

Dobroslav Znidarcic

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Department of Civil, Environmental and Architectural Engineering,

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PERSONAL:

Birthdate: January 30, 1949, Zagreb, Croatia

Citizen of the United States of America

Married, two sons

EDUCATION:

Ph.D. University of Colorado, Boulder, Jan. 1980-May 1982

M.S. University of Zagreb, Sept. 1976-July 1978

B.S. University of Zagreb, Sept. 1967-May 1972

PROFESSIONAL EXPERIENCE:

University of Colorado, Civil Engineering Department, Boulder, Colorado

Professor – 2006 - present

University of Colorado, Civil Engineering Department, Boulder, Colorado

Associate Professor - 1992 - 2006

University of Zagreb, Croatia, Fulbright Scholar, 2001-2003

ISMES, (Italian Institute for Testing Materials and Structures), Bergamo, Italy

Visiting Scientist, 1993-1994

University of Colorado, Civil Engineering Department, Boulder, Colorado

Assistant Professor - August 1985 - 1992

Colorado State University, Fort Collins, Colorado

Faculty Affiliate - 1988 - 1990

Purdue University, School of Civil Engineering, West Lafayette, Indiana

Visiting Assistant Professor - July 1984 - May 1985

University of Zagreb, Faculty of Civil Engineering Sciences, Zagreb, Croatia

Docent, January 1983 - June 1984

Head of the Geotechnical Laboratory, Jan. 1983-June 1984

Scientific Assistant, July 1982 - December 1982

University of Colorado, Department of Civil Engineering, Boulder, Colorado

Lecturer and Research Associate, January 1982 - June 1982

Research Assistant, January 1980 - December 1981

University of Zagreb, Civil Engineering Faculty, Zagreb, Croatia

Scientific Assistant, July 1978 - December 1979

Research Engineer, October 1972 - June 1978

Geoexpert, Zagreb, Croatia

Head of the Field Laboratory, May 1974 - October 1977

HONORS:

Dean's Award, University of Zagreb, 1968

Sigma Xi, Member

Who's Who in the World, 1984

Junior Faculty Development Award, University of Colorado, 1986

Engineering Foundation Research Initiation Award, 1986

Young Researcher Award, CEAE Department, University of Colorado, Boulder, 1991

Keynote Lecture, REGEO 95, Ouro Preto, Brazil, 1995

ASCE Geotechnical Engineering Division, Outstanding paper 1996 (1 paper)

ASCE Geotechnical Engineering Division, Outstanding paper 1997 (2 papers)

Moderator – Panel on Environmental Geotechnics- XIth Danube- European Conference on Soil Mechanics and Geotechnical Engineering, Porec, Croatia, May 25-29, 1998,
Panelist on Dredging and Transport by Pipelines, XIIth European Conference on Soil Mechanics and Geotechnical Engineering, Amsterdam, The Netherlands, June 7-10, 1999

ASTM, Committee D18, Special Service Award, 1999

Fulbright Scholar, 2001-2002.

Panelist in the Third International Conference on Unsaturated Soils, UNSAT 2002, Recife, Brazil, March 10-13, 2002

Panelist on Spoil Heaps, Waste Dumps, XIIIth European Conference on Soil Mechanics and Geotechnical Engineering, Prague, The Czech Republic, August 25-28, 2003

Keynote Lecture, Dredging and Reclamation Conference of the Korean Geotechnical Society, Seoul, South Korea, June 30, 2005

Panelist on Ground Improvement XIII Danube-European Conference on Geotechnical Engineering, Ljubljana, Slovenia, May 29-31, 2006.

Keynote Lecture at the Symposium on Waste Treatment Technologies, Croatian Academy of Engineering, Varazdin, Croatia, June 12-14, 2006

Keynote Lecture at the 3rd Mid-European Clay Conference MECC06, Opatija, Croatia, September 18-23, 2006.

Suklje Lecturer, Slovenian Geotechnical Society, Strunjan, June 15, 2007.

International Experts Panel, Samarco, Belo Horizonte, Brazil, 2010

Nonveiller Lecturer, Croatian Geotechnical Society, Zagreb, June 11, 2012

Ardaman-Wissa Lecturer, University of Florida, Gainesville, April 15, 2016

PROFESSIONAL SOCIETIES:

American Society of Civil Engineers, Member

Croatian Society for Soil Mechanics and Geotechnical Engineering

International Committee on Large Dams, Member

International Society for Soil Mechanics and Geotechnical Engineering

Society of Engineers and Technicians, Croatia

American Society for Testing and Materials, Member
Transportation Research Board, Individual Associate

PUBLICATIONS:

Refereed Journal Papers

Znidarcic, D. and Schiffman, R.L., 1981. Finite Strain Consolidation: Test Conditions. Journal of the Geotechnical Engineering Division, ASCE, 107, No. GT5, pp. 684-688.

Znidarcic, D. and Schiffman, R.L., 1982. On Terzaghi's Concept of Consolidation. Geotechnique, 32, pp. 387-389.

Pane, V., Croce, P., Znidarcic, D., Ko, H.Y., Olsen, H.W. and Schiffman, R.L., 1983. Effects of Consolidation on Permeability Measurement for Soft Clay. Geotechnique, 33, pp. 67-72.

Znidarcic, D., Croce, P., Pane, V., Ko, H-Y., Olsen, H.W., and Schiffman, R.L., 1984. The Theory of One-Dimensional Consolidation of Saturated Clays: III, Existing Test Procedures and Analysis. Geotechnical Testing Journal, ASTM, GTJODJ, 7, No. 3, pp. 123-133.

Znidarcic, D., Schiffman, R.L., Pane, V., Croce, P., Ko, H.-Y., and Olsen, H.W., 1986. The Theory of One-Dimensional Consolidation of Saturated Clays: V, Constant Rate of Deformation Testing and Analysis. Geotechnique, 36, pp. 227-237.

Schiffman, R.L., Pane, V., Sunara, V., and Znidarcic, D., 1987. Discussion on "Settlement Analysis of Embankments on Soft Clays" by G. Mesri, and Y.K. Choi. Journal of Geotechnical Engineering, ASCE, 113, No. 9, pp. 1070-1073.

Znidarcic, D., 1987. Authors' Reply on the Discussion by S. Chakarabarti, and R.G. Horvath, on "The Theory of One-Dimensional Consolidation of Saturated Clays: Part V, Constant Rate of Deformation Testing and Analysis, Geotechnique, 37, pp. 519-522.

Znidarcic, D., and Aiban, S.A., 1988. Discussion on Some Measurements of the Permeability of Kaolin by A. Al-Tabbaa, and D.M. Wood. Geotechnique 38, pp. 453-454.

Aiban, S.A. and Znidarcic, D., 1989. Evaluation of the Flow Pump and Constant Head Techniques for Permeability Measurements. Geotechnique 39, pp. 655-666.

Resnick, G.S. and Znidarcic, D., 1990. Centrifugal Modeling of Drains for Slope Stabilization. Journal of Geotechnical Engineering, ASCE, 116, No. 11, pp. 1607-1624.

Liu, J.C., and Znidarcic, D., 1991. Modeling One-Dimensional Compression Characteristics of Soils. Journal of Geotechnical Engineering, ASCE, 117, No. 1, pp. 164-171.

Resnick, G.S. and Znidarcic, D., 1993, Discussion Closure on Centrifugal Modeling of Drains for Slope Stabilization. Journal of Geotechnical Engineering, ASCE, New York, Vol. 118, No. 7. pp. 1127-1129.

Abu-Hejleh, A. N. and Znidarcic, D., 1995, Desiccation Theory for Soft Cohesive Soils, Journal of Geotechnical Engineering, ASCE, New-York, Vol. 121, No. 6. pp.493-502.(Paper named among 10 Outstanding Papers by the ASCE Geotechnical Engineering Division and nominated for an award in 1996 and 1997.)

Aiban, S. A., and Znidarcic D., 1995, Centrifuge Modeling of Bearing Capacity of Shallow Foundations on Sands, Journal of Geotechnical Engineering, ASCE, New-York, Vol. 121, No. 10. pp. 704-712. (Paper named among Outstanding Papers by the ASCE Geotechnical Engineering Division and nominated for an award in 1997.)

Abu-Hejleh, A. N., Znidarcic, D., and Barnes, B.L., 1996, Consolidation Characteristics of Phosphatic Clays, Journal of Geotechnical Engineering, ASCE, New-York, Vol. 122, No. 4. pp. 295-301.

Abu-Hejleh, A. N. and Znidarcic, D., 1996, Discussion Closure on Desiccation Theory for Soft Cohesive Soils, Journal of Geotechnical Engineering, ASCE, New-York, Vol. 122, No. 11. pp. 943-947.

Wildenschild, D., K. H. Jensen, K.J. Hollenbeck, T.H. Illangasekare, D. Znidarcic, T. Sonnenborg and M.B. Butts, 1997, A two-stage procedure for determining unsaturated hydraulic characteristics using a syringe pump and outflow observations. Soil Sci. Soc Am. J., 61, pp. 347-359.

Collins, B.D., Znidarcic, D. and Goddery, T., 1997, A New Instructional Geotechnical Centrifuge, Geotechnical News, Vol. 15, No. 3, pp. 32-34.

Yao, D.T.C , Oliveira-Filho, W.L., Cai, X.C. and Znidarcic, D., 2002. Numerical solution for consolidation and desiccation of soft soils, International Journal for Numerical and Analytical Methods in Geomechanics, Vol.26, No. 2, John Wiley & Sons, Ltd., London, UK. pp. 139-161.

Kovacevic Zelic, B., Kovacic, D., and Znidarcic D., 2002. "Determination of internal shear strength parameters of geocomposite clay liners". Geologica Carpathica. 53(2), 127-132, Bratislava, Slovakia.

