

ROBERT CHARLES KNOX
Ted A. Kritikos Chair
Civil Engineering and Environmental Science
202 W. Boyd, Rm. 334
Norman, Oklahoma 73019-1024

PERSONAL

Age: 60
Date of Birth: 3-28-55
Sex: Male
Marital Status: Single

EMPLOYMENT

1983-1984	Environmental Engineer, Environmental and Ground Water Institute, University of Oklahoma, Norman, Oklahoma.
1984-1986	Assistant Professor, Department of Civil Engineering, McNeese State University, Lake Charles, Louisiana.
1986-1992	Assistant Professor, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
1992-1997	Associate Professor, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
1997-1998	Professor, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
1998-2000	Samuel Roberts Noble Presidential Professor, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
2000-2008	John A. Myers Professor and Director, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
2008-2013	Ted A. Kritikos Chair and Director, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.
2013 - present	Ted A. Kritikos Chair, Civil Engineering and Environmental Science, University of Oklahoma, Norman, Oklahoma.

EDUCATION

5-13-78	B.S. in Civil Engineering with Distinction, University of Oklahoma
5-12-79	M.S. in Civil Engineering, University of Oklahoma
5-14-83	Ph.D. in Civil Engineering, University of Oklahoma
1984	Engineering in Training
1986	Principles and Practice of Engineering (P.E.)

PROFESSIONAL REGISTRATION

Oklahoma (14903)

PERSONAL AWARDS

- Oklahoma Regents' Award for Superior University and Professional Service and Community Outreach, 2015
- National Ground Water Association Groundwater Remediation Project Award, 2006
- NSPE Engineering Education Excellence Award, 2000
- Samuel Roberts Noble Presidential Professor, 1998
- College of Engineering Distinguished Lectureship Award, 1997
- Fred Merryfield Design Award, American Society for Engineering Education - 1996
- MAPCO Engineering Lectureship Award, OU College of Engineering - 1994, 1995
- Outstanding Young Engineer of the Year Award, Oklahoma Society of Professional Engineers - 1990
- OU Associates Distinguished Lectureship - 1988-89
- Outstanding Young Man of America - 1987
- DOW Outstanding Young Faculty Award, Gulf-Southwest Section ASEE – 1986

PUBLICATIONS

A. Peer Reviewed Journal Articles/Book Chapters (41)

1. Sabatini, D, Chamberlain, J, Dreibelbis, R, Hong, Y, Kolar, R., Knox, R., and Nairn, R., "The University of Oklahoma WaTER Center – Water Security: Quantity, Quality, Equity", Water Resources Impact, American Water Resources Association, Vol. 18, No. 1, 2016, pp. 17-19.
2. McCray, J. E., Tick, G. R., Jawitz, J. W., Gierke, J. S., Brusseau, M. L., Falta, R. W., Knox, R. C., Sabatini, D. A., Annable, M. D., Harwell, J. H. and Wood, A. L. "Remediation of NAPL Source Zones: Lessons Learned from Field Studies at Hill and Dover AFB." Ground Water. 2011.
3. Thal, A., Knox, R.C., and Sabatini, D.A., "Estimating Partition Coefficients of Tracers", Ground Water Monitoring & Remediation, Vol. 27, No. 4, 2007, pp. 135-142.
4. Sabatini, D. A., Knox, R. C., Harwell, J. H. and Shiau, B. J. "Surfactant-Based Systems for Environmental Remediation." In Handbook of Detergents: Part D – Formulations, M. S. Showell, Ed. Marcell Dekker, Inc. 2006, 347-368.
5. Childs, J, Acosta, E, Annable, M, Brooks, M., Enfield, C.G., Harwell, J., Hasegawa, M., Knox, R., Rao, P.S.C., Sabatini, D., Shau, B., Szekeres, E., and Wood, A.L., "Field Demonstration of Surfactant-Enhanced Solubilization of DNAPL at Dover Air Force Base, Delaware," Journal of Contaminant Hydrology, Vol. 82, 2006, pp. 1-22.
6. Wood, A.L., Enfield, C.G., Espinoza, F.P., Annable, M., Brooks, M.C., Rao, P.S.C., Sabatini, D., and Knox, R., "Design of Aquifer Remediation Systems: (2) Estimating Site-Specific Performance and Benefits of Partial Source Removal," Journal of Contaminant Hydrology, Vol. 81, 2005, pp. 148-166.
7. Sabatini, D. A., Knox, R. C., Harwell, J. H. and Shiau, B. J. "Surfactant-Based Systems for Environmental Remediation." In Handbook of Detergents: Part D – Formulations, M. S. Showell, Ed. Marcell Dekker, Inc. 2006, 347-368.
8. J.D. Childs, E. Acosta, R.C. Knox, J.H. Harwell, D.A. Sabatini, "Improving the Extraction of Tetrachloroethylene from Soil Columns Using Surfactant Gradient Systems," Journal of Contaminant Hydrology, Vol. 71, pp. 27-45, 2004.
9. Flaming, J.E., Knox, R.C., Sabatini, S.A. and Kibbey, T.C., "Surfactant Effects on Residual Water and Oil Saturations in Porous Media," Vadose Zone Journal, Vol. 2, No. 2, May 2003, pp.168-176.
10. Shiau, B. J., Hasegawa, M. A., Brammer, J. M., Carter, T., Goodspeed, M., Harwell, J.H., Sabatini, D. A., Knox, R. C. and Szekeres, E. "Field Demonstration of Surfactant-Enhanced DNAPL Remediation: Two Case Studies." in Henry, S. M. and S. D. Warner eds., Chlorinated Solvent and DNAPL Remediation: Innovative Strategies for Subsurface Cleanup. American Chemical Society Symposium Series 837, ACS, Washington, D.C., 2003, 51-72.
11. Hasegawa, M.H., Shiau, B.J., Sabatini, D. A, Knox, R. C., Harwell, J. H., Lago, R., and Yeh, L., "Surfactant-Enhanced Subsurface Remediation of DNAPLS At The Former Naval Air Station Alameda, California", Treating Dense Nonaqueous-Phase Liquids (DNAPLS), Battelle Press, 2000, pp. 219-226.
12. Sabatini, D. A, Knox, R. C., Harwell, J. H. and Wu, B., "Integrated Design of Surfactant Enhanced DNAPL Remediation: Effective Supersolubilization and Gradient Systems." Journal of Contaminant Hydrology, 45(1), 2000, 99-121.
13. Hasegawa, M.A., Shiau, B.J., Sabatini, D.A., Knox, R.C., Harwell, J.H., Lago, R., Yeh, L., "Surfactant-Enhanced Subsurface Remediation of DNAPLS at the Former Naval Air Station Alameda, California." In Treating Dense Nonaqueous-Phase Liquids (DNAPLS), Remediation of Chlorinated and Recalcitrant Compounds, The Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. G. B. Wickramanayake, A.R. Gavaskar, and N. Gupta, eds. Battelle Press, Columbus, Ohio, 2000, (C2-2), 219-226.
14. Sabatini, D.A. and Knox, R.C., "Results of a Student Discussion Group on Leadership Concepts," Journal of Engineering Education, April 1999, pp. 185-188.

