

General Biographical Information

DONALD JAMES JANSSEN

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Academic Background

Ph.D.	University of Illinois	1985
M.S.C.E.	University of Illinois	1980
B.S.C.E.(with Honors)	University of Illinois	1978

Professional History

Associate Professor, Department of Civil Engineering, University of Washington, Seattle, WA, 1991-present.
Visiting Scholar, Department of Civil and Environmental Engineering, University of Pittsburgh, Pittsburgh, PA 2011-2012
Braun Intertec Visiting Professor, Department of Civil Engineering, University of Minnesota, Minneapolis, MN, 1998-1999
Assistant Professor, Department of Civil Engineering, University of Washington, Seattle, WA, 1985-1991.

Refereed Journal Publications

- Janssen, D.J. and B.J. Dempsey (1981) Soil-moisture properties of subgrade soils, *Transportation Research Record* 790.
- Janssen, D.J. (1983) Dynamic test to predict field behavior of filter fabrics used in pavement subdrains, *Transportation Research Record* 916.
- Janssen, D.J. and B.J. Dempsey (1986) The effect of AC overlays on D-cracking in PCC pavements, *Transportation Research Record* 1062.
- Janssen, D.J. (1988) Moisture in PCC, *Transportation Research Record* 1121.
- Janssen, D.J. (1988) Laboratory permeability measurement, *Permeability of Concrete*, American Concrete Institute, SP 108-8, 145-158.
- Vanderhorst, N. and D.J. Janssen (1989) The freeze-thaw environment: what is severe? Performance of Concrete, American Concrete Institute, SP 122, pp. 181-191.
- Janssen, D.J. and D.K. Almond (1991) A comparison of four aggregates using the Washington hydraulic fracture test, *Transportation Research Record* 1301.
- Sacco, D.A., R.L. Copstead, and D.J. Janssen (1993) A liquid level gage for measuring the cross-sectional deformation of aggregate surfaced roadways, *Transportation Research Record* 1426, pp. 74-80.
- Savage, B. M. and D.J. Janssen (1997) Soil physics principals validated for use in predicting unsaturated moisture movement in portland cement concrete, *ACI Materials Journal* Vol. 94, Jan-Feb 1997, pp. 63-70.
- Lynch, L.N. and D.J. Janssen (1998) Pavement joint sealant specifications – past, present, and future, *Journal of Elastomers and Plastics*, Vol. 30, pp. 161-181.

Holt, E.E. and D.J. Janssen (1998) Influence of early age volume changes on long-term concrete shrinkage, *Transportation Research Record* 1610, pp. 28-32.

Lynch, L.N. and D.J. Janssen (1999) Material characterization of silicone sealants, *Transportation Research Record* 1680, pp. 44-46.

Janssen, D.J. and M.B. Snyder (2000) Temperature-moment concept for evaluating pavement temperature data, *ASCE Journal of Infrastructure Systems*, Vol. 6, No. 2, pp. 81-83.

Janssen, D.J. (2010) Freeze-Thaw Performance of Concrete: Reconciling Laboratory-based Specifications with Field Experience, *Journal of ASTM International (JAI)*, Volume 7, Number 1.

Mu, F. J.M. Vandenbossche, and D.J. Janssen (2013) Quantifying the Mode I Energy Release Rate for Interface Fracture of Portland Cement Concrete Bonded to Asphalt, submitted to the American Concrete Institute for a special publication on fracture. Under review.

Fully-Refereed Conference Proceedings

Almond, D.K. and D.J. Janssen (1991) The Washington hydraulic fracture test for concrete aggregates exposed to freezing and thawing supplemental paper, *Proceedings of the Second CANMET/ACI International Conference on Durability of Concrete*, Montreal, Canada, August 1991.

Janssen, D.J. and M.B. Snyder (1993) Mass loss experience with ASTM C 666: with and without deicing salt, *Proceedings of the International Workshop on the Resistance of Concrete to Scaling Due to Freezing in the Presence of Deicing Salts*, Sainte-Foy, Quebec, August 1993, 137-151.

Newtson, Craig M. and Donald J. Janssen (1994) Effect of moist curing and modifier content on performance in freezing and thawing of two latex-modified concretes, *Proceedings of the CANMET Conference on Superplasticizers and Chemical Additives*, October 1994.

M. Nagi, D. Janssen, and D. Whiting (1994) Durability of concrete for early opening of repaired highways - field evaluation, durability of concrete, *Proceedings of the Third International Conference*, Nice, France, edited by V.M. Malhotra, 811-833.

Janssen, D.J., R.M. Dyer, and W.E. Elkey (1995) Effect of pumping on entrained air voids: role of pressure, *CONSEC 95 Concrete Under Severe Conditions* edited by K. Sakai, N. Banthia, and O.E. Gjrv, 233-239.

Janssen, D.J. (1997) The influence of material parameters on freeze-thaw resistance with and without deicing salt, *Frost Resistance of Concrete*, edited by M.J. Setzer and R. Auberg, E&FN SPON, pp. 3-10.

Vokes, E.A., S.L. Clarke, and D.J. Janssen (1997) Damping measurements for non-destructive evaluation of concrete beams, *Frost Resistance of Concrete*, edited by M.J. Setzer and R. Auberg, E&FN SPON, pp. 288-297.

Elkey, W.D., D.J. Janssen, and K.C. Hover (1998) Effects of admixtures on air-void stability of concrete subjected to pressurization, *Concrete Under Severe Conditions 2*, edited by O.E. Gjrrv, K. Sakai and N. Banthia, E&FN SPON, pp. 1809-1818.

Janssen, D.J., K.A. MacDonald, and A.J. Gardiner (2001) Effects of pumping parameters on the stability of entrained air voids, *Concrete Under Severe Conditions*, edited by N. Banthia, K. Sakai and O.E. Gjrrv, University of British Columbia, pp. 1344-1351.

Janssen, D.J. and M.B. Snyder (2002) Fundamental frequency testing of concrete disk specimens subjected to rapid freezing and thawing, *Frost Damage in Concrete*, Proceedings of the Minneapolis Workshop, June 1999, edited by D.J. Janssen, M.J. Setzer, and M.B. Snyder, RILEM Proceedings PRO 25, RILEM Publications S.A.R.L., France.

Dombrowski, K.I., W.G.C. Erfurt, and D.J. Janssen (2002) Identifying D-cracking susceptible aggregates – a comparison of testing procedures, *Frost Damage in Concrete*, Proceedings of the Minneapolis Workshop, June 1999, edited by D.J. Janssen, M.J. Setzer, and M.B. Snyder, RILEM Proceedings PRO 25, RILEM Publications S.A.R.L., France.

Koubaa, A., M.B. Snyder, and D.J. Janssen (2002) Development and evaluation of D-cracking mitigation techniques, *Frost Damage in Concrete*, Proceedings of the Minneapolis Workshop, June 1999, edited by D.J. Janssen, M.J. Setzer, and M.B. Snyder, RILEM Proceedings PRO 25, RILEM Publications S.A.R.L., France.

Janssen, D.J. (2002) Requirements for a test of frost resistance of concrete, *Frost Resistance of Concrete*, Proceedings of the Second Essen Workshop, April 2002, edited by M.J. Setzer, R. Auberg, and H.-J. Keck, RILEM Proceedings PRO 25, RILEM Publications S.A.R.L., France, pp. 277-286.

Abstract and Non-Refereed Conference Proceedings and Other Non-Journal Articles

Janssen, D.J. and D.M. Hayward (1990) Measurement of the water pore system in concrete by constant humidity drying, Abstract, *The Institute of Metals Conference on Microstructure of Cement and Concrete*, University of Oxford, Oxford, England, September 1990.

Setzer, M.J., G. Fagerlund and D.J. Janssen (1996) CDF Test - Test method for the freeze-thaw resistance of concrete - tests with sodium chloride solution (CDF), *Materials and Structures*, Vol. 29, November 1996, pp. 523-528.

Snyder, M.B., J.J. Hietpas, and D.J. Janssen (1997) Hydraulic fracture testing - recent developments, *Proceedings of the 1997 Meeting of the International Center for Aggregates Research*, Austin, Texas.

Janssen, D.J. and M.B. Snyder (1997) D-cracking in portland cement concrete, *Ibausil – 13. Internationale Baustofftagung*, Paper No. 1.122.

