

**LORELLE A. MEADOWS**  
*DEAN, PAVLIS HONORS COLLEGE*

Michigan Technological University  
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EDUCATION

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- B.S. University of Michigan, College of Engineering, Atmospheric and Oceanic Science, 1983
- M.S. University of Michigan, College of Engineering, Atmospheric and Oceanic Science, 1985
- Ph.D. University of Michigan, College of Engineering, Atmospheric, Oceanic and Space Sciences, Oceanic Science, 2002  
*High Frequency Radar Measurements of Friction Velocity in the Marine Boundary Layer*, Co-Chairs: S.J. Jacobs and J.F. Vesecky

ACADEMIC EXPERIENCE

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Michigan Technological University

- 2014- Pavlis Honors College  
Dean
- 2014- Department of Cognitive and Learning Sciences  
College of Sciences and Arts  
Adjunct Associate Professor

University of Michigan, College of Engineering

- Office of the Associate Dean for Undergraduate Education
- 2012-2014 Assistant Dean of Academic Programs
- 2010-2014 Adjunct Assistant Professor
- 2009-2012 Director of Academic Programs
- 2009-2014 Assistant Research Scientist
- Office of the Associate Dean for Academic Affairs
- 2006-2009 Managing Director of Academic Affairs
- 2006-2009 Assistant Research Scientist

	<u>Department of Naval Architecture and Marine Engineering</u>
2004-2006	Assistant Research Scientist
2002-2005	Lecturer
1986-2004	Research Associate in Engineering II
	<u>Department of Atmospheric and Oceanic Science</u>
1983-1985	Graduate Research/Teaching Assistant

POSITIONS AT OTHER ORGANIZATIONS:

1992, 1995	I.P.A. Detroit District, U.S. Army Corps of Engineer
1986-1987	I.P.A., Coastal Engineering Research Center, U.S. Army Corps of Engineers
1985-1986	Research Scientist, Great Lakes Environmental Research Laboratory, National Oceanic and Atmospheric Administration, Ann Arbor, Michigan

TEACHING

*New Courses Introduced at The University of Michigan:*

- Engineering 100: Engineers Making a Difference, sustainable community development – service/learning curriculum
- Engineering 100: Engineering that Matters, introduction of a service/learning component into first year introductory team project design course.
- Engineering 100: Engineering for the Marine Environment
- Engineering 255/355/455: Engaged Urban Design Sequence
- Engineering 490: Engineering for Community

*Short Courses and Workshops:*

- Integrating Instructional Technology in Engineering Courses, participant, CRLT, Ann Arbor, MI, May, 2004
- Creating Schools of Engineering Education, Participant, ASEE Conference, Salt Lake City, UT, June, 2004.
- Engaging Students in Engineering Education, Lessons from Research, Participant, CRLT-North, Ann Arbor, MI, February, 2005.
- Rip Current Training for the Great Lakes Offices of the National Weather Service, Facilitator, Invited Presenter, Grand Rapids, MI, April, 2005.
- Provost's Seminar on Teaching, How do Research and Creative Work Converge with Teaching – Within the Classroom and Beyond, Invited Faculty Presenter/Facilitator, Ann Arbor, MI, January, 2006.
- Faculty Research on Student Retention in Engineering, CRLT-North, Invited Faculty Presenter/Facilitator, Ann Arbor, MI, March, 2006.

Building Capacity for Engineering Education Research, ASEE Conference, Participant, Chicago, IL, June, 2006.  
Institute for Scholarship on Engineering Education, Summer Summit, Selected Participant, Washington, DC, July, 2006.  
Educating a STEM Workforce: New Strategies for U-M and the State of Michigan, Participant/Invited Author, Ann Arbor, MI, May, 2007.  
How to Build a Long-Term University-K-12 Partnership that Benefits All Participants Workshop, Presenter/Facilitator, ASEE Conference, Pittsburgh, PA, June, 2008.  
Diversity Summit, College of Engineering, Session Leader/Facilitator, Ann Arbor, MI, October 2009.  
Provost's Seminar on Teaching Dialogues on Teaching Sustainability, Creative and Unexpected Strategies for Actively Engaging Students in Sustainability Issues, Invited Faculty Presenter/Panelist, Ann Arbor, MI, May, 2010.  
Teaching Ethics Colloquium, Center for Ethics in Public Life, Facilitator/Presenter, Ann Arbor, MI, May, 2011.  
Using Case Studies Across the Disciplines, CRLT, Invited Faculty Panelist, Ann Arbor, MI, October, 2011.  
Preparing Future Faculty Conference, Dual Career Issues and Faculty Work-life Balance, CRLT, Invited Faculty Panelist, Ann Arbor, MI, October 2011.  
Engineering Education Research in the College of Engineering: Who's Doing What? CRLT-North, Invited Faculty Panelist, Ann Arbor, MI, October 2011.  
First Year Engineering Program Workshop, Invited Speaker, University of California at Irvine, March 2013.  
The pathway from "help" to "engagement" - changing the vocabulary of the campus-community partnership, Innovation Workshop, The Engaged Campus: Driving Innovation through Partnerships National Conference, Dearborn, MI, May 2013.  
Strengthening the Scholarship of Engagement in the Public Research University, Invited Faculty Speaker, Ann Arbor, MI, December 2013.  
Influence of Gender Stereotypes on Role Adoption in Student Teams, CRLT-Engin, Invited Speaker, Ann Arbor, MI, January, 2014.

*Teaching Experience:*

AOS 202	The Atmosphere – occasional lectures (TA)
AOS 203	The Oceans - occasional lectures (TA)
AOS 308	Laboratory in Oceanographic Data - occasional lectures
AOS 334/335	Physical Oceanography I/II - occasional lectures/ship cruise
AOSS/NAME 450	Coastal and Offshore Engineering - occasional lectures
NAME 528	Ocean Remote Sensing - occasional lectures
AOSS 605	Atmospheric, Oceanic and Space System Design (TA)
NAME 621	Experimental Marine Hydrodynamics - ship cruise

*Courses Taught:*

NAME/A&OS 425	Environmental Ocean Dynamics – 1996, 1997
NAME/A&OS 455	Environmental Nearshore Dynamics - 1997

Engineering 100	Introduction to Engineering - 2002-05, 2010-2013
Engineering 355	Engaged Urban Design, 2013-2014
Engineering 455	Engaged Urban Design II, 2013-2-14
Engineering 490	Engineering for Community - 2005