15. Knox, R.C., Shiau, B.J., Sabatini, D.A., and Harwell, J.H., "Field Demonstration Studies of Surfactant Enhanced Solubilization and Mobilization at Hill AFB, Utah", Innovative Subsurface Remediation: Field Testing of Physical, Chemical, and Characterization Technologies, ACS Symposium Series 725, M.L. Brusseau, D.A. Sabatini, J.S. Gierke, and M.D. Annable, editors, American Chemical Society, Washington, D.C., 1999, pp. 49-63.
16. Sabatini, D.A., Harwell, J.H., and Knox, R.C., "Surfactant Selection Criteria for Enhanced Subsurface Remediation", Innovative Subsurface Remediation: Field Testing of Physical, Chemical, and Characterization Technologies, ACS Symposium Series 725, M.L. Brusseau, D.A. Sabatini, J.S. Gierke, and M.D. Annable, editors, American Chemical Society, Washington, D.C., 1999, pp. 8-23.
17. Harwell, J.H., Sabatini, D.A. and Knox, R.C., "Surfactants in Ground Water Remediation", Colloids and Surfaces A: Physicochemical and Engineering Aspects, Vol. 151, 1999, pp. 255-268.
18. Sabatini, D.A., Harwell, J.H., and Knox, R.C., "Surfactant Selection Criteria for Enhanced Subsurface Remediation: Laboratory and Field Observations", Progress in Colloid and Polymer Science, Vol. 111, 1998, pp. 168-173.
19. Knox, R.C., Sabatini, D.A., Hughes, D.E., Lambert, R., and Ketner, R., "A Practitioner Directed Approach to Teaching Engineering Design: A Case Study Using a Municipal Development Project", ASCE Journal of Professional Issues in Engineering, Vol. 124, No. 4, 1998, pp. 105-109.
20. Sabatini, D.A., Harwell, J.H., Hasegawa, M., and Knox, R., "Membrane Processes and Surfactant-Enhanced Subsurface Remediation: Results of a Field Demonstration", Journal of Membrane Science, Vol. 151, No.1, 1998, pp. 89-100.
21. Sabatini, D.A., Knox, R.C., Harwell, J.H. and Shiau, B.J., "Surfactant Enhanced NAPL Remediation: From the Laboratory to the Field," in Soil and Aquifer Pollution: Non-Aqueous Phase Liquids - Contamination and Reclamation, Springer-Verlag, 1998, pp. 373-391.
22. Knox, R.C., Sabatini, D.A., Harwell, J.H., Brown, R.E., West, C., Blaha, F., and Griffin, C., "Surfactant Remediation Field Demonstration Using a Vertical Circulation Well", Ground Water, Vol. 35, No. 6, Nov.-Dec., 1997, pp. 948-953.
23. Sabatini, D.A., Knox, R.C., Harwell, J.H., Soerens, T., Chen, L., Brown, R.E. and West, C., "Design of a Surfactant Remediation Field Demonstration Based on Laboratory and Modeling Studies", Ground Water, Vol. 35, No. 6, Nov.-Dec., 1997, pp. 954-963.
24. Chen, L. and Knox, R.C., "Using Vertical Circulation Wells for Partitioning Tracer Tests and Remediation of DNAPL's", Ground Water Monitoring and Remediation, Vol. XVII, No. 3, Summer 1997, pp. 161-168.
25. Cates, D.A., Knox, R.C., and Sabatini, D.A., "The Impact of Ion Exchange Processes on Subsurface Brine Transport As Observed on Piper Diagrams", Ground Water, Vol. 34, No. 3, May-June 1996, pp. 532-544.
26. Knox, R.C. and Canter, L.W., "Prioritization of Ground Water Contaminants and Sources", Water, Air and Soil Pollution, Vol. 88, 1996, pp. 205-226.
27. Chen, Y., Chen, L.Y., and Knox, R.C., "Modeling of Innovative Measures for Improving the Hydraulic Efficiency of Surfactant Injection and Recovery Systems", Surfactant-Enhanced Remediation of Subsurface Contamination, ACS Symposium Series 594, D.A. Sabatini, R.C. Knox, and J.H. Harwell, editors, American Chemical Society, Washington, D.C., 1995, pp. 249-264.
28. Krebs-Yuill, B., Harwell, J.H., Sabatini, D.A., and Knox, R.C., "Economic Considerations in Surfactant-Enhanced Pump-and-Treat Remediation", Surfactant-Enhanced Remediation of Subsurface Contamination, ACS Symposium Series 594, D.A. Sabatini, R.C. Knox, and J.H. Harwell, editors, American Chemical Society, Washington, D.C., 1995, pp. 265-278.
29. Raleigh, L.H., Knox, R.C. and Canter, L.W., "A Proposed Nonhazardous Industrial Waste Classification Scheme," ASCE Environmental Engineering, Vol. 121, No. 5, May 1995, pp. 402-410.

30. Knox, R.C., Sabatini, D.A., Sack, R.L., Haskins, R.D., Roach, L.W., and Fairbairn, S.W., "A Practitioner-Educator Partnership for Teaching Engineering Design", Journal of Engineering Education, Vol. 84, No. 1, January 1995, pp. 5 - 11.
31. Knox, R.C., "Spatial Moment Analysis for Mass Balance Calculations and Tracking of a Subsurface Hydrocarbon Mound," Ground Water Monitoring Review, Summer 1993, pp. 139 - 147.
32. Soerens, T. and Knox, R.C., "Discussion of Borden, R.C. and Ka, C.M. (1992), "Evaluation of Groundwater Extraction for Remediation of Petroleum-Contaminated Aquifers," Water Environment Research, Vol. 65, No. 7, November/December 1993, p. 899.
33. Knox, R.C. and Sabatini, D.A., "Introduction," Transport and Remediation of Subsurface Contaminants: Colloidal, Interfacial, and Surfactant Phenomena, D.A. Sabatini and R.C. Knox, eds., ACS Symposium Series 491, American Chemical Society, Washington, DC, 1992, pp. 1-11.
34. Sabatini, D.A. and Knox, R.C., "Review and Future Directions," Transport and Remediation of Subsurface Contaminants: Colloidal, Interfacial, and Surfactant Phenomena, D.A. Sabatini and R.C. Knox, eds., ACS Symposium Series 491, American Chemical Society, Washington, DC, 1992, pp. 234-240.
35. Raleigh, L.H., Knox, R.C. and Canter, L.W., "Assessment of Non-Hazardous Industrial Waste Co-Disposal: A State Level Survey," Environmental Professional, Vol. 15, 1992, pp. 1-8.
36. Knox, R.C. and Canter, L.W., "Water Resources Applications of the NEXRAD Weather Radar System," Environmental Professional, Vol. 13, 1991, pp. 331-336.
37. Haiges, L. Knox, R.C. and Canter, L.W., "Evaluation of Underground Fuel Spill Cleanup Technologies," The Hazardous Waste Consultant, Vol. 8, No. 2, March-April 1990.
38. Sims, L.C., Knox, R.C. and Canter, L.W., "Protocol for Selecting an In-Tank Leak Detection Device," International Journal of Environmental Studies, 1990.
39. Michaelis, M., Knox, R.C. and Canter, L.W., "Evaluation of External Leak Effect Monitoring Systems for Underground Storage Tanks," Environmental Monitoring and Assessment, 1990.
40. Haiges, L. and Knox, R.C., "Part 2: Ground Water Cleanup at Several Superfund Sites," Hazardous Materials Control, Vol. 1, No. 6, Nov-Dec. 1988.
41. Knox, R.C., "Assessment of the Effectiveness of Barriers for the Retardation of Pollutant Migration," Ground Water, Vol. 22, No. 3, May-June 1984.

B. Books Co-Authored or Co-Edited (7)

1. D.A. Sabatini, R.C. Knox, and J.H. Harwell, editors, Surfactant-Enhanced Remediation of Subsurface Contamination, ACS Symposium Series 594, American Chemical Society, Washington, D.C., 1995, ISBN 0-8412-3225-3, 300 pages.
2. Knox, R.C., Sabatini, D.A. and Canter, L.W., Subsurface Transport and Fate Processes, Lewis Publishers, Chelsea, Michigan, 1993, ISBN 0-87371-193-9, 430 pages.
3. Sabatini, D.A. and Knox, R.C., editors, Transport and Remediation of Subsurface Contaminants: Colloidal, Interfacial and Surfactant Phenomena, ACS Symposium Series 491, American Chemical Society, Washington, D.C., 1992, ISBN 0-8412-2223-1, 252 pages.
4. Knox, R.C. et al., Aquifer Restoration State of the Art, Noyes Publications, Park Ridge, New Jersey, 1986.
5. Canter, L.W., Knox, R.C. and Fairchild, D., Ground Water Quality Protection, Lewis Publishers, Inc., Chelsea, Michigan, 1986, ISBN 0-87371-018-5, 562 pages.

