997.
- Abdul-Rahim Assaad Khalid, "Natural Convection Boundary Layer Flow of Electrically-Conducting Fluids Along a Vertical Plate Embedded in Porous Media", 1998.
- Jamal Adeeb, "Transient Oscillatory Flow from a Vertical Plate in Two-Phase Flow", 1998
- Hamid Jawad Al-Naser, "Hydomagnetic Double-Diffusive Convection in Inclined Porous Enclosures with Opposing Temperature and Concentration Gradients" 1999.
- Mansour Al-Subai, "Transient Buoyancy-Induced Flow of a Two-Phase Particulate Suspension in Vertical Channels and Pipes", 2000. (Co-supervised by N. Al-Najem)
- Mona Al-Baz, "Natural Convection Flow of a Particulate Suspension Through Annular Ducts", 2000.
- Faisal Abdulgafoor, "Heat and Mass Transfer in a Square Cavity Filled with a Non-Darcian Porous Medium", 2002.

- Salah Al-Obeid, "Steady Flow of a Particulate Suspension in Two Immiscible Fluids Through a Channel", 2002.
- Seham Al-Rashidi, "Natural Convection Flow of a Two-Phase Fluid/Particle Suspension in Vertical Channels with Various Wall Thermal Conditions", 2002.
- Nayela Makki Al-Juma, "Heat and Mass Transfer by Natural Convection Flow of a Micropolar Fluid about a Sphere Embedded in a Porous Medium in the Presence of Various Physical Effects", 2011. (Co-supervised by Farhan Al-Aani, Gulf University, Bahrain)

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