

## Curriculum Vitae

### Professor Krishna R. Reddy

Dr. Krishna R. Reddy is Professor of Civil and Environmental Engineering, the Director of Sustainable Engineering Research Laboratory (SERL), and also the Director of the Geotechnical and Geoenvironmental Engineering Laboratory (GAGEL) in the Department of Civil and Materials Engineering at the University of Illinois at Chicago (UIC).

Dr. Reddy has over 25 years of research, teaching and consulting experience within the broad fields of civil, geotechnical, materials and environmental engineering, addressing the *nexus among sustainability, resiliency, infrastructure, water, energy, and the environment in urban setting*. His research expertise includes: (1) environmental remediation of soils, sediments, groundwater, and stormwater; (2) solid and hazardous waste management and landfill engineering; (3) engineering applications of waste/recycled materials; (4) life cycle assessment and sustainable engineering; and (5) geotechnical engineering. His research is funded by the U.S. National Science Foundation, the United States Environmental Protection Agency, several prominent state and local government agencies, and industries. His research includes laboratory studies, field experiments, and computer modeling, ultimately leading to fundamental advances and practical solutions to the real-world problems.

Dr. Reddy is the author of three books: (1) *Geoenvironmental Engineering: Site Remediation, Waste Containment, and Emerging Waste Management Technologies*, (2) *Electrochemical Remediation Technologies for Polluted Soils, Sediments and Groundwater*, and (3) *Sustainable Remediation of Contaminated Sites*. He is also author of 193 journal papers (with h-index of 46 and number of citations 7060), 14 edited books and conference proceedings, 12 book chapters, and 175 full conference papers. Dr. Reddy has given 163 invited presentations in the U.S.A. and 15 other countries (Canada, U.K., Germany, France, Spain, Italy, India, Sri Lanka, China, Hong Kong, Thailand, South Korea, Japan, Brazil and Colombia).

Dr. Reddy has served or currently serves as an Associate Editor or Editorial Board Member of over 10 different journals, including the ASCE Journal of Geotechnical and Geoenvironmental Engineering, the ASTM Geotechnical Testing Journal, the ASCE Journal of Hazardous, Toxic and Radioactive Waste, the Journal of Hazardous Materials, among others. He has also served on various professional committees, including the Geoenvironmental Engineering Committee and Technical Coordinating Council of Geo-Institute (GI) of the American Society of Civil Engineers (ASCE) and the Environmental Geotechnics Committee of International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE).

Dr. Reddy has received several awards for excellence in research and teaching, including the ASTM Hogentogler Award, the UIC Distinguished Researcher Award, the University of Illinois Scholar Award, and the University of Illinois Award for Excellence in Teaching. He is a Fellow of the American Society of Civil Engineers (FASCE), a Diplomate of Geotechnical Engineering (DGE), and a Board Certified Environmental Engineer (BCEE). He is also a registered Professional Civil Engineer (PE) and an Envision™ Sustainability Professional (ENV SP).

**KRISHNA R. REDDY, PhD, PE, DGE, BCEE, FASCE, ENV SP**  
Professor of Civil and Environmental Engineering  
Director, Sustainable Engineering Research Laboratory (SERL)  
Director, Geotechnical and Geoenvironmental Engineering  
Laboratory (GAGEL)

Department of Civil and Materials Engineering  
University of Illinois at Chicago  
842 West Taylor Street, Chicago, Illinois 60607

E-mail: [kreddy@uic.edu](mailto:kreddy@uic.edu)

Phone: (312) 996-4755 Fax: (312) 996-2426

Website: <http://geotech.lab.uic.edu/>



### **EXPERTISE**

- Environmental remediation of soils, sediments, stormwater, and groundwater
- Solid and hazardous waste management and landfill engineering
- Engineering applications of waste/recycled materials
- Life cycle assessment and sustainable engineering, with special focus on green and sustainable civil infrastructure systems and environmental technologies
- Geotechnical engineering: Foundations, earth-retaining and earth structures, ground improvement, geomechanics, geotechnical earthquake engineering, sustainable and resilient geo-systems