RESEARCH

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*Nearshore Hydrodynamics:*

- “Great Lakes Connecting Channels Study,” National Oceanic and Atmospheric Administration, \$18,281, 1985-1986.
- “Coast Ocean Experiments, Duck 85 and 86,” U.S. Army Coastal Engineering Research Center, \$53,646, 1985-1987.
- “Non-Acoustic Remote Sensing - URI,” Project Coordinator, Office of Naval Research, \$1,200,000, 1986-1990.
- “Synthetic Aperture Images of Ship Wakes,” NSRDC, \$79,700, 1986-1988.
- “Twin Flap Wave Energy Device,” Q Corp, Dept. of Energy, \$77,240, 1986-1987.
- “Digital Automated Radar Tracking System Drogue Floats,” Broad Agency Agreement, U.S. Army Corps of Engineers, with M. Parsons, \$22,000, 1986.
- “Working-Level Workshop on Great Lakes Coastal Processes/Coastal Erosion Research Needs’, Sea Grant, \$4,794, 1987
- “Coastal Monitoring Program and Shoreline Evolution,” State of Michigan, \$115,312, 1988; \$78,644, 1989, \$40,350, 1990.
- “Full Scale DARTS,” Navy, \$43,000, 1988; \$42,827, 1989; \$56,000, 1990.
- “Numerical Modeling of Shore Evolution,” Sea Grant, \$18,634, 1988; \$27,783, 1989; \$25,287, 1990.
- “University Research Initiative in Ship Hydrodynamics,” ONR, \$1,200,000, 1987-1991.
- “Coastal Monitoring Program and Shoreline Evolution, Year 4,” State of Michigan, \$47,103, 1991.
- “Harbor Study for Cross Village, Michigan,” State of Michigan, \$9,773, 1991.
- “Harbor Study for Mona Lake, Michigan,” State of Michigan, \$9,773, 1992.
- “Storm Induced Profile Response on a Structured Coast,” U.S. Geological Survey, \$21,363, 1991-1992.
- “Evaluation of Precision Nearshore Hydrographic Survey Techniques for Monitoring Beach Nourishment in the Great Lakes,” U.S. Army Engineer, 1991-1994, \$178,231.
- “University Research Initiative Program in Ocean Surface Processes and Remote Sensing,” ONR, \$4,493,633, 1992-1997.
- “Nearshore Investigation of the Topography of the Bay Mills Region of Lake Superior,” U.S. Geological Survey, \$18,497, 1993.
- “GROIN Study,” Michigan Department of Natural Resources, \$50,000, 1995-1997.
- “Identification of Offshore Erosion and Its Correlation to Bluff Recession,” Michigan Department of Natural Resources, \$159,594, 1995-1997.
- “McLean State Park, Michigan,” U.S. Army Engineer Detroit District, \$12,000, 1997.

- “GROIN Study II,” Michigan Department of Natural Resources, \$63,163, 1996-1997.
- “The Relationship between Great Lakes Water Levels, Wave Energies and Shoreline Damage,” Michigan Sea Grant College Program, \$120,000, 3/1/98-2/28/00.
- “A Comprehensive Study for Michigan’s Great Lakes Shorelines,” Michigan Great Lakes Protection Fund, \$35,436, 7/1/98 - 9/30/98.
- “Comprehensive Study of Great Lakes Shorelines,” Great Lakes Protection Fund, \$472,000, 9/1/98 - 8/31/00.
- “Tawas Sediment Study and Numerical Groin Model,” Michigan Coastal Management Program, State of Michigan Department of Environmental Quality, \$43,000, 10/1/98 – 7/1/00.
- “Proposed Study of Grand Marais Harbor a Natural Harbor of Refuge,” Michigan Sea Grant College Program, \$50,341, 6/1/99 – 5/31/00.
- “Episodic Events Great Lakes Experiment,” National Science Foundation, \$500,000.
- “Coastal Monitoring Program,” Michigan Department of Environmental Quality, \$35,000, 10/1/99-6/30/01.
- “A Predictive Tool for Determining Shoreline Erosion,” Michigan Department of Environmental Quality, \$58,000, 10/1/99-6/30/01.
- “An Environmental Monitoring Network for Lake St. Clair,” Michigan Sea Grant College Program, \$150,000, 3/1/01-2/28/03.
- “Shore Parallel Structures Study,” Michigan Department of Environmental Quality, \$35,000, 10/1/01-12/31/02.
- “Three Dimensional Longshore Variations of Nearshore Environments,” Michigan Department of Environmental Quality, \$25,000, 10/1/02-9/30/03.
- “Determination of Nearshore Wave Conditions and Bathymetry from X-Band Radar Systems,” Office of Naval Research.
- “Ship-Induced Wave Effects in Rivers and Estuaries,” Michigan Sea Grant College Program, \$299,089, 12/1/02-11/30/04.
- “Radio Frequency Remote Sensing of the Ocean Surface from Ground-Based and Space-Based Platforms using Active and Passive Techniques,” Office of Naval Research, \$235,100, 3/1/03-2/28/06.
- “Alliance for Coastal Technology,” National Oceanic and Atmospheric Administration, \$1,000,000, 5/1/03-4/30/06.
- “A Strategic Integrated Assessment for Revitalizing the Role of the University of Michigan in Great Lakes Research,” Office of the Vice President for Research, University of Michigan Co-Principal Investigator, \$70,000, 9/1/04-03/30/06
- “Tawas Point Cumulative Impacts and Recurve Spit Dynamics,” State of Michigan Department of Environmental Quality, Principal Investigator, \$84,000, 1/1/05-3/31/06.
- “Guiding Shoreline Restoration: Fish Habitat Choices Based on Flow Signatures,” Michigan Sea Grant College Program, Co-Principal Investigator, \$140,000, 3/1/05-2/28/07.

- “Station Keeping Energy Harvesting Sensor,” DARPA, Co-Investigator, \$300,000, 5/1/05-4/30/06.
- “Coherent Radar for Ocean Wave Field Measurements and Coastal Applications,” Department of the Navy, Co-Investigator, \$202,403, 4/1/06-3/31/07.
- “Quantification of Increased PCBs in the Lake Allegan Water Column Due to Recreational Boat Activity,” Environmental Protection Agency, Principal Investigator, \$10,000, 11/30/06-3/31/07.
- “The *Flying Fish* Station Keeping Ocean Buoy,” DARPA, Co-Investigator, \$1,500,000, 4/1/07-7/31/10.
- “Lake Level Dynamics in Michigan’s Great Lakes,” Michigan Department of Environmental Quality, Co-Principal Investigator, \$80,000, 1/1/08-9/30/10.
- “Feasibility Study for the Development of a Great Lakes Coastal Current Monitoring Network,” National Oceanic and Atmospheric Administration, Principal Investigator, \$75,432, 7/1/10-6/30/11.
- “Measurement and Analysis of Extreme Wave and Ice Actions in the Great Lakes for Offshore Wind Platform Design,” Co-Investigator, \$920,117, 1/1/12-8/31/14.
- “Rip Currents in the Great Lakes: Advancing Forecasting through Perishable Data Recovery and Analysis,” Co-Investigator, 1/1/12-6/30/14, \$90,000.