6. Canter, L.W. and Knox, R.C., Ground Water Pollution Control, Lewis Publishers, Inc., Chelsea, Michigan, 1985, ISBN 0-87371-014-2, 526 pages.
7. Canter, L.W. and Knox, R.C., Septic Tank System Effects on Ground Water Quality, Lewis Publishers, Inc., Chelsea, Michigan, 1985, ISBN 0-87371-012-6, 336 pages

C. Conference Proceedings (34)

1. Nairn, R.W., T. Beisel, R.C. Thomas, J.A. LaBar, K.A. Strevett, D. Fuller, W.H. Strosnider, W.J. Andrews, J. Bays and R.C. Knox. 2009. Challenges in design and construction of a large multi-cell passive treatment system for ferruginous lead-zinc mine waters. In: Proceedings of Joint Conference of the American Society of Mining and Reclamation 26th Annual National Meeting and 11th Billings Land Reclamation Symposium, Revitalizing the Environment: Proven Solutions and Innovative Approaches. May 30 - June 5, 2009, Billings, MT., R.I. Barnhisel (Ed.), pp. 871-892.
2. R.L. Kolar, R.C. Knox, G.A. Miller, K.K. Muraleetharan, and D.A. Sabatini, "An Assessment of How the Sooner City Project Addresses ASCE's Body of Knowledge", Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition, Session 3115, American Society for Engineering Education.
3. Shiau, B.J., Brammer, J.M., Sabatini, D.A., Harwell, J.H., Knox, R.C., "Recent Development of Low Concentration Surfactant Flushing for NAPL-Impacted Site Remediation and Pollution Prevention," 2003 Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Assessment, and Remediation Conference and Exposition, Costa Mesa, CA (August, 2003).
4. Shiau, B.J., Hasegawa, M.A., Sabatini, D.A., Knox, R.C., Harwell, J.H., and Lago, R., "Field Demonstration of Surfactant-Enhanced DNAPL Remediation – Case Studies." 2001 International Containment & Remediation Technology Conference and Exhibition, Orlando, FL (June, 2001).
5. Sabatini, D. A., Harwell, J. H., Knox, R. C., Wu, B. and Hasegawa, M., "Surfactant Selection for Enhanced Soil Remediation," Proceedings of the 6th International Conference on Environmental Science and Technology, Pythagorion, Samos, Greece: August 30 - September 2, 1999. Vol B, 210-217.
6. Sabatini, D.A., Knox, R.C., and Harwell, J.H., "Surfactant Selection for Enhanced Contaminant Extraction", Groundwater Quality: Proceedings of GQ'98 Conference - Universitaet Tuebingen, Germany, September, 1998, IAHS Publication No. 250, 1998, pp. 361-366.
7. Knox, R.C., Sabatini, D.A., Goodspeed, M., Hasegawa, M., and Chen, L., "Hydraulic Considerations for Advanced Subsurface Characterization and Remediation Technologies", Groundwater Quality: Proceedings of GQ'98 Conference - Universitaet Tuebingen, Germany, September, 1998, IAHS Publication No. 250, 1998, pp. 391-399.
8. Nelson, D.I., Everett, J.W., Nelson, R.M., Knox, R.C., and Kolar, R., "A Research Experience for Undergraduates in Environmental Science and Engineering", Air & Waste Management Association 91st Annual Meeting and Exposition, San Diego, CA, Fall 1997.
9. Chen, L. and Knox, R.C., "Innovative Vertical Circulation Well Enhanced Remediation and Partitioning Tracer Tests for Detection of Tetrachloroethylene (PCE): A Three-Dimensional Sand Tank Case Study", World Environmental Congress (World '96), Cincinnati, OH.
10. Sabatini, D.A., Knox, R.C., Harwell, J.H., and Shiau, B.J., "Surfactant Enhanced NAPL Remediation: From the Laboratory to the Field", International Workshop on Soil and Aquifer Pollution - Non-Aqueous Phase Liquids - Contamination and Reclamation, Technion, Israel Institute of Technology, Haifa, Israel, May 13-15, 1996.
11. Gupta, H.S. and Knox, R.C., "Modeling the Effectiveness of Hydraulic and Impermeable Barriers for Improving Contaminant Extraction or Surfactant Injection", PETRO-SAFE '96 Conference, Houston, TX, January, 1996,
12. Warram, J.E., Knox, R.C. and Robertson, J.M., "Nitrate Contamination from Windrow Composting," The Eighth International Conference on Solid Waste Management and Secondary Materials, Philadelphia, PA, November 1992.
13. Knox, R.C., Gupta, H.S. and Chen, Y., "Increasing the Efficiency of Surfactant Injection Schemes for Pump-and-Treat

Remediation Through Use of Impermeable and Hydraulic Barriers," Aquifer Restoration: Pump-and-Treat and the Alternatives, Las Vegas, NV, National Ground Water Association, September 1992.

14. Vieux, B.E., Knox, R.C., Gaur, N. and Black, J., "Spatial Distribution of Chlorides in Drinking Water Wells in the Central Oklahoma Aquifer," Ground-Water Quality of the Central Oklahoma (Garber-Wellington) Aquifer Conference: Proceedings, Open-File Report 92-116, U.S. Geological Survey, February 20, 1992.
15. Sabatini, D.A., Knox, R.C. and Harwell, J. H., "The Potential Use of Edible Surfactants for the Remediation of Contaminated Groundwater Supplies," 3rd CESIO International Surfactants Congress and Exhibition - A World Market, City of London, June 1992.
16. Shiau, B., Gupta, A., Harwell, J.H., Knox, R. C. and Sabatini, D. A., "Edible Surfactants in Enhanced Remediation Processes," AIChE 1992 Summer National Meeting, Minneapolis, MN, August 1992.
17. Gupta, H.S., Chen, Y., and Knox, R.C., "Modeling Innovative Techniques for Improving the Hydraulic Efficiency of Pump and Treat Remediation Systems," 3rd International Conference on Ground Water Quality Research: Subsurface Restoration Conference, Dallas, Texas, June 21-24, 1992.
18. Knox, R.C., Vieux, B.E. and Black, J., "Relaxation Modeling and Spatial Moment Analyses for Tracking Subsurface Hydrocarbon Plume Movement," 3rd International Conference on Ground Water Quality Research: Subsurface Restoration Conference, Dallas, Texas, June 21-24, 1992.
19. Cates, D., Knox, R.C. and Sabatini, D.A., "Evaluation of Soil Parameters and Multicomponent Ion Exchange on Hydrogeochemical Patterns," 3rd International Conference on Ground Water Quality Research: Subsurface Restoration Conference, Dallas, Texas, June 21-24, 1992.
20. Knox, R.C. and Shadizadeh, R., "Aquifer Protection and Contamination Monitoring Related to Waste-Disposal Facilities," Hazardous Waste Disposal in Oklahoma, Special Publication 90-3, Oklahoma Geological Survey, 1990.
21. Knox, R.C. et al., "An Evaluation of PCB Degradation by Microorganisms: Methanotrophs, *Corynebacterium* MB1, *Alcagenes Eutrophus* H850 and *Pseudomonas Putida* LB 400," Proceedings of the HAZTECH-90 International Conference on Hazardous Waste and Hazardous Materials Management, May 1990, Houston, Texas.
22. Haiges, L., Knox, R.C. and Canter, L.W., "Evaluation of Underground Fuel Spill Cleanup Technologies," Proceedings of HAZTECH International 89 Conference and Exhibition, 1989.
23. Knox, R.C., "Surface Water Quality Modeling," Proceedings of the 4th International Symposium on Systems Analysis to Management of Water Resources, 1988.
11. Knox, R.C., Canter, L.W. and Robertson, J.M., "Graduate Programs in Ground Water Quality Management: Responding to a Crisis," Proceedings of the National Conference of the North American Association for Environmental Education, 1987.
24. Haiges, L. and Knox, R.C., "Ground Water Cleanup at Selected Superfund Sites," Proceedings of the 8th National Conference and Exhibition - Superfund '87, November 1987.
25. Knox, R.C. and Canter, L.W., "Overview of Ground Water Contamination," Proceedings of the 1987 National Convention of the American Water Works Association, June 1987.
26. Knox, R.C., and Robertson, J.M., "Transport and Fate of Organic Constituents in Drilling Muds," Proceedings of the Third National Conference on Disposal of Drilling Wastes, May 1987.
27. Fairchild, D.F. and Knox, R.C., "Off Site Disposal: Case Study - Merkle Pits, McLoud, Oklahoma," Proceedings of the First National Conference on Disposal of Drilling Wastes, May 1985.
28. Knox, R.C. and Canter, L.W., "Protocol for Aquifer Cleanup Decision-Making at Military Installations," Proceedings of 13th Environmental Systems Symposium, Bethesda, Maryland, Mar. 20-22, 1984, 18 pp.