### **EDUCATION**

**Ph.D.**, Civil Engineering, Illinois Institute of Technology, Chicago, Illinois, 1990, GPA:4.0/4.0

**M.S.**, Civil Engineering, Indian Institute of Technology, Roorkee, India, 1985, Gold medalist

**B.S.**, Civil Engineering, Osmania University, Hyderabad, India, 1983, Gold medalist

### **PROFESSIONAL APPOINTMENTS**

- **Professor**, Department of Civil and Materials Engineering, University of Illinois at Chicago, August 2006-Present.
- **Director**, Sustainable Engineering Research Laboratory (SERL), University of Illinois at Chicago, August 2010-Present.
- **Director**, Geotechnical and Geoenvironmental Engineering Laboratory (GAGEL), University of Illinois at Chicago, August 1993-Present.
- **Associate Professor**, Department of Civil and Materials Engineering, University of Illinois at Chicago, August 1999-July 2006.
- **Assistant Professor**, Department of Civil and Materials Engineering, University of Illinois at Chicago, August 1993-July 1999.
- **Project Manager/Project Engineer**, Patrick Engineering Inc., Glen Ellyn, IL, May 1990-August 1993.
- **Civil Engineer (Summer Intern)**, Harza Environmental Services, Inc., Chicago, IL, May 1989-August 1989.
- **Research Assistant and Teaching Assistant**, Civil Engineering Department, Illinois Institute of Technology, Chicago, IL, August 1985-May 1990.
- **Research Associate**, Department of Civil Engineering, Indian Institute of Technology, Roorkee,

India, February 1985-August 1985.

## PROFESSIONAL REGISTRATION

- Registered Professional Engineer (PE), State of Illinois #062-049625
- Envision™ Sustainability Professional (ENV SP)

## AWARDS AND HONORS

- Board Certified Environmental Engineer (BCEE), American Academy of Environmental Engineers & Scientists, 2016
- Distinguished Researcher Award, University of Illinois at Chicago, 2015
- Visiting Professor, Southeast University, China, 2015
- Fellow, Indian Geotechnical Society (FIGS), 2015 (LF-0523)
- Best Theoretical-Oriented Paper, ASCE-EWRI's *Journal of Hazardous, Toxic and Radioactive Waste*, 2015.
- Special Visiting Researcher Fellowship, Brazilian Scientific Mobility Program "Ciências sem Fronteiras", 2014-2017.
- Invited Expert Panelist, National Ash Management Advisory Board (NAMAB), University of North Carolina at Charlotte/Duke Energy, 2014-2017.
- Fellow, American Society of Civil Engineers (FASCE), 2012.
- Diplomate, Geotechnical Engineering (DGE), Academy of Geo-Professionals, American Society of Civil Engineers, 2011.
- Best Theoretical-Oriented Paper Award, Published in *Practice Periodical of Hazardous, Toxic, & Radioactive Waste Management*, EWRI-ASCE, 2011.
- Hogentogler Award for the Best Paper published in the *Geotechnical Testing Journal*, Committee D18, American Society of Testing and Materials, 2011.
- University of Illinois Scholar Award, 2007 (Prestigious University level award for excellence in research).
- Award for Excellence in Teaching, University of Illinois at Chicago, 2007 (Prestigious university-level award for excellence in teaching).
- Best Practice-Oriented Paper Award, Published in *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, EWRI-ASCE, 2006.
- Outstanding Geotechnical Educator Award, Great Lakes Geotechnical & Geoenvironmental Conference, 2005-2006.
- Faculty Scholar Award, Institute for Environmental Science & Policy, University of Illinois at Chicago, 2004-2005.
- Best Paper Award for a paper published in the *Indian Geotechnical Journal*, Indian Geotechnical Society, 2004.
- Edmund Burke Teaching Award, University of Illinois at Chicago, 2004.
- Harold A. Simon Award for Excellence in Teaching, University of Illinois at Chicago College of Engineering, 1995, 2003.
- UIC Flame Award for Teaching Excellence Nominee, 2002, 2007.
- Faculty Research Award, University of Illinois at Chicago College of Engineering, 2001.
- Citation of Excellence for the Highest Quality Paper published in the *Journal of Environmental Management and Health*, 1999.
- Best Advisor Award, Professional Engineering Societies Council, University of Illinois at Chicago, 1998.
- Teaching Recognition Award, Council for Excellence in Teaching and Learning, University of