*Engineering Education:*

- “An Assessment of the Effect of the First Year Experience on Under-Represented Student Retention in Engineering,” CRLT Gilbert Whitaker Fund, \$10,000, 5/1/05-4/30/06.
- “Institute for Scholarship on Engineering Education,” Fellow, Center for the Advancement of Engineering Education, NSF, \$2,500, 7/1/06-6/31/07.
- “Engineering Ethics: Practical Strategies for a Shifting Paradigm,” Ethics in Public Life Initiative, Office of the President, \$7,000, 11/1/06-5/31/07
- “Community College Advising Practicum to Ease TR2M Transition,” Office of the Vice-Provost for Academic Affairs, Principal Investigator, \$15,000, 9/1/07-8/31/09.
- “The Effect of Group Gender Composition on Student Learning in Undergraduate Engineering Project Teams,” CRLT Investigating Student Learning Grant, Co-Principal Investigator, \$6,000, 5/1/10-4/30/11.
- “Research Initiation Grant: Developing strategies to improve women's active participation in engineering student group project teams,” National Science Foundation, Principal Investigator, \$148,174, 9/1/11-8/31/14.
- “Ford Community Corps Program at UM-Ann Arbor,” Ford Fund, Principal Investigator, \$50,000, 6/1/12-12/31/14.
- “Microaggressions in Engineering Student Teams: Effects on Learning, Performance, and Persistence,” National Science Foundation, Co-Principal Investigator, \$495,251, 9/1/14-8/31/17.

PUBLICATIONS

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*Reviewed Papers Published or In Press in Journals and Periodicals:*

- Schwab, D., A. Clites, C. Murthy, J. Sandall, L. Meadows and G. Meadows, "The Effect of Wind on Transport and Circulation in Lake St. Clair," *Journal of Geophysical Research*, Vol. 94, C4, pp. 4947-4958, April 15, 1989.
- Meadows, G., R. Moll, T. Johengen, A. Bratkovich, J. Saylor, L. Meadows, and G. Pernie, "Vernal Thermal Fronts in Large Lakes: A Case Study from Lake Michigan," *Verh. Internat. Verein. Limnol.*, Vol. 25, pp. 65-68, September 1993.
- Meadows, L., G. Meadows, A. Troesch, S. Cohen, K.P. Beier, G. Root, O. Griffin, and T. Swean, "Lagrangian Velocity Profiles in the Wake of a High Speed Vessel," *Ocean Engineering*, Vol. 21, No. 2, pp. 221-242, February 1994.
- Meadows, G., L. Meadows, W. Wood, J. Hubertz, and M. Perlin, "The Relationship Between Great Lakes Water Levels, Wave Energies and Shoreline Damage," *Bulletin of the American Meteorological Society*, Vol. 78, No. 4, pp. 675-682, April 1997.
- Meadows, G., W. Wood and L. Meadows, "Wave Climatology of the Great Lakes," *Journal of the American Shore and Beach Preservation Association*, Vol. 65, No. 2, pp. 22-26, April 1997.
- Meadows, G., L. Meadows, D. Carpenter, W. Wood and B. Caufield, "The Great Lakes Groin Performance Experiment, Phase II: Effects of a Groin Field," *Journal of the American Shore and Beach Preservation Association*, Vol. 66, No. 2, pp. 11-18, April 1998.
- Fernandez, D., L. Meadows, J. Vesecky, C. Teague, J. Paduan and P. Hansen, "Surface Current Measurements by HF Radar in Fresh Water Lakes," *IEEE Journal of Oceanic Engineering*, Vol. 25, No. 4, October, 2000.
- Dano, E., D. Lyzenga, G. Meadows, L. Meadows, H. Vansumeren and R. Onstott, "Radar Backscatter from Mechanically Generated Transient Breaking Waves – Part II," *IEEE Journal of Oceanic Engineering*, Vol. 26, No. 2, p. 201-215, April, 2001.
- Meadows, G., S. Mackey, R. Goforth, D. Mickelson, T. Edil, J. Fuller, D. Guy, L. Meadows, E. Brown, S. Carman and D. Liebenthal, "Cumulative Habitat Impacts of Nearshore Engineering," *Journal of Great Lakes Research*, Vol 31, Supplement 1, 2005, pp. 90-112.

- Norton, R.K., L.A. Meadows and G.A. Meadows, "Drawing Lines in Law Books and on Sandy Beaches: Marking Ordinary High Water on Michigan's Great Lakes Shorelines under the Public Trust Doctrine," *Coastal Management*, Vol 39, No. 2, p. 133-157, 2010.
- Meadows, L.A., C. Whelan, D. Barrick, R. Kroodsmas, C. Ruf, C.C. Teague, G.A. Meadows and S. Wang, "High Frequency Radar and its Application to Fresh Water," *Journal of Great Lakes Research*, Vol. 39, Suppl. 1, pp. 183–193, doi: 10.1016/j.jglr.2013.01.002, 2013.
- Norton, R.K., L.A. Meadows and G.A. Meadows, "The deceptively complicated "elevation ordinary high water mark" and the problem with using it on a Laurentian Great Lakes shore," *Journal of Great Lakes Research*, Vol. 39, No. 4, p. 527-535, 2013.
- Norton, R.K., L.A. Meadows and G.A. Meadows, "What if (Inland) Sea Levels are Falling...Then Rising...Then Falling...? Climate Change and Shoreland Management on the Laurentian Great Lakes," *Geography Research Forum*, Vol. 34, p. 59-73, 2014.

*Reviewed Papers Published or in Press in Books and Proceedings:*

- Meadows, L., "Great Lakes Coastal Erosion Research Needs Workshop Summary," Michigan Sea Grant Report MICHU-SG-88-900, Ann Arbor, MI, 1988.
- Meadows, G., L. Meadows, L. Weishar and L. Fields, "DARTS (Digital Automated Radar Tracking System) Applications to Tidal Inlet Hydrodynamic Studies," *Proceedings of Hydrodynamics and Sediment Dynamics of Tidal Inlets, Lecture Notes on Coastal and Estuarine Studies*, 29, 169-185, 1988.
- Moll, R., T. Johengen, A. Bratkovich, J. Saylor, G. Meadows, L. Meadows and G. Pernie, "Vernal Thermal Fronts in Large Lakes: A Case Study from Lake Michigan," XXV SIL International Conference, Barcelona, Spain, August 1992.
- Meadows, G., W. Wood, B. Caufield, L. Meadows, T. Bennett, M. Perlin, H. Vansumeren, D. Carpenter, and R. Mach, "A Field Investigation of Functional Design Parameter Influence on Groin Performance: The Great Lakes Groin Performance Experiment," *Proceedings of Coastal Dynamics '97*, ASCE, Plymouth, U.K., p. 714-723, June, 1997.
- Vesecky, J. F., J. Drake, C.C. Teague, J.D. Paduan, D.M. Fernandez, K.E. Laws, Z.R. Hallock, and L.A. Meadows, Observations of air-sea dynamics by multifrequency HF radar and other environmental sensors outside the mouth

of Chesapeake Bay during the COPE-3 Experiment of October-November 1997. Transactions, American Geophysical Union, 79, S169, 1998.