29. Knox, R.C. and Canter, L.W., "Protocol for Aquifer Cleanup Decision-Making," Proceedings of the NWWA Eastern Regional Conference on Ground Water Management, National Water Well Association, Worthington, Ohio, 1983, pp. 463-494.
30. Knox, R.C., "Effectiveness of Impermeable Barriers for Retardation of Pollutant Migration," Management of Uncontrolled Hazardous Waste Sites, November 1983, pp. 179-184.
31. Knox, R.C., "Utility of Ground Water Models in EIA Studies," editorial in Environmental Impact Assessment Worldletter, Vol. 1, No. 1, June/July 1983, pp. 5-6.
32. Canter, L.W. and Knox, R.C., "Overview of Methodologies for Aquifer Clean-up," American Water Works Association Annual Conference and Exposition, Las Vegas, Nevada, June 5-9, 1983, 39 pp.
33. Knox, R.C., Stover, E.L., and Kincannon, D.F., "Examples of Aquifer Restoration," Groundwater Management Districts Association 9th Annual Conference Proceedings, 1982.

D. Technical Project Reports (28)

1. Knox, R.C., Nairn, R.W., Volz, J., Kolar, R.L., "Development of Recommended Structural and Environmental Guidelines for Tethered Habitable Structures on Grand Lake O' The Cherokees", The Grand River Dam Authority, Submitted to Grand River Dam Authority, July 31, 2015.
2. Knox, R.C. and Sabatini, D.A., "Reclamation of Brine Contaminated Soil: Clearview Demonstration Project", Submitted to Oklahoma Conservation Commission, July 31, 1999.
3. Shiao, B.J., Knox, R.C., Sabatini, D.A., and Harwell, J.H., "Surfactant-Enhanced Mobilization for Remediation of Subsurface NAPL Contamination at Hill AFB, Utah", Submitted to Hill AFB, September 1997.
4. Shiao, B.J., Knox, R.C., Sabatini, D.A., and Harwell, J.H., "Surfactant-Enhanced Solubilization for Remediation of Subsurface NAPL Contamination at Hill AFB, Utah", Submitted to Hill AFB, September 1997.
5. Sabatini, D.A., Knox, R.C., Tucker, E.E., and Puls, R.W., "Innovative Measures for Subsurface Chromium Remediation: Source Zone, Concentrated Plume, and Dilute Plume", Environmental Research Brief, EPA/600/S-97/005, September, 1997, U.S. Environmental Protection Agency, Ada, OK.
6. Sabatini, D.A., Knox, R.C., and Harwell, J.H., "Surfactant-Enhanced DNAPL Remediation: Surfactant Selection, Hydraulic Efficiency, and Economic Factors", Environmental Research Brief, EPA/600/S-96/002, August, 1996, U.S. Environmental Protection Agency, Ada, OK.
7. Canter, L.W., Knox, R.C., Sabatini, D.A., Vieux, B.E., Chowdhury, A.K.M. and Connick, J.E., "Expert System for Prioritization of Ground Water Contaminant Sources", Cooperative Agreement CR819003, submitted to U.S. Environmental Protection Agency, November, 1993.
8. Canter, L.W., Knox, R.C., Sabatini, D.A., Vieux, B.E., Shaw, K.M., Chowdhury, A.K.M., Overton, D.R. and Kamath, J., "Ground Water Contaminant Identification and Prioritization" completion report submitted to R.S. Kerr Environmental Research Laboratory, USEPA, Ada, OK, December, 1992.
9. Knox, R.C., Canter, L.W., Sabatini, D.A., Bell, R. and Paul D., "Evaluation of Underground Fuel Spill Cleanup Technologies for Selected Navy Sites," September 1992, report submitted to Battelle, Research Triangle, NC.
10. Knox, R.C. and Sabatini, D.A., "Evaluation of Soil Parameters and Multicomponent Ion Exchange on Hydrogeochemical Patterns", January 1992, Grant No. G1114140, OMMRRI.
11. Warram, J.E., Knox, R.C. and Robertson, J.M., "Environmental Assessment of Norman's Yard Waste Composting Operation," October 1992, School of Civil Engineering and Environmental Science, University of Oklahoma.
12. Sabatini, D.A., Palmer, C., Knox, R.C., Harwell, J.H., and Canter, L.W., "Advanced Subsurface Characterization and Remediation", completion report submitted to Battelle, Research Triangle, NC, February 1992.

13. Canter, L.W., Knox, R.C., Sabatini, D.A., Vieux, B.E., Shaw, K.M., Chowdhury, A.K.M., Overton, D.R. and Kamath, J., "Ground Water Contaminant Identification and Prioritization," December 1992, Cooperative Agreement CR 819003-01-0, U.S. Environmental Protection Agency.
14. Haiges, L.R., Paul, D., Knox, R.C. and Canter, L.W., "Evaluation of Underground Fuel Spill Cleanup Technologies," December 1988, Environmental and Ground Water Institute, Norman, Oklahoma.
15. Knox, R.C., Atalay, A. and Canter, L.W., "Granular Activated Carbon Treatment of Volatile Organic Compound Air Streams," December 1988, Environmental and Ground Water Institute, Norman Oklahoma.
16. Knox, R.C., and Canter, L.W., "Summary of Cost Information on Ground Water Treatment by Air Stripping and Carbon Adsorption," March 1988, report submitted to U.S. Environmental Protection Agency, Ada, Oklahoma.
17. Knox, R.C., and Canter, L.W., "Ground Water Monitoring Planning Guide," September 1985, report submitted to U.S. Army, Huntsville, Alabama.
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67 projects totaling over \$20 million (Individual Credit - \$6.6 million)