Bartholomeeusen, G., Sills, G.C., Znidarcic, D., Van Kesteren, W., Merckelbach, L.M.,

- Pyke, R., Carrier III, W.D., Lin, H., Penumadu, D., Winterwerp, H., Masala, S., and Chan, D., 2002, Sidere, numerical prediction of large-strain consolidation, Geotechnique 52, No. 9, pp. 639-648.
- Gjerapic, G., Dinicola, W.J., Znidarcic, D., Mohan, R.K., and Urso, D.C., 2002, Modeling Approaches for Estimating Dredged Material Settlement –A Comparison of the PSDDF and CONDES Models, Journal of Dredging Engineering, Western Dredging Association Vol. 4, No. 1, pp.1-10.
- Dewoolkar, M. M., Goddery, T., and Znidarcic, D., 2003, Centrifuge Modeling for Undergraduate Geotechnical Engineering Instruction, Geotechnical Testing Journal, ASTM, Vol. 26, No. 2, pp. 201-209.
- Yao, D.; Znidarcic, D.; and Hasen, M., 2003, A Consolidation Test for Dredged Material, Journal of Dredging Engineering, Western Dredging Association Vol. 5, No. 3, pp. 13-23.
- Collins, B.D., and Znidarcic, D., 2004, Stability Analyses of Rainfall Induced Landslides, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, New-York, Vol. 130, No 4. pp. 362-372.
- Collins, B.D., and Znidarcic, D., 2005, Discussion Closure on Stability Analyses of Rainfall Induced Landslides, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, New-York, Vol. 131, No. 11. pp. 1437-1439.
- Cinicioglu, O., Znidarcic, D. and Ko, H. Y., 2006, A New Centrifugal Testing Method: Descending Gravity Test, Geotechnical Testing Journal, ASTM, Vol. 29, No. 5, 10 pp.
- Cinicioglu, O., Znidarcic, D., and Ko, H.Y., 2008, New Structure-Based Model for Estimating Undrained Shear Strength, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, New-York, Vol. 133, No. 10. pp. 1290-1301.
- George, L. A., Dewoolkar, M. M., and Znidarcic, D., 2009, Simultaneous Laboratory Measurement of Acoustic and Hydraulic Properties of Unsaturated Soils, Vadose Zone J., August 11,; 8(3): 633 - 642.
- McCartney, J.S. & Znidarcic, D., 2010, Testing system for hydraulic properties of unsaturated nonwoven geotextiles. Geosynthetics International, 17, No.5, 355-363.
- Bicalho, K.V., Znidarcic, D. and Ko, H.Y., 2011, One-dimensional flow infiltration through a compacted fine grained soil, Soils and Foundations, Vol.51, No.2, 287-295.
- Collins, B.D. and Znidarcic, D., 2011, Rainfall Infiltration-Induced Landslides, Geo-Strata, ASCE, New-York, Vol.15, No.1. pp. 24-28.

Lee, J. and Znidarcic, D., 2013, Flow Pump System for Unsaturated Soils: Measurement of Suction Response and the Soil–Water Retention Curve, Geotechnical Testing Journal, Vol. 36, No. 5, 12 pp.

Al-Yaqoub, T.H. Parol, J. and Znidarcic, D., 2017, Experimental investigation of volume change behavior of swelling soil, Applied Clay Science, Vol. 137, pp. 22-29.

Refereed Conference Papers

Znidarcic, D., 1975. Specimen Sizes for Testing the Rockfill Material, Proceedings, XIIIth Symposium of Yugoslav Society for Soil Mechanics and Foundation Engineering, Budva, Yugoslavia, pp. 171-178. (in Croatian).

Znidarcic, D., 1978. Pore Pressure Measurement in the Laboratory, Proceedings, XIVth Symposium of Yugoslav Society for Soil Mechanics and Foundation Engineering, Sarajevo, Bosnia and Herzegovina, pp. 51-56. (in Croatian).

Cuk, M., Prokopovic, S. and Znidarcic, D., 1979. Exploration of the Pore Pressure Parameters in the Laboratory, Proceedings, XIth Congress of Yugoslav Committee on Large Dams, Portoroz, Slovenia, pp. 183-184. (in Croatian).

Manojlovic, R. and Znidarcic, D., 1979. Behavior of the Natural Clay Liners for the Reservoirs in Karstic Conditions, Proceedings, XIth Congress of Yugoslav Committee on Large Dams, Portoroz, Slovenia, pp. 192-195 (in Croatian).

Muller, B., Kovacic, D. and Znidarcic, D., 1979. Hydraulic Stability of the Clay Core Foundation, Proceedings, XIth Congress of Yugoslav Committee on Large Dams, Portoroz, Slovenia, pp. 19-24 (in Croatian).

Znidarcic, D. and Gasparac, V., 1981. Influence of the Tension Cracks on the Slope Stability, Symposium on Exploration and Remediation of Landslides, Bled, Slovenia, Vol 2, pp. 95-102. (in Croatian).

Znidarcic, D., Szavitz-Nossan, A. and Mulabdic, M., 1981. Mechanical Interaction of Bentonite Slurry and Soil of Low Permeability, Proceedings, XVth Symposium of Yugoslav Society for Soil Mechanics and Foundation Engineering, Ohrid, Macedonia, Vol. 2, pp. 141-147. (in Croatian).

Croce, P., Pane, V., Znidarcic, D., Ko, H-Y., Olsen, H.W., and Schiffman, R.L., 1984. Evaluation of Consolidation Theories by Centrifuge Modelling, Proceedings of the International Conference on Applications of Centrifuge Modelling to Geotechnical Design, Manchester University, United Kingdom, pp. 380-401.

Malone, M.K., Resnick, G.S., and Znidarcic, D., 1988. Modeling the Influence of Groundwater on Slope Stability, Soil Properties Evaluation From Centrifugal Models and

Field Performance, Townsend and Norris, Eds., ASCE, New York, pp. 15-29.

Croce, P., Ko, H-Y, Schiffman, R.L. and Znidarcic, D., 1988. The Influence of Vertical Drains on Consolidation. Proceedings of the International Conference on Geotechnical Centrifuge Modeling, Centrifuge 88, Paris, France, J.F. Corte, Ed., Balkema, Rotterdam, pp. 171-180.

Znidarcic, D., and Liu, J.C., 1989. Consolidation Characteristics Determination for Dredged Materials. Proceedings of The 22nd Annual Dredging Seminar, pp. 45-65, October 18, Tacoma, Washington.

Aiban, S.A. and Znidarcic, D., 1991. Shallow footings on sand under concentric, eccentric and inclined loads. Centrifuge 91, Proceedings of the International Conference Centrifuge 1991, Boulder, Colorado, Ko and McLean, Eds., Balkema, Rotterdam, pp. 201-208.

Znidarcic, D., Illangasekare, T. and Manna, M., 1991. Laboratory Testing and Parameter Estimation for Two-Phase Flow Problems, Proceedings of the Geotechnical Engineering Congress, Boulder, Colorado, McLean, Campbell and Harris, Eds., ASCE, New York, pp. 1089-1099.

Illangasekare, T., Znidarcic, D., Al-Sheridda, M. and Reible, D.D., 1991. Multiphase Flow in Porous Media. Centrifuge 91, Proceedings of the International Conference Centrifuge 1991, Boulder, Colorado, Ko and McLean, Eds., Balkema, Rotterdam, pp. 517-523.

Znidarcic, D., 1991, Principles and Examples of Centrifuge Modeling, Proceedings of International Conference on Calibration Chamber Testing, ISCCT1, Potsdam, N.Y., A.B. Huang, Ed., Elsevier, New York, pp. 393-404..

Znidarcic, D., 1992, Application of Centrifuge Modeling Technique to Slopes and Embankments, Stability and Performance of Slopes and Embankments-II, Volume 1, Proceedings of a Specialty Conference of ASCE, Geotechnical Special Publication No. 31, ASCE New York, pp. 521-537.

Abu-Hejleh, A.N., Znidarcic, D., and Illangasekare. T. H., 1993, Permeability Determination for Unsaturated Soils, Unsaturated Soils, Geotechnical Special Publication No. 39, S. L. Houston and W. K. Wray eds., ASCE, New York, pp. 163-174.

Abu-Hejleh, A.N. and Znidarcic, D., 1994, Estimation of the Consolidation Constitutive Relations, Computer Methods and Advances in Geomechanics, Siriwardane & Zaman (eds) Balkema, Rotterdam, pp. 499-504.

You, Z. and Znidarcic, D., 1994, Initial Stage of Soft Soil Consolidation, Centrifuge 94, Proceedings of the International Conference Centrifuge 1994, Singapore, Lee and Tan

(eds), Balkema, Rotterdam, pp. 399-403.

Znidarcic, D., 1994, Role of the Geotechnical Centrifuge in Transportation Projects, Proceedings of the National Symposium on Geotechnical Engineering in Transportation Projects, Novigrad, Croatia, pp. 53-62.(in Croatian).

Znidarcic, D., Kovacic, D. and Kvasnicka, P., 1994, Geotechnology of Waste Disposal, Proceedings of the International Symposium, Waste Management, Z. Milanovic, ed., Zagreb, Croatia, pp. 393-398.(in Croatian).

Kovacic, D., Kvasnicka, P. and Znidarcic, D., 1994, Impermeability of the Clay Barrier in Sanitary Landfills, Proceedings of the International Symposium on Waste Management, Z. Milanovic, ed., Zagreb, Croatia, pp. 296-305. (in Croatian).

Znidarcic, D., and Piccoli, S., 1995, Field Measurement of Hydraulic Conductivity, FMGM 95, Field Measurements in Geomechanics, Proceedings of the 4th International Symposium, Bergamo, Italy, pp. 489-494.

Znidarcic, D., 1995, Technology for Soft Waste Disposal, Keynote Lecture at the REGEO 95, Brazilian Conference on Environmental Issues, Ouro Preto, Brazil, (Published as an addendum to the Proceedings), 31 pp.

Kellett, B. J., and Znidarcic, D., 1996, Application of Granular Mechanics to Slip Casting, Filter Pressing and Drying, Science of Whitewares, Henkes, V.E., Onoda, G.Y., and Carty, W.M. eds., The American Ceramic Society, Westerville, Ohio, pp. 133-146.

Znidarcic, D., Kovacic, D., Kvasnicka, P., and Mulabdic, M., 1996, Geotechnology for Municipal Waste Disposal, Gradjevni Godisnjak, V. Simovic ed., Croatian Society of Civil Engineers, Zagreb, Croatia, pp.161-233.

Collins, B.D., and Znidarcic, D., 1997, Triggering Mechanisms of Rainfall Induced Debris Flows, Proceedings of 2nd Pan-American Symposium on Landslides and 2nd Brazilian Conference on Slope Stability, II PSL/COBRE, Rio de Janeiro, Brazil, Nov. 10-14, Vol.1 pp. 277-286.

Collins, B.D., and Znidarcic, D., 1998, Slope Stability Issues of Rainfall Induced Landslides, Geotechnical Hazards, XI Danube-European Conference on Soil Mechanics and Geotechnical Engineering, Porec, Croatia, Maric, B., Lisac, Z. and Szavits-Nossan, A., (eds.), Balkema, Rotterdam, pp. 791-798.

Kovacic, D., Znidarcic, D., Kovacevic-Zelic, B., and Vrkljan, M., 1998, Impervious Barriers, for Landfills Karst, Geotechnical Hazards, XI Danube-European Conference on Soil Mechanics and Geotechnical Engineering, Porec, Croatia, Maric, B., Lisac, Z. and Szavits-Nossan, A., (eds.), Balkema, Rotterdam, pp. 435-440.

