

## JAY M. KHODADADI, A S M E F E L L O W

Fluids/Thermal Sciences (i. Thermal Energy Storage, ii. Energy-Intensive Processing and iii. BioFluid Dynamics)

Professor, Mechanical Engineering Department, Auburn University

1-page Summary of Major Academic Accomplishments as of November 8, 2024

### RESEARCH

#### Funding

- **\$6.3 million** for 52 grants/contracts (Allcomp, AL Space Grant Consortium, Containerless Research, ALCOA, California Energy Commission, Cray Research, DOE NREL, Dresser-Rand Corp., DOE, General Dynamics, L3Harris, Memtec Fluid Dynamics, NASA, NSF, ONR, US Dept. of State, USFS and US Fulbright Program, etc.)

- Participation in interdisciplinary groups.

**Auburn:** AMTC, CASTNET, CM<sup>3</sup>, NCAME.

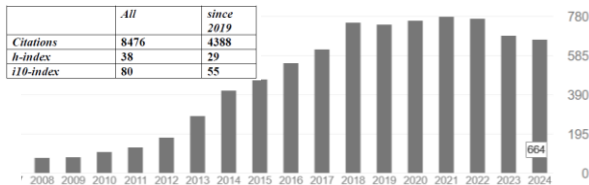
**Alabama:** PI on the 5-univ. DOE NePCM Cluster.

**Europe:** CONCAST, INNOSTORAGE.

- Sponsored off-campus student research visits at DOE LLNL, DOE PNNL, RPI, SPAIN, UIUC.

#### PUBLICATIONS

- 95 Full-Length Refereed Journal Papers
  - Since joining Auburn: 89
  - Total Citations: 8476\*
  - H-Index: 38\*



\*scholar.google.com (as of 11 / 8 / 2024)

- H-Index=35 (Scopus ID: 7004182221)
- 138 Refereed Conference Presentations
  - Since joining Auburn: 128
- 3 AU Patent Applications

### TEACHING / ADVISING

#### Advising Graduate Students as Major Professor

- 15 PhD, 13 MS and 12 MME

#### Advised Graduate Students as Cmte. Member

- 23 PhD, 25 MS, 12 MME and 3 MAE Students (Aero. Eng., Chem. Eng., Civil Eng., Math. and Mech. Eng. Departments at AU)

#### Sponsored Visiting Research Scholars

- 15 Professors and PhD Students.

#### University Readership Appointments at AU

- 12 PhD Students (Aero. Eng., Chem. Eng., Chemistry and Mathematics)

#### External Examiner

- 5 PhD (Univ. of Toronto, CANADA, Univ. Barcelona, SPAIN, Zhejiang Univ. CHINA, SV National Inst. of Tech., INDIA, Univ. of Malaya, MALAYSIA)
- 1 MS (Nanyang Tech. Univ., SINGAPORE)

#### Courses Taught / Advised

- Undergraduate: Computer-Aided Engineering, Fluid Mechanics, Compressible Fluid Flow\*.
- Undergraduate: Senior Design Projects (Advisor).
- Graduate: Advanced Fluid Mechanics I, Advanced Fluid Mechanics II, Boundary Layer Theory, Fluid Dynamics of Processing\*, Turbulence, 12 Independent Studies / Dir. Readings on Energy sub-topics.

\* New courses introduced at AU.

### SERVICE / OUTREACH

#### Auburn University

- Univ. Research Grant-in-Aid Committee
- Faculty Grievance Hearing Panel

#### Samuel Ginn College of Engineering

- Committee on Teaching Evaluation

#### Graduate School

- Judge of the Scholars Forum (2010)

#### Prof. Organizations / Journal Review Boards

- Board of Review of MMT-B (1999-2007)
- Assoc. Tech. Editor of JHT (2004-2007)
- Chaired 15 Technical Sessions
- Reviewed 673 Manuscripts for 164 Journals

#### Performance / Proposal / Fellowship Reviews

- Reviewed 24 non-Auburn faculty dossiers
- Grant agencies of Canada, Chile, Czech Republic, Georgia, Hong Kong, Israel, Netherlands, Singapore, Switzerland, USA (ACS, ARPA-E, ASGC, CRDF, DOE, Fulbright, NASA, NSF, PRF, etc.)

#### Invited Seminar Presentations

- 34 Seminars delivered in China, Czech Rep., France, Germany, Japan, Korea, Spain, Taiwan, USA

#### Awards / Recognitions

- ASME Fellow / AIAA Associate Fellow
- Many Society / Division Awards (ASEE, ASME, NAMTAC, SAE, SME)
- Travel Awards (AL DOE/NASA EPSCoR, CONCAST, NAS/NRC, NSF, Universitat de Barcelona)
- Auburn University (1998 Birdsong Teaching Award, 2003 Walker Teaching Award, ME Outstanding Faculty Member Awards, '99-'00 and '06-'07)

#### Workshops and Organizing Conf. / Symposia

- Attended 16 Workshops / Professional Courses
- Served on Advisory / Scientific Committees of 6 International Conf. / Symposia / Training Schools