38 projects totaling over \$13.4 million since 1995

Co-Principal Investigator on 53 Projects

Principal Investigator on 14 Projects

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2. "Environmental Implications of Off-Site Drilling Mud Pits in Oklahoma." Sponsor -- Oklahoma Corporation Commission, Oklahoma City, Oklahoma, September 1983 to March 1984, \$109,000, Co-Principal Investigator.
3. "Performance Evaluation of Individual Home Wastewater Treatment Systems." Sponsor -- 1) Doise Concrete, Inc. and 2) Southwest Environmental Equipment and Tool Company, Inc., 1985, \$40,000, Principal Investigator.
4. "Granular Activated Carbon Treatment of Volatile Organic Compounds in Air Streams." Sponsor -- U.S. Navy, North Island, California, 1988 to 1989, \$85,000, Co-Principal Investigator.
5. "NEXRAD Hydrology Symposium." Sponsors -- United States Geological Survey, 1988, \$20,000, Co-Principal Investigator.
6. "Field Demonstration of Remediation Technologies for Underground Fuel Tank Spill Cleanup Programs." Sponsor -- U.S. Navy, Port Hueneme, California, 1989 to 1992, \$140,000, Co-Principal Investigator.
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10. "Contaminant Mobility Study: Norman Municipal Composting Site." Sponsor -- City of Norman, April 1991 to December 1991, \$11,000, Co-Principal Investigator.
11. "U. S. Department of Energy EPSCoR Traineeships." Sponsor -- U. S. Department of Energy, DE-FG02-91ER75662, September 1991 to September 1995, \$500,000, Principal Investigator.
12. "Planning Proposal for U. S. Department of Energy EPSCoR Program." Sponsor -- U. S. Department of Energy, DE-FG02-91ER75670, September 1991 to September 1993, \$100,000, Principal Investigator.
13. "Contaminant Identification and Classification." Sponsor -- U. S. Environmental Protection Agency, Ada, Oklahoma, CR 819003-01-0, September 1991 to September 1993, \$180,000, Co-Principal Investigator.
14. "Surfactant Enhanced Remediation of Subsurface DNAPL Contamination with Surfactant Recovery." Sponsor -- U. S. Environmental Protection Agency, Ada, Oklahoma, CR 818553-01-0, October 1991 to October 1994, \$303,000, Co-Principal Investigator.
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16. "Innovative Methods for Remediation of Subsurface Chromium Contamination." Sponsor -- U. S. Environmental Protection Agency, Ada, Oklahoma, CR 820736-01-0 (T-2079), November 1992 to November 1994, \$175,000, Co-

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17. "DOE/EPSCoR Traineeship Renewal." Sponsor -- U.S. Department of Energy, DE-FG02-91ER75662, September 1993 to September 1995, \$250,000, Principal Investigator.
18. "DOE/EPSCoR Planning Proposal." Sponsor -- U.S. Department of Energy, DE-FG02-91ER75670, September 1993 to September 1994, \$20,000, Principal Investigator.
19. "Building the Future: The Role of Engineering and Environmental Science in Sustaining Society." Sponsor -- Oklahoma State Regents for Higher Education, \$59,000, 1993, Co-Principal Investigator.
20. "Reclamation of Brine Contaminated Soil: Clearview Demonstration Project", Sponsor -- Oklahoma Conservation Commission, 080193AGR, October 1993 to January 1997, \$175,000, Principal Investigator.
21. "Protecting the Future of Ourtown: The Role of Environmental Engineering and Science" Sponsor - Oklahoma State Regents for Higher Education, \$44,683, 1994, Co-Principal Investigator.
22. "DOE EPSCoR Planning Proposal." Sponsor -- U.S. Department of Energy, DE-FG02-91ER75670, September 1994 to September 1995, \$20,000, Principal Investigator.
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25. "Design Manual for the Extraction of Contaminants from Unconsolidated Subsurface Environments." Sponsor -- U.S. Environmental Protection Agency, Ada, Oklahoma, R 11961-7200-94, July 1994 to July 1997, \$3.2 million, Co-Principal Investigator.
26. "Mixing Rules for Optimization of Dowfax Blends for Soil Washing, In Situ Aquifer Remediation, Oil Spill Cleanup and Solvent Free Cleaning Systems," Sponsor -- DOW Chemical, 1/94 to 12/94, \$32,377, Co-Principal Investigator.
27. "Performance Testing of Innovative Technologies." Sponsor -- New Mexico State University, Q00162, \$20,460, June 1995 to January 1996, Co-Principal Investigator.
28. "Protecting the Future of Ourtown: The Role of Engineering & Science" Sponsor -- Oklahoma State Regents for Higher Education, \$43,738, 1995, Co-Principal Investigator.
29. "Surfactant Enhanced Subsurface Remediation." Sponsor -- Oklahoma Center for the Advancement of Science and Technology, AR4-046, May 1995 to April 1997, \$210,000, Co-Principal Investigator.
30. "Separation Processes for Surfactant-Contaminant Separation and Surfactant Reuse." Sponsor-- Advanced Applied Technology Demonstration Facility (Rice University / SERDP), November 1995 to October 1997, \$398,705, Co-Principal Investigator.
31. "Environmental Applications of the Oklahoma Mesonet." Sponsor -- National Science Foundation EPSCoR, OSR-9550478, August 1995 to July 1998, \$1,010,000 (plus \$1,010,000 matching funds), Co-Principal Investigator.
32. "Automation and Characterization of an Environmental Research Facility," Sponsor -- National Science Foundation EPSCoR Experimental Systemic Initiative, OSR-953363, July 1995 to June 1998, \$274,442 (plus \$274,442 matching funds), Principal Investigator.
33. "Acquisition of Equipment to Create the Environmental Computing Applications System." Sponsor -- National Science Foundation, ATM-9512145, September 1995 to August 1998, \$580,000, Co-Principal Investigator.
34. "Institute for Applied Surfactant Research," Sponsors -- Dupont, Kerr McGee, ICI, \$60,000, 08099LTR, Co-Principal

Investigator.

35. "Intrinsic Bioremediation of Gas Condensate Hydrocarbons." Sponsor -- U.S. Department of Energy, DE-FG03-96-ER-62287, September 15, 1996 to November 30, 1999, \$57,301, Co-Principal Investigator.
36. "Surfactant-Enhanced Subsurface Remediation of Petroleum Hydrocarbons", Sponsor - Trust Environmental Services LLC, \$14,400, January to July, 1997, Co-Principal Investigator.
37. "Research Experience for Undergraduates in Environmental Monitoring and Modeling", Sponsor -- National Science Foundation, February 1997, \$57,397, Co-Principal Investigator, .
38. "Surfactant/Cosolvent Treatability Study for DNAPL at WAG6 - Paducah Gaseous Diffusion Plant." Sponsor -- Surbec LLC, October 1997 to January 1999, \$100,000, Co-Principal Investigator.
39. "Surfactant-Enhanced Subsurface Remediation of Petroleum Hydrocarbons - Tinker", Sponsor -- Surbec LLC, August 1997 to July 1998, \$20,000, Co-Principal Investigator.
40. "A Field Demonstration of Surfactant-Enhanced DNAPL Remediation", Sponsor -- Environmental Protection Agency, October 1997 to September 2000, \$441,362, Co-Principal Investigator.
41. "Center for Environmental Applications of the Oklahoma Mesonet Phase 3", Sponsor -- National Science Foundation, February 1998 to January 2001, \$723,737, Co-Principal
42. "Chemicals in the Environment - Doctoral Fellowships in Environmental Engineering", Sponsor -- U.S. Department of Education, August 1998 to September 1999, \$601,224, Co-Principal Investigator.
43. "Sooner City - Design Across the Curriculum", Sponsor - National Science Foundation, August 1998 to July, 2001, \$869,701, Co-Principal Investigator.
44. "Surfactant-Enhanced Subsurface Remediation of Petroleum Hydrocarbons - McLelland", Sponsor -- Surbec LLC, February to December 1999, \$50,000, Co-Principal Investigator.
45. "Surfactant-Enhanced Treatability Study at Alameda Point", Sponsor -- Surbec LLC, March to October 1999, \$40,000, Co-Principal Investigator.
46. "Acquisition and Development of Equipment for Unsaturated Soil Research", Sponsor -- NSF MRI Program, \$368,778 + \$161,496 (OU cost sharing), 9/00-8/02, with Drs. Muraleetharan, Kibbey, Zaman, Mooney, Sabatini, Kolar and Knox, Co-Principal Investigator (2%)
47. "Rehabilitation of the Pawnee Boarding School", Sponsor -- Little Eagle and Associates, 2000, \$3000, Principal Investigator
48. "Groundwater Sensitivity Analysis for Potential Pollution Sources," Sponsor -- U.S. EPA through Oklahoma Conservation Commission: \$380,063 (\$228,038 from EPA + \$152,025 cost sharing), Zaman, M., K. Strevett, R. Knox. 12/96 - 02/01, 1996 319(H) Task 68, Co-Principal Investigator (33%)
49. "The Effect of In Situ Biosurfactant Production on Hydrocarbon Biodegradation," Sponsor -- EPA (97-NCERQA-1F); \$375,000, Strevett, K, D. Sabatini, R. Tanner, and R. Knox, 3/98 - 08/01, Co-Principal Investigator (25%)
50. "Passive Treatment of Metal-Rich Waters Through Enhanced Wetland Technologies", Sponsor -- U.S. EPA, Years 1&2, 2001, Individual Credit - \$16,000, Co-PI (10%)
51. "Passive Treatment of Metal-Rich Waters Through Enhanced Wetland Technologies", Sponsor -- Okla. State Regents, Years 1&2, 2001, Individual Credit - \$8000, Co-PI (10%)
52. "The Oklahoma Bridge Design Squad", Sponsor -- ODOT, Year 1, 2001, Individual Credit - \$170,000, PI (100%)
53. "Adventure Engineering", Sponsor -- NSF GK-12, Year 2, 2001, Individual Credit - \$363,517, PI (assumed project

