

CURRICULUM VITAE OF JAMES A. MENART

1. EDUCATION

Institution	Field of Study	Degree	Graduation Date
University of Minnesota	Mechanical Engineering	Ph.D	July 1996
University of Illinois	Mechanical Engineering	M.S	December 1988
University of North Dakota	Mechanical Engineering	B.S.M.E.	December 1984

2. PROFESSIONAL EXPERIENCE

Position	Institution	Dates
Associate Professor	Wright State University, Mech. & Mat. Eng.	09/02-Present
Assistant Professor	Wright State University, Mech. & Mat. Eng.	09/96-08/02
NRC Research Fellow	Air Force Research Laboratory (AFRL/VAAA)	06/03-08/03
NRC Research Fellow	Air Force Research Laboratory (AFRL/VAAA)	06/02-08/02
NRC Research Fellow	Air Force Research Laboratory (AFRL/VAAA)	06/01-08/01
AFRL Faculty Research Fellow	Air Force Research Laboratory (AFRL/VAAA)	06/00-08/00
NASA Faculty Research Fellow	NASA Glenn Research Center	06/98-08/98
NASA Faculty Research Fellow	NASA Glenn Research Center	06/97-08/97
Research Assistant	ERC Plasma Aided Manufacturing	06/94-08/96
NASA Graduate Student Fellow	NASA Glenn Research Center	09/91-06/94
Research Assistant	University of Minnesota	01/88-08/91
Research Assistant	University of Illinois	08/86-12/87
Research Engineer	Sunstrand Corporation	02/85-08/86

3. PROFESSIONAL MEMBERSHIP

Professional Society	Membership Type	Dates
AIAA	Member	01/98-Present
ASEE	Professional Member	03/98-Present
ASME	Member	06/85-Present
Tau Beta Pi	Member	06/02-Present

4. ACADEMIC AWARDS

Award	Dates
Nominee for Excellence in Teaching Award from Wright State University College of Engineering and Computer Science as nominated by students	1998 – 1999 Academic Year
Excellence in Teaching Award from Wright State University College of Engineering and Computer Science as nominated by students	1999 – 2000 Academic Year
Outstanding Teaching Award from Wright State University College of Engineering and Computer Science as nominated by students	1999 – 2000 Academic Year
Received congratulatory letter from President Goldenberg on teaching effectiveness (letter is attached)	August 31, 2000
Received congratulatory letter from Dean Brandeberry on teaching effectiveness (letter is attached)	September 11, 2000
Best paper award from the 26 th AIAA Dayton-Cincinnati Aerospace Science Symposium	2001
Excellence in Teaching Award from Wright State University College of Engineering and Computer Science as nominated by students	2003 – 2004 Academic Year
Outstanding Teaching Award from Wright State University College of Engineering and Computer Science as nominated by students	2003 – 2004 Academic Year

Outstanding Faculty Member Award from Wright State University College of Engineering and Computer Science	2005 – 2006 Academic Year
Best paper award from the 31 st AIAA Dayton-Cincinnati Aerospace Science Symposium	2006
Certificate of Appreciation for 10 Years of Service to Wright State University	2006

5. TEACHING

5.1. Courses Taught

Course Number	Title	No. Times Taught
ME315	Thermodynamics I	10
ME316	Thermodynamics II	15
ME318	Heat Transfer	16
ME490-02	Engineering Design I (Special senior design program in collaboration with OSU and Sinclair)	2
ME491-02	Engineering Design II (Special senior design program in collaboration with OSU and Sinclair)	2
ME499	Special Problems in Mechanical and Materials Engineering	9
ME738	Radiation Heat transfer	2
ME742	Numerical Simulation of Heat and Mass Transfer	7
ME744	Advanced Thermodynamics	2
ME890	Special Problems in Mechanical and Materials Engineering	3
ME898	Ph. D. Dissertation Research	14
ME899	Thesis	74

* See Evidence of Teaching Effectiveness Section for student evaluation numbers.