Janssen, D.J. (2000) The role of coarse aggregates in frost-resistant concrete, *Ibausil – 14. Internationale Baustofftagung*, Paper No. 3.07, pp. 677-690.

Janssen, D.J. (2002) Participation is the key to successful governance, *University Week*, University of Washington, May 23, 2002, p. 2.

D.J. Janssen, J.M. Vandenbossche, N.M. Whiting and A. Koubaa, (2006) Optimizing the use of recycled concrete fines in interground slag-cement, *Ibausil – 16. Internationale Baustofftagung*, Paper No. 1.05, pp. 155-164.

D.J. Janssen, J.M. Vandenbossche and A. Koubaa (2007) Optimierter Einsatz von feinerkleinertem Recyclingbeton in Schlackenzement, *ZKG International*, No. 4-2007 (Vol. 60), pp. 88-95. (*auf Deutsch und English*)

Shogren, R., D. Janssen and G. McKinnon, (2009) Evaluating concrete wash water for predicting set acceleration in mixtures using recycled wash water, *Ibausil – 17. Internationale Baustofftagung*, Paper No. 3.38, ISBN 978-3-00-027265-3, Weimar, Germany. pp. 1069-1074.

Janssen, D.J. and R.G. Shogren (2009), “Recycling the rest of concrete, and improving properties at the same time”, *Ibausil – 17. Internationale Baustofftagung*, Paper No. 3.32, ISBN 978-3-00-027265-3, Weimar, Germany. pp. 1035-1040

Dufalla, N.A., E.M. Hanson, N.J. Connolly, J.M. Vandenbossche and D.J. Janssen (2012) “Characterizing Waste Concrete Fines for Incorporation into Ready-Mixed Concrete”, International Concrete Sustainability Conference, Seattle, WA.

Janssen, D., N. Connolly, E. Hanson, N. Dufalla, and J. Vandenbossche (2012) Characterizing Recycled Concrete Fines for Re-use in Concrete Mixtures, *Ibausil – 18. Internationale Baustofftagung*, Vol. 2, Paper No. 3.29, pp. 1074-1081.

Shogren, R. and D. Janssen (2012) Using Cement Kiln Dust as a Process Addition to Improve Ground Granulated Blast Furnace Slag Compressive Performance, *Ibausil – 18. Internationale Baustofftagung*, Vol. 1, Paper No. 1.58, pp. 533-539.

Books

None

Editing and Other Scholarly Papers

Frost Damage in Concrete, Proceedings of the Minneapolis Workshop, June 1999, edited by D.J. Janssen, M.J. Setzer, and M.B. Snyder, RILEM Proceedings PRO 25, RILEM Publications S.A.R.L., France, 2002.

Early and Long-Term Effects of Curling and Warping on Jointed Concrete Pavement, Final Report for Federal Highway Administration Contract DTFH61-95-C-00021, edited by S.L. Marvinney, D.J. Janssen and M.B. Snyder, Washington, D.C., November 2002.

Sponsored Research

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|---------|--|
| 1985-87 | Concrete Overlays for Bridge Application, Washington State Department of Transportation, \$156,194 (PI with K. Babei) funded |
| 1986 | Fatigue and Flexural Testing of SFRC Beams, Navy Construction Battalion Center, California, \$19,129 (N. Hawkins PI) funded |
| 1886-87 | Bridge Deck Moisture Measurement, Washington State Department of Transportation, \$11,045 (Sole PI) funded |
| 1987-88 | Material Properties and Skid Resistance, Pavement Consultants, Inc., \$16,280 (Sole PI) funded |
| 1987-88 | Freeze-Thaw in Concrete, Ref. No. 2854-86, Federal Highway Administration, Western Region, \$17,500 (Sole PI) funded |

- 1987-88 PCC Mix Design, Washington State Department of Transportation, \$30,211 (Sole PI) funded
- 1987-92 Material Durability, National Science Foundation, as part PYI Award, \$186,348 (Sole PI) funded
- 1988-92 Resistance of Concrete to Freezing and Thawing, Strategic Highway Research Program, National Research Council Strategic Highway Research Program, National Research Council, \$1,195,319 (Sole UW PI, with Subcontracts at MSU and UI)
- 1991 Fourier Analysis Equipment for Nondestructive Testing of Pavements and Materials, Tektronix Corporation, \$7,097 (PI with J.P. Mahoney as Co-PI) funded
- 1991-92 Effect of Tire Pressure on Aggregate-Surfaced Roads, United States Forest Service, \$32,065 (Sole PI) funded
- 1991-92 Estimation of Seasonal Effects for Pavement Design and Performance, United States Forest Service \$45,000 (Co-PI with J.P. Mahoney as PI)
- 1991-92 Effect of Concrete Pumping on the Entrained Air-Void System in Concrete, Washington State Department of Transportation, \$50,000 (Sole UW PI with subcontract to Cornell University)
- 1993-95 WHFT Adoption, Subcontractor to University of Michigan, Michigan Department of Transportation, \$82,265 (Sole UW PI, amount shown is subcontract amount)
- 1994-99 Freeze-Thaw Monitoring, Subcontractor to ERES Consultants, Inc., Federal Highway Administration, \$44,717 (Sole UW PI, amount shown is subcontract amount)
- 1995-97 Performance of Subsurface Drainage - NCHRP 1-34, Subcontractor to ERES Consultants, Inc., National Cooperative Highway Research Program, \$60,010 (Sole UW PI, amount shown is subcontract amount)
- 1995-98 Effect of Curling and Warping on FWD Measurement, Subcontractor to University of Minnesota, Minnesota Department of Transportation, \$50,000 (Sole UW PI, amount shown is subcontract amount)
- 1996-99 High Performance Concrete Materials, Subtask of High Performance Concrete Bridge Project, Washington State Department of Transportation, \$36,616 (M. Eberhard and J. Stanton, Co-Pi's, amount shown is Materials Subtask amount)
- 1995-00 Effect of Curling and Warping on Early and Long-Term Performance of Jointed Concrete Pavements, Federal Highway Administration, \$671,723 (Sole UW PI, with Subcontracts at University of Minnesota and University of Cincinnati)
- 1997-00 Freeze-Thaw Durability of Natural Stones Used as Aggregate for Concrete, Travel Funding for Cooperative Research with the Bauhaus University, Weimar, Germany, National Science Foundation, \$12,528 (Sole PI)
- 2000-01 Early-Age Shrinkage in Concrete, Travel Funding for Erika Holt, National Science Foundation, \$9,000 (Sole PI)
- 2004-05 Replacing Energy Intensive Cements with Blast Furnace Waste that has been Enhanced through the Addition of a Recycled Concrete Mineral Admixture, Mascaro Sustainability Initiative, \$54,000 (Co-PI, with University of Pittsburgh Department

of Civil Engineering – dollar amount shown is total, which provides funding for a Post-Doc and equipment at Pittsburgh)

- 2009-10 Evaluating and Optimizing Recycled Concrete Fines in PCC Mixtures Containing Supplementary Cementitious Materials, Transnow, \$12,056 (not including matching) (Sole PI)
- 2011-13 Structural Design Parameters of Current WSDOT Mixtures, WSDOT, \$140,000 (PI, with Marc Eberhard as Co-PI)
- 2012-13 Guidelines for the use of Waste Concrete Fines, NCHRP-IDEA, \$94,438 (University of Pittsburgh, Julie Vandebossche PI)
- 2013-14 Field Validation of Recycled Concrete Fines Usage, PacTrans, \$32,550 (approximately 50% in-kind match) (Sole PI)
- 2014-15 Plinth Materials, KPFF (Sound Transit), \$104,546 (Sole PI)

Other Funded Testing

- 2003-04 Material Testing for Percocrete Development, Michiels International Inc. (inkind funding, including providing repair parts for freeze-thaw equipment).
- 2004 Evaluation of shrinkage and Shrinkage Cracking of Concrete, Weyerhaeuser Company, \$4,575.
- 2010-11 Concrete Creep Testing, WSDOT, \$8,000.

Open Proposals

- \$94,753 Embedded Fiber Optic Sensors for Multiparameter Sensing in Structural Concretes, submitted to the Pacific Northwest National Laboratory, March, 2014.

Project Reports (reports to sponsors)

Soil-water properties of subgrade soils, Civil Engineering Studies, Transportation Engineering Series No. 17, University of Illinois, 1980 (with B.J Dempsey).