from Dr. Mooney)

54. "Adventure Engineering", Sponsor -- NSF GK-12, Year 2 supplement, 2001, Individual Credit - \$24,500, PI (assumed project from Dr. Mooney)
55. "Pilot Study for a Courseless Curriculum", Sponsor -- NSF Planning Grant, 2002, Individual Credit - \$100,000, Co-PI (25%)
56. "Research Experience for Undergraduates in GeoEnvironmental Systems." Sponsor -- NSF REU Site Award, 2002, \$418112, Co-PI (5%).
57. "Development of the Central Southwest Gulf Coast Regional Node of the NBII", Sponsor -- HARC, 2003, \$25,000, Co-PI (20%)
58. "Passive Treatment of Metal-Rich Waters Through Enhanced Wetland Technologies" Sponsor -- Okla. State Regents, Year 3, 2003, \$40,000, Co-PI (10%)
59. "The Oklahoma Bridge Design Squad," Sponsor -- ODOT, Year 2, 2003 \$113,320, PI (100%)
60. "Doctoral Fellowships in Sustainable Technologies for Civil and Environmental Systems" Sponsor -- US DoEd, 2003, \$694,176, Co-PI (10%)
61. "The Oklahoma Bridge Design Squad," Sponsor -- ODOT, 2004, Year 3, \$103,019, PI (100%)
62. "Evaluation of Sub-micellar Synthetic Surfactants versus Biosurfactants for Enhanced LNAPL Recovery," Sponsor -- Integrated Petroleum Environmental Consortium, 2004, \$94,518, Co-PI (33%)
63. "Design, Construction and Evaluation of a Passive Treatment System for Contaminated Mine Waters," Sponsor -- USEPA, 2004, \$2,982,300, Co-PI (5%)
64. "Source, Transport and Fate of Mine Waste Contaminants at the Tar Creek Superfund Site, Oklahoma," Sponsor -- USGS, 2004, \$888,570, Co-PI (10%)
65. Kolar, R., et al., "Doctoral Fellowships in Technologies for Sustainable Infrastructure and Environmental Systems," U.S. Dept. of Education, \$783,936, Sept. 1, 2009 to Aug. 31, 2012, Co-PI (8%).
66. Development of Structural and Environmental Guidelines for Habitable Structures Co-PI (25%) – GRDA, 2015 (\$49,743);
67. Passive Treatment of Contaminated Mine Waters: Design, Construction, and Evaluation of the Southeast Commerce Project - State of Oklahoma, Department of Environmental Quality, 2015, Co-PI (30%) (\$2,000,000)

INTERNAL PROJECTS

1. "Assessment of the Impacts of Coal Mining and Conversion on Ground Water Resources," Sponsor -- Energy Resources Center, 1980, \$10,000, Co-Principal Investigator.
2. "Physical Modeling of the Effectiveness of Subsurface Barriers for Ground Water Pollution Control", Sponsor -- Research Council, 1983, \$3125, Principal Investigator.
3. "In-Situ Treatment of PCBs", Sponsor - Energy Center, 1988, \$6200, Co-Principal Investigator.
4. "Faculty Development Award", Sponsor -- Provost's Office, 1988, \$785.61, Principal Investigator.
5. "Precipitation Measurement Requirements for Hydrologic Studies in Relation to Capabilities of the NEXRAD System", Sponsor -- Cooperative Institute for Mesoscale Meteorological Studies CIMMS, 1988, \$15,000, Co-Principal Investigator.

6. "Modeling Multicomponent VOC Adsorption on Granular Activated Carbon", Sponsor – Research Council, 1989, \$1348, Co-Principal Investigator.
7. "Laboratory Equipment", Sponsor -- Research Council, 1989, \$737, Principal Investigator.
8. "Evaluation of Soil Parameters and Multicomponent Ion Exchange on Hydrogeochemical Patterns," Sponsor -- Oklahoma Mining and Mineral Resources Research Institute, Norman, Oklahoma, G1114140, July 1991 to June 1992, \$7,300, Co-Principal Investigator.
9. "Ecological Aspects of Storing Fly Ash in Mines." Sponsor -- Oklahoma Mining and Mineral Resources Research Institute, Norman, Oklahoma, February 1993 to January 1994, \$5,800, Co-Principal Investigator.
10. "Safety Training for Field Research Personnel", Sponsor -- Research Council, 1995, \$4200, Principal Investigator.
11. "Major Marketing Initiatives for Graduate Student Recruiting", Sponsor – Research Council, 1996, \$5000, Principal Investigator.
12. "Major Marketing Initiatives for Graduate Student Recruiting", Sponsor – Research Council, 1996, \$5000, Principal Investigator.
13. "Supplemental Fee Waivers for Graduate Student Recruiting", Sponsor – Research Council, 1997, \$28,080, Principal Investigator.
14. "A Proposal to Establish OU Alumni Graduate Fellowships in CEES", Sponsor -- Graduate College, 1998, \$60,000, Co-Principal Investigator.
15. "Development, Implementation and Assessment of a Multi-Semester Mega-Project for Project-Based Learning Across the Curriculum", ECS/MDE Committee, Strevett, K., Nairn, R., and Knox, R.C., \$10,200, July 26, 2000, Co-PI (33%)

GRADUATE STUDENT SUPERVISION

- A. Ph.D. Dissertations Supervised (5)
 1. Lisa Haiges (Ph.D. 1991). Dissertation Title -- "Assessment of Non-Hazardous Industrial Waste Disposal in Oklahoma."
 2. Reza Shadizadeh (Ph.D. 1991). Dissertation Title -- "Development of a Non-Fickian Solute Transport Model."
 3. Yili Chen (Ph.D. 1995). Dissertation Title -- "Using a Two-Dimensional Sand Tank to Model Surfactant Enhanced Pump-and-Treat Remediation of Dense Chlorinated Hydrocarbons."
 4. Li-Yuan Chen (Ph.D. 1996). Dissertation Title -- "Hydraulic Performance of Vertical Circulation Well Systems and Their Application to DNAPL Remediation in a Three-Dimensional Sand Tank."
 5. Al Thal (Ph.D. 1999). Dissertation Title -- "An Investigation of Alcohol Tracer Partition Coefficients and a Study of UTCHEM Simulations."
- B. M.S. Theses Supervised (12)
 1. Jonathan Snell (M.S. 1987). Thesis Title - "Prioritization of Techniques for the Hydrogeologic Investigation of Leaking Underground Storage Tanks."
 2. Luis Ortiz (M.S. 1989). Thesis Title - "Evaluation of PCB Degradation by Microorganisms."
 3. Kathy Martin (M.S. 1989). Thesis Title - "Removal of PCBs from Topsoil Using Surfactants."
 4. David Cohenour (M.S. 1990). Thesis Title - "Nitrate Contamination in the Central Oklahoma Aquifer System."
 5. Richard Forbes (M.S. 1990). Thesis Title - "Assessment of Nitrate Contamination of Ground Water in the Arkansas River Alluvium in Northwestern Osage County."
 6. James Warram (MSCE 1992). Thesis Title - "Evaluation of Environmental Impacts from Co-Composting Yard Waste with Municipal Wastewater Treatment Plant Sludge: A Pilot Study."
 7. Hari Gupta (MSCE 1993). Thesis Title - "Modeling the Effectiveness of Barriers for Improving the Hydraulic Efficiency of a Pump and Treat System Utilizing Chemical Agents."
 8. David Cates (M.S. 1993). Thesis Title - "The Use of Geochemical Diagrams to Evaluate Ion Exchange Effects"

