

BIOGRAPHICAL SKETCH

Dr. Niedzwecki is a Professor in the Zachry Department of Civil and Environmental Engineering at Texas A&M University and is affiliated with the Department of Ocean Engineering. During his academic career, he has held two different Endowed Chairs (Cain and Gregory), an Endowed Professorship (Cain) and was named a Regents Professor by the Texas A&M University System. He is a licensed Professional Engineer in the State of Texas. Professor Niedzwecki is a Fellow and now Life Member in the American Society of Civil Engineers. In 2011 ASCE's Academy of Coastal, Ocean, Port and Navigation Engineers elected him as a Diplomate in the specialty of Ocean Engineering. He currently serves as an Editor for Elsevier's Marine Structures Journal, and as an Associate Editor for ASCE's Journal of Waterways, Port, Coastal and Ocean Engineering. Additionally, he serves on the Editorial Board for the International Journal of Computational Methods and Experimental Methods, and the Journal of Ocean Engineering and Science. In 2016 Professor Niedzwecki was recognized for his contributions to academia with the Engineering Distinguished Alumni Award by the Catholic University of America in Washington D.C.

He has served the Look College of Engineering in both academic administrative and research leadership positions. Dr. Niedzwecki is active in graduate and undergraduate teaching, research, professional service and international activities. Working collaboratively with the Development Office he was successful in obtaining external endowments that included, excellence funds, department naming, professorships, chairs, fellowships, scholarships and annual gifts to support students and their activities. The focus of these activities was always to recognize and reward the academic excellence and achievements of faculty and students.

Upon graduation from the Catholic University of America, he worked with researchers at the Navy's David Taylor Model Basin implementing software based upon his dissertation research. He briefly served on the faculty at CUA before accepting a faculty position at Texas A&M University. Dr. Niedzwecki was elected by the faculty to serve as Head of the Department of Civil Engineering on two separate occasions. At the request of Dean Hayden, he led the Offshore Technology Research Center, an NSF ERC, and two successful national searches for a Director. He served on the University Search Committee that selected Dean Bennett, and later accepted his invitation to serve as the Executive Associate Dean, Associate Director for Academics for the Texas Engineering Experiment Station (TEES), and prior to reorganization as Associate Vice Chancellor for Engineering. As Executive Associate Dean, Dr. Niedzwecki was responsible for the day-to-day academic business, faculty appointments, P&T and related financial operations associated with eleven departments comprising the college at that time. During President Robert Gates reinvestment program, the college grew to over 400-tenured/tenure track faculty members with an attendant growth in research. This presented him with the full range of administrative, recruiting, financial and partner placement challenges, and required that he work closely with the Vice President for Research, and the Deans' in the Colleges of Science, Business, and Liberal Arts. During his academic leadership career, he has played a significant role in hiring of well over one hundred faculty members.

Professor Niedzwecki is actively engaged with faculty at the Norwegian Institute of Science and Technology, the University of Stavanger, and Shanghai Jiao Tong University where he also served on the international advisory board for their Collaborative Innovation Center for Advanced Ship and Deep-Sea Exploration. Dr. Niedzwecki served as an invited reviewer for the NRC Research Associates Program (2009-2019) to assess postdoctoral proposals for positions at U.S. National Laboratories.

PROFESSIONAL TECHNICAL INTERESTS AND EXPERTISE

Multi-hazard response of constructed onshore and offshore systems and facilities; submerged tunnel concepts; structural design of multi-rotor wind turbines; lightning interaction with heavy lift & bio-inspired aerostat designs; risk-based modeling of offshore debris and whale entanglement.

ACADEMIC EXPERIENCE

Professor of Civil and Environmental Engineering, Texas A&M University, 2019-present
 Professor of Ocean Engineering, Affiliate, 2/16-present
 Professor of Civil Engineering Civil Engineering, 2/2016-2019
 Professor of Civil Engineering, and Ocean Engineering, Texas A&M University, 7/89-2/16
 Holder of the R.P. Gregory'32 Chair in Civil and Environmental Engineering, 9/20-7/21
 Guest Professor, Shanghai Jiao Tong University, Shanghai, China,
 School of Naval Architecture, Ocean & Civil Engineering, 8/07-5/16
 Guest Professor, Harbin Engineering University, Harbin, China, 9/06-9/09
 Holder of the Wofford Cain'13 Senior Chair in Offshore Technology, 6/11-8/20
 Sabbatical/Development Leave: 4/13-9/14
 Department Head, Zachry Department of Civil Engineering, 6/10-4/13
 Interim Department Head Civil Engineering, 6/09-6/10
 Regents Professor, TAMU System Board of Regents Appointment, 11/06

Executive Associate Dean for Engineering & Associate TEES Director, 10/02-6/10
 Associate Vice Chancellor for Engineering, 10/02-6/07
 Acting Vice-Chancellor, Interim Dean and TEES Director, 9/02-10/02
 Holder of the R.P. Gregory'32 Chair in Civil Engineering, 7/02-6/11
 Interim Director of the NSF Offshore Technology Research Center, 2/00-8/01
 Department Head, Department of Civil Engineering, 6/98-10/02
 Interim Department Head of Civil Engineering, 8/97-6/98
 Associate Department Head of Civil Engineering, 9/95-8/97
 Departmental Graduate Advisor for Civil Engineering, 9/95-9/96
 Division Head, Constructed Facilities Division, 9/93-8/97
 Holder of the Wofford Cain '13 Professorship in Offshore Technology, 4/93-7/02
 Academic Leader Structural Engineering & Engineering Mechanics Group, 7/92-9/93

Visiting Assoc. Professor Civil Engineering, Massachusetts Institute of Technology, 9/86-8/87
 Associate Professor of Civil and Ocean Engineering, Texas A&M University, 9/83-8/91
 Graduate Advisor Ocean Engineering Program, 9/87-11/89
 Granted Tenure as an Associate Professor, 9/87-9/88
 Associate Head & Graduate Advisor Ocean Engineering Program, 9/87-9/88
 Associate Professor of Ocean Engineering, University of Rhode Island, 9/82-8/83
 Graduate Faculty Member, Engineering Faculty Senator, 8/82-8/83
 Assistant Professor of Civil and Ocean Engineering, Texas A&M University, 9/78-8/82
 Assistant Professor, Mechanical Engineering, Catholic University of America, 9/77-8/78

PUBLICATIONS - REFEREED JOURNAL ARTICLES

Lu*, J. and Niedzwecki, J.M. (2021). "Spectral and Statistical Analysis of Flow-Induced Vibrations," *International Journal of Computational Methods and Experimental Measurements*, WIT, Accepted for Publication March 22, 2021, to appear.

Lu*, J. and Niedzwecki, J.M. (2021). "On the Huse-Muren Model for Wake Interaction with Vertical Offshore Cylinders," *Marine Structures*, 76, Article 102890, pp 17.

Brown*, A. and Niedzwecki, J.M. (2020). "Assessing the Risk of Whale Entanglement with Fishing Gear Debris," *Marine Pollution Bulletin*, 161 Part A, Article 111720, pp14.

* Graduate Student or Former Graduate Student

- Lu*, J. and Niedzwecki, J.M. (2020). Analysis of Random Wave Interaction with Cylinders using Extremal Statistical Methods, *Applied Ocean Research*, 105 Article 102412, Dec., pp 23.
- Lee*, Y., Zhang, J., and Niedzwecki, J.M. (2018). "Investigation of the power generated by a disk buoy-WEC design," *International Journal of Offshore and Polar Engineers*, Vol 24, No. 4, 402-410.
- Bai*, Y. and Niedzwecki, J.M. (2018). "Meshfree analysis of structures modeled as extensible slender rods," *Engineering Structures*, 156, 82-91.
- Duan, F., Hu, Z. and Niedzwecki, J.M. (2016). "Model test investigation of a spar floating wind turbine," *Marine Structures*, Vol. 49, 76-96.
- Malinga*, G. and Niedzwecki, J.M. (2016). "Nearshore Regional Behavior of Lightning Interactions with Wind Turbines," *Journal of Ocean Engineering and Science*, Vol. 1, 66-76.
- Malinga*, G. and Niedzwecki, J.M. (2016). "Lightning Field Behavior Around Grounded Airborne Systems," *Journal of Renewable Energy*, Vol. 87, Part 1, 572-584.
- Malinga*, G. and Niedzwecki, J.M. (2016). "Modeling Lightning Strike Behavior in the Near Field of Elevated Systems," *Journal of Engineering Mathematics*, on-line 2015 & 97(10) 195-221.
- Martin, K.A. and Niedzwecki, J.M., (2015). "A Simulation Model for Single and Multi-rotor Wind Turbine Performance," *International Journal of Offshore and Polar Engineers*, Vol. 26, No. 4, 362-370.
- Malinga*, G. and Niedzwecki, J.M. (2015). "Prediction of Lightning Interactions with Coastal and Offshore Wind Turbines," *Journal of Ocean and Wind Energy*, Vol. 2, No. 2, 81-88.
- Niedzwecki, J.M. and Fang* S.M., (2015). "Sensor Placement on Slender Structural Systems," *Journal of Computational Methods and Experimental Measurements*, Vol. 3, No.1, 13-20.
- Fang*, S.M., Niedzwecki, J.M., Fu, S., Li, R. and Yang, J. (2014). "VIV Response of a Flexible Cylinder with Varied Coverage by Buoyancy Elements and Helical Strakes," *Marine Structures*, Vol. 39, 70-89.
- Bai*, Y. and Niedzwecki, J.M. (2014). "Modeling Deepwater Seabed Steady-state Thermal Fields Around Buried Pipeline including Trenching and Backfill Effects," *Journal of Computers and Geotechnics*, Vol. 61, 221-229.
- Fang*, S.M. and Niedzwecki, J.M. (2014). "Comparison of Airfoil and Ribbon Fairings for Suppression of Flow-Induced Vibrations," *Journal of Computational Methods and Experimental Measurements*, Vol. 2, Issue 1, 30-45.
- Izadparast*, A.H. and Niedzwecki, J.M. (2013). "Four Parameter Weibull Probability Distribution Model for Weakly Non-linear Random Variables," *Probabilistic Engineering Mechanics*, Vol. 32, pp. 31-38.
- Niedzwecki, J.M. and Fang*, S.M., (2013). "Suppression of Flow-Induced Vibrations using Ribbon Fairings," *Journal of Computational Methods and Experimental Measurements*, Vol. 1, Issue 4, 395-405.
- Izadparast*, A.H. and Niedzwecki, J.M. (2012). "Comparison of Moment-Based Parameter Estimation Methods for Rayleigh-Stokes Distribution," *International Journal of Offshore and Polar Engineers*, Vol. 22, No. 3, 200-208.
- Izadparast*, A.H. and Niedzwecki, J.M. (2011). "Estimating the Potential of Ocean Wave Power Resources," *Ocean Engineering*, Vol. 38, Issue 1, 177-185.