D-cracking in portland cement concrete pavements, Civil Engineering Studies, Transportation Engineering Series No. 37, University of Illinois, 1983. (with M.P. Olsen and B.J. Dempsey).

Development of a preliminary ALRS stabilized material pavement analysis system (SPAS), Engineering and Services Laboratory Report ESL-TR-83-34, Air Force Engineering and Services Center, Tyndall Air Force Base, Florida, 1984 (with M.R. Thompson and B.J. Dempsey).

Predicting the progression of D-cracking, Civil Engineering Studies, Transportation Engineering Series No. 44, University of Illinois, 1986 (with J.D. DuBose, A.J. Patel, and B.J. Dempsey).

Flexural and fatigue testing of steel fiber reinforced concrete beams, Naval Construction Battalion Center, Port Hueneme, California, 1986 (with N.M. Hawkins, Y. Takebe and T. Tseng).

Bridge deck moisture measurement, Final Report, WA-RD 124.1, Washington State Department of Transportation, Olympia, Washington, July 1987.

Air requirements for freeze-thaw resistant concrete, Final Report, R17-1389-87, Federal Highway Administration, Vancouver, Washington, December 1988.

PCC mix design, Final Report, WA-RD 176.1, Washington State Department of Transportation, Olympia, Washington, March 1989.

Highway Concrete Manual, *User Manual*, Washington State Department of Transportation, October 1989.

Resistance of concrete to freezing and thawing: an annotated bibliography, submitted to the Strategic Highway Research Program, 1992, 222 pp. (with M.B. Snyder).

Resistance of concrete to freezing and thawing, SHRP-C-391, Strategic Highway Research Program, 1994, National Research Council, Washington, D.C., 201 pp. (with M.B. Snyder).

Adoption of a rapid test for determining aggregate durability in portland cement concrete, final report to the Michigan Department of Transportation, 1996, 239 pp (with Mark B. Snyder and Will Hansen).

High Performance Concrete in Washington State SR 18/ SR 516 Overcrossing: Interim Report on Materials Tests. Washington State Department of Transportation WA-RD, Olympia, Washington, November, 1998. 71 pp. (Fekete, E., Barr, P., Stanton, J.F., Eberhard, M.O. and Janssen, D.)

Field evaluation of SHRP C-203 freeze-thaw resistance test sites, draft final report to the Federal Highway administration, 2001, 36 pp.

Hanson, E.M., N.J. Connolly and D.J. Janssen, (2010) *Evaluating and Optimizing Recycled Concrete Fines in PCC Mixtures Containing Supplementary Cementitious Materials*, TransNoW Research Report TNW2010-03, Transportation Northwest, Seattle, WA

Meador, J.D., D.J. Janssen and M.O. Eberhard, (2013) *Structural Design Parameters of Current WSDOT Mixtures*, WA-RD 802.1, Washington State Department of Transportation, Olympia, WA, 200 pages.

Dufalla, N., D. Janssen, and J. M. Vandenbossche, (2014) *Guidelines for the use of Waste Concrete Fines*, NCHRP-IDEA, Washington, D.C., 80 pages.

Other Research-Related Activities

- 1998-2002 Concrete Elastic Modulus Prediction (work started while on sabbatical and continuing with additional coarse aggregate types)
- 2000-01 Drying Shrinkage of Precast Concrete – in cooperation with Concrete Tech, Tacoma, WA (un-funded testing of specimens for Concrete Tech)
- 1999-2008 Predicting Long-Term Drying Shrinkage (continued testing of specimens cast in CE422 and CETS 526 to predict long-term drying shrinkage from 28-day tests)
- 2005-06 Consultation with J. Stanton and M. Eberhard concerning Early-Age Creep and Shrinkage testing, including meetings with Tony Hupfauf (exchange student from Austria) to explain test equipment
- 2006-09 Early-Age Autogenous Shrinkage of Concrete Containing Ground Granulated Blast Furnace Slag, with Robert Shogren – work conducted at LaFarge Cement, Seattle
- 2008-09 Using Recycled Concrete Fines to Accelerate High-Slag Mixtures
- 2013-14 Effect of Mold Type and Size on Concrete Strength and Elastic Modulus
- 2013-14 Effect of Initial Curing Conditions on Low w/c Mixtures

Invited Lectures and Seminars

- Low-slump concrete overlays, Invited Lecture at the Washington State Transportation Center (TRAC) Bridge Deck Protection Seminar, 1986
- New test method for identifying problem aggregates, Invited Lecture at the National D-Cracking Workshop, Lenexa, Kansas, May 3, 1990.
- Resistance of concrete to freezing and thawing, Invited Lecture at the Strategic Highway Research Program Summer Workshop, Denver, CO, August 1-3, 1990.
- The influence of material parameters on freeze-thaw resistance with and without deicing salt, Invited Opening Lecture at the International RILEM Workshop on Frost Resistance of Concrete, Essen, Germany, September 22-24, 1997
- Frost action in concrete, Invited Tutorial and Laboratory Demonstrations, Fifth Undergraduate Faculty Enhancement Symposium on Teaching the Materials Science, Engineering and Field Aspects of Concrete, Berkeley, California, July 12-15, 1998
- Pumping air-entrained concrete, Invited Lecture at the Minnesota Concrete Council's Tenth Annual Concrete Seminar, St. Paul, Minnesota, February 18, 1999.
- High-performance concrete: the importance of peripheral vision, Invited Lecture at the Third Annual Minnesota Pavement Conference, St. Paul, Minnesota, February 25, 1999.
- Achieving frost-resistant concrete, Invited Seminar presented for the University of Illinois-Chicago department of Civil and Materials Engineering, Chicago, Illinois, February 26, 1999.
- Pumping air-entrained concrete, Training Seminar for Braun Intertec, Minneapolis, Minnesota, March 24, 1999.
- The role of coarse aggregates in frost-resistant concrete, Ibausil – 14. Internationale Baustofftagung, Weimar, Germany, September 21, 2000.
- Requirements for a test of frost resistance of concrete, Second Essen Workshop on Frost Resistance of Concrete, Essen, Germany, April 19, 2002
- Self-consolidating concrete: theory to practice, American Precast Association Workshop on Self-Compacting Concrete, Seatac, WA, September 27, 2002.
- Non-destructive testing and a procedure for identifying ettringite instability in accelerated-cure concrete, Ibausil – 15. Internationale Baustofftagung, Weimar, Germany, September 25, 2003.
- Commentary on *History of Concrete*, a video from the History Channel, ACI, Washington Chapter meeting, Tukwila, WA, November 12, 2003.
- Three Things You Thought You Knew About Concrete, Pittsburgh Area Chapter of the American Concrete Institute, October 12, 2011.
- Vandenbossche, J.M., A. Iannacchione, D. Janssen, J. Brigham, V. Khanna, "Gas Migration," Pennsylvania Department of Environmental Protection Tech Services Meeting, Williamsport, PA, March 2012, presented by J.M. Vandenbossche.

Presentations Given at Conferences

- Janssen, D.J. and B.J. Dempsey, Soil-Moisture Properties of Subgrade Soils, presented at the 60th Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 1981 by D.J. Janssen.

Janssen, D.J., Dynamic Test to Predict Field Behavior of Filter Fabrics Used in Pavement Subdrains, presented at the 62nd Annual Meeting of the Transportation Research Board, Washington, D.C., January 17-21, 1983 by D.J. Janssen.

Janssen, D.J. and B.J. Dempsey, The Effect of AC Overlays on D-Cracking in PCC Pavements, presented at the 65th Annual Meeting of the Transportation Research Board, Washington, D.C., January 13-16, 1986 by D.J. Janssen.

Janssen, D.J., Moisture in PCC, presented at the 66th Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-15, 1987 by D.J. Janssen.

Janssen, D.J., Laboratory Permeability Measurement, presented at the ACI Symposium on Permeability of Concrete, American Concrete Institute, Seattle, WA, November 8-13, 1987 by D.J. Janssen.

Vanderhorst, N. and D.J. Janssen, The Freeze-Thaw Environment: What is Severe?, presented at the Paul Klieger Symposium on Performance of Concrete, Fall 1990 meeting of the American Concrete Institute, San Diego, CA, October 29-November 3, 1989 by N. Vanderhorst.