Illinois at Chicago, 1997.

- Best Paper Award, Technology Development Conference, U.S. Department of Energy, 1995.
- Clinton E. Stryker Distinguished Service Award, Illinois Institute of Technology, 1989.
- Best Paper Award for 1985-1988, Indian Society of Earthquake Technology.
- Gold Medal for First Position in M.S., Indian Institute of Technology, Roorkee, India, 1985.
- Gold Medal for First Position in B.S., Osmania University, Hyderabad, India, 1983.
- Silver Medal for First Position in College, Board of Intermediate Education, Hyderabad, India, 1978.

## **RESEARCH GRANTS AND CONTRACTS**

1. "GOALI: Innovative Biochar-Slag-Soil Cover System for Zero Emissions at Landfills." National Science Foundation, September 2017-August 2020, \$343,395.
2. "Modeling Coupled Dynamic Processes in Landfills: Holistic Long-Term Performance Management to Improve Sustainability." National Science Foundation, September 2015 –August 2018, \$356,431.
3. "Slag Water to Promote Alkaline Hydrolysis of Halogenated Organic Compounds in Contaminated Waters." Phoenix Services, December 2015 – January 2017, \$5,000.
4. "Green Stormwater Infrastructure at Rainbow Beach." Chicago Park District and United States Environmental Protection Agency, January 2013-January 2016, \$750,000.
5. "Sustainable Biocover System for Methane Oxidation in Landfills." National Science Foundation, March 2012-February 2016, \$372,000.
6. "Phytoremediation of Big Marsh Wetland." Chicago Park District and United States Forest Service, January 2013-January 2016, \$250,000.
7. "Reactive Stormwater Filter to Prevent Beach Contamination." United States Environmental Protection Agency, September 2010-August 2013, \$240,000.
8. "Geoenvironmental Characterization of Contaminated Soils." Hi-Tek Environmental Inc., Chicago, IL, January 2010-January 2013, \$30,301.
9. "First US-India Workshop on Global Geoenvironmental Engineering Challenges." National Science Foundation, August 2010-July 2011, \$35,240.
10. "Development of New Practical Modules of Green and Sustainable Environmental Remediation." University of Illinois at Chicago Council for Excellence in Teaching and Learning, May 2010-April 2011. \$7,000.
11. "Remediation of Contaminated Subsurface Using Nanoscale Iron Particles." National Science Foundation, August 2007-July 2009, \$169,830.
12. "Interdisciplinary Perspectives on Global Environmental Changes." University of Illinois at Chicago Graduate College, June 2008-August 2008, \$20,000.
13. "Multi-disciplinary Research in Environmental Nanotechnology." Faculty Research Cluster Award, Institute of Environmental Science & Policy, University of Illinois at Chicago, May 2007-April 2008. \$10,000.
14. "IGERT: Ecology, Management and Restoration of Integrated Human/Natural Landscapes." National Science Foundation, June 2006-June 2011, \$2,800,000 (PI: M. Ashley).
15. "Geophysical Monitoring of Leachate Recirculation and Its Effects on Waste at Orchard Hills Landfill." Environmental Research and Education Foundation, October 2006-October 2007, \$26,875.
16. "Compressibility and Strength Characteristics of Foam Materials under Landfill Loading Conditions." Argonne National Laboratory, June 2006-August 2006, \$7,000.
17. "Transport Behavior of Surface-modified Reactive Nanoscale Iron Particles." Toda America, Inc., April-December 2006, \$7,200.