- Izadparast*, A.H. and Niedzwecki, J.M. (2010). "Probability Distributions of Wave Run-up on a TLP Model," *Marine Structures*, Vol. 23, 164-186.
- Izadparast*, A.H. and Niedzwecki, J.M. (2009). "Estimating Wave Crest Distributions using the Method of L-moments," *Applied Ocean Research*, Vol. 31, Issue 1, 37-43.
- Xie*, C., Niedzwecki, J.M. and Teigen, P.S. (2008). "Coupled Mini-TLP Barge Response in Random Seas," *International Journal of Offshore and Polar Engineers*, Vol. 18, No. 2, 1-8.
- Agarwal*, V.K., Niedzwecki, J.M. and van de Lindt*, J.W. (2007). "Earthquake Induced Pounding in Friction Varying Base Isolated Buildings," *Engineering Structures*, Vol. 29, No. 11, 2825-2832.
- Moe, G. and Niedzwecki, J.M. (2006). "Frequency of Maxima of Non-narrow Banded Stochastic Processes," *Applied Ocean Research*, Vol. 27, Issue 6, 265-272.
- Chen, X., Ding, Y., Zhang, J., Liagre*, P., Niedzwecki, J.M. and Teigen, P. (2006). "Coupled Dynamic Analysis of a Mini TLP: Comparison with Measurements," *Ocean Engineering*, Vol. 33, No. 1, 93-117.
- van de Lindt*, J.W. and Niedzwecki, J.M. (2005). "Structural Response and Reliability Estimates: A Slepian Model Approach," *ASCE J. Structural Engineering*, Vol. 131, Issue 10, 1620-1628.
- Sibetheros, I.A., and Niedzwecki, J.M. (2005). "Analysis of Single and Tandem Cylinder Data Using an Orthogonal Volterra Model Approach," *Ocean Engineering*, Vol. 32, 135-156.
- Liagre*, P-Y. and Niedzwecki, J.M. (2003). "Estimating Nonlinear Coupled Frequency Dependent Parameters in Offshore Engineering," *Applied Ocean Research*, Vol. 25, Issue 1, 1-19.
- Niedzwecki, J.M. and Liagre*, P-Y. (2003). "System Identification of Distributed Parameter Marine Riser Models," *Ocean Engineering*, Vol. 30, 1387-1415.
- van de Lindt*, J.W. and Niedzwecki, J.M. (2002). "An Inverse-Reliability Approach to Generating Composite Seismic Response Spectra," *International J. Modelling and Simulation*, Vol. 22, No. 1, 47-56.
- Kim, M.H., Niedzwecki, J.M., Roesset, J.M., Park, J.C. and Tavassoli, A. (2001). "Fully Nonlinear Multi-Directional Wave Simulations by 3D Numerical Wave Tanks," *ASME J. Offshore Mechanics and Arctic Engineering*, Vol. 123, No. 3, 124-133.
- van de Lindt*, J.W. and Niedzwecki, J.M. (2000). "A Methodology for Reliability-Based Earthquake Identification," *ASCE J. Structural Engineering*, Vol. 126, No.12, 1420-1426.
- van de Lindt*, J.W. and Niedzwecki, J.M. (2000). "Environmental Contour Analysis in Earthquake Engineering," *Engineering Structures*, Vol. 22, 1661-1676.
- Niedzwecki, J.M., van de Lindt*, J.W., Gage*, J.H. and Teigen, P.S. (2000). "Design Estimates of Surface Wave Interaction with Compliant Deepwater Platforms," *Ocean Engineering*, Vol. 27, 867-888.
- Sibetheros, I.A., Rijken*, O.R. and Niedzwecki, J.M. (2000). "Volterra Series-based System Analysis of Random Wave Interactions with a Horizontal Cylinder," *Ocean Engineering*, Vol. 27, 241-270.
- van de Lindt*, J.W. and Niedzwecki, J.M. (1999). "Reliability Estimate Sensitivity for Multi-Peaked Random Seas," *International Journal of Offshore and Polar Engineers*, Vol. 9, No. 3, 188-194.
- Niedzwecki, J.M., van de Lindt*, J.W. and Sandt*, E.W. (1999). "Characterizing Random Wave Surface Elevation Data," *Ocean Engineering*, Vol. 26, 401-430.

- Rijken*, O.R. and Niedzwecki, J.M. (1998). "Direct Displacement Measurements of Submerged Objects," *Ocean Engineering*, April/May, Vol. 25, No. 4-5, 309-321.
- Niedzwecki, J.M., van de Lindt*, J.W., and Yao, J.T.P. (1998). "Estimating Extreme Tendon Response Using Environmental Contours," *Engineering Structures*, Vol. 20, No. 7, 601-607.
- Ran, Z., Kim, M.H., Niedzwecki, J.M. and Johnson R.P. (1996). "Response of a Spar Platform in Random Waves and Currents," *International Journal of Offshore and Polar Engineers*, March, Vol.16, No. 1, 27-34.
- Niedzwecki, J.M., Sandt*, E.W. and Rijken*, O.R. (1995). "Slepian Models for Waves and Wave-Structure Interaction," *Engineering Structures*, December, Vol. 17, No. 10, 696-704.
- Duggal*, A.S. and Niedzwecki, J.M. (1995). "Estimation of Flexible Cylinder Displacements in Wave Basin Experiments," *Journal of Experimental Mechanics*, September 233-244.
- Duggal*, A.S. and Niedzwecki, J.M. (1995). "Wave Interaction with a Long Flexible Cylinder," *ASME Journal of Offshore Mechanics and Arctic Engineering*, May, Vol. 117, No. 2, 99-104.
- Duggal*, A.S. and Niedzwecki, J.M. (1994). "Probabilistic Collision Model for A Pair of Flexible Cylinders," *Journal of Applied Ocean Research*, November, Vol. 16, Issue 3, 165-175.
- Niedzwecki, J.M. and Duggal*, A.S. (1992). "Wave Run-up and Forces on Cylinders in Regular and Random Waves," *ASCE J. Waterway, Port, Coastal and Ocean Engineering*, November, Vol. 118, No.6, 615-634.
- Thampi*, S.K. and Niedzwecki, J.M. (1992). "Filter Approach to Ocean Structure Response Prediction," *Journal of Applied Ocean Research*, November, Vol. 14, Issue 4, 259-271.
- Thampi*, S.K. and Niedzwecki J.M. (1992). "Parametric and External Excitation of Marine Risers," *ASCE J. Engineering Mechanics*, May, Vol. 1, No.5, 942-960.
- Niedzwecki, J.M. and Huston*, J. (1992). "Wave Interaction with Tension Leg Platforms," *Ocean Engineering*, January, May, Vol. 19, No. 1, 21-37.
- Sellers*, L.L. and Niedzwecki, J.M. (1992). "Response Characteristics of Multi-articulated Platforms," *Ocean Engineering*, May, Vol. 19, No. 1, 1-20.
- Niedzwecki, J.M. and Thampi*, S.K. (1991). "Snap Loading of Marine Cable Systems," *Journal of Applied Ocean Research*, October, Vol. 13, Issue 5, 210-219. (2nd Publication).
- Niedzwecki, J.M. and Whatley*, C.P. (1991). "A Comparative Study of Some Directional Sea Models," *Ocean Engineering*, April, Vol. 18, No. 1/2, 111-128.
- Niedzwecki, J.M. and Earles*, J. (1991). "Strategy for Design of Intelligent Tutoring Systems," *ASCE J. of Computing in Civil Engineering*, April, Vol. 5, No. 2, 211-229.
- Niedzwecki, J.M. and Thampi*, S.K. (1991). "Snap Loading of Marine Cable Systems," *Journal of Applied Ocean Research*, February, Vol. 13, Issue 1, 2-11.
- Sandt*, E.W. and Niedzwecki, J.M. (1990). "Response of Flexible Structures in Random Seas," *Engineering Structures*, October, Vol. 12, 277-284.
- Sojonia*, C.B. and Niedzwecki, J.M. (1990). "Wave Force Prediction Using an Autoregressive Model," *Ocean Engineering*, October, Vol. 17, No. 5, 463-480.
- Jo*, C.H. and Niedzwecki, J.M. (1990). "Level Ice Resistance on Ice breaking Vessels," *Journal of Ocean Engineering and Technology*, June, Vol. 4, No. 1, 12-18.

Chehayeb, F., Connor, J.J and Niedzwecki, J.M. (1989). "Innovative Engineering Design," *Microcomputers in Civil Engineering*, March, Vol. 4, No. 1, 1-9.