- Vesecky, J., L. Meadows, C. Teague, J. Paduan, D. Fernandez, J. Daida and P. Hansen, "Surface Current Measurements by HF Radar over Fresh Water at Lake Michigan and Lake Tahoe," Proceedings of IEEE-CMTC '99, IEEE, San Diego, CA, p. 33-37, March 1999.
- Bennett, T., L. Meadows, G. Meadows, B. Caufield and H. Vansumeren, "Nearshore Profile Change and its Impact on Rates of Shoreline Recession," Proceedings of Coastal Sediments '99, ASCE, Long Island, NY, p. 1166-180, June 1999.
- Vesecky, J., L. Meadows, Y. Fernandez, C. Teague, J. Daida, J. Paduan, R. Delgado and P. Hansen, "HF Radar Observations of Wind-Current Relationships at the Air-Sea Boundary," Proceedings of IGARSS '99, Hamburg, Germany, p. 637-639, June 1999.
- Vesecky, J., M. Plume, C. Teague, D. Fernandez, L. Meadows, P. Hansen and Y. Fernandez, "Observations of Ships using Ground Wave and Sky Wave HF Radars," Proceedings of Ship Detection in Coastal Waters Workshop, AMRS, Nova Scotia, Canada, May, 2000.
- Meadows, L., J. Vesecky, C. Teague, Y. Fernandez and G. Meadows, "Multi-Frequency HF Radar Observations of the Thermal Front in the Great Lakes," Proceedings of IGARSS 2000, Honolulu, Hawaii, p. 114-116, July, 2000.
- Vesecky, J., L. Meadows, C. Teague, Y. Fernandez, D. Fernandez and G. Meadows, "HF Radar Measurements of Surface Currents in Fresh Water: Theoretical Considerations and Observational Results," Proceedings of IGARSS 2000, Honolulu, Hawaii, p. 117-119, July, 2000.
- Teague, C., L. Meadows, J. Vesecky, Y. Fernandez, and D. Fernandez, "HF Radar Observations of Surface Currents on Lake Michigan During EEGLE 1999," Proceedings of IGARSS 2000, Honolulu, Hawaii, p. 2949-2951, July, 2000.
- Fernandez, D.M., L.A. Meadows, C.C. Teague, J.F. Vesecky, and J.D. Paduan, Highfrequency radar measurements of surface currents in fresh-water lakes. Transactions, American Geophysical Union, 80, OS75, 2000.
- Vesecky, J., L. Meadows, C. Teague, P. Hansen, M. Plume, and Y. Fernandez, "Surface Current Observations by HF Radar during EEGLE 2000," Proceedings of IGARSS 2001, Sydney, Australia, p. 272-274, July, 2001.
- Vesecky, J., J. Drake, M. Plume, Y. Fernandez, P. Hansen, C. Teague, L. Meadows, K. Davidson and J. Paduan, "Multifrequency HF Radar Observations of

Surface Currents: Measurements from Different Systems and Environments,”  
Proceedings of IEEE Oceans 2001, Honolulu, Hawaii, November 2001.

Meadows, L., S. Jacobs and J. Vesecky, “High Frequency Radar Measurements of Friction Velocity in the Marine Boundary Layer,” Proceedings of IEEE Current Measurement Technology Conference, San Diego, California, p. 83-87, March, 2003.

Meadows, L., and S. Jarema, “An Evaluation of the Impact of a Service Learning Project in a Required First-Year Engineering Course,” Proceedings of ASEE Annual Conference Proceedings, Paper No. 1926, 15pp, 2006.

Meadows, L., J. Nidiffer, S. Ball, C. Davis, C. Finelli and W. Schultz, “Work in progress: An initial assessment of the effect of the first year experience on under-represented student retention in engineering,” Proceedings of the Frontiers in Education Conference, 2pp, 2006.

Andrews, J., L. Meadows, J. Oguntebi and M. Telesford, “K-12 / University of Michigan Partnerships: Engaging Today’s Teachers, Training Tomorrow’s Scientists and Engineers, and Opening Pathways for K-12 Students to Pursue STEM Careers,” Invited Paper, , Educating a STEM Workforce: New Strategies for U-M and the State of Michigan, Proceedings of the Summit, p. 35-40, May, 2007.

Davis, C., C. Finelli, S. Gregerman, J. Holloway and L. Meadows, “Undergraduate Initiatives to Improve diversity and Retention in Engineering,” Invited Paper, Educating a STEM Workforce: New Strategies for U-M and the State of Michigan, Proceedings of the Summit, p. 47-52, May, 2007.

Allendoerfer, C., R. Bates, K. A. High, L. Meadows, K. Masters, C. Stwalley, and R. S. Adams, “Special Session – Communities of Practice in Engineering Education: How Do We Investigate Diversity and Global Engineering?” Proceedings of Frontiers in Education Conference, 2pp, 2007.

Cotel, A., L. Meadows and P. Webb, “The Effects of Unsteady Flow on the Shoreline of Les Cheneaux Islands,” Proceedings of the ASME International Conference of the Engineering Mechanics Institute (EM08), Minneapolis, MN, May, 2008.

Webb, P., A. Cotel and L. Meadows, “Differences in Wetland Patch Composition Damp Wave Energy,” Proceedings of the ASME International Conference of the Engineering Mechanics Institute (EM08), Minneapolis, MN, May, 2008.

Andrews, J. and L. Meadows, “Engineering Graduate Students: Engaging Today's Teachers, Training Tomorrow's Scientists and Engineers, and Opening New

Academic and Career Paths For K-12 Students,” Proceedings of the ASEE Annual Conference, Pittsburgh, PA, paper 2868, 27 pp., June, 2008.

Joshberger, E., R. Shuchman, G. Meadows, L. Liversedge and L. Meadows, “Hydrologic Processes at Bering Glacier, Alaska,” in Shuchman, R.A. and Josberger, E.J., eds, *Bering Glacier: Interdisciplinary Studies of Earth’s Largest Temperate Surging Glacier*, Geological Society of America Special Papers, p.105-128, 2009.

Meadows, G., E. Atkins, P. Washabaugh, L. Meadows, L. Bernal, B. Gilchrist, B. Smith, H. VanSumeren, D. Macy, R. Eubank, B. Smith and J. Brown, “The Flying Fish Persistent Ocean Surveillance Platform,” Proceedings of AIAA Unmanned Unlimited Conference, AIAA, Seattle, WA, paper 1902, 15 pp., April, 2009.