18. "GOALI: Field Monitoring and Performance Evaluation of Four Bioreactor Landfills." National Science Foundation, May 2006-April 2008, \$129,932.
19. "Integrated Electrochemical Oxidation: Feasibility Studies for Different MGP Sites." Hi-Tech Environmental Inc., Chicago, IL, November 2005-October 2008, \$30,225.
20. "Dynamic Water Balance and Geotechnical Stability of Bioreactor Landfills: Field Monitoring and Mathematical Modeling." Centre de Recherche pour l'Environnement, l'Energie, et le Dechet (CREED), Limay, France and ONYX Waste Services Inc., July 2005-June 2008, \$308,712.
21. "Puncture Resistance of PVC Geomembranes." PVC Geomembrane Institute, June 2005-June 2006, \$20,000, (PI: T. Stark, UIUC).
22. "U.S.-Korea Cooperative Research: Electrokinetic-Enhanced Bioremediation of Metal-Contaminated Soils." National Science Foundation, September 2004-August 2006, \$11,000.
23. "Dynamic Water Balance and Geotechnical Stability of Bioreactor Landfills: Preliminary Laboratory Study." Centre de Recherche pour l'Environnement, l'Energie, et le Dechet (CREED), Limay, France, September 2004-August 2005. \$20,286.
24. "Geochemical Characterization and Remediation of Contaminant Mixtures in Subsurface." Faculty Research Cluster Award, Institute of Environmental Science & Policy, University of Illinois at Chicago, May 2004-April 2005, \$15,000.
25. "Creation of Physical Visualization Experiments to Understand Hazardous Waste Site Remediation Processes." University of Illinois at Chicago Council for Excellence in Teaching and Learning, March 2004-April 2005, \$9,500.
26. "Workshop on Emerging Geoenvironmental Engineering Technologies for Pollution Control and Remediation." National Science Foundation, July 2003-June 2005, \$28,018.
27. "Monitoring Database of Waste Containment Systems." Great Lakes Soil and Environmental Consultants, Inc., December 2002-November 2003, \$10,382.
28. "Compatibility of Barrier Wall Materials with Dense Non-aqueous Phase Liquids (DNAPLs)." Hi-Tek Environmental, Inc., August 2002-September 2005, \$20,000.
29. "Electrokinetic Remediation of Low Permeability and Heterogeneous Soils Contaminated by Hydrophobic Organic Compounds." National Science Foundation, September 2001-September 2005, \$233,800.
30. "Development of Integrated Electrokinetic Remediation Technology for Cleanup of Contaminated Sites." STAT Analysis Corporation, August 2000-August 2002, \$84,250.
31. "Small Scale Testing of Hydraulic Fracture Confinement in Stratified Porous Media-Continuation." Shell Oil Company, April 2000-March 2001, \$160,020, (PI: A. Chudnovsky).
32. "Beneficial Use of Scrap Tires in Waste Containment Systems." Illinois Department of Commerce and Community Affairs Used Tire Recovery Program, January 2000-January 2003, \$169,173.
33. "Searle Environmental Safety and Health Scholarship for Graduate Research in Geoenvironmental Engineering." Searle Foundation, September 1999-August 2000, \$10,000.
34. "Research Experience for Undergraduates." National Science Foundation, May 1999-August 2000, \$8,000.
35. "Small Scale Testing of Hydraulic Fracture Confinement in Stratified Porous Media." Shell Oil Company, April 1999-March 2000, \$156,876 (PI: A. Chudnovsky).
36. "PVC Geomembrane Institute-Technical Program." January 1998-December 2005, \$50,000 per year, Continuing Grant - \$350,000 (PI: T. Stark and D. Daniel, UIUC).
37. "Searle Environmental Safety and Health Scholarship for Graduate Research in Geoenvironmental Engineering." Searle Foundation, September 1998-August 1999, \$10,000.
38. "System Effects on Remediation of VOC-Contaminated Saturated Soils and Groundwater Using In-Situ Air Sparging." National Science Foundation, September 1998-August 2000, \$120,050.
39. "Durability of High Performance Concrete under Various Environmental Conditions." Applied Concrete Technology, Inc., April 1998-March 1999, \$40,000 (PI: M. Issa).