Oliveira Filho, W.L., and Znidarcic, D., 1998, Instrumentation for Soft Soil Desiccation Testing, Centrifuge 98, Proceedings of the International Conference Centrifuge 98, Tokyo, Japan, Kimura, T., Kusakabe, O., and Takemura, J. (eds), Balkema, Rotterdam, pp. 47-50.

Oliveira Filho, W.L., and Znidarcic, D., 1998, Validation of the Desiccation Theory for Mine Waste, Proceedings of the 11th Brazilian Congress on Soil Mechanics and Geotechnical Engineering, Brazilian Association of Soil Mechanics (ABMS), Palmeira, E.M. and Assis, A.P., eds., Brasilia, Brazil, vol. 3, pp. 1845-1852

Kovacevic-Zelic, B., Kovacic, D., and Znidarcic, D., 1998, Shear Strength Testing of Geosynthetic Clay Liners, 5th International Symposium on Waste Management - Zagreb '98, Z. Milanovic, ed., Zagreb, Croatia, pp. 231-242.

Znidarcic, D., 1999, Predicting the Behavior of Disposed Dredging Soils, Geotechnical Engineering for Transportation Infrastructure, Proceedings of the XIIth European Conference on Soil Mechanics and Geotechnical Engineering, Amsterdam, The Netherlands, Barends, F.B.J., Lindenberg, J., Luger, H.J., de Quelerij, L., and Verruijt, A., (eds.), Balkema, Rotterdam, Volume 2, pp. 877-886.

O'Connor, K.M., Poulter, D.A., and Znidarcic, D., 2000, Tailings Management Using TDR Technology, Tailings and Mine Waste '00, Proceedings of the VIIth International Conference on Tailings and Mine Waste '00, Fort Collins, Colorado, Balkema, Rotterdam, pp. 451-460.

Bicalho, K.V., Znidarcic, D., and Ko, H.Y., 2000, Air Entrapment Effects on Hydraulic Properties, Geo Denver 2000, Advances in Unsaturated Geotechnics, Proceedings of Sessions of Geo-Denver 2000, Geotechnical Special Publication No. 99, Shackelford, C.D., Houston, S.L., and Chang, N-Y., eds., GI-ASCE, Reston, VA, pp. 517-528.

Kovacevic-Zelic, B., Kovacic, D., Znidarcic, D., and Sesar, S., 2000, Laboratory Shear Strength Testing of Geosynthetic Clay Liners, 6th International Symposium on Waste Management - Zagreb 2000, Z. Milanovic, ed., Zagreb, Croatia, pp. 315-322.

Znidarcic, D., Gjerapic, G., Poulter, D.A. and O'Connor, K.M., 2001, Measurement of Tailings Consolidation Using TDR Technology, TDR 2001-Second International Symposium and Workshop on Time Domain Reflectometry for Innovative Geotechnical Applications, Infrastructure Technology Institute, Northwestern University, Evanston, IL, pp. 325-333.

Kovacevic-Zelic, B., Kovacic, D., Znidarcic, D., 2001. Determination of shear strength parameters of bentonitic blankets, Mid-European Clay Conference MECC'01, Stara Lesna, Slovakia

Kovacevic Zelic, B., Znidarcic, D. Kovacic, D., 2002. "Shear Strength Testing on a

GCL”, Geosynthetics, *7th Int. Conf. on Geosynthetics*, Nice, France, Delmas, Gourc & Girard (eds), Swets&Zeitlinger B.V., Lisse, The Netherlands, Vol. 4., pp. 1329-1334.

Bicalho, K.V., Znidarcic, D., and Ko, H.Y., 2002. Soil-water characteristic curve of a quasi-saturated compacted soil, *Unsaturated Soils*, Juca, de Campos & Marinho (eds). Proceedings of the Third International Conference on Unsaturated Soils, UNSAT 2002, Recife, Brazil, Swets&Zeitlinger B.V., Lisse, Vol. 1, pp. 277-281.

Znidarcic, D., Hwang, C., and Bicalho, K.V., 2002, Experimental determination of hydraulic characteristics for unsaturated soils, *Unsaturated Soils*, Juca, de Campos & Marinho (eds). Proceedings of the Third International Conference on Unsaturated Soils, UNSAT 2002, Recife, Brazil, Swets&Zeitlinger B.V., Lisse, Vol. 3, pp.1137-1141.

Bicalho, K. V.; Znidarcic, D. and Ko, H-Y, 2003, Influence of Air Entrapment on the Unsaturated Hydraulic Conductivity Functions, *Soil and Rock America 2003*, Proceedings of 12th Panamerican Conference on Soil Mechanics and Geotechnical Engineering; June 22-26, Cambridge, Massachusetts, USA, Culligan, P. J.; Einstein, H. H, Whittle, A.J. (eds), MIT, Volume 2, pp. 1597-1602.

Kvasnicka, P., Kovacevic-Zelic, B., Znidarcic, D., Matesic, L., and Kavur, B., 2003, A case history of large strain consolidation, Geotechnical Problems with Man-Made and Man Influenced Grounds, Proceedings of the XIIIth European Conference on Soil Mechanics and Geotechnical Engineering, Prague, Czech Republic, Vanicek, I., Barvinek, R., Bohac, J., Jettmar, J., Jirasko, D., Salak, J., (eds.), The Czech Geotechnical Society CICE, Volume 1, pp. 777-782.

Znidarcic, D., and Yao, D. T. C., 2003, Settlement calculations revisited, Geotechnical Problems with Man-Made and Man Influenced Grounds, Proceedings of the XIIIth European Conference on Soil Mechanics and Geotechnical Engineering, Prague, Czech Republic, Vanicek, I., Barvinek, R., Bohac, J., Jettmar, J., Jirasko, D., Salak, J., (eds.), The Czech Geotechnical Society CICE, Volume 3, pp. 157-160.

M. Hasen, D.C. Urso, R.K. Mohan, D. Znidarčić, W.J. Dinicola, G. Gjerapić, and S. Balu, 2003, Comparison of two modeling approaches for simulating the consolidation and desiccation behavior of dredged fill, Dredging '02, Key Technologies for Global Prosperity, Proceedings of the Third Specialty Conference on Dredging and Dredged Material Disposal, Session 3K, Orlando, Florida, May 5-8, 2002, Garbaciak, S. Jr. Ed., ASCE, Reston, VA, 13 pp.

Znidarčić, D., 2005, Consolidation of Soft Soils, Keynote lecture at the Dredging and Reclamation Conference of the Korean Geotechnical Society, 2005 Technical Committee on Dredging and Reclamation Conference Proceedings, Seoul, South Korea, June 30, 2005, Korean Geotechnical Society, pp. 3-27.

Jeanjean, P., Znidarcic, D., Philips, R., Ko, H.Y., Pfister, S., Cinicioglu, O., and

- Schroeder, K., 2006, Centrifuge Testing of Suction Anchors: Double-Wall, Over-Consolidated Clay, and Layered Soil Profile, Proceedings Offshore Technology Conference 2006, Houston, Texas, CD, Paper OTC 18007, 14 pp.
- Vrkljan, I., Kavur, B., Znidarcic, D., 2006, Influence of Desiccation on Swelling Behavior of Initially Saturated Swelling Rocks, Proceedings of the XIII Danube-European Conference on Soil Mechanics and Geotechnical Engineering, Ljubljana, Slovenia, Vol.2, pp. 159-164.
- Znidarcic, D., 2006, The importance of physical and numerical models for ground improvement, Proceedings of the XIII Danube-European Conference on Soil Mechanics and Geotechnical Engineering, Ljubljana, Slovenia, Vol.2, pp.391-395.
- Znidarcic, D. and Coffin, J., 2006, Disposal of Slurry Waste, Proceedings of the Symposium on Waste Treatment Technologies, Croatia Academy of Engineering, June 12-14, Varazdin, Croatia, Salopek, B. ed., pp. 9-17 (in Croatian)
- Cinicioglu, O., Znidarcic, D., & Ko, H.Y., "A centrifugal method for observing the uncoupled effects of void ratio and stress history on undrained shear strength of clays", Proc. Int. Conf. on Physical Modeling, Hong Kong, August, 2006, pp. 1269-1275.
- Cinicioglu, O., Znidarcic, D., and Ko, H.Y., 2006, Defining the Relationship Between Void Ratio, Overconsolidation Ratio, and Shear Strength for Anisotropic Clays, (In Turkish) 11th Nat. Conf. Soil Mech. and Foundation Eng., September, 7-8, Karadeniz Technical University, Trabzon, Turkey
- Znidarcic, D., 2006, Engineering Properties of Clays, 3rd Mid-European Clay Conference MECC06, Abstracts Book, Vlahovic, I., Tibljas, D., Duran, G., and Bisevac, V., eds., University of Zagreb, Croatia, p. 12 (extended abstract)
- Gjerapic, G., and Znidarcic, D., 2007, A Mass-Conservative Numerical Solution for Finite-Strain Consolidation During Continuous Soil Deposition, Proceedings of the Geo Institute Congress, Geo-Denver 2007. 19-21 February 2007, Denver, Colorado, CD-ROM
- Bicalho, K.V., Znidarcic, D., and Fleureau, 2007, Determination of Water Hydraulic Conductivity Functions of Unsaturated Soils, Proceedings of the Third Asian Conference on Unsaturated Soils, Unsat-Asia 2007, 21-23 April 2007 Nanjing, China
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Kovačić, D., Petrović, I., Štuhec, D., Kovačević-Zelić, B., Veinović, Ž., and Znidarčić, D., 2009, Impervious Barriers for Landfills in Karst Region of Istrian Peninsula, *Proceedings of the regional symposium of the international society for rock mechanics, Rock engineering in difficult ground conditions - soft rocks and karst* / Ivan Vrkljan (ed.). Leiden : CRC Press/Balkema, pp. 711-716

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Gjerapic, G., Bronson, B.R., Johnson, J.M. and Znidarcic, D., 2014, Embankment Stability on Soft Soil Foundations, Tailings and Mine Waste '14 conference proceedings, October 6-8, Keystone, CO,

Brink, N., Kim, H., and Znidarcic, D., 2015, Numerical Modeling Procedures for Consolidation of Fine-Grained Materials in Geotextile Tubes, Proceedings of the Geosynthetics 2015 Conference, Portland, OR, 15-18 February 2015, pp.10.

Znidarcic, D., 2015, If it creeps, does it matter? Tailings and Mine Waste '15 conference proceedings, October 25-28, Vancouver, BC, Canada, pp.229-235.

Znidarcic, D., Adkins, D., Utting, L. and Catling, M., 2015, Rheomax® ETD technology, a laboratory study of application performance and associated geotechnical characteristics for polymer assisted tailings deposition of oil sands MFT, Tailings and Mine Waste '15 conference proceedings, October 25-28, Vancouver, BC, Canada, pp.508-520.