Finelli, C., D. Lorch, L. Meadows and C. Davis, “Are we really ‘Crossing the Boundary?’ Assessing the success of a novel integrated Math/Science Course,” Proceedings of ASEE Annual Conference, Louisville, KY, Paper 1534, 13 pp., June, 2010.

Meadows, L. and D. Sekaquaptewa, “The Effect of Group Gender Composition on Student Participation and Learning in Undergraduate Engineering Project Teams” Proceedings of ASEE Annual Conference, Vancouver, BC, Paper 2011-1319, 13 pp., June, 2011.

Meadows, L., R. Fowler and E. Hildinger, “Empowering Students with Choice in the First Year,” Proceedings of the ASEE Annual Conference, San Antonio, TX, Paper 2012-4128, 19 pp., June, 2012. [Best Paper Award – First Year Program Division]

Fowler, R., and L. Meadows, “Assessing Gender Differences in First Year Student Motivation” Proceedings of ASEE Annual Conference, Atlanta, GA, Paper 2013-6578, 15 pp., June, 2013.

Meadows, L. and D. Sekaquaptewa, “The Influence of Gender Stereotypes on Role Adoption in Student Teams” Proceedings of ASEE Annual Conference, Atlanta, GA, Paper 2013-6744, 16 pp., June 2013. [Best Paper Award – Women in Engineering Division & PIC IV Council]

*Technical Reports and Theses:*

“Keweenaw Bay Hydrographic Study Formal Meeting Phase I: Evaluation of Existing Hydrographic Information,” Coastal Dynamics Incorporated, Technical Report, July 1984.

- “Nantucket Shoals Spaceborne Imaging Radar Sea Truth Data Collection,” Coastal Dynamics Incorporated, Technical Report, October 1984.
- “Keweenaw Bay Hydrographic Study Formal Meeting Phase II: Detailed On-Site Investigations” Coastal Dynamics Incorporated, Technical Report, December, 1984.
- “Keweenaw Bay Hydrographic Study Final Report,” Coastal Dynamics Incorporated, Technical Report, August 1985.
- “The Currents of Lake St. Clair Under Variable Wind Stress,” NOAA GLERL Technical Memorandum, 1986.
- “An Evaluation of Shoreline Protection Measures for Condado-Ocean Park to Isla Verde, Puerto Rico,” Coastal Dynamics Incorporated, Technical Report, December 1986.
- “Coastal Monitoring Program and Shoreline Evolution Model: Year One Report,” Ocean Engineering Lab., Report #OEL-8901-LWMD-10C-5, January 1989.
- “Coastal Monitoring Program and Shoreline Evolution Model: Year One Report Supplement I: Coastal Sediment Data,” Ocean Engineering Lab., Report #OEL-8903-LWMD-10C-5, January 1989.
- “Current Meter Calibration Report,” Ocean Engineering Lab. Report #OEL-8902-CERC-001, March 1989.
- “Lagrangian Velocity Profiles in the Wake of a High Speed Vessel,” Program in Ship Hydrodynamics Report, July 1989.
- “Current Meter Calibration Report,” Ocean Engineering Laboratory Report No. OEL-8904-CERC-0002, September 1989.
- “Ocean Engineering Laboratory Participation and Findings USCGC Mesquite Grounding: 4-20 December 1989: Summary Report,” Ocean Engineering Laboratory Report No. OEL-8906-USCG-0001, December 1989.
- “Coastal Monitoring Program and Shoreline Evolution Model Year Two Report,” Ocean Engineering Laboratory Report No. OEL-9001-LWMD-10C-5, February 1990.
- “Detailed Analysis of Spaceborn Synthetic Aperture Radar Images of Ship Wakes,” Ocean Engineering Laboratory Report No. OEL-9002-DTRC-001, June 1990.

- “Beach Nourishment Analysis,” Ocean Engineering Laboratory Report No. OEL-9002-CEDD-001, August 1990.
- “DARTS (Digital Automated Radar Tracking System): Application to Remote Incident Wave Mapping,” Ocean Engineering Laboratory Report No. OEL-9003-CERC, September 1990.
- “A Preliminary Study on the Incident Wave Climate and Sand Movement at Cross Village, Michigan,” Ocean Engineering Laboratory Report No. OEL-9005-MDNR-0002, November 1990.
- “A Preliminary Study on the Incident Wave Climate and Sand Movement at Bay Mills, Michigan,” Ocean Engineering Laboratory Report No. OEL-9101-MSG-0001, June 1991.
- “Coastal Monitoring Program and Shoreline Evolution Model Year Three: Report to the State of Michigan Department of Natural Resources,” Ocean Engineering Laboratory Report No. OEL-9102-LWMD-10C-5, June 1991.
- “Coastal Monitoring Program and Shoreline Evolution Model Year Four: Report A Storm Response, Muskegon, Michigan to the State of Michigan Department of Natural Resources,” Ocean Engineering Laboratory Report No. OEL-9201-LWMD-10C-5, January 1992.
- “Coastal Monitoring Program and Shoreline Evolution Model Year Four: Report B Woodtick Point Peninsula, Michigan to the State of Michigan Department of Natural Resources,” Ocean Engineering Laboratory Report No. OEL-9202-LWMD-10C-5, August 1992.
- “A Preliminary Study on the Incident Wave Climate and Sand Movement at Mona Lake Norton Shores, Michigan,” Ocean Engineering Laboratory Report No. OEL-9203-VNS-001, July 1992.
- “Preliminary Engineering Feasibility Study at Douglas Village, Michigan,” Ocean Engineering Laboratory Report No. OEL-9304-01, April 1993.
- “A Field Investigation of the Subaqueous Region at Waisku Bay, Bay Mills, Michigan,” Ocean Engineering Laboratory Report, January 1994.
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Ocean Engineering Laboratory Report No. OEL-9801, March, 1998.
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Ocean Engineering Laboratory Report No. OEL-2001, February, 2000.
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Report No. OEL-0002, October, 2000.
- “Grand Marais Harbor Rehabilitation Design Alternatives, Final Report,” Ocean  
Engineering Laboratory Report No. OEL-2001, December, 2000.
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December 2000.
- “City of Luna Pier Feasibility Study,” Coastal Dynamics Incorporated Report, May,  
2001.
- “Pennsylvania-Lake Erie Shoreline Protection Structures Study, Final Report,”  
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December 2001.
- “Numerical Study of Shoreline Evolution in the Vicinity of Shore Perpendicular  
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2001.
- “Coastal Monitoring Program Final Report,” Ocean Engineering Laboratory  
Report No. OEL-0201, February 2002.
- “Forest Beach Final Report,” Ocean Engineering Laboratory Report No. OEL-  
0202, February 2002.
- “A Comprehensive Study for Great Lakes Shorelines, Final Report,” Ocean  
Engineering Laboratory Report No. OEL-0203, May 2002.
- “High Frequency Radar Measurements of Friction Velocity in the Marine Boundary  
Layer,” Ph.D. Dissertation, The University of Michigan, May 2002.
- “High Frequency Radar Measurements of Friction Velocity in the Marine Boundary  
Layer,” Ocean Engineering Laboratory Report No. OEL-0204, June 2002.
- “The Effects of Wave Energies on Lakes Macatawa and Pentwater,” Institute for  
Wetland and Coastal Trainings and Research Draft Report, November 2002.
- “Numerical Modeling of Shore Parallel Structures,” Ocean Engineering Laboratory  
Final Report, April 2004.