40. "In-Situ Electrokinetic Remediation of Contaminated Soils: Bench and Pilot Scale Testing." Gas Research Institute/ Institute of Gas Technology, April 1998-March 2000, \$118,000.
41. "Comparative Assessment of Potential Technologies for the Remediation of Brownfields." University of Illinois at Chicago Great Cities Institute, December 1996-June 1997, \$7,500.
42. "Development of Sequential Conditioning System for In-Situ Electrokinetic Remediation of Chromium-Contaminated Soils." University of Illinois at Chicago Campus Research Board, June 1996-August 1997, \$12,000.
43. "Protection of the Infrastructure and Environment during Natural Disasters: The Unique Role of Civil Engineers." University of Illinois at Chicago Council for Excellence in Teaching & Learning, April 1996-February 1997, \$7,400.
44. "Foam Enhanced Electrokinetic Remediation of Contaminated Soils." Institute of Gas Technology, March 1996-August 1996, \$3,062.
45. "Field and Laboratory Evaluation of Protective Cover Soils for Minimizing Mechanical Damage to Landfill Liners." Waste Management Inc., September 1995-August 1997, \$82,114.
46. "Development of a New Test Apparatus to Determine Permeability of Glacial Soils and Rocks." K&S Testing and Engineering Inc., February 1995-January 1997, \$5,015.
47. "Evaluation of Protective Cover for Landfill Liners." RUST Environment & Infrastructure, July 1994-May 1995, \$12,499.
48. "Pollution Prevention Internship Program." Illinois Environmental Protection Agency, May 1994-August 1994, \$4,972.

## RESEARCH SUPERVISION

### Ph.D. Dissertations

1. Adams, Jeffrey, "*System Effects on the Remediation of Contaminated Saturated Soils and Groundwater Using Air Sparging.*" May 1999 (Currently with ENGEO Consultants, San Ramon, CA).
2. Chinthamreddy, Supraja, "*Geochemical Characterization and Enhanced Mobilization of Heavy Metals During Electrokinetic Remediation of Soils.*" December 1999 (Currently with Interra, Inc., Boling Brook, IL).
3. Saichek, Richard, "*Electrokinetically Enhanced In-Situ Flushing for HOC-Contaminated Soils.*" December 2001 (Currently with U.S. Army Corps of Engineers, Chicago, IL).
4. Tekola, Luelseged, "*Remediation of Subsurface NAPL Contamination by In-Situ Air Sparging.*" December 2002 (Currently with U.S. Army Corps of Engineers, Chicago, IL).
5. Al-Hamdan, Ashraf, "*Speciation, Distribution and Mobility of Heavy Metals in Soils During Electrokinetic Remediation.*" December 2002 (Currently with the University of Alabama, Huntsville, AL).
6. Richards, Kevin, "*Piping Potential of Unfiltered Soils in Levees and Dams.*" December 2008 (Currently with the U.S. Army Corps of Engineers, Chicago, IL).
7. Gangathulasi, Janardhanan, "*Effects of Leachate Recirculation on Geotechnical Properties of Municipal Solid Waste in Landfills.*" December 2008 (Currently with Anna University, Chennai, India).
8. Darko-Kagya, Kenneth, "*Lactate-Modified Nanoscale Iron Particles for In-Situ Remediation of Organic Pollutants.*" July 2010 (Currently with U.S. Army Corps of Engineers, VA).
9. Yaghoubi, Poupak, "*Biochar-Amended Soil Cover System to Mitigate Landfill Gas Emissions.*" September 2011 (Currently with Morton College, Cicero, IL).
10. Kulkarni, Hanumanth, "*Optimization of Leachate Recirculation Systems in Bioreactor Landfills.*" May 2012 (Currently with Sam Consultants, Inc., Lombard, IL).
11. Chirikarra, Reshma, "*Phytoremediation of Soils with Contaminant Mixtures.*" December 2014