Fourie, A., and Znidarcic, D., 2016, Optimizing the Thin-lift Deposition of Thickened Tailings, Tailings and Mine Waste '16 conference proceedings, October 2-5, Keystone, CO. pp. 105-114.

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OTHER PUBLICATIONS:

Znidarcic, D., 1978. Air-Water Mixture Compressibility in Laboratory Testing of Soil Samples, MS Thesis, Faculty of Civil Engineering, University of Zagreb, 112 pp. (in Croatian).

Znidarcic, D., 1982. Laboratory Determination of Consolidation Properties of Cohesive Soil, Ph.D. Thesis, University of Colorado, Boulder, 172 pp.

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Locke, G., Znidarcic, D., Schiffman, R.L., and Ko, H-Y, 1987. Gravity-Based Structure Foundations - Centrifuge Test Results, report prepared for EXXON Production Research Company, University of Colorado, Boulder, 236 pp.

Macari, E., Znidarcic, D., Schiffman, R.L., and Ko, H-Y, 1987. Speswhite Clay Triaxial Test Program, report prepared for EXXON Production Research Company, University of Colorado, Boulder, 37 pp.

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Peric, D., Znidarcic, D., Sture, S., and Schiffman, R.L., 1988, Experimental and Numerical Modeling of a Strip Footing on Clay, report prepared for U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, University of Colorado, Boulder, 164 pp.

Znidarcic, D., Schiffman, R.L. and Malone, M.K., 1986. The Flow Pump Permeability System, report prepared for U.S. Bureau of Reclamation, University of Colorado, Boulder, 35 pp.

Fairless, B.M., Schiffman, R.L. and Znidarcic, D., 1986. Seepage-Induced Consolidation, report prepared for U.S. Bureau of Reclamation, University of Colorado, Boulder, 125 pp.

Malone, M.K., Znidarcic, D., and Schiffman, R.L., 1987. Flow Pump Permeability Tests, The Effect of Soluble Salt, Report prepared for U.S. Bureau of Reclamation, University of Colorado, Boulder, 65 pp.

Malone, M.K., Znidarcic, D., and Schiffman, R.L., 1987. Flow Pump Permeability Tests on Rock Samples, report prepared for U.S. Bureau of Reclamation, University of Colorado, Boulder, 25 pp.

Malone, M.K., Resnick, G.S. and Znidarcic, D., 1987. Influence of Drains on Slope

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Znidarcic, D., Locke, G.E., Ko, H.Y., and Schiffman, R.L., 1988, Gravity Based Structural Foundations-Analysis, Report prepared for EXXON Production Research Company, University of Colorado, Boulder, 30 pp.

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Znidarcic, D., and Illangasekare, T.H., 1990, A Laboratory Technique for Estimation of Model Parameters of Nonaqueous Phase Flow of Chemicals and Waste Products in Soils, Paper presented at Conference on Hazardous Waste Research, Kansas State University, Manhattan, Kansas, May 21-22.

Znidarcic, D., and Illangasekare, T.H., 1990, A New Laboratory Technique for Determination of Model Parameters of Multiphase Flow in Soils, Paper presented at AGU/MSA Spring Meeting, Baltimore, Maryland, May 29-June 1.

Hutapea, B., Znidarcic, D., Ko, H.Y., and Sture, S., 1991, Soil Property Assessment, Drag Anchors Tests in Clay, Volume 1, Final Report Submitted to Exxon Production Research Company, University of Colorado, Boulder, 36 pp.

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Abu-Hejleh, A.N., and Znidarcic, D., 1992, User Manual for Computer Program SICTA, Prepared for Florida Institute of Phosphate Research, University of Colorado, Boulder, 122 pp.

Abu-Hejleh, A.N., Znidarcic, D. and Robertson A., 1992, Results of Seepage-Induced Consolidation Tests on Phosphatic Clay, Prepared for Florida Institute of Phosphate Research, University of Colorado, Boulder, 117 pp.

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Walser, G.S., Illangasekare, T.H., Znidarcic, D., and Weaver, J.W., 1992, Experimental evaluation of simple sharp front multi-phase flow models, Hazardous Waste Research, Seventh Annual Conference, University of Colorado, Boulder.

Walser, G.S., Illangasekare, T.H., Znidarcic, D., and Weaver, J.W., 1992, Experimental evaluation of simple sharp front multi-phase flow models, American Geophysical Union Hydrology Days, Colorado State University, Fort Collins

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Illangasekare, T., Znidarcic, D., Walser, G., and Weaver, J., 1994, An Experimental Evaluation of Two Sharp Front Models for Vadose Zone Non-Aqueous Phase Liquid Transport, Robert S. Kerr Environmental Research Laboratory, EPA/600/R-94/197, Ada, Oklahoma, 185 pp.

Yao, T.C.D., and Znidarcic, D., 1997, Crust Formation and Desiccation Characteristics for Phosphatic Clays, User's Manual for Computer Program CONDES0, Florida Institute of Phosphate Research, Publication No. 04-055-134, 115 pp

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Cinicioglu, O., Hwang, C., Znidarcic, D., and Ko, H.Y., 2002, Centrifuge testing of suction anchors in stiff clay: Report on tests 1, 2, and 3, Prepared for BP America, University of Colorado, Boulder, pp. 137

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Znidarcic, D., and Cinicioglu, O., 2004/2005, Consolidation Test Results for Slurry Samples , Fox River Superfund Site Project, Prepared for Shaw E&I, University of Colorado, Boulder, pp. 78.

Znidarcic, D. Measure the self-weight consolidation parameters of flocculated mature fine oil sand tailings, Prepared for Suncor Energy Company P.O. Box 2844, 150 – 6th Ave. S.W. Calgary, AB October 2016, pp 29

Dobroslav Znidarčić and Hyeon Jung Kim: Consolidation Test Results for samples DCRI-SD60-1314-SDXX, DCRI-SD63-1.43.6-SDXX, DCRI-SD62-0708-SDXX, DCRI-SD63-0810-SDXX and DCRI-SD64-0305-SDXX for the Detroit River project, Prepared for: RAMBOLL ENVIRON International Corporation 3600 Green Court, Suite 750, Ann Arbor, MI 48105, November 29, 2016, pp.13

Dobroslav Znidarčić and Hyeon Jung Kim: Consolidation Test Results for samples Syncrude MFT and Suncor 1085 FFT, Prepared for: SRK Consulting (Canada) Inc., 2200-1066 West Hastings St, Vancouver, BC V6E 3X2, November 15, 2016, pp 8.

RESEARCH ACTIVITIES:

"Creep Characteristics of Clay," Civil Engineering Faculty, Zagreb, 1972-1973, (Research Assistant).

"Criteria for soil testing in the Triaxial Apparatus," Civil Engineering Faculty, Zagreb, 1977-1978, (Principal Investigator).

"Embankment Dam Stability Analysis Methods," Geoexpert, Zagreb, 1978, (Principal Investigator).

"Pore Pressure Generation in the Embankments," Geoexpert, Zagreb, 1978, (Principal Investigator).

"Improvements of the Dynamic Triaxial Apparatus," Civil Engineering Institute, Zagreb, 1979, (Principal Investigator).

"Site Characterization for the Norton Sound Sea Bottom Sediments," USGS, Denver, 1980-1981, (Assistant).

"Constant Rate of Deformation Consolidation Testing: Apparatus Development and Test Analysis," Civil Engineering Institute, Zagreb, 1982-1983, (Principal Investigator).

"Theoretical and Numerical Analysis of One-Dimensional Consolidation," Civil Engineering Institute, Zagreb, 1982-1983, (Principal Investigator).

"Deformation and Permeability Characteristics for Cohesive Sediments," Geoexpert, Zagreb, 1983, (Principal Investigator).

"Saturation Characteristics of Compacted Clay," Civil Engineering Institute, Zagreb, 1984, (Principal Investigator).

"Data Acquisition System for Geotechnical Laboratory," Civil Engineering Institute, Zagreb, 1984, (Principal Investigator).

"One-Dimensional Compression Characteristics of Overconsolidated Clays," CEAE Department, University of Colorado, Boulder, 1985-1986, \$15,000, Warkly equipment grant, (Principal Investigator).

"Ko-Triaxial Tests on Sand," EXXON Production Research, 1985-1986, \$67,000 (with Hon-Yim Ko and Robert L. Schiffman).

"Gravity Based Structures," EXXON Production Research, 1985-1988, \$137,000 (with Hon-Yim Ko and Robert L. Schiffman).

"Engineering Research Equipment Grant: Automated Triaxial Testing System," National Science Foundation, 1985-1986, \$36,000 (with Stein Sture and Hon-Yim Ko - responsible for the design, purchase and assemblage of the new triaxial testing laboratory with data acquisition system).

"Permeability and Settlement," U.S. Bureau of Reclamation, 1985-1987, \$88,000 (with Robert L. Schiffman - responsible for the development and construction of the new permeability system and for a part of the experimental work).

"Effects of Reinforcement on Soft Ground Settlement," Waterways Experiment Station, 1985-1988, \$67,000 (with Robert L. Schiffman - responsible for the experimental part of the project).

"Centrifugal Modeling of Moisture Movement in Unsaturated Ground," CRCW - Junior Faculty Development Award, 1986, \$4,000, (Principal Investigator).

"Consolidation of Soft Clays," National Science Foundation 1987-1990, \$123,788, (Principal Investigator).

"Influence of Drains on Slope Stability," Engineering Foundation - Engineering Research

Initiation Grant 1986-1987, \$17,000, (Principal Investigator).

"Permeability of Compacted-Partially Saturated Soil," CRCW - University of Colorado 1987-1988, \$6,086, (Principal Investigator).

"Vertical Drains for Soil Consolidation," Unsponsored, 1986-1987, (Co-PI. with Hon-Yim Ko and Robert L. Schiffman).

"Multiphase Flow Problems: Parameter Estimation", Unsponsored, 1988-1989, (Co-PI. with Tissa H. Illangasekare).

"Drag Anchor Tests in Clay", EXXON Production Research, 1989-1990, \$258,000, (Co-PI. with Hon-Yim Ko and Stein Sture)

"Development and Construction of Automated Slurry Consolidometer", Florida Department of Natural Resources, 1990, \$20,500, (Principal Investigator)

"Multiphase Flow in Soils: Modeling and Experimental Study", EPA, 1990-1991, \$51,651, (Co-PI. with Tissa Illangasekare)

"Consolidation Characteristics Determination for Phosphatic Clays", Florida Institute of Phosphate Research, 1991-1992, \$88,280, (Principal Investigator)

"Flow Channeling in Soft Clays", National Science Foundation 1991-1992, \$50,800 (Principal Investigator)

"Undergraduate Research Opportunity Program", National Science Foundation, 1991-1992, \$ 8,000 (Principal Investigator)

"In Situ Determination of Saturated Hydraulic Conductivity of Marine Sediments", ISMES, Bergamo, Italy, 1993-1994, \$100,000.