9. During Transport of Inorganic Solutes and Brine Through Fresh Ground Water." Fred Fitter (M.S. 1995). Thesis Title - "Fate and Transport of Oil Field Brines in Recharge Areas of the Central Oklahoma Aquifer."
10. Kim Giles Fisher (MES, 1997). Thesis Title - "Variations In Hydraulic Conductivity Of The Aquifer Underlying The Norman Landfill."
11. Jason Flaming (MSCE, 2002). Thesis Title – "Surfactant Effects On Residual Water and Oil Saturations In Porous Media"
12. Aissata Cisse (MSEE, 2012). Thesis Title – "An Assessment of Water Availability Under a Changing Climate. Case Study: Mali"

TEACHING AND CONTINUING EDUCATION

A. McNeese State University (1984-1986)

Engineering Statics, Fluid Mechanics, Fluid Mechanics Laboratory, Hydrology, Water Supply and Sewerage, Pollution Control Engineering

B. University of Oklahoma (1986-present)

Elementary Surveying	Environmental Engineering – I
Ground Water Quality Management	Hazardous and Solid Waste Design
Ground Water Pollution Control	Graphics and Design
Ground Water and Seepage	Civil Engineering Capstone Course
Environmental Quality Management Field Training	Environmental Science Capstone Course
Subsurface Water Quality Modeling	Technical Communications

C. Chulalongkorn University, Bangkok, Thailand

Environmental Modeling (2005)
Groundwater Hydrology (2006)

D. Technical Short Courses Taught (12)

12. "Introduction to Risk-Based Corrective Actions and Risk Assessment" -- Taught to attendees of "The 4th International Petroleum Environmental Conference", September 1997, San Antonio, TX.
11. "Remediation of Contaminated Subsurface Environments" -- Taught to U.S. Army personnel, February 1994, Kingsport, TN.
10. "Remediation of Contaminated Subsurface Environments" -- Taught to U.S. Army personnel, January 1994, Schwetzingen, Germany.
9. "Simulation Exercise on Environmental Impact Assessment" -- Study director for simulation exercise for participants in the 13th International Seminar on Environmental Impact Assessment and Management, July 1992, Aberdeen, Scotland.
8. "EPA Regulations for Underground Storage Tanks" -- Taught to session of the 37th Annual Corrosion Control Course; Oklahoma Center for Continuing Education; September 1990; Norman, Oklahoma.
7. "Ground Water Containment and Removal Systems" -- Taught to OSC/RPM Basic Training Academy, U.S. Environmental Protection Agency; March 1990; Tampa, Florida.
6. "Simulation Exercise on Environmental Impact Assessment." -- Study director for simulation exercise for participants in the 10th International Seminar on Environmental Impact Assessment and Management; July 1989; Aberdeen, Scotland.
5. "Site Assessment and Closure of Underground Storage Tanks" -- Taught to personnel of SEARCH, Inc.; June 1989; Norman, Oklahoma.
4. "Ground Water Quality Protection." -- Taught to personnel of PPG Industries; May 1986; Lake Charles, Louisiana.
3. "Ground Water Quality Protection." -- Taught to local government and industry representatives; October 1985; Norman, Oklahoma.
2. "Ground Water Quality Protection." -- Taught to local government and industry representatives; June 1985; Lake Charles, Louisiana.
1. "Ground Water Quality Protection" -- Taught to Office of U.S. Environmental Protection Agency Region IV; May 1985; Dallas, Texas.

E. Technical Short Courses Attended (13)

13. "Hazardous Waste and Emergency Response – 8-hour refresher training" -- University of Oklahoma, Norman, OK, 2005.
12. "Hazardous Waste and Emergency Response Training." -- University of Oklahoma, Norman, OK, 2004.
11. "Hazardous Waste and Emergency Response - 8 hour refresher training." -- University of Oklahoma, Norman, OK, 1997.
10. "Hazardous Waste and Emergency Response - 8 hour refresher training." -- University of Oklahoma, Norman, OK, 1996.
9. "Hazardous Waste and Emergency Response Training." -- Institute for Environmental Management, Oklahoma City, OK, 1995.
8. "Integrating Design Into the Engineering Curriculum." -- Southern Methodist University, Dallas, Texas, 1992.
7. "Short course in Applied Surfactant Science and Technology" -- Surfactant Associates, Inc., Norman, Oklahoma, 1991.
6. "Hazardous Waste Safety Training" -- Rose State College, Midwest City, Oklahoma, 1991.
5. "First International Conference on Disposal of Drilling Wastes" -- American Petroleum Institute, Calgary, Alberta, Canada, 1988.
4. "Flood Plain Analysis - Open Channel Hydraulics" -- Oklahoma Center for Continuing Education, Norman, Oklahoma, 1987.
3. "First National Outdoor Action Conference on Aquifer Restoration, Ground Water Monitoring and Geophysical Methods." -- National Water Well Association, Las Vegas, Nevada, 1987.
2. "Reclamation of Difficult Sites." -- University of Wisconsin-Extension, Madison, Wisconsin, 1983.
1. "Ground Water Models Workshops - Parts 1, 2, and 3" -- Holcomb Research Institute, Butler University, Indianapolis, Indiana, 1982.

F. Invited Lectures and Presentations (9)

9. Knox, R.C., "Surfactant-Enhanced Remediation: From Laboratory Development to Field Applications" presentation to MAPCO Professorship Search Committee, April, 1996.
8. Chen, Y., Chen, L.Y., and Knox, R.C., "Modeling the Effectiveness of Innovative Measures for Improving the Hydraulic Efficiency of Surfactant Injection and Recovery Systems", presented to UT Petroleum Engineering Seminar, University of Texas at Austin, Austin, TX, February 23, 1995.
7. Knox, R.C. and Canter, L.W., "An Application of Risk Assessment: Evaluation of Coastal Development Projects," presented by R.C. Knox at the 13th International Seminar on Environmental Impact Assessment and Management, Aberdeen, Scotland, July 1992.
6. Knox, R.C. and Canter, L.W., "Risk-Based Approaches for Evaluation of Coastal Development Projects," presented at the Workshop on Environment, Tourism and Development: An Agenda for Action, Valletta, Malta, March 1990.
5. Canter, L.W. and Knox, R.C., "Impact Assessment for Water Resources," presented by R.C. Knox at the 10th International Seminar on Environmental Impact Assessment and Management, Aberdeen, Scotland, July 1989.
4. Knox, R.C., "Abiotic Processes Affecting Subsurface Transport and Fate," presented to Sigma Gamma Epsilon Honor Fraternity at the University of Arkansas, Fayetteville, Arkansas, February 1989.
3. Canter, L.W., "Role of EIA in Environmental Protection: Follow-up and Control," presented by R.C. Knox at the Environmental Impact Assessment Conference, Seville, Spain, November 1988.
2. Knox, R.C. and Canter, L.W., "Overview of Ground Water Contamination," presented to the South Central Environmental Engineering Committee Meeting, Chevrolet-Pontiac-Canada Group, General Motors Corporation, Midwest City, Oklahoma, October 1987.
1. Knox, R.C., "Environmental Effects of Drilling Fluids Disposal," presented at the Environmental Law Seminar, University of Oklahoma Law School, April 12, 1984.