- (Currently with Interra Consultants, Boling Brook, IL).
12. Giri, Rajiv Kumar, "*Attaining Landfill Sustainability through Coupled Hydro-Bio-Mechanical Modeling of Municipal Solid Waste.*" May 2015 (Currently with Geosyntec Consultants, Boston, MA).
  13. Yargicoglu, Erin, "*Biotic and Abiotic Characterization of Biochar-Amended Landfill Covers Based on Column and Field Studies.*" December 2016 (Currently with Environmental Information Logistics, LLC, Glen Ellyn, IL).
  14. Sadasivam, Balayamini, "*Biochar-based Biocover for Landfill Methane Mitigation: Adsorption, Oxidation and Transport Properties.*" (*Defended, but final thesis yet to be submitted.*)
  15. Kumar, Girish, "*Numerical Modeling of Coupled Hydro-Bio-Thermo-Mechanical Processes in Municipal Solid Waste for Holistic Assessment of Landfills.*" In Progress.

### **M.S. Theses**

1. Chad, Oliver, "*Seismic Performance Evaluation of Solid Waste Landfills in Illinois.*" March 1995 (Currently with Federal Aviation Authority)
2. Kosgi, Sinduja, "*Deformation Characteristics of Landfill Composite Liners Under Incremental Refuse Loading Conditions.*" March 1995 (Currently with Motorola)
3. Shirani, Akhgar, "*Electrokinetic Remediation of Metal-Contaminated Glacial Till.*" March 1995 (Currently with Illinois Department of Transportation)
4. Parupudi, Usha, "*Geochemical Processes Affecting Removal of Chromium from Fine-Grained Soils by Electrokinetics.*" March 1996.
5. Semer, Robin, "*Air Sparging: Contaminant Removal Mechanisms, Parameterization Comparisons and Enhancement.*" June 1996 (Currently with MWH Engineering, Inc.).
6. Saichek, Richard, "*Performance of Protective Cover Systems for Landfill Geomembrane Liners.*" December 1997 (Currently with U.S. Army Corps of Engineers, Chicago, IL).
7. Chueng, Kent, "*Cosolvent Enhanced Electrokinetic Remediation of Soils.*" May 1998 (Co-Advised with An Li).
8. Chaparro, Carlos, "*Electrokinetic Remediation of Mercury Contaminated Soils.*" May 1999 (Currently with URS Corporation).
9. Danda, Swapna, "*Enhanced Electrokinetic Remediation of Multiple Heavy Metals in Spiked and Field Soils.*" August 2001 (Currently with Brooms Engineering, Inc.).
10. Marella, Aravind, "*Use of Shredded Scrap Tires as Drainage Material in Landfill Covers.*" May 2002 (Currently with ARCADIS).
11. Roach, Nicole, "*Mineral Structure and Particle Morphology of Kaolin Subjected to Electrokinetic Remediation.*" May 2002 (Currently with U.S. Army Corps of Engineers, Chicago, IL).
12. Chanduri, Kalyan, "*Innovative Electrochemical Oxidation Technology for the Remediation of Organic Contaminants in Soils.*" May 2003 (Currently with GSG Consultants, Inc.)
13. Ala, Prasanth, "*Electrokinetic Remediation of Field Contaminated Soils and Sediments.*" May 2004.
14. Maturi, Kranti, "*Enhanced Electrokinetic Remediation of Soils Contaminated with Co-existing PAHs and Heavy Metals.*" May 2004 (Currently with URS Corporation).
15. Karri, Madhusudhana, "*Integrated Electrochemical Remediation of Mixed Contaminants in Soils.*" May 2005 (Currently with Terracon Consultants, Inc.).
16. Parakalla, Naveen, "*Effect of Degradation on Geotechnical Properties of Municipal Solid Waste.*" May 2008 (Currently with GSG Consultants, Inc.).
17. Dastgheibi, Sara, "*Stormwater Treatment using In-ground Permeable Reactive Filter Systems: Batch Test Evaluation of Media.*" December, 2012 (Currently with Christopher Burke Engineering Ltd.).
18. Goldenberg, Marat, "*Hydraulic Performance of Prototype Geosynthetic Clay Liners in Cap Applications.*" May 2015 (Currently with Burns and McDonnell, IL)