Niedzwecki, J.M. and Thampi*, S.K. (1989). "Heave Response of Long Riserless Drill Strings," *Ocean Engineering*, December, Vol. 15, No. 5, 457-469.

Niedzwecki, J.M. and Thampi*, S.K. (1988). "Heave Compensated Response of Long Multi-Segment Drill Strings," *Journal of Applied Ocean Research*, October, Vol. 10, Issue 4, 181-190.

Niedzwecki, J.M. (1984). "Wave-Island Interactions about Circular Artificial Islands," *ASME J. Energy Resources Technology*, March, Vol. 106, No. 1, 113-119.

Niedzwecki, J.M. (1983). "Wave Power Estimates Utilizing Ocean Wave Spectra," *ASCE J. Energy Engineering*, December, Vol. 109, No. 4, 222-235.

Ramberg, S.E. and Niedzwecki, J.M. (1982). "Horizontal and Vertical Cylinders in Waves," *Ocean Engineering*, Vol. 9, No. 1, 1-15.

Casarella, M.J. and Niedzwecki, J.M. (1980). "Predicting the Effects of Surface Roughness on Laminar-Turbulent Transition for Axisymmetric Bodies," *AIAA J. of Hydronautics*, Jul. 1980, Vol. 14, No. 3, 83-90.

Niedzwecki, J.M. and Casarella, M.J. (1976). "On the Design of Mooring Lines for Deep Water Applications," *ASME Journal of Engineering for Industry*, Vol. 98 Series B, No. 2, 514-522.

PUBLICATIONS - REFEREED TECHNICAL NOTES

Niedzwecki, J.M. and Leder*, V.H. (1991). "Impact of Drag Force Approximations on Spectral Wave Force Prediction," *ASCE J. Waterway, Port, Coastal and Ocean Engineering Division*, Technical Note, Dec. 1991, Vol. 117, No. 6, 642-647.

Niedzwecki, J.M. (1990). "Discussion of Civil Engineering Needs in the 21st Century", by Roesset, J.M. and Yao, J.T.P., *ASCE J. Professional Issues in Engineering*, April, 23067-GT, Vol. 116, No. 2, 230-231.

PUBLICATIONS - CONFERENCE PROCEEDINGS AND PRESENTATIONS

Lu*, J. and Niedzwecki J.M. (2020). Statistical Analysis of In-line Interaction of Closely Spaced Cylinder Arrays in Random Waves, OMAE 2020-18179.

Navabzadeh*, R., Niedzwecki, J.M. and Barroso, L. (2019). Computational Modeling in Dynamic Analysis of Multi-Rotor Wind Turbines (MRWTs), ASCE Engineering Mechanics Institute Conference, Pasadena, CA, June 18-21.

Brown*, A.H. and Niedzwecki, J.M. (2018). "Review of Modeling Techniques for Marine Debris Flows," *OCEANS 2018*, IEEE/Marine Technology Society, Charleston SC.

Yang*, H., Niedzwecki, J.M., and Hu, Z. (2018). "Spar-type Wind Turbine Behavior: Modeling and Comparison with Experimental Data," *ISOPE 2018 Conference*, Sapporo, Japan, June 10-15, pp. 350-357. (student awarded: ISOPE Scholarship for Outstanding Students).

Martin, K.A. and Niedzwecki, J.M., (2015). "A Simulation Model for Single and Multi-rotor Wind Turbine Performance," *ISOPE 2015 Conference*, Kona Hawaii, June 21-26.

Fang*, S.M., Niedzwecki, J.M. and Fu, S., (2015). "Slender Structure Optimization: A Genetic Algorithm Approach," *ISOPE 2015 Conference*, Kona Hawaii, June 21-26.

- Niedzwecki, J.M. and Fang* S.M., (2014). "Sensor Placement on Slender Structural Systems," *Retirement symposium for Prof. J.J. Connor*, MIT, Cambridge MA, August 1, 2014. (presentation).
- Yabin*, B., Niedzwecki, J.M. and Sanchez, M., (2014). "Numerical Investigation of Thermal Fields Around Subsea Buried Pipelines," *OMAE 2014 Conference*, San Francisco CA., June 8-13, 2014.
- Niedzwecki, J.M. and Fang*, S.M., (2013). "Hydrodynamic Response of Ribbon Fairing," *Oceans 2013 MTS/IEEE Conference*, San Diego CA. (presentation).
- Izadparast*, A.H. and Niedzwecki, J.M. (2012). "Application of Semi-empirical Probability Distributions in Wave-Structure Interaction Problems", ASME Fluids Engineering Summer Meeting, Puerto Rico.
- Grosenbaugh, M.A. and Niedzwecki, J.M. (2012). "Buoy Response Event Detection," 9th ONR/MTS Workshop, Victoria, Canada. (presentation).
- Izadparast*, A.H. and Niedzwecki, J.M. (2011). "Empirical Moment-Based Estimation of Rayleigh-Stokes Distribution Parameters," ISOPE 2011 Conference, Hawaii, June.
- Niedzwecki, J.M. and Izadparast*, A.H. (2010). "Analysis of Compliant Platform Response Behavior using L-Moments," OMAE 2010 Conference, Shanghai, China. (presentation only)
- Niedzwecki, J.M. and Izadparast*, A.H. (2009). "Distribution of Wave Crest Maxima in the Vicinity of an Offshore Structures," MTS Oceans 2009 Conference, Biloxi, MS, October 26-29, pp 9.
- Niedzwecki, J. M., Roesett, J. M. and Xie*, C. (2009). "An n-body Displacement Framework for Marine Hydrodynamics," Fluid Structure Interaction 2009, Greece, May, pp8. (presentation only).
- Moe, G. and Niedzwecki, J. M. (2009). "Flow-Induced Vibration of Offshore Flare Towers," Fluid Structure Interaction 2009, Greece, May, pp8.
- Niedzwecki, J.M. and Izadparast*, A.H. (2009). "Application of L-Moments in Ocean Engineering," OMAE Conference, Hawaii, June. (presentation only)
- Izadparast*, A.H. and Niedzwecki, J.M. (2009). "Probability Distributions for Wave Runup on Offshore Platform Columns," OMAE Conference, Hawaii, June.
- Ofoegbu*, J. and Niedzwecki, J.M. (2009). "Elastomeric Fender Systems Subject to Random Excitation," OMAE Conference, Hawaii, June.
- Niedzwecki, J.M. and Moe, G. (2008). "An Investigation of VIV Response of a Steel Catenary Riser Model," Oceans'08 MTS/IEEE Conference, Quebec Canada.
- Xie*, C., Niedzwecki, J.M. and Teigen, P. (2008). "Hydrodynamic Interaction in a Coupled Ship/Barge System and its Effects on Mooring Line and Fender Forces," ISOPE 2008, Vancouver, Canada.
- Niedzwecki, J.M., Xie*, C., and Teigen, P. (2008). "An Investigation of Wave Motion between Two Floating Bodies," OMAE 2008, Estoril, Portugal. (presentation only)
- Niedzwecki, J.M. and Moe, G. (2007). "Development of SCR VIV in a Changing Flow Field," Fluid-Structure Interaction 2007, New Forest, UK (presentation).
- Moe, G. and Niedzwecki, J.M. (2007). "Technology for Offshore Wind Turbines," Fluid-Structure Interaction 2007, New Forest, UK.
- Teigen, P. and Niedzwecki, J.M. (2007). "Theoretical and Experimental Investigation of Wave Forces and Wave Effects for a Twin Barge System," OMAE 2007, San Diego, CA.

- Niedzwecki, J.M. (2006). "Assessing Laboratory and Field Measurements for Design," Marine Technology Society/IEEE Conference, Boston MA (presentation).
- Teigen, P. and Niedzwecki, J.M. (2006). "A Computational Study of Wave Effects Related to Side by Side LNG Offloading, ISOPE 2006, San Francisco, CA.
- Xie*, C., Niedzwecki, J.M. and Teigen, P. (2006). "Coupled Mini-TLP Barge Response in Random Seas," ISOPE 2006, San Francisco, CA.
- van de Lindt*, J. and Niedzwecki, J.M. (2006). "A Slepian Model Approach to Seismic Reliability of Structures," 8th National Conference on Earthquake Engineering.
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- Altenberg*, A.E., Roesset, J.M. and Niedzwecki, J.M. (2005). "Time-Frequency Analysis of Spar Motions," Fluid-Structure Interactions 2005, September, La Coruna, Spain, 237-246.
- Altenberg*, A.E., Roesset, J.M., and Niedzwecki, J.M. (2005). "Characterization of the Evolutionary Nature of Hurricane Waves using Wavelet Analysis," Marine 2005, Oslo, Norway.
- Sibetheros, I.A. and Niedzwecki, J.M. (2005). "Analysis of Wave Run-up Measurements on a Mini-TLP," OMAE 2005, Halkidiki, Greece.
- Niedzwecki, J.M. (2004). "Comparison of Laboratory and Field Deepwater Spar Response Behavior," ASCE, Oceans VI, Baltimore, MD (presentation).
- Niedzwecki, J.M. and Teigen P. (2004). "Deepwater mini-TLP: Concept and Model Tests," OMAE 2004 (workshop presentation).
- Indrebo*, Ann K. and Niedzwecki, J.M. (2004). "Wave Runup on Cylinders Subject to Deep Water Random Waves," OMAE 2004, Vancouver, Canada, pp 8.
- Niedzwecki, J.M. and Liagre* P-Y. (2003). "Interpreting Data on Marine Riser Response Behavior Using System Identification, ASCE Deepwater Mooring Systems: Concepts, Design, Analysis and Materials, Houston, TX 316-3-19. (presentation).
- Sibetheros, I. A. and Niedzwecki, J.M. (2003). "Higher Order Spectral Analysis of the Interactive Behavior of a Pair of Flexible Risers," ISOPE 2003, Honolulu, Hawaii, Vol. III, 464-472.
- Teigen, P. and Niedzwecki, J.M. (2003). "Wave Runup and Wave Loads on Multicolumn Structure in Extreme Waves," ISOPE 2003, Honolulu, Hawaii, Vol. I, 137-144.
- Anam*, I., Roesset, J. M. and Niedzwecki, J.M. (2003). "Time Domain and Frequency Domain Analysis of Spar Platforms," ISOPE 2003, Honolulu, Hawaii, Vol. I, 240-247 (presentation).
- Niedzwecki, J.M., Reinschmidt, K.F., Roesset, J.M. and Yao, T.P.J. (2002). "Educating Civil Engineers for Success in the 21st Century," Intl. Conf. Educating Renaissance Engineers, Florence, Italy (presentation).
- Chen, C., Zhang, J., Liagre*, P-Y., Niedzwecki, J.M. and Teigen, P. (2002). "Coupled Dynamic Analysis of a Mini-TLP: Comparison with Measurements," OMAE 2002, Oslo, Norway.
- Niedzwecki, J.M., Liagre*, P-Y. and Teigen, P. (2001). "Directional Sea Response of a Mini-TLP," ISOPE 2001, Stavanger, Norway, Vol. I, 447-452 (presentation).
- Niedzwecki, J.M., Liagre*, P-Y. J., Roesset, J.M., Kim, M.H. and Teigen, P. (2001). "An Experimental Research Study of a Mini-TLP," ISOPE 2001, Stavanger, Norway, Vol. III, 631-634 (presentation).