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“Our Future in the Great Lakes Region - What Role for Research, Teaching, and Service at the University of Michigan?” Final Report to the Office of the Vice President for Research, University of Michigan, February, 2006, 30 pp.

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Whelan, Chad, Lorelle Meadows, Don Barrick, Rachael Kroodsma, Christopher Ruf, “Great Lakes HF Radar Experiment: May 9 – 20, 2011,” Report to Great Lakes Observing System, Ann Arbor, MI, July 2011.

*Reviewed Abstracts Presented at National and International Meetings:*

Schwab, D., R. Muzzi, L. Meadows and G. Meadows, “Ship-Borne Acoustic Doppler Current Profiler Measurements in Shallow Water,” *Trans. Amer. Geophys. Union*, 68, 44, 1987.

Meadows, G., L. Meadows, L. Weishar, and M. Fields, “Longshore Momentum Balance Analysis From the SUPERDUCK Innershelf Dynamics Experiment,” *Trans. Amer. Geophys. Union*, 68, 44, 1987.

Weishar, L., M. Fields, L. Meadows and G. Meadows, “Sediment Resuspension Outside the Surf Zone During SUPERDUCK,” *Trans. Amer. Geophys. Union*, 68, 44, 1987.

Haus, B., L. Meadows, G. Meadows, and T. Reno, “Response of a Barred Great Lakes Coastline to Falling Water Levels, with Implications for a Barred Equilibrium Profile Model,” International Association for Great Lakes Research 33rd Conference, Windsor, Ontario, May 1990.

Gbah, M., L. Meadows, G. Meadows, and J. Pazdalski, “Evaluation of Bathymetric Profile Change via Aerial Photography and a Barred Equilibrium Profile

Model,” International Association for Great Lakes Research 33rd Conference, Windsor, Ontario, May 1990.

Samson, P., L. Meadows and G. Meadows, “The Depositional Fate of Airborne Toxic Contaminants in the Great Lakes,” International Association for Great Lakes Research, 34th Conference, Buffalo, New York, June, 1991.

Meadows, G., D. Lyzenga, R. Shuchman,, J. Vesecky and L. Meadows, “Hydrodynamic and Electromagnetic Scaling of Remotely Sensed Ship Wakes,” IEEE Oceans '91 Conference Proceedings, Honolulu, Hawaii, October 1991.

Vesecky, J., L. Meadows and G. Meadows, “Extracting Ocean and Atmosphere Measurements from Over-The-Horizon Radar Data,” IEEE Oceans '91 Conference Proceedings, Honolulu, Hawaii, October 1991.

Moll, R., A. Bratkovich, J. Saylor, G. Meadows, T. Johengen, G. Miller, G. Leshkevich, G. Pernie, L. Meadows, and M. Gbah, “Vernal Thermal Fronts in the Great Lakes: A Case Study from Eastern Lake Michigan,” ASLO 92, Santa Fe, New Mexico, February 1992. (Invited)

Bratkovich, A. G. Leshkevich, G. Miller, G. Pernie, J. Saylor, W. Chang, T. Johengen, G. Meadows, L. Meadows, and R. Moll, “Vernal Thermal Fronts in the Great Lakes: A Model for Large-Scale Forcing and Ecosystem Response,” ASLO 92, Santa Fe, New Mexico, February 1992.

Miller, J. Saylor, G. Leshkevich, A. Bratkovich, D. Dong, G. Meadows, L. Meadows, E. Gottlieb, and M. Gbah "Physical Variability and Structure Associated with Vernal Thermal Fronts in Southeastern Lake Michigan," ASLO 92, Santa Fe, New Mexico, February 1992.

Vesecky, J., C. Teague, J. Paduan, D. Fernandez, K. Laws, Z. Hallock and L. Meadows, “Observations of Air-Sea Dynamics by Multifrequency HF radar and other Environmental Sensors outside the Mouth of Chesapeake Bay during the COPE-3 Experiment of October-November 1997,” American Geophysical Union, Boston, MA, May 1998.

Meadows, L., G. Meadows, B. Kuebel and H. Vansumeren, “The Evolving Wave Climate of Lake Michigan,” International Association for Great Lakes Research Conference, Hamilton, Ontario, Canada, May 1998.

Meadows, L. and G. Meadows, “The Use of the Wave Climate in Coastal Zone Management,” 1998 ASBPA Conference, Galveston, TX, October 1998.

- Meadows, L., G. Meadows, T. Bennett and B. Kuebel, "A Study of the Influence of Four Great Lakes Harbors on Adjacent Morphology and Shoreline Recession," IAGLR 99, Cleveland, OH, May 1999.
- VanSumeren, H., G. Meadows and L. Meadows, "Remote Sensing and Ground Truthing of the Great Lakes Using Michigan's Remote Operated Vehicle for Education and Research (M-ROVER)," IAGLR 99, Cleveland, OH, May 1999.
- Vesecky, J., Y. Fernandez, L. Meadows, P. Hansen, J. Paduan, R. Delgado, C. Teague, and D. Fernandez, "Capabilities and Applications of Multifrequency HF Radar Observations to Near-Surface Current Profiles Driven by Land-Sea Breeze Events near Monterey Bay, California," EPOC '99, Lake Tahoe, California, October, 1999.
- Meadows, G., L. Meadows, T. Bennett and B. Caufield, "Cumulative Impacts of Shoreline Structures: Case Studies of Tawas Point State Park and Forest Beach, Michigan, USA," International Association for Great Lakes Research 2001, Green Bay, WI, June 2001.
- Meadows, L., J. Vesecky, C. Teague, D. Schwab, D. Beletsky, P. Hansen, and J. Drake, "High Frequency Radar Measurements of Currents in Lake Michigan as part of the Episodic Events Great Lakes Experiment," AGU Ocean Sciences 2002, Honolulu, Hawaii, February, 2002.
- Meadows, L., J. Vesecky, S. Jacobs and C. Teague, "High Frequency Radar and its Application to Fresh Water," IAGLR 2003, Chicago, Illinois, June, 2003.
- Ancel, S., G. Meadows and L. Meadows, "Monitoring Lake Saint Clair: Assessing and Forecasting the State of the Lake and Fate of Contaminated Waters," IAGLR 2003, Chicago, Illinois, June 2003.
- Nwogu, O., P. Bell and L. Meadows, "On the Imaging of Nearshore Waves by X-Band Radar Systems," Coastal Engineering Today 2003, Gainesville, Florida, October, 2003.
- Meadows, G., S. Mackey, D. Mickelson, T. Edil, R. Goforth, J. Fuller and L. Meadows, "Cumulative Habitat Impacts of Nearshore Engineering," IAGLR 2004, Waterloo, Ontario, June 2004.
- Meadows, L., G. Meadows, T. Bennett and H. Harrington, "The Relationship Between Shoreline Development and Productivity in Lakes," IAGLR 2004, Waterloo, Ontario, June 2004.