19. Amaya-Santos, Gema, “*Field-Scale Phytoremediation of Mixed Contaminated Site in Chicago, USA.*” July 2016.
20. Gopikumar, Archana, “*Innovative Biocovers for Municipal Solid Waste Landfills.*” In Progress.
21. Rai, Raksha, “*Microbial Abundance and Activity in Innovative Landfill Covers,*” In Progress.

### **Post-Doctoral Fellows and Visiting Scholars**

1. Saichek, Richard: Assisted on electrokinetic remediation project, March 2002-July 2002.
2. Sharma, Saurabh: Assisted on different soil and groundwater remediation projects, February 2003-January 2004.
3. Grellier, Solenne: Assisted on bioreactor landfill project, August 2005-January 2007.
4. Cameselle, Claudio: Assisted on environmental nanotechnology and electrokinetic remediation projects, September 2007-August 2008.
5. Yükselen-Aksoy, Yeliz: Assisted on integrated electrochemical remediation project, March 2008-April 2009.
6. Yue, Donbei: Assisted in various waste management and environmental remediation projects. July 2010-July 2011.
7. Karaca, Oznur: Collaborated on management of mine tailing project, March 2012-June 2012.
8. Xie, Tao: Assisted with biomass utilization for nutrient removal and soil fertilization, July 2012-August 2013.
9. Xu, Wei: Assisted with foundations for the tall structures/Soil-structure interaction, November 2013-December 2014.
10. Thome, Antonio: Collaborated on nanotechnology for environmental remediation. November 2013-June 2014.
11. Kasthurba, A.K: Collaborated on sustainable construction using waste and recycled materials, February 2014-June 2014.
12. Venkat Reddy, D: Collaborated on environmental impacts of hydraulic fracturing, June-July 2014.
13. Basha, Munwar: Assisted on slope stability of waste dumps and landfills, compressibility of MSW and reliability assessment of transport of nanoiron, June-July 2014.
14. Karaca, Oznur: Collaborative research on sustainable remediation of mine tailing disposal sites, October 2015-September 2016.
15. Yang, Yuling: Collaborative research on phosphate-amended Ca-bentonite soil backfill for vertical barriers, January 2015-January 2016.
16. Fan, Ri-dong: Collaborative research on chemical compatibility of CMC-amended Ca-bentonite backfill with heavy metals and organic contaminants, January 2016-February 2017.
17. Cecchin, Iziquiel: Collaborative research on use of nanoiron to remediate contaminated residual soils in Brazil, March 2016-February 2017.
18. Cameselle, Claudio: Fulbright scholar, collaborative research on sustainability and environmental remediation, March 2017-June 2017.
19. Patel, Vruthika: collaborative research on microbial analysis in geoenvironmental remediation systems, May 2017 – present.
20. Mohan, S: Collaborative research on bioreactor landfills, May 2017-July 2017.

### **Undergraduate Research Assistants**

- More than 40 undergraduate students have worked on various research projects. These students were funded through research grants, including the National Science Foundation Research Experience for Undergraduate (REU) grants.