Teigen, P., Niedzwecki, J.M. and Winterstein S.R. (2001). "Wave Interaction Effects for Non-Compliant TLP," ISOPE 2001, Stavanger, Norway, Vol. I, 453-461.

van de Lindt*, J.W. and Niedzwecki, J.M. (2000). "Reliability Importance for Design Earthquake Identification," 8th ASCE Joint Specialty Conference, U. Notre Dame, pp. 6.

van de Lindt*, J.W. and Niedzwecki, J.M. (2000). "A Time Variant Approach to Performance Based Engineering," Structures Congress 2000, Philadelphia, PA.

Kim, M.H., Niedzwecki, J.M., Roesset, J.M., Park, J.C. and Tavassoli, A. (2000). "Fully Nonlinear Multi-Directional Wave Simulations by 3D Numerical Wave Tanks," OMAE, New Orleans, 2000.

Niedzwecki, J.M. and Sandt*, E.W. (1999). "Characterizing the Excitation and Response of a Spar Buoy in Random Seas," Marine Technology Society Conference, Seattle WA.

Teigen, P. and Niedzwecki, J.M. (1999). "Experiments and Analysis with Fully Coupled Mini-TLP/Barge System," 9th International Offshore and Polar Engineering Conference, France.

Niedzwecki, J.M. and Chitwood*, J.S. (1998). "Suppression of Vortex-Induced Motions Using Ribbon Fairing," Marine Technology Society Conference, Baltimore MD (presentation).

Niedzwecki, J.M., Chitwood*, J.S. and Vandiver, J.K. (1998). "Vortex-Induced Vibration in Uniform Currents and Random Waves," ASME Conference on Advances in the Understanding of Bluff Body Wakes and Vortex-Induced Vibration, Washington D.C. (presentation).

Niedzwecki, J.M. and van de Lindt*, J.W. (1998). "Parametric Characterization of Surface Wave Data," ASCE Intl. Symposium on Ocean Wave Kinematics, Dynamics and Loads on Structures, Houston TX.

Teigen, P. and Niedzwecki, J.M. (1998). "Experimental and Numerical Assessment of Mini-TLP for Benign Environments," 8th International Offshore and Polar Engineering Conference, Montreal, Canada.

Niedzwecki, J.M. and van de Lindt*, J.W. (1998). "Response Based Reliability Estimates for Directional Seas," 8th International Offshore and Polar Engineering Conference, Montreal, Canada.

Niedzwecki, J.M. and van de Lindt*, J.W. (1998). "Fatigue Life Estimates of a Steel Caisson Platform in Extreme Seas," Structural Engineers World Congress, San Francisco, CA.

Niedzwecki, J.M. and van de Lindt*, J.W. (1998). "Wave Runup on Spar Platforms," Offshore Mechanics and Arctic Engineering '98 Conference, Lisbon Portugal.

van de Lindt*, J.W. and Niedzwecki, J.M. (1997). "Sensitivity of TLP Tendon Reliability Estimates to Excitation by Multi-peaked Random Seas," 7th International Offshore and Polar Engineering Conference.

Niedzwecki, J.M., Rijken*, O.R. and Soemantri*, D.S. (1996). "Wave Induced Reaction Force and Tension in Deepwater TLP Tendons," ASCE EMD/STD Specialty Conference, 586-587 (presentation).

van de Lindt*, J.W. and., Niedzwecki, J.M. (1996). "Inflated Contour Approach for Deepwater Tendon Design," ASCE EMD/STD Specialty Conference, 582-585.

Rijken*, O.R. and Niedzwecki, J.M. (1996). "Dynamic Response and Runup on Spar Platforms," 6th International Offshore and Polar Engineering Conference, Vol.1, 289-295.

Niedzwecki, J.M., van de Lindt*, J. and Rijken*, O.R. (1995). "Behavior of Tendon Models in Random Seas," 24th American Towing Tank Conference, College Station, TX.

- Niedzwecki, J.M. and Rijken*, O.R. (1995). "A Probabilistic View of Wave Interaction with Spar Platforms," 24th American Towing Tank Conference, College Station, TX.
- Niedzwecki, J.M., Mekha, B.B., Rijken*, O.R. and Roesset, J.M. (1995). "Deepwater Spar Platform Response: Analysis and Prediction." BRASIL OFFSHORE '95, IX International Symposium on Offshore Engineering, Rio de Janeiro, Brazil, 17pp. (presentation).
- Niedzwecki, J.M., Rijken*, O.R. and Soemantri*, D.S. (1995). "Dynamic Behavior of Tendons in Random Seas," *OMAE '95*, Copenhagen, Denmark, Vol. I, Part B, 383-392.
- Guerandel*, V., Niedzwecki, J.M. and Duggal*, A.S. (1995). "Marine Riser Model Tests in Waves and Currents," *OMAE '95*, Copenhagen, Denmark, Vol. I, Part B, 363-373.
- Ran, Z., Kim, M.H., Niedzwecki, J.M. and Johnson, R.P. (1995). "Response of a Spar Platform in Random Waves and Currents," 5th International Offshore and Polar Engineering Conference.
- Niedzwecki, J.M. and Rijken*, O.R. (1995). "Collision of Cylinders in Random Seas," ASCE Engineering Mechanics Specialty Conference, University of Colorado at Boulder (presentation).
- Niedzwecki, J.M. and Rijken*, O.R. (1994). "Characterizing Some Aspects of Stochastic Wave-Structure Interactions," ASME WAM Special Symposium on Stochastic Dynamics and Reliability of Nonlinear Systems, DE-Vol. 77, 109-118.
- Mercier, R.S., and Niedzwecki, J.M. (1994). "Experimental Measurement of Second-Order Diffraction by A Truncated Vertical Cylinder in Monochromatic Waves," Behavior of Offshore Structures, BOSS '94, MIT, Cambridge MA, Vol. 2, 265-288.
- Niedzwecki, J.M., Thoresen, S. and Remseth, S. (1994). "Riser Response to Vertical Current Profiles and Regular Waves," International Conference on Hydroelasticity in Marine Hydrodynamics, Trondheim Norway, 39-46 (presentation).
- Niedzwecki, J.M. (1994). "Impact of Non-Gaussian pdf on Reliability Estimates for Deep Water Platforms," ASCE Structures Congress, Atlanta GA.
- Niedzwecki, J.M. and Duggal*, A.S. (1993). "Collision Mechanisms and Behavior of a Pair of Long, Flexible Cylinders in Close Proximity," Offshore Mechanics and Arctic Engineering Conference, Glasgow Scotland, Vol. I, 291-298 (presentation).
- Duggal*, A.S. and Niedzwecki, J.M. (1993). "Regular and Random Wave Interaction with a Long, Flexible Cylinder," Offshore Mechanics and Arctic Engineering Conference, Glasgow Scotland, Vol. I, 283-290.
- Duggal*, A.S. and Niedzwecki, J.M. (1993). "An Experimental Study of Tendon/Riser Pairs In Waves," Offshore Technology Conference, Houston, TX, Vol. 3, 323-333.
- Niedzwecki, J.M. and Rijken*, O.R. (1992). "Preliminary Design of Tension Leg Platforms Using A Knowledge Based Approach," ASCE Ocean's V: An International Conference on State of Excellence in Civil Engineering, 288-293.
- Niedzwecki, J.M. (1991). "Recent Developments in Marine Hydrodynamics," MTS'91 Marine Technology Society, Vol. 1, 586-592 (presentation).
- Niedzwecki, J.M., Duggal*, A.S. and Huston*, J. (1990). "Wave Interaction with Very Large Floating Structures," NSF Workshop, First International Workshop on Very Large Floating Structures, Honolulu Hawaii, 255-264 (presentation).