Almond, D.K. and D.J. Janssen, A Test for Identifying Concrete Aggregates Susceptible to Damage from Freezing and Thawing, presented at 1990 Transportation Research Board Meeting, Session 199, Washington, D.C., January 10, 1990 by D.K. Almond.

Flude, S.T. and D.J. Janssen, A Comparison of Air-Void Characteristics for Various Concretes, presented at 1990 Transportation Research Board Meeting, Session 144, Washington, D.C., January 10, 1990 by S.T. Flude.

Janssen, D.J. and D.K. Almond, New Test Method for Identifying Problem Aggregates, invited presentation at the National D-Cracking Workshop, Lenexa, Kansas, May 3, 1990 by D.J. Janssen.

Janssen, D.J., Resistance of Concrete to Freezing and Thawing, invited presentation at the Strategic Highway Research Program Summer Workshop, Denver, CO, August 1-3, 1990 by D.J. Janssen.

Janssen, D.J. and D.M. Hayward, Measurement of the Water Pore System in Concrete by Constant Humidity Drying, presented at the Institute of Metals Conference on Microstructure of Cement and Concrete, University of Oxford, Oxford, England, September 19-20, 1990 by D.J. Janssen.

Janssen, D.J. and D.K. Almond, A Comparison of Four Aggregates Using the Washington Hydraulic Fracture Test, presented at 1991 Transportation Research Board Meeting, Session 5, Washington, D.C., January 13-17, 1991 by D.J. Janssen.

Janssen, D.J. and M.B. Snyder, A New Performance Hypothesis for Frost-Resistant Concrete, presented at 1991 Transportation Research Board Meeting, Session 11, Washington, D.C., January 13-17, 1991 by D.J. Janssen.

Hayward, D. and D.J. Janssen, Characterizing the Water Pore System in Concrete by Constant Humidity Drying, presented at the Spring 1991 meeting of the American Concrete Institute, Boston, Massachusetts, March 17-21, 1991 by D. Hayward.

Clarke, S.L., W.D. Scott, D.J. Janssen, D.W. Storti, and J.D. Chalupnik, Improved Method for Nondestructive Testing of Concrete Prisms, presented at the Spring 1991 meeting of the American Concrete Institute, Boston, Massachusetts, March 17-21, 1991 by S.L. Clarke.

Gibbs, S.C. and D.J. Janssen, Drying, Permeability, and Durability of Portland Cement Concrete, presented at the Spring 1991 meeting of the American Concrete Institute, Boston, Massachusetts, March 17-21, 1991 by S.C. Gibbs.

Almond, D.K. and D.J. Janssen, The Washington Hydraulic Fracture Test for Concrete Aggregates Exposed to Freezing and Thawing, presented at the Second CANMET/ACI International Conference on Durability of Concrete, Montreal, Canada, August 4-9, 1991 by D.J. Janssen.

Janssen, D.J., The Washington Hydraulic Fracture Test, presented at the AASHTO Technology Transfer Exhibition, Milwaukee, Wisconsin, October 12 and 13, 1991 by D.J. Janssen.

Dyer, R.M. and D.J. Janssen, Effect of Pumping Pressures on Air Content, presented at the Fall Meeting of the American Concrete Institute, Dallas, Texas, November 12, 1991 by R.M. Dyer.

Janssen, D.J., S.L. Clarke, D.W. Storti, W.D. Scott, and J.D. Chalupnik, Modal Analysis for Determining Specimen Deterioration Due to Freezing and Thawing, presented at the Annual Meeting of the Transportation Research Board, Washington, D.C., January 13, 1992 by D.J. Janssen.

Janssen, D.J. and D.V. Lasater, Resilient Modulus of CLSM, presented at the Annual Meeting of the Transportation Research Board, Washington, D.C., January 15, 1992 by D.J. Janssen.

Buenting, M.A. and D.J. Janssen, Factors Affecting Permeability and Pore Structure of Concrete, presented at the Spring Meeting of the American Concrete Institute, Washington, D.C., March 16, 1992 by M.A. Buenting.

Vokes, E.A. and D.J. Janssen, Damping Measurements for Nondestructive Evaluation of Concrete Beams, presented at the Spring Meeting of the American Concrete Institute, Washington, D.C., March 17, 1992 by E.A. Vokes.

Janssen, D.J. and M.B. Snyder, Mass Loss Experience with ASTM C 666: With and Without Deicing Salt, *Proceedings of the International Workshop on the Resistance of Concrete to Scaling Due to Freezing in the Presence of Deicing Salts*, Sainte-Foy, Quebec, August 1993, by D.J. Janssen.

Janssen, D.J., R.M. Dyer, and W.E. Elkey, Effect of Pumping on Entrained Air Voids: Role of Pressure, presented at CONSEC 95, Concrete Under Severe Conditions, Sapporo, Japan, 1995 by D.J. Janssen.

Janssen, D.J., M.B. Snyder, and M.A. Buenting, Influence of supplementary cementitious materials on the reduction of freezable moisture in concrete, presented at Fall meeting of the American Concrete Institute, New Orleans, LA, November 5, 1996 by D.J. Janssen.

Savage, B.M., D.J. Janssen, and M.B. Snyder, Modeling of temperature and moisture gradients in PCC pavement slabs, presented at the Spring meeting of the American Concrete Institute, Seattle, Washington, April 7, 1997 by B.M. Savage.

Holt, E.E. and D.J. Janssen, Evaluation of steel fiber reinforced concrete for pavement overlays, presented at the spring meeting of the American Concrete Institute, Seattle, Washington, April 7, 1997 by E.E. Holt.

Janssen, D.J., The influence of material parameters on freeze-thaw resistance with and without deicing salt, International RILEM Workshop on Frost Resistance of Concrete, Essen, Germany, September 22, 1997 by D.J. Janssen.

Vokes, E.A., S.L. Clarke, and D.J. Janssen, Damping measurements for non-destructive evaluation of concrete beams, International RILEM Workshop on Frost Resistance of Concrete, Essen, Germany, September 23, 1997 by D.J. Janssen.

Janssen, D.J. and M.B. Snyder, D-cracking in portland cement concrete, *Ibausil – 13. Internationale Baustofftagung*, Weimar, Germany, September 25, 1997 by D.J. Janssen.

Holt, E.E. and D.J. Janssen, Influence of early age volume changes on long-term concrete shrinkage, Transportation Research Board, Washington, D.C., January 12, 1998 by E.E. Holt.

Janssen, D.J. and M.B. Snyder, The temperature-moment concept for evaluating pavement temperature data, FHWA Contractors' Meeting, Transportation Research Board, Washington, D.C., January 13, 1998 by M.B. Snyder.

Janssen, D.J. and M.B. Snyder, Guidelines for pavement test section instrumentation for evaluating the effects of temperature and moisture gradients, FHWA Contractors' Meeting, Transportation Research Board, Washington, D.C., January 13, 1999 by M.B. Snyder.

Dombrowski, K.I., W.G.C. Erfurt, and D.J. Janssen, Identifying D-cracking susceptible aggregates – a comparison of testing procedures, Minneapolis Workshop on Frost Damage in Concrete, Minneapolis, MN, June 29, 1999 by D.J. Janssen.

Janssen, D.J. and M.B. Snyder, Fundamental frequency testing of concrete disk specimens subjected to rapid freezing and thawing, Minneapolis Workshop on Frost Damage in Concrete, Minneapolis, MN, June 30, 1999 by D.J. Janssen.

Koubaa, A., M.B. Snyder, and D.J. Janssen, Development and evaluation of D-cracking mitigation techniques, Minneapolis Workshop on Frost Damage in Concrete, Minneapolis, MN, June 30, 1999 by M.B. Snyder.

Janssen, D.J., T.J. Van Dam, K.R. Peterson, T.H. Yu, and M.B. Snyder, Deterioration of some early strength pavement patches, Fall meeting of the American Concrete Institute, Toronto, Ontario, October 18, 2000 by D.J. Janssen.

Holt, E.E., M. Leivo, and D.J. Janssen, Effect of curing and other factors on early-age cracking, Spring meeting of the American Concrete Institute, Philadelphia, PA., March 26, 2001 by E.E. Holt.