"Centrifuge Modeling of NAPLS", Air Force Office of Scientific Research, 1995-1996, \$14,900 (Principal Investigator)

"Municipal Landfills in the Karst Region of Croatia", National Research Council, 1995 Travel Grant, \$3,500 (Principal Investigators)

"Impervious Barriers for Landfills in Karst", U.S.-Croatian Science/Technology Program, 1995-1998, \$30,000 (U.S. Principal Investigator with Croatian P.I. Dr. Davorin Kovacic)

"Crust Formation and Desiccation Characteristics for Phosphatic Clays", Florida Institute of Phosphate Research, 1996-1997, \$72,470 (Principal Investigator)

“Experimental Verification of the Desiccation Theory”, CRCW, University of Colorado, 1996-1997, \$5,000 (Principal Investigator)

“Modeling the Fate of Military Aircraft Anti-De-icing Agents through Environmental Transport, Air Force Office of Scientific Research, 1997-1999, \$322,169 (Co-PI with Mark Hernandez)

“Crusting of Phosphatic Clay Ponds Due to Desiccation - Laboratory and Field Studies”, Florida Institute of Phosphate Research, 1998-2000, \$222,570 (Principal Investigator)

“Fulbright Scholar Award for Croatia”, US Department of State, 2001-2002, \$55,000

“Centrifuge Testing of Suction Anchors in Stiff Clays”, BP America, 2002, \$150,000, with Hon-Yim Ko

“MSE Shoring System Studies”, FHWA/CFLHD, 2002-2003, \$80,000, with Hon-Yim Ko and Jorge Zornberg

“Centrifuge as a Didactic Tool in Geotechnical Engineering”, NSF, 2004-2006, \$175,000, (Principal Investigator with Hon-Yim Ko as Co-PI)

“Soil Characterization for Fox River Project Superfund Site”, Shaw Environmental Inc., 2004-2005, \$42,000 (Principal Investigator)

“Soil Characterization and Consolidation Analyses for Onondaga Lake Superfund Site”, Parsons Inc., 2005-2007, \$100,000 (Principal Investigator)

“Consolidation and sedimentation behavior and properties for Tar Sands”, Suncor Energy Services Inc., 2010-2011, \$20,000 (Principal Investigator)

“Development of seepage induced consolidation test facility”, Norman B. Keevil Institute of Mining Engineering, University of British Columbia, Vancouver, BC, 2011-2012, \$15,000 (CU part) (Co-Principal Investigator).

“Consolidation and sedimentation behavior and properties for Tar Sands”, Suncor Energy Services Inc., 2012, \$50,000 (Principal Investigator)

“Application and Design Optimization of Geotubes with Dredged Soil Filling for Shoreline Protection of Reclaimed Grounds and Road Embankments” Kunsan National University, Kunsan, South Korea, 2013-2015, \$165,000 (Principal Investigator)

“Measure the self-weight consolidation parameters of flocculated mature fine oil sand tailings” University of British Columbia (Suncor project), 2015-2016, \$112,415 (\$64,536 CU part). (Principal Investigator)

“Testing Equipment for Seepage Induced Consolidation Test on Soft Soils” South32, (for University of Western Australia) Perth, Australia, 2016, \$20,000 (Principal Investigator)

“Soil Characterization for Detroit River Project”, Rambol Environ, Ann Arbor, Michigan, 2016, \$20,000 (Principal Investigator)

“Consolidation Characterization of Oil Sands Tailings”, SRK/COSIA, Vancouver, Canada, 2016, \$60,000, (Principal Investigator)

“Treated MFT Consolidation Program Operational Technology: SICT Research Proposal”, Suncor Energy, Calgary, Canada, 2017-2019, \$402,917, (Principal Investigator)

“Experimental Quantification and Numerical Modeling of Creep Effects in Oil Sands Tailings” COSIA Tailings EPA, 2017-2019, \$218,752 (Principal Investigator) in contracting process

“Testing Equipment necessary to perform Seepage Induced Consolidation Tests on soft soils”, COANDA Research and Development Corporation, Burnaby, BC Canada, 2017, \$114,000 (Principal Investigator)

“Consolidation Characterization of Oil Sands Tailings by Centrifuge Modeling and Seepage Induced Consolidation Testing, Syncrude Canada Ltd., 2017, \$120,000 (Principal Investigator) – being reviewed

PROFESSIONAL SERVICES AND CONSULTING:

Water Supply Reservoir Bacica, Nova Gradiska, Croatia; inspection and advice on repair of downstream slope failure of the embankment dam, 1972-1973.

Highway Administration, Istra, Croatia; inspection and advice on repair of embankment failures along Mirna River, 1972.

Lepa, Lepoglava, Croatia; slope stabilization project, 1973.

Embankment Dam, Kozjak, Macedonia; triaxial tests for soil, data reduction and analysis, 1973.

Highway Administration, Ljubljana, Slovenia; permeability and drainage characteristics for the soft foundation soil, laboratory testing and analysis, 1976.

Power Co., Cakovec, Croatia; review of the embankment design, 1977.

Power Co., Obrovac, Croatia; unconventional soil testing for the underground power house; tests and analysis, 1978-1979.

Housing Project, Varazdin, Croatia; pile foundation design for the apartment building, 1978.

Salt Mine Co., Tuzla, Bosnia and Hercegovina; pile foundation design for the industrial complex, 1973-1974.

Darwin Project, California, permeability and consolidation characteristics of the reservoir liner and impoundment material, 1981.

Steffen Robertson and Kirsten (Colorado) Inc., Denver, Colorado; design and development of the flow pump system for measuring permeability, 1982.

Bromwell Engineering, Inc., Lakeland, Florida; consolidation characteristics for phosphatic slimes; testing and analysis, 1981-1982.

Embankment Dam, Sidi Yacoub, Algeria; material selection and characterization; laboratory tests and analysis; design recommendations, 1982-84.

Nuclear Power Plant, Prevlaka, Croatia; field tests program and procedure; laboratory tests program and analysis; design profile; quality assurance program for laboratory and design procedures; soil improvement by deep compaction, 1983-1984.

Vuka Project, Osjek, Croatia; embankments design and analysis, 1983-1984.

Maryland Environmental Services, Baltimore. Determination of consolidation characteristics of dredged material from the Baltimore harbor, 1986.

Monsanto Enviro-Chem Systems, Inc., St. Louis; evaluation of a new technology and analysis of several case histories of mine waste disposal, 1986.

ISMES, Milano, Italy; design and construction of a new permeability system, 1987.

Knight Piesold and Co., Denver, Colorado, Material Characteristics for Mine Tailing Disposal, 1988, 1989, 1990.

Golder Associates, Denver, Colorado, design and construction of a new permeability system, 1989, 1990.

Consiglio Nazionale della Ricerche, Istituto di Ricerca sulle Acque, Bari, Italy, Development of a new laboratory system for permeability measurement, 1990

Bromwell & Carrier, Inc., Lakeland, Florida, Consolidation of phosphatic clays, 1990.

Golder Associates, Denver, Colorado, Analysis of the Mine Waste Disposal Strategy for

the Grouse Creek Mine, 1992

Hrvatska Elektroprivreda (Croatian Power Company), Zagreb, Croatia, Rehabilitation of the Peruca dam after the blasting during the war, 1993-1994.

Institut Gradjevinarstva Hrvatske (Civil Engineering Institute of Croatia), Zagreb, Croatia, Sanitary Landfill in Zagreb, 1994-1996

Hrvatska Elektroprivreda (Croatian Power Company), Zagreb, Croatia, Investigation of the Dubrava Hydroelectric Power Plant embankment failure, 1995-1996

King Abdul Aziz Military City, Tabuk, Saudi Arabia, Safety evaluation of the effluent retaining dam, Dam site No.4, 1999.

Hrvatska Elektroprivreda (Croatian Power Company), Zagreb, Croatia, Advisory Board Member for the Ombla Hydroelectric Power Plant Project., 1994-2000.

Institut Gradjevinarstva Hrvatske (Civil Engineering Institute of Croatia), Zagreb, Croatia, and Golder Associates, Atlanta, Georgia, New Sanitary Landfill in Zagreb, Croatia, 1999-2000.

Universidade Federal de Ouro Preto -MG, Brazil, Scientific Advisor for the Remediation of SAMARCO, Germano iron mine, 1998 - 2001

Houston Ship Channel Dredging Project, Consolidation and Desiccation Studies, 1999-2001

Delft Hydraulics Laboratory, Delft, The Netherlands, Multiphase Flow Testing, 2000.

Fugro West, Inc., Ventura, CA, Consolidation and Desiccation of Dredged Material for the San Francisco International Airport, 2000-2001

SAMARCO, Belo Horizonte-MG, Brazil, Building Foundation and Tailings Dam construction for the Third Pellet Plant Project, 2006-2007.

Krang Ponley Water Resources Development Project, KUMHO INDUSTRIAL CO., LTD., Phnom-Pen, Cambodia, Upstream Slope Erosion Protection and Embankment Seepage Control for Krang Ponley River Basin Dams, 2009.