- Niedzwecki, J.M., and Earles*, J.A. (1990). "Boundary Element Analysis of Non-Linear Wave Forces on Clusters of Buried Pipelines," IABEM-90 Symposium, Universita di Roma, Roma, Italy (presentation).
- Niedzwecki, J.M. and Whatley*, C.P. (1990). "On the Use of Probability Density Functions for Modeling Directional Seas," Eleventh U.S. Congress of Applied Mechanics (presentation).
- Niedzwecki, J.M. and Leder*, V.H. (1990). "Principal Component Analysis in Structural Dynamics," Eleventh U.S. Congress of Applied Mechanics (presentation).
- Niedzwecki, J.M. and Duggal*, A.S. (1990). "Wave Run-up and Wave Forces on a Truncated Cylinder," 22nd Offshore Technology Conference, OTC 6409, 593-600.
- Basco, D.R. and Niedzwecki, J.M. (1989). "Breaking Wave Force Distributions and Design Criteria for Slender Piles," 21st Offshore Technology Conference, OTC 6009, 425-431.
- Niedzwecki, J.M. and Harding, B.W. (1987). "ODP Drill String Analysis Capabilities," 4th International Deep Offshore Technology Conference, Monte-Carlo, France (presentation).
- Chehayeb, F., Niedzwecki, J.M. and Connor, J.J. (1987). "A Knowledge Based Approach to Innovative Design," Artificial Intelligence in Engineering Conf., Cambridge, MA.
- Connor, J.J., Niedzwecki, J.M. and Guo, R.S. (1987). "Intelligent Mesh Design for Discrete Element Analysis," *Artificial Intelligence in Engineering Conference*, Cambridge, MA.
- Niedzwecki, J.M. and Sandt*, E.W. (1986). "Nonlinear Wave Load Effects on the Stochastic Behavior of Fixed Offshore Platforms," 18th Offshore Technology Conference, Paper No. 5139 (presentation).
- Niedzwecki, J.M. and Harrington*, M.G. (1986). "Wave Forces on an Arctic Monotower Platform," 4th ASCE Intl. Cold Regions Engineering Specialty Conference.
- Niedzwecki J.M., and Vargo M. (UG student) (1985). "Expert System for Deepwater Scientific Drilling Activities," Oceans '85 Marine Technology Society (presentation).
- Niedzwecki, J.M. and Serocki, S.T. (1985). "Drill String Model Sensitivity to Hydrodynamic Approximations," Oceans '85, Marine Technology Society (presentation).
- Niedzwecki, J.M. (1985). "Arctic Offshore Engineering: A New Graduate Course at Texas A&M University," ARCTIC '85: Civil Engineering in the Arctic Offshore, ASCE Specialty Conference (presentation).
- Niedzwecki, J.M. (1984). "Compact Spectral Representation of Surface Wave Data," 11th ASCE Engineering Mechanics Specialty Conference (presentation).
- McEwen, E.E. and Niedzwecki, J.M. (1984). "Marine and Coastal Structures for Ocean Engineers," 92nd ASEE Annual Conference (presentation).
- White, F.M. and Niedzwecki, J.M. (1983). "Wave Mechanics at the University of Rhode Island - A Core Hydrodynamics Course for Ocean Engineering Students," 91st ASEE Annual Conference (presentation).
- Niedzwecki, J.M. and Milburn, D.A. (1983). "Refraction of Gravity Waves Using Global Spline Collocation," 10th ASCE Engineering Mechanics Specialty Conference (presentation).
- Milburn, D.A. and Niedzwecki, J.M. (1983). "Orthogonal Collocation: A Numerical Study," 8th ASCE Conference on Electronic Computation.

Ramberg, S.E. and Niedzwecki, J.M. (1983). "Cycle to Cycle Variations of Wave Forces on Horizontal Cylinders," 2nd ASME Offshore Mechanics and Arctic Engineering Symposium.

Niedzwecki, J.M. (1983). "On the Characterization of Waves Interacting with Circular Artificial Islands," 2nd ASME Offshore Mechanics and Arctic Engineering Symposium (presentation).

Niedzwecki, J.M. (1982). "Fundamental Laboratory Experiments Focusing on the Dynamics of Offshore Structures," 90th ASEE Annual Conference (presentation).

Niedzwecki, J.M. (1980). "An Examination of Some Models for Short-Crested Seas," Decade of the Oceans, MTS Conference (presentation).

Niedzwecki, J.M. (1979). "Ocean Wave Power Available to Submerged Energy Devices of Finite Dimensions," Marine Technology '79 (presentation).

Ramberg, S.E. and Niedzwecki, J.M. (1979). "Some Uncertainties and Errors in Wave Force Computations," 11th Offshore Technology Conference, Paper No. 3597.

Niedzwecki, J.M. (1978). "Laminar Turbulent Boundary Layer Properties on Axisymmetric Forebodies at High Reynolds Numbers," 9th Southeast Conference on Theoretical and Applied Mechanics (presentation).

Niedzwecki, J.M. (1978). "A Comparison of Nonmetallic Ropes Wire Rope and Chain Mooring Lines for Deep Water Applications," 10th Offshore Technology Conference, Paper No. 3207 (presentation).

PUBLICATIONS - OTHERS SINCE 1990

Niedzwecki, J.M. (2007). "LNG Tanker Dynamics During Offloading in the Gulf of Mexico," ATP Final Report.

Niedzwecki, J.M. (2004). "Riser Interaction Model: A Combined Time/Frequency Domain Approach," OTRC Research Report, pp. 37.

Niedzwecki, J.M., and Earles* J.A. (1991). "Boundary Element Analysis of Non-Linear Wave Forces on Clusters of Buried Pipelines," *Boundary Integral Methods: Theory and Applications*, Eds. Morino, L. and Piva, R., Springer-Verlag, Rome, Italy 1991, 389-399.

EDUCATION

Ph.D. Catholic University of America, Mechanical Engineering, 1977
(Formerly the Department of Civil and Mechanical Engineering)
M.S. Boston University, Aerospace Engineering, 1973
B.S.A.E. Boston University, Aerospace Engineering, 1970
B.S. Boston University, Engineering, 1970

PROFESSIONAL ENGINEERING LICENSURE

Texas, Registered Professional Engineer, No. 48561, February 1981

PH.D. DISSERTATION

Laminar-Turbulent Incompressible Boundary-Layer on Bodies of Revolution in Axial Flow (with Application to Ocean Vehicles: Submarine Forebodies), Dissertation Abstracts Int. Vol. 38, No. 4, Order No. 77-20 455, 118 pages, Oct. 1977; also see DTNSRDC reports reference under publications.

M.S. THESIS

Analysis of Non-uniform Beam Columns with Torsion Using a Transfer Matrix Technique, Boston University, May 1973.

HONORS AND PROFESSIONAL RECOGNITION

Holder of the R.P. Gregory'32 Chair in Civil Engineering, September 9/20 – 7/21.

Distinguished Engineering Graduate, College of Engineering, The Catholic University of America, Washington D.C., 2016.

Diplomate Ocean Engineering (D.OE.), Academy of Coastal, Ocean, Port and Navigation Engineers (ACOPNE), an affiliate American Society of Civil Engineers, 2011.

Holder of the Wofford Cain'13 Senior Chair in Offshore Technology, 6/11-8/20.

ASME-International Petroleum Technology Institute: Offshore Mechanics and Arctic Engineering Special Appreciation Award, June 2008.

Regents Professor, Texas A&M University System Board of Regents Appointment, 11/06.

Holder of the R.P. Gregory'32 Chair in Civil Engineering, 7/02-6/11.

Holder of the Wofford Cain '13 Professorship in Offshore Technology, 4/93-7/02.

RESEARCH FUNDING SOURCES

National Science Foundation, Office of Naval Research, OTRC/NSF/Offshore Industry, OTRC/Minerals Management, Offshore Industry, OTRC Model Basin Industrial Clients, Ocean Drilling Program, US Army Corps of Engineers, US Geological Survey, Texas ATP with matching funds from industrial partners and the OTRC model basin.

INVITED INTERNATIONAL AND NATIONAL LECTURES - SINCE 1995

Shanghai, China, Invited Lecture: *Collaborative Research Opportunities in Offshore Engineering*, December 2012.

Mexico City, Mexico, Lecture to the Mexican Academy of Engineering: *Developing Deepwater Capabilities: An Industry University Partnership*, October 16, 2009.

Shanghai, China, Co-chair DeTEC Symposium for the Opening Ceremonies of the SJTU Model Basin, November 2008.

Shanghai, China, Invited Lecture: Analysis of Model Test Data for the Design of Offshore Structures, September 2007.

Hongzhou, China, Invited Lecture: Analysis of Model Test Data for the Design of Offshore Structures, September 2007

New Forest, UK, Invited Lecture: *Development of SCR VIV in a Changing Flow Field*, Fluid-Structure Interaction 2007, May 2007.

Beijing, China, Invited Lecture, China National Offshore Oil Company (CNOOC) Research Group: *Incorporating System Identification in the Design of Offshore Structures*, Sept. 2006.

Harbin Engineering University, China and Dalian Technical University, China, Invited Lectures: *Incorporating System Identification in the Design of Offshore Structures*, September 2006.

Dalian Technical University, China, Invited Lecture: College of Engineering: *Programs in Petroleum and Ocean Engineering Studies at Texas A&M University*, September 2006.

London, England, Invited Lecture for the Floating Systems Summit 2005: *Design Optimisation for Floating Systems*, 23-24 November 2005.