Janssen, D.J. and Holt, E.E., The first twelve hours - critical for crack control, Fall meeting of the American Concrete Institute, Dallas, TX, October 28, 2001 by D.J. Janssen

Janssen, D.J. and Newton, C.M., Quality factor measurements for detecting and quantifying microstructural changes in concrete specimens, Fall meeting of the American Concrete Institute, Dallas, TX, October 29, 2001 by D.J. Janssen

Janssen, D.J., Requirements for a test of frost resistance of concrete, Second Essen Workshop on Frost Resistance of Concrete, Essen, Germany, April 19, 2002 by D.J. Janssen.

Holt, E, Kuosa, H. and Janssen, D, Self-consolidating concrete: theory to practice, American Precast Association Workshop on Self-Compacting Concrete, Seatac, WA, September 27, 2002, by D. Janssen.

Janssen, D.J. Nondestructive testing and a procedure for identifying ettringite instability in accelerated-cure concrete, *Ibausil – 15. Internationale Baustofftagung*, Weimar, Germany, September 25, 2003, by D.J. Janssen.

D.J. Janssen, J.M. Vandenbossche and A. Koubaa, Optimizing the use of recycled concrete fines in interground slag-cement, *Ibausil – 16. Internationale Baustofftagung*, Weimar, Germany, September 19, 2006, by D.J. Janssen.

Shogren, R., D. Janssen and G. McKinnon, Evaluating concrete wash water for predicting set acceleration in mixtures using recycled wash water, *Ibausil – 17. Internationale Baustofftagung*, Weimar, Germany, September 25, 2009, by D.J. Janssen.

Janssen, D.J. and R.G. Shogren, Recycling the rest of concrete, and improving properties at the same time, *Ibausil – 17. Internationale Baustofftagung*, Weimar, Germany, September 25, 2009, by D.J. Janssen.

Janssen, D.J. “Air Content Testing of Pumped Concrete”, Spring meeting of the American Concrete Institute, Tampa, Fla, April 5, 2011, by D.J. Janssen.

Janssen, D.J., T. Ley and K. Peterson “Ettringite and Freeze-Thaw Damage”, Fall meeting of the American Concrete Institute, Cincinnati, Ohio, October 19, 2011, by D.J. Janssen.

Dufalla, N.A., E.M. Hanson, N.J. Connolly, J.M. Vandenbossche and D.J. Janssen “Characterizing Waste Concrete Fines for Incorporation into Ready-Mixed Concrete”, International Concrete Sustainability Conference, May 9, 2012, by D.J. Janssen.

Janssen, D., N. Connolly, E. Hanson, E.; N. Dufalla, and J. Vandenbossche “Characterizing Recycled Concrete Fines for Re-use in Concrete Mixtures”, *Ibausil – 18. Internationale Baustofftagung*, September 13, 2012 by D. Janssen.

Shogren, R. and D. Janssen “Using Cement Kiln Dust as a Process Addition to Improve Ground Granulated Blast Furnace Slag Compressive Performance”, *Ibausil - 8. Internationale Baustofftagung*, September 13, 2012 by R. Shogren.

Posters

Whiting, N., J. Vandenbossche, D. Janssen and A. Koubaa, Replacing Energy Intensive Cements with Blast Furnace Waste, Enhanced through the addition of a Recycled Concrete, Engineering Sustainability 2005, April 11, 2005.

Connolly, N.J., E.M. Hanson and D.J. Janssen, Evaluating and Optimizing Recycled Concrete Fines in PCC Mixtures Containing Supplementary Cementitious Materials, 13th Annual Undergraduate Research Symposium, Mary Gates Hall, May 21, 2010.

Dufalla, N., D. Janssen, and J. M. Vandenbossche, Characterizing Recycled Concrete Fines for Re-Use, Transportation Research Board Annual Meeting, January 12-16, 2014.

Professional Licenses

None

Professional Society Memberships

American Concrete Institute - A technical and educational society dedicated to improving the design, construction, manufacture and maintenance of concrete structures. Member, National Organization and Washington Chapter.

Professional Society and Other Service

RILEM Senior Member 1994-2009; RILEM TC 117, Salt Scaling and Frost Resistance of Concrete, Member 1994-1997, RILEM TC-IDC, Internal Damage of Concrete due to frost action, Member and Secretary 1997 to 2003, RILEM TC-FLM, Modelling of life-time of concrete under different types of frost and de-icing salt attack, 2004-2007.

American Concrete Institute (ACI) Member 1987-2014; ACI Committee on Awards for Papers (CAP), Subcommittee SC2 “Wason Medal for Materials Research” 2007-2009, ACI Committee 201, Concrete Durability, Associate Member 1988-1992, Member 1993-2014; ACI Committee 201B, Revision to the Guide for Durable Concrete, Member 1991-2014; ACI 201 Oversight Subcommittee 2010-2014, ACI Faculty Network, University of Washington Representative 1998-2012; Journal Oversight Team, Member 1998-2001. Also member of Local ACI Chapter 1988-2014, Board of Directors 2000-2007 and member of Seattle ACI Convention Committee, 1996-97.

Co-host of Minneapolis Workshop on Frost Damage in Concrete, Minneapolis, Mn., June 28-30, 1999 (a RILEM-affiliated event)

Transportation Research Board (TRB) 1981-1994; TRB Committee on Performance of Concrete, A2E01, Member 1988-1994, Chair, 1991-1994; TRB Committee on Basic Research Pertaining to Portland Cement and Concrete, A2E06, Member 1990-1994; TRB Committee on Subsurface Drainage, A2K06, Member 1986-91; TRB Committee on Engineering Fabrics, A2K07, Member 1985-91; TRB Committee on Environmental Factors Except Frost, A2L06, Member 1983-89.

Reviews Made

Reviews are regularly made for the American Concrete Institute (ACI) and the American Society for Civil Engineers (ASCE) and occasionally for the American Society for Testing and Materials (ASTM), *Construction & Building Materials*, International Journal of Pavement Engineering, the International Union of Testing and Research Laboratories for Materials and Structures (RILEM), and Transportation Research Board (TRB)

Awards and Honors

Listed as an Outstanding Instructor, University of Illinois, 1982.

Listed as an Excellent Instructor, University of Illinois, 1982-84.

Fred Burggraf Award for Excellence in Highway Research for Researchers 30 Years or Younger, for paper “Dynamic Test to Predict Field Behavior of Filter Fabrics Used in Pavement Subdrains,” Transportation Research Board, Washington, D.C., 1984.

Presidential Young Investigator, presented to “the Nation’s most outstanding and promising young science and engineering faculty” by National Science Foundation, Washington, D.C., 1987.

K.B. Woods Award for Outstanding Paper in the Field of Design and Construction of Transportation Facilities, for paper “The Effect of AC Overlays on D-Cracking in PCC Pavements,” co-authored with Dr. B.J. Dempsey. Presented by Transportation Research Board, Washington, D.C., 1987.

Appointed Chair of Transportation Research Board Committee A2E01, Performance of Concrete, 1990.

Selected as Secretary of RILEM TC-IDC, 1997

Selected as the Braun Intertec Visiting Professor, University of Minnesota, 1998-99 academic year.

Rated Best Speaker at the Minnesota Concrete Council’s Tenth Annual Concrete Seminar, St. Paul, Minnesota, for the lecture on “Pumping Air-Entrained Concrete”, 1999.

Selected for Project Panel, NCHRP Project D18-10, 2001.

Selected to Attend Third Annual Teaching Academy “Institute for Teaching Excellence”, 2001.

Elected as a Fellow of the American Concrete Institute, 2003.

Nominated for the University Distinguished Teaching Award, University of Washington, 2004.

Nominated as a Favorite Professor in the UW Alumni Association’s poll of the class of 2006, Winter, 2006.