TEACHING ACTIVITIES:

Courses Taught:

Fall 1985

- Groundwater and Seepage (CE 597)

Students

20

through CATACS on live TV	
Spring 1986	
- Engineering Material Lab - Geotechnical (CVEN 3728)	14
- Engineering Properties of Soils (CVEN 7718)	13
Fall 1986	
- Foundation Engineering (CVEN 5728/4728)	25
- Experimental Geotechnical Engineering (CVEN 5788)	5
Spring 1987	
- Engineering Material Lab - Geotechnical (CVEN 3728)	8
- Applied Geotechnical Analysis (CVEN 5738)	
Fall 1987	
- Geotechnical Engineering 1 (CVEN 3708)	26
- Groundwater Hydrology (CVEN 5353)(with T. Illangasekare)	
- Foundation Engineering (CVEN 5728/4728)	15
Spring 1988	
- Engineering Material Lab - Geotechnical (CVEN 3728)	9
- Applied Geotechnical Analysis (CVEN 5738)	9
Fall 1988	
- Geotechnical Engineering 1 (CVEN 3708)	31
- Design of Earth Structures (CVEN 5748)	13
Spring 1989	
- Experimental Geotechnical Engineering (CVEN 5788)	12
Fall 1989	
- Geotechnical Engineering 1 (CVEN 3708)	20
- Analytical Mechanics I (CVEN 2121)	52
Spring 1990	
- Engineering Material Lab - Geotechnical (CVEN 3728)	10
- Applied Geotechnical Analysis (CVEN 5738)	9
Fall 1990	
- Geotechnical Engineering 1 (CVEN 3708)	
- Design of Earth Structures (CVEN 5748)	
Spring 1991	
- Engineering Properties of Soils (CVEN 7718)	7
- Experimental Geotechnical Engineering (CVEN 5788)	7
Fall 1991	
- Design of Earth Structures (CVEN 5748)	10
Spring 1992	
- Engineering Material Lab - Geotechnical (CVEN 3728)	4
- Engineering Properties of Soils (CVEN 7718)	8
Fall 1992	
- Design of Earth Structures (CVEN 5748)	9
- Flow Processes in Soils (CVEN 5838)	9
Spring 1993	
- Theoretical Fluid Mechanics (CVEN 3313)	57
Fall 1993	

- Sabbatical Leave	
Spring 1994	
- Sabbatical Leave	
Fall 1994	
- Geotechnical Engineering 2 (CVEN 3718)	25
- Flow Processes in Soils (CVEN 5838)	9
Spring 1995	
- Geotechnical Engineering 1 (CVEN 3708)	40
- Design of Earth Structures (CVEN 5748)	14
Fall 1995	
- Geotechnical Engineering 2 (CVEN 3718)	27
- Foundation Engineering (CVEN 5728/4728)	16
Spring 1996	
- Engineering Geology (CVEN 3698)	49
- Design of Earth Structures (CVEN 5748)	9
Fall 1996	
- Geotechnical Engineering 2 (CVEN 3718)	18
- Flow Processes in Soils (CVEN 5838)	13
Spring 1997	
- Geotechnical Engineering 1 (CVEN 3708)	35
- Design of Earth Structures (CVEN 5748)	13
Fall 1997	
- Foundation Engineering (CVEN 5728/4728)	29
- Flow Processes in Soils (CVEN 5838)	9
Spring 1998	
- Geotechnical Engineering 2 (CVEN 3718)	31
- Design of Earth Structures (CVEN 5748)	6
Fall 1998	
- Geotechnical Engineering 1 (CVEN 3708)	47
- Flow Processes in Soils (CVEN 5838)	6
Spring 1999	
- Applied Geotechnical Analysis (CVEN 5738)	5
Fall 1999	
- Geotechnical Engineering 2 (CVEN 3718)	18
- Flow Processes in Soils (CVEN 5838)	7
Spring 2000	
- Applied Geotechnical Analysis (CVEN 5738)	10
Fall 2000	
- Geotechnical Engineering 2 (CVEN 3718)	14
Spring 2001	
- Applied Geotechnical Analysis (CVEN 5738)	6
- Flow Processes in Soils (CVEN 5758)	8
Fall 2001	
- Sabbatical leave – taught at the University of Zagreb, Croatia	
Spring 2002	

- Sabbatical leave – taught at the University of Zagreb, Croatia	
Fall 2002	
-Foundation Engineering (CVEN 4728/5728)	26
-Flow Processes in Soils (CVEN 5758)	10
Spring 2003	
- Geotechnical Engineering 2 (CVEN 3718)	30
Fall 2003	
- Geotechnical Engineering 2 (CVEN 3718)	18
-Flow Processes in Soils (CVEN 5758)	11
Spring 2004	
- Design of Earth Structures (CVEN 5748)	9
Fall 2004	
- Geotechnical Engineering 2 (CVEN 3718)	19
-Flow Processes in Soils (CVEN 5758)	11
Spring 2005	
- Design of Earth Structures (CVEN 5748)	14
Fall 2005	
- Geotechnical Engineering 2 (CVEN 3718)	15
-Flow Processes in Soils (CVEN 5758)	9
Spring 2006	
- Design of Earth Structures (CVEN 5748)	10
Fall 2006	
- Geotechnical Engineering 2 (CVEN 3718)	33
Spring 2007	
- Design of Earth Structures (CVEN 5748)	10
- Geotechnical Engineering 1 (CVEN 3708)	61
Fall 2007	
- Dam Engineering (CVEN 4838/5838)	8
-Flow Processes in Soils (CVEN 5758)	6
Spring 2008	
- Geotechnical Engineering 1 (CVEN 3708)	60
- Design of Earth Structures (CVEN 5748)	19
Fall 2008	
- Geotechnical Engineering 1 (CVEN 3708)	55
-Flow Processes in Soils (CVEN 5758)	8
- Dam Engineering (CVEN 4838/5838)	9
Spring 2009	
- Applied Geotechnical Analysis (CVEN 5738)	4
- Senior Design (CVEN 4830)	35
Fall 2009	
- Geotechnical Engineering 1 (CVEN 3708)	55
-Seepage and Slopes (CVEN 5628)	7
Spring 2010	
- Design of Earth Structures (CVEN 5748)	5
Fall 2010	

- Geotechnical Engineering 2 (CVEN 3718)	10
- Soil Mechanics (CVEN 5708)	10
Spring 2011	
-Geotechnical Engineering 2 (CVEN 3718)	60
-Seepage and Slopes (CVEN 5628)	14
Fall 2011	
-sabbatical leave	
Spring 2012	
-Geotechnical Engineering 1 (CVEN 3708)	43
-Analytical Mechanics 1- Statics (CVEN 2121)	80
Fall 2012	
- Soil Mechanics (CVEN 5708)	13
-Seepage and Slopes (CVEN 5628)	14
Spring 2013	
-Analytical Mechanics 1 – Statics (CVEN 2121)	65
-Design of Earth Structures (CVEN 5748)	15
Fall 2013	
-Geotechnical Engineering 2 (CVEN 3718)	29
- Senior Design (CVEN 4830)	99
-Seepage and Slopes (CVEN 5628)	10
Spring 2014	
-Design of Earth Structures (CVEN 5748)	19
Fall 2014	
-Geotechnical Engineering 2 (CVEN 3718)	40
- Soil Mechanics (CVEN 5708)	10
- Senior Design (CVEN 4830)	49
Spring 2015	
-Design of Earth Structures (CVEN 5748)	19
Fall 2015	
-Geotechnical Engineering 1 (CVEN 3708)	44
- Soil Mechanics (CVEN 5708)	7
Spring 2016	
-Design of Earth Structures (CVEN 5748)	9
Spring 2017	
-Geotechnical Engineering 2 (CVEN 3718)	7
-Design of Earth Structures (CVEN 5748)	7

Course and Teaching Material Development:

CVEN 3708 - Geotechnical Engineering I, Introduction of laboratory experience into the course

CVEN 3718 - Geotechnical Engineering II, Introduction of laboratory experience and centrifuge modeling into the course, digital image processing technology for centrifuge modeling.

CVEN 5748 - Design of Earth Structures, Introduction of a landfill design project into the course and unsaturated soil mechanics.

CVEN 5788 - Experimental Geotechnical Engineering - new course

CVEN 5758 - Flow Processes in Soils - new course

CVEN 4838/5838 - Dam Engineering – new course

CVEN 5628 – Seepage and Slopes – new course

Integration of Microcomputers into Geotechnical Courses in Civil Engineering - Sponsored by Academic Computing Services, 1986-1987, \$5,230.

Development of a Multi-User Data Acquisition Program - Sponsored by Academic Computing Services, 1986-1987, \$6,658.

Triaxial Testing System Development for Geotechnical Laboratory, Undergraduate Excellence Fund, College of Engineering, 1993, \$25,000.

Instructional Centrifuge for Geotechnical Courses, Undergraduate Excellence Fund, College of Engineering, 1996, \$28,500.

Software Acquisition for Geotechnical Courses, Undergraduate Excellence Fund, College of Engineering, 1996, \$8,200.

Centrifuge as a Didactic Tool in Geotechnical Engineering, NSF, 2004-2006 \$175,000, (with Hon-Yim Ko, Co-PI)

Thesis Supervision:

Master of Science Thesis:

- Mohamed S. Boulmedais: One-Dimensional Compression Characteristics of Overconsolidated Clays - M.S. Thesis - graduated Dec. 1986

- Abdullah I. Al-Mhaidib: Drains for Slope Stabilization - M.S. Report - graduated May 1986

- Kelly Malone: Influence of Water on Slope Stability - M.S. Thesis - graduated Dec. 1987

- Ronald Luehring: Evaluation of Collapse Susceptibility in Alluvial Fan Deposits - M.S. Thesis - graduated May 1988

- Mark Sebesta: Permeability of Compacted Soils - M.S. Thesis - graduated August 1988
- Greg Resnick: Stabilization of Slopes with Drains - M.S. Thesis - graduated December 1988
- Roberto Carpaneto: Parameter Estimation for Two-Phase Flow Problems - M.S. Thesis - graduated August 1989
- Alain Pailhe: Permeability Cell Development for Two-Phase Flow Problems - M.S. Thesis - graduated December 1989
- Marilena Manna: Suction Characteristics of Unsaturated Soils - M.S. Thesis - graduated 1991
- Landris Lee: Air Flow through Unsaturated Soils - M.S. Thesis - graduated 1992
- Terry Fairbanks: Multiphase Flow through Soils - M.S. Thesis - graduated May 1994
- Brian Collins: Landslide Triggering Mechanism - M.S. Thesis - graduated December 1997.
- Changsoo Hwang: Transient Seepage in Embankment Dams - M.S. Thesis – graduated 1999.
- Verica Gjetvaj: Time Effects for Horizontal Drains - MS Thesis, University of Zagreb, Croatia – graduated 2004
- Josh Elliott: Lateral Earth Pressure – MS Thesis, (with Hon-Yim Ko) - graduated 2005
- Joonyong Lee: Parameter Estimation for Unsaturated Flow, MS Thesis – graduated 2007.
- Robert Miller: Evaluation of a Three-Dimensional Model for Slurry Storage Facilities, MS Thesis- graduated 2012
- Nicholas Brink: Numerical Modeling of Consolidation Processes in Hydraulically Deposited Soils, MS Thesis- graduated 2014
- Benjamin Moore: Numerical Modeling of Slurry Consolidation in Geotubes, MS Thesis, in progress
- Hyeon Jung Kim: Modelling Creep Behavior of Soft Soils, MS Thesis, in progress

Doctor of Philosophy Dissertation

- Ibrahim Ibrahim: Centrifuge Modeling of Water Movement in Unsaturated Soils - Ph.D. Thesis, graduated at Colorado State University, Fort Collins, May 1990,

- Jin Chuan Liu: Determination of Soft Soil Characteristics - Ph.D. Thesis - graduated December 1990

- Saad Aiban: Shallow Foundations on Sand - Ph.D. Thesis - graduated 1991.

- A. Nasser Abu-Hejleh: Desiccation Theory for Soft Clays - Ph.D. Thesis - graduated May 1993

- Zhixian You: Flow Channeling in Soft Clays and its Influence on Consolidation - Ph.D. Thesis - graduated May 1993.