- Oslo, Norway, Invited Paper for Marine 2005 Computational Methods in Marine Engineering: *Characterization of the Evolutionary Nature of Hurricane Waves Using Wavelet Analysis*, co-authors: A.E. Altenberg and J.M. Roesset, June 2005.
- Tokyo, Japan, Invited Lecture, International Symposium on Technology of Ultra Deep Ocean Engineering'05: *Utilizing System Identification in the Design of Ocean Structures*, Feb. 2005.
- Trondheim, Norway, Invited Session Chair by CESOS for Workshop on Very Large Floating Structures, October 2004.
- Shanghai, China, Invited Guest and Lecturer at Shanghai Jiao Tong University, first lecture: *Interpreting the Response of Offshore Structures using System Identification*; second lecture: *College of Engineering: Organization and International Agreements*, December 2003.
- Trondheim, Norway, Invited Participant by Statoil for Nonlinear Hydrodynamics Workshop, September 2003.
- Trondheim, Norway, Invited Guest and Dinner Speaker at the opening ceremonies for the NTNU Center of Excellence for Ships and Ocean Structures (CESOS), 2000.
- Cambridge, MA, A New Millennium Colloquium on the Future of Civil and Environmental Engineering, contribution: *Challenge: Civil Engineering Education 2000 and Beyond*, Advisory Committee Member, presenter and panelist, MIT, March 19-21, 2000.
- Bergen, Norway: *OTRC Research on Fluid/Structure and Soil/Structure Interaction*, Norsk Hydro, December 1998.
- Washington, D.C., US/Japan Marine Facilities Panel: *Modeling the Extreme Behavior of Ocean Waves*, September 1998.
- Trondheim, Norway: *Probabilistic Modeling of Riser Interactions*, Invitation from British Petroleum (UK) and Statoil (Norway) to lecture and participate in discussions with Shell (US), Exxon (US), Conoco (UK), panel of faculty including Cambridge University (UK), Imperial College (UK) and Norwegian Institute of Science and Technology, August 1998.
- Providence, Rhode Island, Office of Naval Research Workshop: *Flow/Structure Interactions: Experimental Investigation of Wave & Current Interactions with Flexible Cylinder*, Brown University, June 1997.
- Buenos Aires, Argentina, COSU '96: *Complex Flow Induced Response of Slender Structures in Random Seas*, December 3-6, 1996.
- Ann Arbor, MI, University of Michigan, Department of Naval Architecture and Marine Engineering Lecture Series: *Experimental Studies Investigating the Response Behavior of Deepwater Platforms*, November 19-20, 1996.
- Reykjavik, Iceland: *Analysis of Earthquake Data for Design*, European Seismology Commission XXV General Assembly, Session SS-5, September 1996.
- Stavanger Norway, STATOIL, Department of Structural Engineering: *Deepwater Research on Spar Platforms and Riser Dynamics*, December 1995.
- Stavanger, Norway, Stavanger University: *Present and Future Research on Deepwater Platforms at the OTRC*, December 1995.
- Aberdeen Scotland, DEEPTEC '95: *Basic Research Studies to Advance the Dynamic Analysis of Deepwater Risers*, co-authors: Roesset, J.M. and Miksad, R., 2nd Annual Deepwater Technology Conference, 28 Feb-1 March 1995.

OFFSHORE TECHNOLOGY RESEARCH CENTER (OTRC) ACTIVITIES SINCE 1990

- WAMIT Joint Industry Project, annual meetings & presentations as appropriate, 1989-2019
- Lectures to Visiting Deans, six groups visiting the COE, February--May 2001
- OTRC Industry Advisory Council, June 2000, February 2001
- OTRC Annual Industry Workshop, February 1988-1999
- OTRC Annual Research Project Peer Review, February 1989-1996
- NSF ERC Annual Review of the OTRC, May 1988-1998

OTRC Course Lectures: University of Texas at Austin, 1990 "Statistical Energy Analysis and Directional Seas," 4/19 "Physical Modeling of Offshore Structures," 2/8

OTHER PROFESSIONAL ACTIVITIES - SINCE 1995

Trondheim, Norway, Doctoral Examining Committee 1st Opponent for Shi Deng, Dissertation Topic: Experimental and numerical study of hydrodynamic responses of a twin-tube submerged floating tunnel considering vortex-induced vibration. December 2020.

Department of Marine Technology, Norwegian University of Science and Technology, Trondheim Norway, External Reviewer P&T, October 2019.

Iowa State University, Department of Civil, Construction and Environmental Engineering, Ames Iowa, External Reviewer P&T, October 2019.

The University of Maine, Department of Mechanical Engineering, Orono Maine, External Reviewer P&T, September 2019.

Shanghai Jiao Tong University, Department of Naval Architecture, Ocean and Civil Engineering, External Reviewer P&T, May 2019.

Scientific Advisory Committee, Marine Transportation 2019, Rome, Italy,
Editor, *Marine Structures* Journal, Elsevier, 2018-present.

Stavanger, Norway, Doctoral Examining Committee 1st Opponent, Adekunle P. Orimolade, Dissertation Topic: Weather limitations for marine operations in the Barents, Nov. 2017.

Scientific Programing Council & Editorial Board, 12th *International Conference on Marine Navigation and Safety of Sea Transportation*, Gdynia Maritime University and the Nautical Institute, Gdynia, Poland, June 21-23, 2017.

Member of the International Advisory Board, Collaborative Innovation Center for Advanced Ship and Deep-Sea Exploration (CISSE), Lead Academic University, Shanghai Jiao Tong University, 2016.
University of Rhode Island, External Reviewer P&T, November 2016.

Associate Editor, *Marine Structures* Journal, Elsevier, 2015-2018.

Editor, *Marine Structures* Journal, Elsevier, 2018-present.

Iowa State University, Department of Civil, Construction and Environmental Engineering, Ames Iowa, External Reviewer P&T, October 2015.

University of Stavanger, Norway, External MS Thesis Reviewer, 2015.

Norwegian Institute of Science and Technology, Onsager Faculty Candidate Evaluation, Department of Marine Technology, August 2015.

Indian Institute of Technology, Madras, External Letter P&T case, Department of Ocean Engineering, April 2015.

Shanghai Jiao Tong University, External Reviewer for Distinguished Faculty, March 2015.

Associate Editor: *Journal of Ocean Science and Technology*, Shanghai Jiao Tong Univ., 2014.

The Research Council of Norway, Center proposal review, 2014

Associate Editor: *ASCE Journal of Waterways, Ports, Coastal and Ocean Engineering*, 2013 –present.

International Editorial Board: *International Journal of Computational Methods and Experimental Measurements*, 2013 – present.

Trondheim, Norway, Doctoral Examining Committee 1st Opponent for Erin E. Bachynski, Dissertation Topic: Design and Dynamic Analysis of Tension Leg Platform Wind Turbines, March 2014.

University of Massachusetts, External Reviewer P&T, December 2013.

Trondheim, Norway, Center for Ships and Ocean Structures, Chair session S3: Stochastic Analysis, May 2013.

Shanghai Jiao Tong University, External Reviewer for Distinguished Researcher, April 2013.

Trondheim, Norway, Doctoral Examining Committee 1st Opponent for Ravukiran S. Kota, Dissertation Topic: Wave Loads on Decks of Offshore Structures in Random Seas, Defense, June 2012.

Editorial Advisory Board: *Open Ocean Engineering Journal*, 2012-2015.

International Review Team, Academic Review Team for Department of Naval Architecture, Ocean and Civil Engineering, Shanghai Jiao Tong University, 2011.
 Canada Foundation for Innovation, Expert review team, 2009
 National Research Council, Research Associateship Programs Panel, 2008-present
 Board of Trustees, Southwest Research Institute, San Antonio, Texas, 2005-present
 International Scientific Advisor Committee, Fluid Structure Interaction Conference, Wessex Institute of Technology, New Forest, UK, 2006-present
 Beijing, China, China-U.S. Relations: Trade, Diplomacy and Research, developed and chaired research roundtable: Deepwater Offshore Technology Research, Nov. 2005
 Trondheim, Norway, Doctoral Examining Committee 1st Opponent for A. Fredheim, Dissertation Topic: Current Forces on Net Structures, Defense April 2005
 Kuwait University, External reviewer for Promotion and Tenure Case, spring 2004
 Texas Academy of Science, Engineering, and Medicine, invited guest, 2004, 2005, 2006
 NAE Workshop on Emerging Technologies and Ethical Issues, Washington, D.C., Oct. 2003
 NAE Workshop on Leveraging Experience to Accelerate Progress (LEAP) Moving Towards Gender Equity in Engineering Education, Washington, D.C., January 2003
 Consulting Engineers Council of Texas, Leadership Forum, Professional Engineers State of Texas Workshop, September 1999
 Kuwait University, External reviewer for Promotion and Tenure Case, fall 1998
 Member, Committee on Marine Structures for Marine Board, NAE, June 1995 – June 1997

PROFESSIONAL SOCIETY MEMBERSHIPS and SERVICE ACTIVITIES

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE): FELLOW & LIFE MEMBER

Waterway, Port, Coastal and Ocean Engineering Division:

Associate Editor (2014-present), Journal Publication Committee, Member (1983-1987, 1988), Control Group (1988-1992); Waves & Wave Forces Committee, Control Group Member (1983-1987, 1988-1990), Chairman (1984-1986). Organizing committee member: *Intl. Conference on Coastal Hydrodynamics*, Univ. Delaware, 1987; ASCE monograph chapter co-author: *A State of the Art Review on the Design of Tension Leg Platforms*, 1988; Session Chair, session: *Offshore Structures*, ASCE Oceans V, Nov. 2-5, 1992; Co-Chair, session: *Vortex-Induced Vibration of Marine Risers*, OTC, May 1998.

Engineering Mechanics Division:

Computational Mechanics, Associate Member (1988-1990); Fluids Committee, Member (1983-1987); ASCE monograph chapter author: *Expert Systems for Civil Engineering -Education*, 1989; Session Developer and Chair: *Computational Methods in Offshore Engineering*; First US Congress on Computational Mechanics, July 1991, Chicago IL; Co-chairman *ASCE Engineering Mechanics Conference*, Texas A&M University, May 1992.

Probabilistic Mechanics:

Session Developer and Co-chair: *Offshore and Marine Structures 2*, August 1996.

Structural Engineering Division:

Reliability of Offshore Structures Technical Committee, Member (1991-1994); Control Group (1993-1996); Shock and Vibratory Effects Committee, Member (1992-1995); Co-Session Developer and Co-Chair, session title: *Damage Assessment and Repair of Offshore Structures*, Structures Congress X, April 1992.