SERVICE ACTIVITIES

A. Major University and College Committees

- Steering Committee, Oklahoma Water Survey Public Forums on Water Reuse, 2015
- Steering Committee, Kessler Atmospheric and Ecological Field Station, 2014 - present
- Director, Civil Engineering and Environmental Science -1999-2013
- Co-Director, Water Technologies for Emerging Regions (WaTER) Center – 2009 to present
- Faculty Advisor, Sooners Without Borders – 2009 to 2011
- Presidential Task Force on Energy Education and Research – 2004 to 2005

- ABET 2000 Liaison, College of Engineering - 1998
- Chairman, CEES ABET 2000 Committee - 1998
- Program Outcomes Assessment Coordinator - 1994 to 2013
- CEES Graduate Liaison - 1995 to 2000
- CEES Committee A – 1993 to 1995
- Faculty Advisor, ASCE Student Chapter – 1993
- Energy Center Fellow – 1991 to 1992
- Faculty Advisor, Tau Beta Pi Engineering Honor Fraternity - 1989 – 1994
- Faculty Senate Executive Committee – 1989
- Standing Committee on Classroom Maintenance – 1988 to 1990
- Faculty Senate – 1987 to 1989
- Advisory Board for Center for Environmental Applications of the Oklahoma Mesonet, 1995 to 1997
- Invited member of Institute for Applied Surfactant Research, 1996 to 2005.
- Executive Committee, Integrated Petroleum Environmental Consortium, 1997 to 2007.

B. CEES Faculty and Staff Nominations/Awards 2000-2011

(2000)

- X Kathy Maxie - George Lynn Cross Superior Performance Award
- X Mike Schmitz - Hourly Employees Council Distinguished Performance Award.
- X Dr. Kolar - American Society for Engineering Education Midwest Section Dow Outstanding New Faculty Award, OU's BP/Amoco Good Teaching Award, and the Oklahoma Regents' Williams Faculty Innovator Award (Sooner City Project Team).
- X Dr. Mooney - National Science Foundation CAREER Award and the OU Regents' Williams Faculty Innovator Award (Sooner City Project Team).
- X Dr. Muraleetharan - OU Regents' Award for Superior Teaching and the OU Regents' Williams Faculty Innovator Award (Sooner City Project Team)
- Dr. Sabatini - Charles L. Blackburn Presidential Professorship and was named Director, Environmental Ground Water Institute.

(2001)

- X Dr. Butler - National Science Foundation CAREER Award
- X Dr. Kibbey - National Science Foundation CAREER Award

(2003)

- Dr. Tohren Kibbey - Junior Faculty Research Award.
- Dr. Keith Strevett - Regents' Award for Superior Teaching.
- Dr. Baxter Vieux - Presidential Professorship.
- Dr. Musharraf Zaman - David Ross Boyd Professorship.

(2004)

- X Dr. Jinsong Pei - Junior Faculty Research Award.
- X Susan Williams - Distinguished Performance Award

(2005)

- X Dr. David Sabatini - David Ross Boyd Professor
- X Dr. Muraleetharan - Presidential Professorship
- X Dr. Amy Cerato - Junior Faculty Research Award.
- X Dr. Kianoosh Hatami - Junior Faculty Research Award and a Faculty Senate Development Award
- X Dr. Randall Kolar - OU Regents Award for Superior Teaching
- X Dr. Randall Kolar - Teaching Scholar Award, College of Engineering (inaugural winner)

(2006)

- X Molly Smith – Distinguished Performance Award
- X Dr. Sabatini - Japanese Oil Chemists Society Lectureship Award.
- X Dr. Amy Cerato - Travel Grant from The Vice President for Research
- X Dr. Kianoosh Hatami - Casimir Gzowski Medal from the Canadian Society for Civil Engineering
- X Dr. Kianoosh Hatami - inaugural CoE Cross-disciplinary Seed Funding Award
- X Drs. Knox and Sabatini - National Ground Water Association Groundwater Remediation Project Award (given to Surbec Environmental, LLC.)

(2007)

- X Dr. Nairn - Mike Synar Environmental Excellence Award
- X Dr. Nanny - OU Regents Award for Superior Accomplishment in Research and Creative Activity
- X Dr. Kolar - Oklahoma Higher Education Teaching Award

(2008)

- X Dr. Mish - OU Regents Award for Superior Teaching
- X Dr. Kolar - Austin Presidential Professorship
- X Dr. Vieux - Joseph A. Brandt Professorship
- X Dr. Sabatini - Outstanding Educator of the Year by the Association of Environmental Engineering and Science Professors
- X Dr. Cerato - NSF CAREER Award

(2009)

- X Dr. Amy Cerato – NSF Presidential Early Career Award for Science and Engineering
- X Dr. Cerato - Rapp Foundation Presidential Professorship
- X Dr. Kibbey - University of Oklahoma Good Teaching Award
- X Dr. Muralee - David Ross Boyd Professorship

(2010)

- X Dr. Amy Cerato - American Society of Civil Engineers (ASCE) Arthur Casagrande Professional Development Award
- X Dr. Sabatini - Oklahoma Medal for Excellence in Teaching at a Research University – Oklahoma Foundation for Excellence
- X Dr. Sabatini - DaVinci Fellow Award – DaVinci Institute of Oklahoma
- X Dr. Muralee - Kimmell-Bernard Chair in Engineering

(2011)

- Dr. Nairn - 2011 Richard I. and Lela M. Barnhisel Reclamation Researcher of the Year Award from the American Society of Mining and Reclamation
- Dr. Sabatini - 2011 Award of Merit with Distinction for Work in Developing Countries from the Water Environment Federation

C. CEES Tenure and Promotions 2000-2011

(2000)

- X Dr. Vieux –promotion to Professor
- X Dr. Miller – tenure and promotion to Associate Professor.
- X Muraleetharan – tenure and promotion to Associate Professor.

(2001)

- X Drs. Kolar, Mooney and Strevett - tenure and promotion to Associate Professor.
- X Dr. Sabatini - Sun Company Chair of Civil Engineering.

(2002)

- X Dr. Zaman - Aaron Alexander Professor in Civil Engineering and Environmental Science
- X Dr. Mish - tenure
- X Drs. Nairn and Nanny received - tenure and promotion to Associate Professor.

(2003)

- Dr. Abousleiman - tenure

(2005)

- X Dr. Kibbey - tenure and promotion to Associate Professor
- X Dr. Butler - tenure and promotion to Associate Professor
- X Dr. Muraleetharan – promotion to Professor

(2006)

- X Dr. Kolar – promotion to Professor
- X Dr. Miller – promotion to Professor
- X Dr. Strevett – promotion to Professor

(2008)

- X Dr. Pei - tenure and promotion to Associate Professor

(2009)

- X Dr. Nanny – promotion to Professor

- X Dr. Butler - promotion to Professor
- X Dr. Kibbey - promotion to Professor

(2010)

- X Dr. Kianoosh Hatami - tenure and promotion to Associate Professor
- X Dr. Amy Cerato – tenure and promotion to Associate Professor

(2011)

- X Dr. Yang Hong – promotion to Professor
- X Dr. Robert Nairn – promotion to Professor

CONSULTING

Have provided consultant services to private citizens, engineering firms, investment firms, legal firms, municipalities and governing bodies. Activities have included site assessments, permit applications, landfill design and extensive expert witness experience in cases involving surface and/or ground water pollution. Several of my consulting projects have resulted in refereed journal publications.