-Michael Chipley: Centrifuge Modeling of Flow Processes - Ph.D. Thesis - graduated May 1996

-Waldyr Oliveira Filho: Verification of a Desiccation Theory for Soft Soils - Ph.D. Thesis - graduated May 1998

- Daniel Yao: Desiccation Process for Soft Soils - Ph.D. Thesis – graduated December 1998

- Katia Bicalho: Modeling Water Flow in An Unsaturated Compacted Soil - Ph.D. Thesis – graduated 1999.

- Biljana Kovacevic-Zelic: Shear Strength Testing of Geosynthetic Clay Liners - Ph.D. Thesis, University of Zagreb, Croatia. – graduated December, 2000.

- Gordan Gjerapic: Determination of Multiphase Flow Parameters - Ph.D. Thesis – graduated May 2001.

- Changsoo Hwang: Determination of Material Functions for Unsaturated Flow - Ph.D. Thesis – graduated August 2002.

- Ozer Cinicioglu: In-situ shear strength by centrifuge modelling – Ph.D. Thesis – graduated May 2005

- Boris Kavur: Swelling Behavior of Soils and Rocks – Ph.D. Thesis, University of Zagreb, Croatia – graduated June 2009.

-Jeff Coffin: A Three-Dimensional Model for Slurry Storage Facilities – Ph.D. Thesis,- graduated May 2010.

-Joonyong Lee: Limits to Continuity of Water Flow in Unsaturated Soils – Ph.D. Thesis – graduated May 2011.

-Thamer Al-Yacoub: Experimental Investigation of Volume Change Behavior of a Swelling Soil – Ph.D. Thesis – graduated August 2011.

-Matt Treinen: Modeling Transport and Deposition of Coarse Particles in Viscoplastic Tailings Beach Flows - Ph.D. Thesis- graduated May 2017.

Independent Studies:

- Joseph P. Koester: A Laboratory Evaluation of Liquefaction Potential of Fine Grained Soils - Independent Study - Summer 1985

- Saad Aiban: Permeability of Soil - Independent Study - Summer - Fall 1987

- Mosleh Al Shamrani: Shallow Foundations on Sand - Independent Study - Spring 1988

- Jean D. Saphores: Ko Testing Using the Flow Pump - Independent Study - Spring 1989

- Eric Mack: Undergraduate Research Opportunity Program - Measurement of Nonaqueous Phase Liquid Flow Through Porous Media - Summer 1990

- Todd Bragdon: Self Weight Consolidation of Soft Clays - Spring 1992

- Amy Robinson: Seepage Induced Consolidation Testing - Sponsored by the NSF Undergraduate Research Opportunity Program - Summer 1992

- Patrick Wallace: In-Situ Air Sparging: An Overview, Independent Study - Fall 1995.

- Arthur Wilden: Dradged Material Disposal, Independent Study - Spring 1997.

- Landris Lee: Grouting for Liquefaction Prevention, Independent Study - Summer 1998

- Rick George: Undrained Shear Strength of Clays, Independent Study (undergraduate student) – Fall 2004

-Jeffery Coffin: Consolidation Characteristics of Soft Soils, Independent Study, Spring 2006

- Antonio Belmar: Desiccation Behavior of Mine Tailings, MS Report, Fall 2006.

-Thomas Buck: Consolidation in Geotubes, independent study, Fall 2014.

OTHER PROFESSIONAL ACTIVITIES:

Invited Lectures:

Invited Lecturer on "Slope Stability Analysis" in the Practical Geomechanics Seminar for Practicing Engineers, Zagreb, January 1983.

Invited Lecturer on "Solution of the Inverse Problems for Determining Soil Characteristics Pertinent to the Consolidation Processes", The Summer School on Two-Phase Medium Mechanics, Gdansk, September 6-10, 1983.

Invited Lecturer on "Soil Improvement by Deep Compaction" in the Foundation Engineering Seminar for Practicing Engineers, Zagreb, February 1984.

"Criteria for Successful Triaxial Testing," seminar at Colorado State University, Fort Collins, Colorado, November 26, 1985.

"Parameter Estimation for Modeling Soil Behavior", seminar at UCLA, California, February 2, 1989.

Invited Lecturer in the Graduate Teachers Program - University of Colorado, Boulder, August 25-26, 1988.

"Centrifuge Modeling of Slope Stabilization" - Presentation at the TRB Meeting, Washington, DC, January, 1990.

Invited Speaker on "Consolidation of Soft Soils" at Florida Institute on Phosphate Research, also participated in the round table discussion organized during my visit, March 29-30, 1990.

Consolidation Characteristics Determination for Phosphatic Clays, Short Course presented at the Florida Institute of Phosphate Research, Bartow, FL, October 23, 1992 (25 participants)

Seepage induced consolidation test, Training sessions for FIPR personnel in using the laboratory equipment and performing the test analysis. Bartow, FL, August 31 - September 3, 1992.

Geotechnology of Waste Management, Short course presented at the Civil Engineering Institute of Croatia, Zagreb, Croatia, March 1994.

In Situ Measurement of Permeability, Seminar at the Danish Technical University, Lyngby, Denmark, May 1994.

In Situ Measurement of Permeability, Seminar at Chalmers University, Goteborg, Sweden, May 1994.

Keynote Speaker at the National Symposium on Geotechnical Engineering in Transportation Projects, Novigrad, Croatia, “Role of the Geotechnical Centrifuge in Transportation Projects”, November 1994.

Flow Processes in Soils, Armstrong Laboratory, Tyndall AFB, FL, February 6, 1995

Destruction and Rehabilitation of Peruca Dam, ASCE Colorado Chapter Seminar Speaker, Denver, CO, January 19, 1995.

Geotechnology for Municipal Waste Disposal, University of Zagreb, Croatia, June 1995

Geotechnology for Municipal Waste Disposal, Rijecka Zupanija, Rijeka, Croatia, July 1995

Keynote Speaker at the REGEO 95, Brazilian Conference on Environmental Issues, Ouro Preto, Brazil, “Technology for Soft Waste Disposal, August 30, 1995.

Flow Processes in Soils, Seminar at Sao Paulo Chapter of the Brazilian Society of Soil Mechanics and Foundation Engineering, September 4, 1995

Drying Mechanisms for Clay Liners in Landfills, Round Table Panel Member, Conference on Environmental Protection, Zagreb, Croatia, November 21, 1996.

Consolidation and Desiccation Modeling for Phosphatic Clays, Short Course at the Polk Community College, Lakeland, FL, sponsored by Florida Institute for Phosphate Research, October 15, 1997.

Panel Moderator for Environmental Geotechnics session at the XI Danube-European Conference on Soil Mechanics and Geotechnical Engineering, Porec, Croatia, May 25-29, 1998

Unsaturated Seepage in Debris Flow Problems, Universidad Federal da Ouro Preto - MG, Brazil, August 19, 1998.

Panellist for the Dredging and Transport by Pipelines session at the XIIth European Conference on Soil Mechanics and Geotechnical Engineering, Amsterdam The Netherlands, June 7-10, 1999

Flow Processes in Soils as Related to Unsaturated Soils, Consolidation and Desiccation of Soft Soils, Yildiz Technical University, Istanbul, Turkey, June 17, 1999

Technology for Mine Waste Disposal, Seminar presented at Golder Associates, Inc.

office in Denver, June 21, 2000

Seepage Induced Consolidation Test for Soft Soils, Invited Paper at the SIDERE Prediction Symposium, Oxford University, UK, September 25, 2000

Prediction of Consolidation Behavior for Settling Column Tests on Dredged Material, SIDERE Symposium, Oxford University, UK, September, 25, 2000

Experimental Determination of Hydraulic Characteristics for Unsaturated Soils, Ecole Nationale des Ponts et Chaussées in Paris, France, April 5, 2002

Settlement analysis for structures on soft ground, Geokon, Zagreb, Croatia, April 25, 2002

New Challenges in Geotechnology for the Environmental Protection, Croatian Society of Mining Engineers”, Zagreb, Croatia, June 5, 2002

New Challenges in Geotechnology for the Environmental Protection, Geotechnical Faculty, Varazdin, Croatia June 12, 2002

Material Characterization for Tailings Impoundments Closure Analysis, Tailings Closure Workshop, University of Nevada, Reno, Elko, NV, June 8, 2004

Centrifuge Modeling with Digital Image Processing for Geotechnical Research and Education, University of Sao Paulo, Sao Carlos, Brazil, June 7, 2005

Flow in Unsaturated Soils, University of Sao Paulo, Sao Carlos, Brazil, June 8, 2005

Flow in Unsaturated Soils, University of Sao Paulo, Sao Paulo, Brazil, June 10, 2005

Centrifuge Modeling with Digital Image Processing for Geotechnical Research and Education, KAIST, Daejeon, South Korea, June 27, 2005

Keynote Lecture, Dredging and Reclamation Conference of the Korean Geotechnical Society, Seoul, South Korea, June 30, 2005

Panelist on Ground Improvement XIII Danube-European Conference on Geotechnical Engineering, May 29-31, 2006, Ljubljana, Slovenia.

Keynote Lecture at the Symposium on Waste Treatment Technologies, Croatia Academy of Engineering, June 12-14, 2006, Varazdin, Croatia.

Keynote Lecture at the 3rd Mid-European Clay Conference MECC06, September 18-23, 2006, Opatija, Croatia

Water Flow in Unsaturated Soils, Seminar at the Colorado School of Mines, Golden, Colorado, November 9, 2006

Suklje Lecture, “Soil and Water: the Essence of Soil Mechanics” June 15, 2007, Strunjan, Slovenia.

Panelist, International Expert Panel, December 6-7, 2010, Samarco, Belo Horizonte, MG – Brazil

Nonveiller Lecture, “The First Century of Soil Mechanics: from the Consolidation Theory to Unsaturated Soil Mechanics”, June 11, 2012, Zagreb, Croatia

Unsaturated Soil Mechanics, Course Delivered at the University of Zagreb, Croatia, June 11-15 and 25-29, 2012, with J. McCartney.

Modeling Aspects of Tailings Disposal Facility Design – Prediction of Storage Capacity, Short Course Delivered at the - Tailings and Mine Waste ‘12 conference, October 14, 2012, Keystone, Colorado, with G. Gjerapic and D. vanZyl.

Modeling Aspects of Tailings Disposal Facility Design – Prediction of Storage Capacity, Short Course Delivered at the - Tailings and Mine Waste ‘13 conference, November 3, 2013, Banff, AB, Canada, with G. Gjerapic and D. vanZyl.

Modeling Aspects of Tailings Disposal Facility Design – Prediction of Storage Capacity, Short Course Delivered at the - Tailings and Mine Waste ‘14 conference, October 14, 2014, Keystone, Colorado, with G. Gjerapic and D. vanZyl.