Invited to serve on American Concrete Institute (ACI) Committee on Awards for Papers (CAP), Subcommittee SC2 “Wason Medal for Materials Research” 2007

Teaching

Course	Quarter	No. of Students	Course Title	Instructor’s Avg of Items 1-4
CETS 464A	A85	30	Construction Materials II	4.3
CETS 464B	A85	13	Construction Materials II	4.2
CIVE 306	W86	61	Construction Engineering I	3.3
CETS 599	W86	18	Pavement Rehabilitation	3.8
CETS 564	SP86	22	Soil and Site Improvement	3.6
CETS 464	A86	22	Construction Materials II	3.8
CIVE 306	W87	56	Construction Engineering I	3.6
CETS 564	W87	12	Soil and Site Improvement	4.1
CETS 464	SP87	19	Construction Materials II	3.6
CETS 424	A87	26	Pavement Design	3.9
CETS 464	A87	22	Construction Materials II	4.3
CETS 564	W88	9	Soil and Site Improvement	4.7
CIVE 306	SP88	64	Construction Engineering I	3.3
CETS 464	SP88	23	Construction Materials II	3.9
CETS 424	A88	17	Pavement Design	3.7
CETS 464	A88	29	Construction Materials II	4.2
CETS 464	W89	9	Construction Materials II	4.3
CETS 464	SP89	18	Construction Materials II	4.1
CETS 424	A89	21	Pavement Design	4.0
CETS 464	A89	15	Construction Materials II	4.57
CETS 564	W90	10	Soil and Site Improvement	4.0
CETS 464	SP90	12	Construction Materials II	4.0
CIVE 363	A90	83	Construction Materials I	3.7
CETS 464	A90	19	Construction Materials II	4.3
CETS 564	W91	11	Soil and Site Improvement	4.3
CETS 424	SP91	26	Pavement Design	3.4

Course	Quarter	No. of Students	Course Title	Instructor's Avg of Items 1-4
On Sabbatical Leave, 1991-92 Academic Year				
CIVE 421	A92	27	Pavement Design	3.4
CIVE 422	A92	25	Construction Materials II	3.9
CETS 599B	W93	13	Pavement Rehabilitation	4.3
CIVE 422	SP93	21	Construction Materials II	NOT RATED
CIVE 363	A93	84	Construction Materials I	4.1
CIVE 422	A93	20	Construction Materials II	4.3
CETS 599	W94	5	Pavement Rehabilitation	4.3
CETS 520	SP94	12	Concrete Seminar	NOT RATED
CIVE 422	A94	21	Construction Materials II	4.0
ENGR 210	W95	50	Engineering Statics	3.6
CETS 520	SP95	18	Concrete Seminar	NOT RATED
CIVE 363	SP95	51	Construction Materials I	3.7
CIVE 422	A95	25	Construction Materials II	4.0
CETS 526	W96	3	Portland Cement Concrete Lab	NOT RATED
ENGR 210	W96	104	Engineering Statics	NOT RATED
CIVE 363	SP96	53	Construction Materials I	4.2
CETS 520	SP96	9	Concrete Seminar	NOT RATED
CIVE 421	A96	26	Pavement Design	3.1
CIVE 422	A96	15	Construction Materials II	4.1
CETS 520	W97	9	Concrete Seminar	NOT RATED
CIVE 363	SP97	49	Construction Materials I	
ENGR 100	SP97	23	Introduction to Engineering Design	3.56
CIVE 421	A97	21	Pavement Design	3.84
CIVE 422	A97	13	Construction Materials II	3.95
CE/CM 325	W98	40	Construction Materials (trial offering)	NOT RATED
CETS 520	W98	9	Concrete Seminar	NOT RATED
CETS 526	W98	6	Portland Cement Concrete Lab	NOT RATED
CIVE 363	SP98	30	Construction Materials I	4.41
On Sabbatical Leave, 1998-99 Academic Year				
CE5098 (Senior-level lab course)	W99	9	Properties and Performance of Portland Cement Concrete	NOT RATED (taught at University of Minnesota)
CIVE 422	A99	12	Construction Materials II	4.30
CIVE 363	W00	56	Construction Materials I	3.90
CIVE 421	W00	20	Pavement Design	3.84
CETS 526	SP00	8	Portland Cement Concrete Lab	3.58
CE 422	A00	5	Construction Materials II	4.27
CE 363	W01	64	Construction Materials I	3.95
CE 498	SP01	6	Reinforced Concrete Construction (first offering)	4.10
CE 363	A01	56	Construction Materials I	4.39
CM 323	W02	53	Methods and Materials II (first offering with integrated lab)	3.99
CE 498	SP02	9	Reinforced Concrete Construction	3.8
CE 363	A02	90	Construction Materials I	4.1
CE 498	A02	4	Lightweight Cementitious Composites (special project)	not rated
CM 323	W03	46	Methods and Materials II	4.6
CE 422	SP03	3	Construction Materials II	4.5
CE 498	SP03	6	Reinforced Concrete Construction	4.0

Course	Quarter	No. of Students	Course Title	Instructor's Avg of Items 1-4
CE 363	A03	68	Construction Materials I	4.4
CE 498	A03	8	Lightweight Cementitious Composites (special project)	not rated
CM 323	W04	57	Methods and Materials II	4.3
CE 363	SP04	43	Construction Materials I	4.5
CE 425	SP04	8	Reinforced Concrete Construction	3.9
CE 499	SP04	2	Special Project - Factors affecting concrete test results	not rated
CE 363	A04	60	Construction Materials I	4.3
CE 498	A04	6	Lightweight Cementitious Composites (special project)	not rated
CM 323	W05	74	Methods and Materials II	4.1
CE 441	W05	40	Transportation and Construction Capstone	2.9
CE 363	A05	38	Construction Materials I	4.4
CE 498	A05	7	Lightweight Cementitious Composites (special project)	not rated
CM 323	W06	48	Methods and Materials II	3.9
CE 441	W06	61	Transportation and Construction Capstone	Team-Taught (2.5)
CE425	SP06	19	Reinforced Concrete Construction	4.0
CE 363	A06	61	Construction Materials I	4.4
CE 428	A06	8	Lightweight Cementitious Composites	4.1
CM 323	W07	58	Methods and Materials II	3.8
CE425	SP07	19	Reinforced Concrete Construction	4.2
CE 363	A07	39	Construction Materials I	4.5
CE 428	A07	7	Lightweight Cementitious Composites	4.6
CM 323	W08	57	Methods and Materials II	3.5
CE 425	SP08	40	Reinforced Concrete Construction	3.9
CE 363	A08	55	Construction Materials I	4.6
CE 428	A08	7	Lightweight Cementitious Composites	4.2
CM 323	W09	67	Methods and Materials II	3.9
CE 425	SP09	51	Reinforced Concrete Construction	4.1
CE 363	A09	55	Construction Materials I	5.0
CE 428	A09	10	Lightweight Cementitious Composites	
CM 323	W10	78	Methods and Materials II	4.8
CE 500	W10	30	Transportation/Construction Seminar	Not Rated
CE 425	SP10	48	Reinforced Concrete Construction	3.9
CE 441	SP10	43	Transportation and Construction Capstone	3.8 (team taught)
CE 499	SP10	2	Special Projects	Not Rated
CE 500	SP10	27	Transportation/Construction Seminar	Not Rated
CE 600	SP10	2	Research Paper	Not Rated

Course	Quarter	No. of Students	Course Title	Instructor's Avg of Items 1-4
CE 363	A10	65	Construction Materials I	4.8
CE 428	A10	11	Lightweight Cementitious Composites	
CM 323	W11	57	Methods and Materials II	4.2
CE 500	W11	16	Transportation/Construction Seminar	Not Rated
CE 425	SP11	49	Reinforced Concrete Construction	3.8
CE 441	SP11	46	Transportation and Construction Capstone	3.7
CE 500	SP11	18	Transportation/Construction Seminar	(team taught) Not Rated
	A11		Sabbatical Leave	
CE 425	W12	40	Reinforced Concrete Construction	4.1
CM 323	W12	61	Methods and Materials II	4.3
	Sp12		Sabbatical Leave	
CE 337	A12	44	Construction Materials I	4.2
CE 428	A12	9	Lightweight Cementitious Composites	Not Rated
CE 600	A12	1	Research Paper	Not Rated
CE 499	W13	1	Special Projects	Not Rated
CM 323	W13	40	Methods and Materials II	4.3
CE 425	SP13	30	Reinforced Concrete Construction	3.8
CE 337	A13	58	Construction Materials I	4.7
CE 428	A13	9	Lightweight Cementitious Composites	Not Yet Rated (course ongoing SP13)
CE 600	A13	1	Research Paper	Not Rated
CM 323	W13	45	Methods and Materials II	Not Yet Rated
CE 337	Sp14		Construction Materials I	Next Quarter
CE 425	SP14		Reinforced Concrete Construction	Next Quarter

Short Courses, Workshops, and Other Educational Programs

Instructor for TRANSPEED Short Course: "Inspecting Public Works Projects", June 5-6, 2006 and March 21-22, 2007.