- Meadows, L., J. Vesecky, C. Teague and P. Hansen, "Advances in High Frequency Radar for Freshwater Applications: Lessons Learned and Future Directions," (with), AMRS 2005, Nova Scotia, May, 2005.
- Meadows, G.A., L.A. Meadows and H. Purcell, "Rip Current in the Great Lakes, What is Known and Not Known," IAGLR 2005, Ann Arbor, MI, June 2005.
- Cotel A.J., A. Gooden, L.A. Meadows, H.M. Tritico, P.W. Webb, "The Effects of Unsteady Flow on the Shoreline of Les Cheneaux Islands," IAGLR 2006, Windsor, Ontario, June 2006.
- Meadows, L., M. Vaziri, D. Koch and C. Johnson-Sadakhom "Increasing Access to Higher Education in STEM through a Central-Regional Campus Partnership," ASEE Annual Conference, Honolulu, Hawaii, June 2007.
- Merson, D., L. Meadows, "Understanding Transfer Student Transitions: Paving the Path from Community College to an Engineering Degree," ASHE Annual Conference, Vancouver, British Columbia, November 2009.
- Norton, R., L. Meadows and G. Meadows, "Lake Level Dynamics and the Ordinary High Water Mark on Lake Michigan Shores: Implications for Shoreline Management Policy and Law," IAGLR 2009, Toledo, OH, June 2009.
- Norton, R., L. Meadows and G. Meadows, "Public Trust Interests, Private Property Rights, and the Ordinary High Water Mark on Michigan's Great Lakes Shorelines," Planning, Law and Property Rights Conference, Dortmund, Germany, February 2010.
- Meadows, G., E. Atkins, L. Meadows, B. Gilchrist, R. Eubank, L. Bernal and P. Washabaugh, "'Flying Fish' An Autonomous Unmanned Aerial System for Persistent Ocean Surveillance," MTS/IEEE Oceans, Seattle, WA, September 2010.
- Sekaquaptewa, D. and L. Meadows, "Gender stereotypic roles in engineering student project presentations: Men give technical content whereas women handle introductions." Society for Experimental Social Psychology Annual Conference, Austin, TX, September 2012.
- Meadows, L., S. Robinson-Lynk and S. Johnson-Cobb, "The pathway from "help" to "engagement" - changing the vocabulary of the campus-community partnership," Innovation Workshop, The Engaged Campus: Driving Innovation through Partnerships National Conference, Dearborn, MI, May 2013.

- Sekaquaptewa, D. and L. Meadows, "Reducing Unequal Participation by Gender in STEM Group Project Teams," Society for the Psychological Study of Social Issues, Portland, OR, June, 2014.
- Meadows, L., D. Sekaquaptewa, A. Minerick, D. Chachra, S. Jordan, M. Paretti, A. Pawley, "Interactive Panel: Improving the Experiences of Marginalized Students on Engineering Design Teams," American Society for Engineering Education Annual Conference, Seattle, WA, June 2015.
- Vernon, J., S. Edington and L. Meadows, "Educating the Whole Engineer: Transforming an Introductory Engineering Survey Course," American Society for Engineering Education Annual Conference, Seattle, WA, June 2015.
- Parkinson, Laura, S. Daly, A. Conger, K. Sienko, L. Meadows and J. Holloway, "A New Framework for Culturally Contextualized Design Sophistication Among Engineering Students," American Society for Engineering Education Annual Conference, Seattle, WA, June 2015.

*Presentations at National and International Meetings:*

- "DARTS Experiments and Comparison with Turbulent Wake Predictions," ONR Code 12 Ship Wake Consortium, Ann Arbor, Michigan, October 1989.
- "Induced Vortices in Buoyancy Driven Bubbly Flows of the Surface Ship Wake," Workshop on Dynamics of Bubbly Flows, Miami, Florida, May 1990. (Invited)
- "The Effect of Fluctuating Lake Michigan Water Levels on Shoreline Response," IJC Phase I Meeting, Cleveland, OH, June 1990. (Invited)
- "Vernal Thermal Fronts in Large Lakes: A Case Study from Lake Michigan," XXV SIL International Conference, Barcelona, Spain, August 1992.
- "High Frequency Radar Measurements in the Great Lakes," The Future of Open Water Observation Technology for Great Lakes Research Workshop, NOAA/International Joint Commission, Ann Arbor, MI, November 2004 (Invited).
- "High Frequency Radar and its Application to Fresh Water," Invited Presentation, The Great Lakes Regional Waterways Management Forum, Sarnia, Ontario, November 2004 (Invited).
- "The Great Lakes Observing System (GLOS)," Northwestern Michigan Regional Node: Great Lakes Observation System Meeting, Traverse City, MI, December 2004 (Invited).

- “Engineering Graduate Students: Engaging Today's Teachers, Training Tomorrow's Scientists and Engineers, and Opening New Academic and Career Paths For K-12 Students,” ASEE Annual Conference Workshop Presentation and Moderator, June 2008.
- “Lake Level Dynamics and the Ordinary High Water Mark,” Submerged Lands 2008 Conference, Traverse City, MI, October 2008 (Invited).
- “Empowering Students with Choice in the First Year,” First Year Engineering Program Workshop, University of California at Irvine, March, 2013 (Invited).
- “The Power of Empowering Students,” First Year Engineering Experience Conference, Pittsburgh, PA, August, 2013 (Invited Keynote Speaker).
- “Main Plenary II - Best Paper Recognition,” American Society of Engineering Education, Indianapolis, IN, June, 2014 (Invited Speaker).