5.2 Continuing Education Activities - Workshops and Seminars Attended

Name	Description	Dates
Pathfinder Conference	Conference at Ohio Aerospace Institute	08/21/97 – 08/22/97
Top Class Workshop	Workshop at Center for Teaching and Learning	One day in 1998
Educational Seminar at Wright State given by Professor Torsten Fransson from the Royal Institute of Technology, Stockholm Sweden	Computerized Education in Turbomachinery Technology	06/15/99
Fundamentals of WebCT	Workshop at Center for Teaching and Learning	12/13/00
National Teaching College Workshop	Workshop at the University of Illinois	03/15/01 – 03/16/01
National Teaching College Workshop	Workshop at the University of Illinois	08/06/01 – 08/08/01
IEEE Deans Summit II: Fostering Campus Collaborations, Miami, FL	IEEE workshop in Miami, FL	01/09/03 – 01/12/03
SOCHE 2003 Annual Higher Education Conference	Workshop at Central State, Wilberforce, OH	03/08/03
Attended workshop by Richard Felder	Sponsored by the College of Engineering and Computer Science, Wright State University	One day in winter 2003
AIAA session on Education, Improving Conceptual Understanding	At the 42 nd AIAA Aerospace Sciences Meeting and Exhibit, Reno, NV	01/06/04
Electronic Classroom Workshop	Workshop at Center for Teaching and Learning	01/19/04
GCCCU/SOCHE Regional Higher Education	Workshop at Miami University.	02/06/04

6. SCHOLARSHIP

Most Recent Publications (total of 63)

1. Shang, J. S., Kimmel, R., Hayes, J., Tyler, C., and Menart, J., (2005), "Hypersonic Experimental Facility for Magneto-Aerodynamic Interactions," *Journal of Spacecraft and Rockets*. Vol. 42, Number 5, pp. 780 – 789.
2. Kimmel, R., Hayes, J., Menart, J. and Shang, J. S., (2005), "Effect of Magnetic Fields on Surface Plasma Discharges at Mach 5," Accepted for publication in the *Journal of Spacecraft and Rockets*.
3. Shang, J. S., Surzhikov, S. T., Kimmel, R., Gaitonde, D., Menart, J., and Hayes, J., (2005) "Mechanisms of Plasma Actuators for Hypersonic Flow Control," *Progress in Aerospace Sciences*, Vol. 41, pp. 642-668.
4. Mahalingam, S. and Menart, J., (2006), "Computational Design Parameter Studies for a Discharge Chamber of an Ion Engine , "accepted for publication in the *Journal of Propulsion and Power*.
5. Mahalingam, S. and Menart, J., (2006), "Primary Electron Modeling in the Discharge Chamber of an Ion Engine," submitted to *IEEE Transactions on Plasma Science*.
6. Stanfield, S., Menart, J., Shang, J., Kimmel, R., and Hayes, J., (2006), "Application of Spectroscopic Measuring Technique to Plasma Discharge in Hypersonic Flow," AIAA Paper No. 2006-0559, *44th AIAA Aeospace Science Meeting and Exhibit*, Reno, NV, January 9 - 12, pp. 1 - 11.
7. Shang, J., Menart, J., Kimmel, R., and Hayes, J., (2006), "Hypersonic Inlet with Plasma Induced Compression," AIAA Paper No. 2006-0764, *44th AIAA Aeospace Science Meeting and Exhibit*, Reno, NV, January 9 - 12, pp. 1 - 12.
8. Henderson, S. and Menart, J., (2006). "Adding Chemical Equilibrium to a Parallel, Unstructured Euler/Navier-Stokes Flow Solver," AIAA Paper No. 2006-3736, *36th AIAA Fluid Dynamics Conference*, San Francisco, CA, June 5 - June 8, pp. 1 - 14.
9. Ogunjobi, T., and Menart, J., (2006), "Computational Study of Ring-Cusp Magnet configurations that Provide Maximum electron Confinement," AIAA Paper No. 2006-4489, *42nd AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit*, Sacramento, CA, July 9 – 12, pp. 1 - 21.
10. Mahalingam, S. and Menart, J., (2006), "Ion engine Discharge chamber Plasma Modeling using a 2-D PIC Simulation," AIAA Paper No. 2006-4488, *42nd AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit*, Sacramento, CA, July 9 – 12, pp. 1 - 16.

7. PROFESSIONAL SERVICE

Service

Reviewer for *International Journal of Heat and Mass Transfer*
Reviewer for *Plasma Chemistry and Plasma Processing*
Reviewer for *Journal of Thermophysics and Heat Transfer*
Session Chair of Dayton-Cincinnati Aerospace Science Symposium March 2005
Paper reviewer for *Journal of Thermophysics and Heat Transfer*
Reviewed two chapters out of the book *Heat Transfer: A Practical Approach* by Y Cengel
Paper reviewer for *IEEE Transactions on Plasma Science*
Paper reviewer for *Journal of Spacecraft and Rockets*
Paper reviewer for *Numerical Heat Transfer*
Paper reviewer for *Plasma Sources: Science and Technology*
Paper reviewer for *AIAA Journal*
Paper reviewer for *Journal of Propulsion and Power*
Session Chair of *37th AIAA Plasmadynamics and Lasers Conference* in San Francisco, CA, June 5 -8, 2006.