Faculty Workshop on Assessing Program Outcomes, ABET, Chicago, May 13, 2006

American Society for Civil Engineers, ABET Evaluator Training, March 29-30, 2005.

American Precast Association Workshop on Self-Compacting Concrete, September 27, 2002.

Department of Civil Engineering Teaching Workshop, presented by Karl Smith of the University of Minnesota, March 30, 2001

Minneapolis Workshop on Frost Damage in Concrete, Minneapolis, MN, June 28-30, 1999, Organized and Co-hosted with M.B. Snyder of the University of Minnesota.

Chaired Doctoral Degrees

Larry Lynch, August 1995

Bonnie Savage, passed qualifying, passed general, replaced as Chair, September 1997

Erika Holt, June 2001

Robert Shogren March 2009

Manik Barman January 2014 (University of Pittsburgh, Co-Chair with Dr. Julie Vandenbossche)

Chaired Masters Degrees

Name	Title	T/NT	Degree	DATE
Parker, Robert F.	Factors affecting production of continuous extruded concrete curb	NT	MSCE	December 1986
Tseng, Tom Gin-Yin	Flexural strength and toughness of steel fiber reinforced concrete	NT	MSCE	December 1986
DuBois, Robert G.	Interpretation of half cell readings by computer methods	T	MSCE	March 1987
Dowd, Jerry	Centrifuge separation of fresh concrete to determine water-cement ratio	NT	MSCE	December 1987
Crebbin, Cory J.	Laboratory evaluation of geotextile performance in silt fence application using a subsoil of glacial origin	NT	MSCE	December 1988
Squires, John D.	Examination of microscopic air-void parameters in concrete	T	MS	December 1988
Chavez, Oswaldo	Soil stabilization: study of a case with Nicaraguan soil	NT	MSCE	March 1989
Curran, Jeffrey A.	Thermal conditions in Washington pavements	NT	MSCE	March 1989
Simpson, Dean	Runway rubber removal	NT	MSCE	August 1989
Flude, Steven	Comparison of air-void characterization for various concretes	NT	MSCE	March 1990
Vanderhorst, Nicolaas	An examination of freezing-and-thawing severity in terms of field thermal conditions	NT	MSCE	March 1990
Almond, David K.	A test for identifying aggregates susceptible to freeze-thaw damage	T	MSCE	June 1990
Lasater, Darin	Resilient performance of controlled density fill in utility trench excavations	NT	MSCE	December 1990
Dyer, Robert M	An investigation of concrete pumping pressure and the effects of pressure on the air void system of portland cement concrete	T	MSCE	December 1991
Gibbs, Steve C.	Drying permeability and the freeze-thaw durability for portland cement concrete	T	MSCE	March 1992
Buenting, Mark A.	The factors affecting permeability and pore structure of concrete	T	MSCE	June 1992
Vokes, Elizabeth A.	Damping measurements for nondestructive evaluation of concrete prisms	T	MSCE	June 1992
Savage, Bonnie	Predicting moisture movement in portland cement concrete	T	MSCE	August 1992

Name	Title	T/NT	Degree	DATE
Sacco, David A.	A liquid level gage for measuring the cross-sectional deformation of aggregate-surfaced roadways	T	MS	March 1993
Barkenae, Jan E.	Steel fiber reinforced concrete and its use in road and airfield pavements	NT	MSCE	August 1993
Patton, Daniel A.	Evaluation of the fundamental frequency and quality factor as indicators of strength and elastic modulus	NT	MSE	August 1993
Racanelli, Vincent	Analysis of initial concrete testing in relation to expected performance	NT	MSCE	August 1993
Shaffer, Desiree L.	High strength concrete: a comparison of local mix design practices with national and international practices	T	MSCE	March 1994
Elkey, William	The effect pressure on entrained air voids	T	MSCE	June 1994
Ting, Stephen S.	Effect of water/cement ratio and paste content on modal analysis prediction of concrete properties	NT	MSE	August 1994
Alford, Thomas	Calibrating the Washington hydraulic fracture test apparatus	T	MSCE	June 1995
Sigler, David	Designing for stiffness of high-performance concrete	T	MSCE	March 1997
Holt, Erika	Evaluation of steel fiber reinforced concrete for pavement overlays	T	MSCE	June 1997
Ingólfsson, Ásberg	Elastic Modulus Prediction for Seattle Area Concrete	T	MSCE	August 1998
Joseph Taflin	Strength, Elastic Deformation and Short-Term Creep properties of Thermally and Mechanically Loaded Plain Concrete Beams Loaded in Flexure	T	MSCE	March 2001
Anthony Haverly	Appropriate Alternate Energy Sources for Developing Areas	NT	MSCE	May 2010
Kyle Goldsmith	Understanding the needs of RTK and Machine Controlled Construction for the advancement of the current engineering industry standard services	NT	MSCE	August 2010
Monica Jones	Bridge Deck Cracking – a Case Study of the Tonasket Bridge	NT	MSCE	August 2012
Jacob Meader	Structural Properties of WSDOT Concrete Mixtures (co-advisor with Marc Eberhard)	T	MSCE	March 2013

Other Student Supervision

PhD Committee Member for Feng Wu, University of Pittsburgh Department of Civil Engineering, Final Exam December 9, 2013 (Dr. J. Vandenbossche, Committee Chair).

PhD Committee Member for Somayeh Nassiri, University of Pittsburgh Department of Civil Engineering. Dissertation Title: Establishing Permanent Curl/Warp Temperature Gradient in Jointed Plain Concrete Pavements, April 2011 (Dr. J. Vandenbossche, Committee Chair).

Working with Zichang Li, University of Pittsburgh Department of Civil Engineering, (Dr. J. Vandenbossche, Committee Chair).

Students from the Bauhaus University, Weimar, Germany have spent three months each conducting laboratory testing at the University of Washington under the supervision of D. Janssen. This work became part of their thesis work when they returned to Germany.

Katja Dombrowski - 6-95 through 8-95

Birk Schnelle - 11-96 through 1-97

Marcus Brunner - 4-98 through 6-98

Periodic consultation with Structures grad students concerning concrete mixtures, testing procedures, and test results. Frequency varies with activity level in the Structures lab.

Captone Review Committee in Mechanical Engineering (ME495) dealing with the incorporation of nanoparticles into cement paste mixtures for the purpose of crack/damage healing, 2013

Departmental Service

Department of Civil Engineering Faculty Affairs Committee, Chair 2013-14.

Department of Civil Engineering Construction Search Subcommittee, 2013.

Department of Civil Engineering Undergraduate Education Committee (Admissions, Scholarships, Curriculum), Chair, 2006-2008

Department of Civil Engineering ABET Chair, 2005-2008.

Department of Civil Engineering ASCE Concrete Canoe Faculty Advisor, 2004-2011, 2012-14.

Department of Civil Engineering Undergraduate Admissions and Scholarship Committee, 2002-2006.

Department of Civil Engineering Laboratory Supervisor for Construction Materials Laboratories, Room 34 More, 1986-1997, Rooms 14, 16 and 22 More. 1986-2004. Coordinated re-organization of aggregates storage. Coordinated mixed use of room 34 (instructional and research). Assisted J.P. Mahoney and C.B. Brown in planning a remodel of Room 34 to include an enclosed classroom adjacent to the laboratory space. Served as Principal Coordinator for the actual remodel after funding was approved. 1992-93 Planned remodel of rooms 14, 16, 20, and 22 for research laboratory use (with S.L. Kramer). Coordinated completion of rooms 14, 16, 20, and 22 (separate from original remodel). Coordinated use of materials laboratories research space.

Department of Civil Engineering Construction Search Committee, 1997. Prepared Search Announcement, reviewed applicants.

Department of Civil Engineering Structures Search Committee, 1994. Reviewed applicants and participated in interview process. Ranked finalists, and assisted in preparation of final recommendation to Department.

Department of Civil Engineering Computer Committee, 1993-1998. Assist in making periodic decisions relating to instructional computing resources for Department.

Department of Civil Engineering Laboratory Organization and Safety Committee, Member, 1990-92. Reviewed laboratory organization, laboratory support, and

laboratory safety. Prepared recommendations for organization of laboratory supervision.

Department of Civil Engineering Geographic Information Systems (GIS) Search Committee, Member, 1989-90. Discussed role of GIS faculty member in Civil Engineering, reviewed GIS applicants, and interviewed three applicants.