*Books and Chapters in Books*

- Meadows, G. and L. Meadows, “The Marine Environment” in Ship Design and Construction, ed. by Thomas Lamb, SNAME Press, 2004.
- Webb, P., A. Cotel and L. Meadows, “Waves and Eddies: Effects on fish behavior and habitat distribution,” in Fish Locomotion: an Eco-Ethological Approach ed. by P. Domenici and B.G. Kapoor, Science Publishers, June, 2009.
- Meadows, L. A., Cotel, A. J., Webb, P. W. Meadows, G. A. and Neal, W., “Interactions between shoreline flow, morphology and biota: Considerations for management and conservation,” In *The Great Lakes: Ecology, Management and Conservation*. Nova Science, NY, 2011.
- Meadows, G., H. Purcell, D. Guenther, L. Meadows, R. Kinnunen and G. Clark, “Rip Currents in the Great Lakes: An Unfortunate Truth,” In *Rip Currents: Beach Safety, Physical Oceanography, and Wave Modeling*. CRC Press, NY, 2011

*Web Publications*

- Steneck, N., L. Meadows, M. Anderson, R. DeVries, T. May, A. Rawnsley. Research Integrity: RI-004 - Engineering. Epigeum, Ltd., London, UK, 2012.

SERVICE

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*University of Michigan:*

Department (Naval Architecture and Marine Engineering):

ABET coordinator, interim, 2004  
Ph.D. Exam Committee, Environmental Hydrodynamics, 2005  
Ocean Engineering Degree Program Committee, 2005  
NAME NSF-ADVANCE Committee, 2005

Department (Atmospheric Oceanic and Space Sciences):

Ph.D. Oral Exam Committee, 2010

College:

Engineering 100 Faculty and Staff, 2002-2005  
Engineering 490 Teaching Team, 2005-2006  
Diversity and Outreach Council, 2006-2010  
UM-Flint Partnership Program, 2006-2009  
FOCUS:Hope Partnership Program, 2006-2007  
Ypsilanti Public School System Partnership Program, 2006-2009  
Detroit Math-Science District Partnership Program, 2006-2009  
Crisis Management Team, 2007-2009  
Dean's Seminar Series Planning Committee, 2008-2009  
Excellence in Staff Service Awards Committee, 2009  
College Web Site Advisory Group, 2009-2010  
Sustainability and Ethics Curriculum Implementation Committee,  
Chair, 2009-2011  
College of Engineering Curriculum Committee, 2009-2014  
College of Engineering Undergraduate Program Advisors Group, 2009-  
2014  
CoE Expect Respect Team, Co-Chair, 2009-2014  
Engineering 101 Steering Committee, 2009-2014  
College of Engineering ABET Review Committee, Central Co-Chair,  
2010-2012  
Engineering 100 Steering Committee, Chair, 2010-2-14  
Service-Learning Liaison to the Ginsberg Center, 2010-2014  
Center for Engineering Diversity and Outreach, Faculty Advisory  
Board, 2010-2014  
Faculty Affiliate, Center for Entrepreneurship, 2011-2014  
Classroom of the Future, Committee Chair, 2013

University:

Great Lakes Theme Group, 2003-2005  
Matthaei Botanical Gardens Academic Advisory Committee, 2004-  
2006  
UROP Faculty Advisor, 2004-2014

Undergraduate Council's Focus Group on Academic Integrity, 2005  
Ginsberg Center Faculty Advisor for CBRF Fellow, 2005-2006  
Marian Sarah Parker Scholar Faculty Advisor, 2005, 2007  
OVPR Committee on Assessment for Revitalizing the Role of the UM  
in Great Lakes Research, 2005-2007  
Michigan Community Scholars Program, Engineering Faculty Advisor,  
2005-2014  
LEO Negotiations Bargaining Team, 2006-2009  
Diversity Blueprints, 2007  
Detroit Public Schools Partnership Team, 2007-2008  
ADVANCE STEP Resource Team, 2008  
LEO Professional Development Fund Team, 2008-2009  
Spectrum Center LGBT Ally, 2008-2014  
HR Best Practices for Effort Reporting, 2009  
Sustainable Ethic Working Group, 2009-2011  
Graham Environmental Sustainability Institute Curriculum Committee,  
2010  
Faculty Associate, Program in the Environment, College of Literature  
Science and the Arts, 2010-2014  
Campus Safety and Security Advisory Council, Office of the Vice  
President, 2011-2014  
North Campus Coordinating Council, ArtsEngine, 2011-2012  
Matthaei Botanical Gardens and Nichols Arboretum, Faculty Associate,  
2012-2014  
Council for Engaged Civic Education, Office of the Vice Provost for  
Global and Engaged Education, 2013-2014  
Provost Task Team on Engaged Learning and Digital Instruction, Team  
Leader, 2014

*Michigan Technological University:*

Provost Search Committee, 2014-2015

*Service to Government or Professional Organizations:*

Great Lakes Observing System, NOAA, Steering Committee 2004-2006  
IOOS National Surface Current Mapping Initiative, Freshwater Tiger Team, 2010  
Technical Advisor: Coastal Oceanography and Engineering

- International Joint Commission - Water Levels Reference Board
- U.S. Army Corps of Engineers
- State of Michigan, Department of Natural Resources
- State of Michigan, Department of Environmental Quality

National Science Foundation Research Center Education Network, Fifth Annual  
Conference, Ann Arbor, April, 2007 Conference, Lead Organizer  
Reviewed Proposals and Papers for:  
NSF, EHR - 2014

NSF, OCE – Physical Oceanography  
Journal of Waterways, Ports, Coastal and Ocean Division, ASCE  
Journal of Great Lakes Research  
American Society of Engineering Educators Annual Conference  
Frontiers in Education Annual Conference  
Journal of Engineering Education

OTHER

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*Honors and Awards:*

Graduate Scholarship, Women in Environmental Science, 1988  
Round Table Discussion Participant, Secretary of the Interior Babbitt, 1997  
National Ocean Science Bowl, Midwest Regional Competition, Science Judge,  
1998  
Center for Research in Learning and Teaching, Lecturers Professional Development  
Recipient, 2004  
UROP Faculty Recognition Award, Outstanding Research Mentorship, 2004  
College of Engineering, Thomas M. Sawyer Jr. Teaching Award Nominee, 2005  
Institute for Scholarship in Engineering Education Fellow, 2006-2007  
College of Engineering Award for Excellence in Staff Service, 2008  
Best Paper Award, First Year Programs Division, ASEE, 2012  
Denice D. Denton Best Paper Award, Women in Engineering Division, ASEE,  
2013  
Aspire, Advance, Achieve Award, MUSES and GradSWE, 2013  
Best Paper Award, Professional Interest Council IV, ASEE, 2014

*Other Relevant Information:*

Professional Certifications:

PADI Open Water SCUBA certification, 1985  
University of Michigan Research Diver Certification, 1986  
CPR and First Aid, American Red Cross and PADI, 1988

Professional and Learned Societies:

American Shore and Beach Preservation Association  
International Association for Great Lakes Research  
American Geophysical Union  
American Society of Engineering Educators

Foreign Language Read: French