Technical Council on Cold Regions Engineering:

Education Committee, (1986-1987), Corresponding Member (1986-1987).

CONSORTIUM: UNIVERSITIES FOR RESEARCH IN EARTHQUAKE ENGR. (CUREE), MEMBER

Elected to CUREE membership February 2002-2016; University/COE also became members.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), MEMBER**Associate Editor:**

Journal of Offshore Mechanics and Arctic Engineering (2004-2012)

Offshore Mechanics and Arctic Engineering Division:

Computer Technology Committee (1985-1987); Vortex Shedding/Vibrations Committee (1985-1987);
Session Developer and co-chair, session: *Compliant Offshore Structures*, 1985.

AMERICAN SOCIETY FOR ENGINEERING EDUCATION (ASEE)**Ocean and Marine Engineering Division:**

Executive Committee (1982-1983; 1987-1990); Vice Chairman and Program Chairman (1983-1985);
Chairman (1985-1987).

MARINE TECHNOLOGY SOCIETY (MTS), MEMBER

Session Developer and Co-chair, session title: *Offshore Structures* (2006, 2008)

INTERNATIONAL OFFSHORE AND POLAR ENGINEERING (ISOPE), MEMBER

Technical Program Committee, Renewable Energy (2015 – present)

Technical Program Chair, Session Developer, and Session Co-chair: *Deepwater Research Studies* (2001); *Spar Platforms* (1996); Reviewer /Session Chair (1996-present)

COURSE TEACHING ACTIVITIES (note: Undergraduate (U) & Graduate (G))

Fluid Dynamics (U)	Engr. Problem Solving & Computers (U)
Theory of Structures (U)	Introduction to Ocean Engineering (U)
Civil Engineering Systems I (U)	Dynamics of Waves and Structures (U)
Engineering Mechanics: Dynamics (U)	
Dynamics of Offshore Structures (G)	Flow-Induced Vibrations (G)
Behavior of Offshore Systems (G)	Ocean Wave Mechanics (G)
Dynamic Loads & Structural Behavior (G)	Offshore & Coastal Structures (G)

STUDENT ADVISING ACTIVITIES**MASTER OF SCIENCE DEGREE (CHAIR)**

Marlies De Jong, MS non-thesis, report Machine Learning, 2020.

Maxwell Milan, Lightning Interaction with Lighter-than-Air Platforms, 2018

E. Jonaas Soto, Dynamic Analysis of Adobe Structures, 2018

Atheer Jumaah, Structural Coupling of High-Rise Buildings Linked by Sky-bridges, 2017

Karthika Ramesh, Multi-hazard Response Characterization of Multi-storied Buildings, 2016

Jiaying Chen, Hydro-elastic Response of Submerged Floating Tunnels, 2015

He Yang, Spar Wind Turbine Behavior: Modeling & Comparison with Exper. Data, 2015

Amirtansh Parth, Submerged Floating Tunnels for Aquatourism, 2015

Garrett Owens, Breaking Wave Forces on Pile Founded Offshore Wind Turbines, 2012

Chunyong Nie, Design of a Pendulum Wave Impact Device, 2010

Anuam Gupta, Steady Wave Drift force on Basic Objects of Symmetry, 2008

James Ofoegbu, Fender System Behavior in Random Seas, 2008

Fares AL-Jeeran, Conceptual LNG Terminal Design for Kuwait, 2007

Xie Chen, Characterization of Coupled Body Response, 2005

Pilli Girija, Analysis of Coupled Body Mooring and Fender System, 2005

Vivek Agarwal, Pounding and Impact of Adjacent Buildings due to Earthquakes, 2004

Ann Indrebo, Wave Run-up on Cylinders Subject to Deep Water Random Waves, 2001

Aurelien Guichard, Analysis of A Deepwater Mini-TLP, 2001

Madhu Hariharan, Extreme Behavior Prediction of Vortex Induced Vibrations, 2000
 Leiv Tysse, Response of Mini-TLP after a Level Crossing, 2000
 Pierre Liagre, Generation and Analysis of Directional Seas, 1999
 Arron Oswalt, Spectral Modeling of Two Inline Cylinders in the Time Domain, 1999
 Weiguao Diao, Spectral Analysis of Slender Tensioned Cylinders, 1998
 Anastasia McMahon, Pedestrian Induced Structural Vibrations, 1996
 John van de Lindt, Inflated Contour Extreme Response of Structural Systems, 1995
 Richard Woodward, Knowledge-Based for Preliminary Highway Bridge Design, 1995
 Andrew Sarat, A Systematic Approach for Characterizing Waves in Large Basins, 1994
 Vincent Guerandel, Experimental Study of a Single Riser in Waves and Currents, 1994

Oriol Rijken, Knowledge Based Approach to the Design of Tension Leg Platforms, 1991
 Vern Leder, Probabilistic Finite Element Analysis of Marine Risers, 1990
 Christopher Whatley, A Parametric Study of Directional Sea Modeling, 1990
 Blake Sajonia, Lt. USN, Random Wave Forces on a Free-to-Surge Cylinder, 1988
 Scott Chitwood, Vortex Induced Vibrations of a Horizontal Cylinder, 1998
 Michael Harrington, Wave Forces on Monotower Structures w/Icebreaking Cones, 1987
 John Nolte, Rigid Pile Response to Ice Plate and Current Loads, 1986
 Eric Sandt, Nonlinear Stochastic Relative Motion of Offshore Structures, 1985
 Gerald McCoy, Riser Response to Directional Seas, 1985
 Larry Linn, Lt. USN, Ship Response Using A Compact Sea Spectrum Model, 1985

Co-chair: Yongseok Lee, Wave Power Generation for Oceanographic Buoys, Dec. 2014

Co-chair: Steven Karnoski, An Analysis of Deepwater Marine Risers, 1983

Committee member: Sneha Akkineni, Implementation of Simple Adaptive Control as a Hybrid Strategy for a Seismically Excited Cable Stayed Bridge, Dec. 2018

MASTER OF ENGINEERING DEGREE (CHAIR)

Hemant V. Thurumella, Jetting & Vibratory Pile Installation Techniques, 2019
 Samin Dehkharghanian, AUV Concepts for Deep Ocean Science Missions, 2015
 Jonathan Marshall, Evolving Applications of Autonomous Underwater Vehicles, 2014

Blaze Miller, Graphical Representation of Offshore Systems using Matlab, 2012
 Jolly James, Simulation of a Marine Riser undergoing Vortex Induced Vibration, 2005
 Deigo Martinez, Response of a Fixed Mini-TLP Hull in Waves, 2003
 Andrew Curtis, Finite Element Simulation of Deepwater Riser Interactions, 2001
 Qi He, Nonlinear System Identification of Experimental Data for Marine Risers, 2000
 Rehan Bharti, Dynamics of a Tensioned Buoyant Platform, 1999
 Montgomery Conner, Response Behavior of a Mini-TLP in Random Seas, 1999
 Jason Gage, Mini-TLP Test Program, 1998
 Gilles Perry, Parametric Study of Composite Risers Subject to Regular Waves, 1995
 Andrew McCoo, Damping of Earthquake Excited Low-Rise Building Response, 1994

Tanya Tan, Application of Wavelet Analysis to Offshore Engineering, 1994
 Kristen Kragseth, Wave Velocity & Force Modeling Using Orthogonal Collocation, 1992
 Dagfin Hagen, Polynomial Approximation of the Wave Potential Function, 1991
 Virginia Stover, Comparison of SEA Response Estimates, 1991
 Gregory Lang, Lt. USN, Integrated Coastal Zone Planning using Expert Systems, 1990
 Linda Sellers, Lt. USN, Dynamic Response of Multi-Articulated Offshore Towers, 1990
 Jay Huston, Lt. USN, Experimental Study: Wave Interaction with a TLPs, 1990
 Gerald Frentz, Lt. USN, Response Prediction Methods for Tension Leg Platforms, 1986
 David Balk, Lt. USN, Decision Analysis for Arctic Offshore Drilling Islands, 1985
 Arnold Bertsche, Lt. USN, Dynamic Response of an Articulated Tower, 1981

Co-chair: Arun Anthony, Decision/Risk Analysis of LNG Import Terminals, 2005

Co-chair: John Doyle: Sensitivity Analysis of Design Wave Position on Plane Frame Stresses in Jacket-Type Platform Structures, 1988

Committee member: Jeffery Wu, A Method to Upscale Floating Offshore Wind Turbine from 5MW to 15MW, 2021.