Department of Civil Engineering Undergraduate Curriculum Review Committee, 1986-88. Reviewed undergraduate curriculum in terms of breadth and flexibility. Compared UW undergraduate civil engineering curriculum with others around the U.S.

Graduate Office Space Coordinator for the TSCE Division, 1986-88. Inventoried graduate student office space and assigned graduate student desks.

Department of Civil Engineering Graduation Reception Committee, 1987. Planned graduation reception.

Department of Civil Engineering Construction Faculty Search Committee, 1986-87. Reviewed applicants and interviewed one applicant.

Department of Civil Engineering Undergraduate Education Committee, 1986-87. Reviewed new course/course change submissions.

Department of Civil Engineering Space Planning Committee, 1985-86. Reviewed and prioritized plans for assorted remodel activities.

College Service

College of Engineering Council on Educational Policy, 2006-09, Vice Chair, 2007-08, Chair 2008-09, Chair of CEP Subcommittee on Academic Misconduct, 2007-08.

College of Engineering Accreditation and Continuous Improvement (ACI) Committee, 2005-2007.

College of Engineering Dean's Medal Selection Committee, 2009

Group 9 (College of Engineering) Safety Committee, 1999-2002

College of Engineering Student Affairs Committee, Chair, 1989-90. Major activity consisted of development of evaluation criteria for "Undergraduate Laboratory Improvement" proposals and then evaluating the 14 proposals received. The evaluation process consisted of initial reviews, site visits, interviews, and final evaluations.

College Council, College of Engineering, Member, 1989-90. Reviewed activities of College Policy committees and discussed special merit raise procedures, College Council continuity problems, and 1991-93 Biennium Operating Budget.

College of Engineering Student Affairs Committee, Chair, 1988-89. Major activity consisted of developing a procedure for the Dean to use when handling Academic Misconduct cases. A procedure for establishing Hearing Panels with faculty and student membership was approved by the College of Engineering faculty.

College Council, College of Engineering, Member, 1988-89. Reviewed activities of College Policy Committees and made recommendations to the Dean concerning minimum pre-Engineering GPA and appropriateness of faculty without College of Engineering appointments serving on College Policy Committees.

College of Engineering Student Affairs Committee, Member, 1987-88. Discussed student academic misconduct.

University Service

State of Washington Higher Education Coordinating Board Integrated Advisory System Working Group, 2004

State of Washington Higher Education Coordinating Board 2004 Strategic Master Plan for Higher Education -- Implementation Plans Reviewer, 2004

University of Washington Special Committee on Academic Quality and Rigor, Chair, 2008-2009.

University of Washington Faculty Council on Instructional Quality, 2007-10

University of Washington ROTC Officer Education Committee and Performance Review Board member, 2007-2014

University of Washington Disciplinary Committee, 2007, 2010, 2013.
 University of Washington Department of Pathobiology RCEP Committee, 2007.
 University of Washington Office of Admissions, Freshmen Holistic Admissions Calibration Team, 2005.
 University of Washington Office of Admissions, Transfer Application Review Calibration Team, 2004.
 University of Washington Undergraduate Advisory Council, 2004-2006.
 University of Washington Task force on Academic Progress, 2004-05.
 University of Washington Faculty Senate Working Group on the Undergraduate Experience, 2005-06.
 University of Washington Faculty Senate 1993-96, 2000-2004, 2004-2006.
 University of Washington Senate Executive Committee 2001-2002, 2004-2006
 University of Washington Faculty Council on Academic Standards, Chair, 2004-2006, Member, 2001-2007, 2010-2014, including the Subcommittee on Admissions and Graduation (Chair, 2006-07), 2003-2014, Awards Subcommittee, 2005.
 Program Identification Committee (part of the Reorganization, Consolidation and Elimination of Program process), College of Forest Resources, 2003
 Member of the Graduate School's Review Committee for the Department of Construction Management, site visit February 26 and 27, 2001.

Student Service

Arrangements were made by D. Janssen for the following students to study in Scandinavia through funding from the Valle program and other sources:

William Elkey - Oslo, Norway (Ministry of Transportation), 1-94 to 8-94
 Erika Holt - Helsinki, Finland (Technical Research Centre of Finland, VTT), 8-96 to 7-97 and 9-97 to 8-98
 Joseph Taflin - Stockholm, Sweden (Royal Institute of Technology), 7-98 to 7-99

Community Service

American Concrete Institute, Local Chapter, Served as Co-Chair for Student Sessions at Spring 1997 National Convention in Seattle, Member of 1998 Nominating Committee, Board of Directors 2000-2007
 Discussion of elastic modulus testing and factors affecting elastic modulus of concrete – meeting with Kurt Williams and Mike Polodna, WSDOT, Steve Wittstock, Oldcastle Materials, and Rob Shogren, LaFarge Cement, More Hall, UW Campus, May 11, 2010.

National Service

Member of NCHRP Project D18-16 Project Panel, 2011-2014
 Member of NCHRP Project D18-13 Project Panel, 2006-2012
 Member of NCHRP Project D18-10 Project Panel, 2001-2006
 RILEM, Secretary of RILEM Committee TC-IDC (Internal Damage of Concrete due to Frost Damage) 1997-2002
 RILEM, Organized Minneapolis Workshop on Frost Damage in Concrete, with M.B. Snyder, June 28-30, 1999.
 American Concrete Institute, Co-moderated two sessions on Multi-Durability Attack, Cincinnati, Ohio, October 19, 2011.
 American Concrete Institute, Co-moderated session on Visible and Invisible Concrete Cracking, Dallas, TX, October 29, 2001.
 American Concrete Institute, Organized and Co-Chaired two half-day sessions on Durability of High-Performance Concrete, Toronto, October 2000.
 American Concrete Association, Organized two half-day sessions on Influence of Binder Makeup on Concrete Durability at Fall Convention, 1996. Chaired one of the Sessions.
 American Concrete Association, Chaired session on Materials Science in Concrete at Spring Convention, 1991.

Strategic Highway Research Program, SHRP-IDEA Brainstorming Session on Pavement Performance, Urbana, Illinois, 1990.

All Other Service

Department of Civil Engineering (University of Pittsburgh) ASCE Concrete Canoe Faculty Advisor, 2011-2012.

Constructed molds for Concrete Horseshoe Competition, Ohio Valley Student ASCE Conference, 2011.

Hiking Trail Maintenance, Discovery Park, 2006

Working with Interfaith Church Group to plan and install playground equipment at Sand Point Community Housing, 2000-2001

Worked with a church group once a month in providing a meal at various shelters in Seattle, ongoing since 1990.

Constructed birdhouses and a “worm bin” for a local school, 1996-97.

Consulting Experience

ERES, Inc. - Instructor for Federal Highway Administration Course “Techniques for Pavement Rehabilitation,” 1984-86.

ERES, Inc. - Rewrote portion of Course Notes for Federal Highway Administration Course “Techniques for Pavement Rehabilitation,” 1987.

Pavement Consultants, Inc. - Drainage Design and Bedding Sand Evaluation for Paving Stone System for Seattle’s Westlake Park, 1987-88.

FHWA Western District Federal Division - Preparation of Participant Notes and presentation of Lecture on Concrete Durability at 1990 FHWA Western Division Engineers’ Conference, 1990.

Krekow Jennings, Inc. - Evaluation of Driveway Cracking, 1991.

Aleutian Constructors - Evaluation of Slab-on-Grade Cracking and Curling, 1992.

Pacific Science Center - Evaluation of Slab Cracking, 1993.

Construction Technology Laboratories, Inc. - Preparation of Participant and Instructor Notes and Visual Aids, FHWA SHRP Concrete Products Implementation, Calibration of Hydraulic Fracture Equipment, 1994-97.

Pearson Education - Review of *Materials for Civil and Construction Engineers*, 2003.

Pearson Education - Review of *Materials for Civil and Construction Engineers*, 3rd edition, 2012.

Holland Construction – Evaluation of Understrength Concrete Tests, 2013.

Related Work Experience

Head Carpenter and Assistant Foreman for Residential Construction, Summer 2004

Head Carpenter for Residential Construction, Summer 2005, Summer 2006, Summer 2007

Finish Carpenter for Residential Construction, Summer 2008, 2009, 2010