Modeling Aspects of Tailings Disposal Facility Design – Prediction of Storage Capacity, Short Course Delivered at the - Tailings and Mine Waste ‘15 conference, October 25, 2015, Vancouver, BC, with G. Gjerapic and D. vanZyl.

Modeling Aspects of Tailings Disposal Facility Design – Prediction of Storage Capacity, Short Course Delivered at the - Tailings and Mine Waste ‘16 conference, October 2, 2016, Keystone, Colorado, with G. Gjerapic and D. vanZyl. 15 participants

Ardaman-Wissa Lecture, “The first century of consolidation modeling: How far have we come?”, April 15, 2016, University of Florida, Gainesville

Unsaturated Flow and Slope Stability, Kansas State University Manhattan October 26, 2016

Research Visits:

ISMES, Bergamo, Italy, 1993-1994.

Technical University of Denmark, Lyngby, Denmark, May 1994.

Chalmers University, Goteborg, Sweden, May 1994.

Chinese Academy of Geological Sciences, Institute of Karst Geology, Guilin, Guangxi, P.R. China, March - April 1995

University of Zagreb, Zagreb, Croatia, May - August 1995, Academic year 2001/2002

Universidade Federal de Ouro Preto, UFOP, Ouro Preto MG, Brazil, August-September 1995, 1998, 2001

Civil Engineering Institute of Croatia, Zagreb, Summer 1996, 1997, 1998, 2003

Delft Hydraulics Laboratory, Delft, The Netherlands, April 1-7, 2001

Hosting Research Visitors:

Antonio D. Milillo, La Sapienza University, Rome, Italy, February-April 1995

Wenqun Yan, Jiangsu Hydraulic Engineering College, Yangzhou, Jiangsu, P.R. China, January - November 1993.

Partners for International Education and Training, US Agency for International Development, training for Gordana Valcic and Mensur Mulabdic in the area of environmental protection technology and regulations, May - June 1996.

Davorin Kovacic, University of Zagreb, Croatia, March 1996.

Biljana Kovacevic-Zelic, University of Zagreb, February 1998.

Walter Van Karsten, Delft Hydraulics, Delft, The Netherlands, November 7-9, 2000

Gert Bartholomeeusen, Oxford University, UK, December 2000 – January 2001

Hyeong Joo Kim, Kunsan National University, Chonbuk, Korea, 2003-2004

Ana Paula Viana Fontana, Federal University of Parana, Brazil, 2003-2004

Lucia Simeoni, University of Trento, Italy, 2004

Kang-II Lee, Daejin University, Korea, 2007.

Hyeong Joo Kim, Kunsan National University, Chonbuk, Korea, 2012-2013

Yong Baek, Korea Institute of Construction Technology, Goyang-si, Gyeonggi-do, South Korea, 2012-2013.

Dubravko Domitrovic, University of Zagreb, Croatia, February-May 2013.

Conference Participation:

- National Water Well Association Conference: Characterization and Monitoring of the Vadose (Unsaturated) Zone, Denver, November 1985
- National Research Council Seminar: Liquefaction of Soils During Earthquakes, Denver, November 1985
- ASCE - Colorado Section Seminar: What's New in Dams, Golden, March 1986
- ASTM - Triaxial Testing Symposium, Louisville, Kentucky, June 1986, Paper presented in Poster Session
- ASCE Specialty Conference: In Situ 86, Blacksburg, Virginia, June 1986
- Teaching - A Faculty Colloquy, C.U. Boulder, January 1987
- University of Florida: Symposium on Consolidation and Disposal of Phosphatic and Other Waste Clays, Lakeland, Florida, May, 1987.
- ASCE - Colorado Section Seminar: Up and Down Soils, Boulder, March 1988.
- Soil Properties Evaluation from Centrifugal Models and Field Performance, Nashville, Tennessee, May 1988, Paper presented.
- ASCE Specialty Conference: Hydraulic Fill Structures '88, Fort Collins, Colorado, August 1988.
- AIChE 1989 Spring National Meeting, Houston, TX April 2-6, Paper presented in Session # 48: Fate and Transport of Non-Aqueous Phase Liquids in Soils.
- ASCE Specialty Conference: Foundation Engineering Congress '89, Evanston, Illinois, June 1989.
- TRB 1990 Meeting, Washington, DC. Paper presented.
- ASCE - Colorado Section Seminar: Watch your Waste, Denver, March 1990. Seminar Co-chairman
- AGU/MSA, 1990 Spring Meeting, Baltimore, Maryland, May 1990. Paper presented.

- ISSMFE - International Conference Centrifuge 1991, Boulder, Colorado, Papers presented
- ASCE - Geotechnical Engineering Congress, Boulder, Colorado, June 1991. Paper presented
- International Conference on Calibration Chamber Testing, ISCCT1, Potsdam, New York, 1991. Paper presented
- ASCE Specialty Conference: Stability and Performance of Slopes and Embankments-II, Berkeley, California, June 1992
- National Symposium on Geotechnical Engineering in Transportation Projects, Novigrad, Croatia, November 1994, Invited Lecture
- First Congress on Environmental Protection, Zagreb, Croatia, June 1995
- REGEO 95, Brazilian Conference on Environmental Issues, Ouro Preto, Brazil, August-September 1995., Keynote Lecturer
- Aircraft and Airfield Deicing Conference, Washington, DC, August 1996
- XIth Danube- European Conference on Soil Mechanics and Geotechnical Engineering, Porec, Croatia, May 25-29, 1998, Invited speaker and panel moderator
- XIIth European Conference on Soil Mechanics and Geotechnical Engineering, Amsterdam, The Netherlands, June 7-10, 1999, Invited speaker and panel member
- Third International Conference on Unsaturated Soils, UNSAT 2002, Recife, Brazil, March 10-13, 2002, Invited speaker and panel member
- XIIIth European Conference on Soil Mechanics and Geotechnical Engineering, Prague, The Czech Republic, August 25-28, 2003, Invited speaker and panel member
- Tailings Closure Workshop, Elko, NV June 8-9, 2004, Invited speaker
- Dredging and Reclamation Conference of the Korean Geotechnical Society, Seoul, South Korea, June 30, 2005, Keynote Lecturer
- XIII Danube-European Conference on Geotechnical Engineering, May 29-31, Ljubljana, Slovenia.
- Symposium on Waste Treatment Technologies, Croatian Academy of Engineering, June 12-14, Varazdin, Croatia.

- Keynote Lecture at the 3rd Mid-European Clay Conference MECC06, September 18-23, Opatija, Croatia
- Tailings and Mine Waste '11 conference, November 6-9, Vancouver, BC, Canada
- Tailings and Mine Waste '12 conference, October 14-17, Keystone, Colorado
- Tailings and Mine Waste '13 conference, November 3-6, Banff, AB, Canada
- Tailings and Mine Waste '14 conference, October 5-8, Keystone, Colorado
- Tailings and Mine Waste '15 conference, October 26-28, Vancouver, BC, Canada
- Tailings and Mine Waste '16 conference, October 2-5, Keystone, Colorado
- International Oil Sands Tailings Conference, December 4-7, Lake Louise, AB, Canada

SERVICE:

University of Colorado

Departmental Operations Committee - 1985-1989, 1994-2017, Chairman 1995, 2014-2017

Transfer Students Evaluator - 1995-2001, 2007-

Departmental Curriculum Committee - 1989-1992

Departmental Facilities Committee - 1991-1993, 2010-2012

Departmental Teaching Committee - 1992-1993

High School Honors Institute - participated in the organization for the Geotechnical area 1985, 1986, 1987 and 1989.

High School Honors Institute, Department Coordinator, 1995, 1996

Freshmen advising 1987

Departmental Self Study Committee, 1988.

College of Engineering, Undergraduate Academic Affairs Committee, 1990 - 1992

College of Engineering Safety Committee - 1992-1993

Environmental Faculty Search Committee - 1992

Geotechnical Faculty Search Committee – 1998, 2004, 2007, 2009

JCEM Review Committee, Chairman, January-July 1999

Departmental Graduate Committee 2002-2007, Chairman 2004-2007

Departmental Mentoring Committee – 2010-

Geotech and Structures Lab Operations (with Yunping Xi) 2010-2011

JEC for Geotechnical program (lead), 2014 and 2017

Professional and Community Organizations

Associate Editor Civil Engineering Institute Abstracts (CEI-Abstracts), GI - Zagreb, 1984.

Local organizing committee ASCE Specialty Conference: Hydraulic Fill Structures '88, 1987-1988.

ASCE, Geotechnical Engineering Division - Soil Properties Committee Member 1987 - 1998

ASCE - Colorado section, Co-chairman Steering Committee, "Watch your Waste" Seminar - Spring 1990

NSF - Solid and Geomechanics Program, Panel Member, May 21-22, 1990

ASCE - Task Committee on Determination of Permeability for Porous and Fractured Media, Co-Chair

TRB - Technical Committee Member and Reviewer -ongoing

ASTM - Geotechnical Testing Journal, Editorial Board Member, 1994-1999

ASCE - Publication Committee, Editorial Board Member, Journal of Geotechnical Engineering, 1996-2001

Reviewing papers submitted for possible publication to:

ASCE Journal of Geotechnical Engineering

ASTM - Geotechnical Testing Journal

Geotechnique

Water Resources Research

International Journal for Numerical and Analytical Methods in Geomechanics

Canadian Geotechnical Journal

Proposal reviewer for NSF Hydrologic Sciences Program - ongoing

Proposal reviewer for Army Research Office – ongoing

Bosnian International Community, Boulder, President 1996-1997

External Reviewer for Tenure and Promotion Cases at:

Northwestern University, Evenston, IL, 1990

The University of Utah, Salt Lake City, UT, 1998

Kansas State University, Manhattan, KS, 2006

External Examiner for Ph.D. Dissertation “Evaporation Behaviour of Tailings” submitted by Mr. Yoshimasa Fujiyasu to the Department of Civil Engineering at The University of Western Australia in Nedlands, Australia, 1997

External Examiner for Ph.D. Dissertation “Consolidation of Lumpy Clay Fill in Land Reclamation” submitted by Mr. Yang Li-Ang to the National University of Singapore, 2003

Advisory Committee Member for GEO2004, an ASCE/GeoInstitute conference on Advances in Geotechnical Engineering with Emphasis on Dam Engineering, Irbid, Jordan July 12-15, 2004

External Examiner for Ph.D. Dissertation “Size and Matric Suction Influence on the Behavior of Shallow Foundations in Unsaturated Sandy Soils” submitted by Miss. Ana Paula Fontana Vianna to the University of Sao Paulo in Sao Carlos, 2005

External Examiner for Ph.D. Dissertation “The influence of matrix suction on strength and stiffness of soils” submitted by Mrs. Ana Petkovsek to the University of Ljubljana, Slovenia, 2006