PH.D. DEGREE (CHAIR)

Anita Brown, Evaluating the Risk of Waterborne Debris, 2021

Jiangnan Lu, Analytical and Statistical Modeling of Wave-Cylinder Interactions, 2020

Yanbin Bai, Analysis of Subsea Buried Pipelines and Partially Buried Cables, 2014

Gilbert Malinga, Lightning Strike Behavior on Airborne Grounded Elevated Systems, 2014

Sam Fang Structural Condition Assessment using Non-uniform Sensor Arrays, 2013

Fares Al-Jeeran, Basic Integrative Models for Offshore Wind Turbines, 2011

Amir Izadparast, Semi-empirical Probability Distributions and their Application to Wave- Structure Interaction Problems, 2010

Chen Xie, Statistical Estimation of Two-body Hydrodynamic and Design Properties Using System Identification, 2009

Olga Pattipawaej, Probabilistic Finite Element Analysis of Structures, 2003

Pierre Liagre, Investigation of Nonlinear System Identification Techniques, 2002

John van de Lindt, Time Variant Reliability of Systems Dominated by Load Uncertainty, 1999

Eric Sandt, Theory and Application of Slepian Method, 1999

Oriol Rijken, Dynamic Response of Marine Risers and Tendons, 1997

Arun Duggal, Wave Interaction with a Pair of Flexible Cylinders, 1992

Jessie Earles, Intelligent Tutoring System Design for Engineering Science Courses, 1991

Sreekumar Thampi, External and Parametric Excitation of Non-linear Offshore Systems, 1989

Co-chair: Reyhaneh Navabzadehesmaeili, Nonlinear Analysis of Multi-rotor Wind Turbine Systems, Aug 2018

Co-chair: Maryam Mardfekri, Multi-Hazard Reliability Assessment of Offshore Wind Turbines, 2012

Co-chair: Adolfo Altenberg, Wavelet Analysis in Offshore Engineering, 2000

Committee Member: Ehsan Jailifar, Asim Khajwal, Mohammad Shahrestan, Yicong Cai, Yu Wang – (Ocean), Husain Abbas, 2019, Rachel Soares, 2019, Omar Al-Fahdawi, 2019

D. ENG. DEGREE (CHAIR)

Dadi Soemantri, Engineering Internship at Total Indonesia, December 1999

POST-DOCTORAL RESEARCHERS

Olga Pattipawaej, Ioanis Sibetheros, Eric Sandt, John van de Lindt, Arun Duggal

OTHER STUDENTS

Texas A&M University Undergraduate research studies:

NSF summer programs (6), TAMU summer programs (4)

International Undergraduate research studies:

Ecole Polytechnique Feminine (EPF), Sceaux, France (10)

Ecole Centrale de Nantes, France (1), Ensiata Brest France (5)

Undergraduate summer student projects:

Alexa Nichols, CVEN, TAMU, Analysis of Spar Storm Data, 2009

Nathan Keller, CVEN, TAMU, Solid Works Drawings of LNG Experiments, 2005

Guillaume Pargade, France, Analysis of Tethered Spar Experimental Data, 2005

Cole Walsh, CVEN TAMU, Survey of LNG Projects Worldwide, 2004

Bertrand Fellmann, France, Analysis of Spar Moonpool Experimental Data, 2004
 Pouchin Gael, France, Analysis of VIV data for a Spar in the Gulf of Mexico, 2003
 International Graduate student research studies:
 Norwegian Institute of Science and Technology, Trondheim, Norway (3)

INTERNATIONAL LEADERSHIP: CONFERENCE AND WORKSHOPS

FUTURE CHALLENGES IN ENERGY ENGINEERING (OCTOBER 21-23, 2009)

China-U.S. Relations Conference: Looking Ahead After 30 Years, Beijing, China

There is a need to address engineering aspects of the increasing worldwide demand for energy, including the enhanced petroleum product recovery technologies, safety considerations and extension of promising land-based technologies to offshore sites. This one-day forum will focus on the experiences relevant to China and ideas and challenges ahead. The forum will be divided into two sessions with the first focused on challenges in the second focused on future challenges in developing a variety of emerging energy technologies and the second part will focus on needed petroleum product recovery technologies for marginal fields. Session speakers are from China, Korea, Denmark and the USA. After the technical presentations a panel discussion and questions from the audience will conclude each session.

Organizing Committee:

J.M. Niedzwecki, (Chair Session 1), CVEN, Texas A&M University
 R. Li (Co-chair Session 1), OCEN, &NA, Shanghai Jiao Tong University
 J. Zhang (Moderator Session 1), OCEN, Texas A&M University
 M. Pishko, (Moderator Session 1), CHEN, Texas A&M University
 D.A. Hill, (Chair: Chair Session 2), PETE, Texas A&M University
 D. Zhu, (Co-Chair Session 2), PETE Texas A&M University

DEEPWATER TECHNOLOGY RESEARCH ROUNDTABLE (OCT. 22-25, 2007)

China-U.S. Relation Conferences: Development, Energy, and Security, Washington, D.C.

The search for additional petroleum and gas reserves in the US and now China has lead to deepwater exploration and development activities that require extending existing technologies to their limit and the development of new concepts and technologies to meet the challenges. The development of deepwater facilities and transport of the petroleum products to onshore or near shore facilities, and then on to the consumer requires application of state-of-the-art technologies and the careful management of risk and safety considerations.

The intent of this roundtable session was to identify specific technical opportunities for collaboration and the exchange of views in order to discover a way forward. This included discussions concerning mutually beneficial exchanges of engineers and scientists, student internship, collaborative short courses on critical technologies, the development of consortia and funding through joint industry and government supported projects. The idea of establishing an office for Texas A&M University in China that would be used to facilitate technical exchanges was also discussed.

The invited presentations included: three companies already working in China (Statoil, ChevronTexaco and Kerr McGee), two of the three major Chinese oil companies, the Chinese Academy of Sciences, three Chinese universities and TAMU's Offshore Technology Research Center. In addition, two other Chinese universities took part in the discussion as well as a representative from the National Natural Science Foundation of China. Thus, the focus of the discussions was as intended, deepwater offshore China.

Organizing Committee:

J.M. Niedzwecki, (Chair), Texas A&M University, College Station, Texas
 R. Li (Co-chair), Shanghai Jiao Tong University, Shanghai, P.R. China
 J. Zhang (Co-chair), Texas A&M University, College Station, Texas
 W-Y Duan, (Co-chair), Harbin Engineering University, Harbin, P.R. China

DEEPWATER OFFSHORE TECHNOLOGY RESEARCH ROUNDTABLE (NOV. 14-17, 2005)

China-U.S. Relations Conference: Trade, Diplomacy, and Research, Beijing, China

The search for additional petroleum and gas reserves in the US and now China has led to deepwater exploration and development activities that require extending existing technologies to their limit and the development of new concepts and technologies to meet the challenges. The development of deepwater facilities and transport of the petroleum products to onshore or near shore facilities, and then on to the consumer requires application of state-of-the-art technologies and the careful management of risk and safety considerations.

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The invited presentations included: three companies already working in China (Statoil, ChevronTexaco and Kerr McGee), two of the three major Chinese oil companies, the Chinese Academy of Sciences, three Chinese universities and TAMU's Offshore Technology Research Center. In addition, Dalian University of Technology, Ocean University of China and Tianjin University took part in the discussion as well as a representative from the National Natural Science Foundation of China. Thus, the focus of the discussions was as intended, deepwater offshore China.

Organizing Committee:

J.M. Niedzwecki, (Chair), Texas A&M University, College Station, Texas
 R.Li (Co-chair), Shanghai Jiao Tong University, Shanghai, P.R. China
 J.Z hang (Co-chair), Texas A&M University, College Station, Texas
 S. Chen (Honorary Co-chair), Peking University, Beijing, P.R. China

DEEPWATER FIELD MEASUREMENTS: STATUS AND FUTURE NEEDS (MAY 3-4, 2002)

OTRC 2002 International Workshop, College Station, TX

There is a growing realization as the industry moves to ultra-deep waters that there are still significant gaps in technical knowledge that will require a focused field measurement programs. The data obtained in future field tests would complement and validate laboratory tests and numerical prediction models. Technical advances by industry and university researchers have brought engineering design tools including model testing and numerical simulation capabilities to significant levels that are now capable of assisting in the design of innovation offshore systems as envisioned by the offshore industry. However, validation and further development are required as the breadth of platform concepts proposed by the offshore industry continues to grow. The objective of this workshop was to obtain a better understanding of the basic technical issues as articulated by leaders in the field, scientists and engineers.

The format for the meeting was four sequential technical sessions that featured invited speakers and a discussion upon completion of the technical presentations by a panel of technical experts. In order to minimize the issue of written proprietary technical information, papers to accompany each of the

lectures was not required. A court reporter was employed to take notes that would serve as the basis for the workshop report. The forthcoming report to be prepared by the co-chairs will be released as an OTRC report.

Organizing Committee: J.M. Niedzwecki, R. Mercier OTRC/TAMU

Scientific Committee: O. Faltinsen, G. Moe, NTNU, P. Teigen, Statoil, Norway

NONLINEAR DESIGN ASPECTS OF PHYSICAL MODEL TESTS (MAY 2-3, 1997)

OTRC 1997 First International Workshop, College Station, TX

Physical model testing plays a central role in both engineering and scientific studies. In recent years the technology used, instrumentation, computer technologies and the design of experiments, has undergone significant advances and is in the process of evolving even further. I developed, organized and directed this two-day conference, which was intended to bring together international experts to discuss their experiences in extending the boundaries of technology primarily in the broad area of offshore engineering. The specific topical areas covered by the conference were:

1. advances in theory, instrumentation and processing of data from physical model tests,
2. higher order spectral methods and reliability considerations,
3. evolutionary spectrum and wavelet analysis techniques,
4. recent and significant industrial model basin and field test programs,
5. industry perspectives and objectives,
6. standardization of facility qualification for model testing.

Organizing Committee:

J.M. Niedzwecki (Chair), OTRC Texas A&M University

O. Faltinsen (Co-chair), the Norwegian Institute of Science and Technology

Ove T. Gudmestad, Statoil, Trondheim Norway

Richard S. Mercier, Shell USA

Steven E. Ramberg, Office of Naval Research

Svein Remseth, the Norwegian Institute of Science and Technology

Jose M. Roesset, University of Texas at Austin

William C. Webster, University of California at Berkeley

Over one hundred participants from industry and academia participated in this conference. Proceedings, consisting of copies of the presentations and the text provided by the keynote lecturers were provided to the participants. There were 33 technical presentations, 7 panel discussions lead by industry and 2 keynote lectures. The themes which evolved for the conference sessions included: industry model tests: reflections and experience (2 sessions), advanced spectral analysis methods (1 session), computer modeling issues and problem areas (2 sessions) and advanced analysis and simulation methods (2 sessions). The conference dinner was held at the local winery, which provided a casual environment for relaxation and for informal discussions. The conference was a success and other faculty in the Department of Civil Engineering followed in developing the next several OTRC conference offerings.