## PUBLICATIONS

### Books

1. Sharma, H.D., and Reddy, K.R., [Geoenvironmental Engineering: Site Remediation, Waste Containment, and Emerging Waste Management Technologies](#), John Wiley & Sons, Inc., Hoboken, New Jersey, 2004, 992p. (ISBN: 0-471-21599-6).
2. Reddy, K.R., and Cameselle, C. Editors, [Electrochemical Remediation Technologies for Polluted Soils, Sediments and Groundwater](#), John Wiley & Sons, Inc., Hoboken, New Jersey, 2009, 760p. (ISBN: 0-470-38343-7).
3. Reddy, K.R., and Adams, J.A., [Sustainable Remediation of Contaminated Sites](#), Momentum Press, New York, February 2015 (ISBN: 9781606505205).
4. Reddy, K.R., [Laboratory Testing of Soils for Engineering Purposes](#), Laboratory Manual, University of Illinois at Chicago, August 2002.
5. Reddy, K.R., Cameselle, C., and Adams, J.A., [Introduction to Sustainable Engineering](#), John Wiley, In Preparation.

### Edited Books/Conference Proceedings

1. Sivakumar Babu, G.L., Reddy, K.R., De, A., and Datta, M., Editors, [Geoenvironmental Practices and Sustainability: Linkages and Directions](#), Springer, 2017 (ISBN 978-981-10-4077-1).
2. Reddy, K.R., Yesiller, N., Zekkos, D., Farid, A., and De, A., Editors, [Sustainable Materials and Resource Conservation](#), Proceedings of GeoChicago2016, Geotechnical Special Publication No.272, ASCE Press, Reston, VA, 2016.
3. Zekkos, D., Farid, A., De, A., Anirban, Reddy, K.R., and Yesiller, N., Editors, [Sustainability and Resiliency in Geotechnical Engineering](#), Proceedings of GeoChicago2016, Geotechnical Special Publication No.269, ASCE Press, Reston, VA, 2016.
4. Farid, A., De, A., Reddy, K.R., Yesiller, N., and Zekkos, D., Editors, [Geotechnics for Sustainable Energy](#), Proceedings of GeoChicago2016, Geotechnical Special Publication No.270, ASCE Press, Reston, VA, 2016.
5. De, A., Reddy, K.R., Yesiller, N., Zekkos, D., Farid, A., Editors, [Sustainable Geoenvironmental Systems](#), Proceedings of GeoChicago2016, Geotechnical Special Publication No.271, ASCE Press, Reston, VA, 2016.
6. Yesiller, N., Zekkos, D., Farid, A., and De, A., Reddy, K.R., Editors, [Sustainable Waste Management and Remediation](#), Proceedings of GeoChicago2016, Geotechnical Special Publication No.273, ASCE Press, Reston, VA, 2016.
7. Reddy, K.R., and Feng, S., Editors, [Geoenvironmental Engineering](#), Proceedings of GeoShanghai2014, Geotechnical Special Publication No.241, ASCE Press, Reston, VA, 2014.
8. Khire, M.V., Alshawabkeh, A.N., and Reddy, K.R., Editors, [GeoCongress2008: Geotechnics of Waste Management and Remediation](#), Geotechnical Special Publication No.177, ASCE Press, Reston, VA, 2008, 856p (ISBN: 978-0-7844-0970-1).
9. Reddy, K.R., Khire, M.V., and Alshawabkeh, A.N., Editors, [GeoCongress2008: Geosustainability and Geohazard Mitigation](#), Geotechnical Special Publication No.178, ASCE Press, Reston, Virginia, 2008, 1203p (ISBN: 978-0-7844-0971-8).
10. Alshawabkeh, A.N., Reddy, K.R., and Khire, M.V., Editors, [GeoCongress2008: Characterization, Monitoring, and Modeling of Geosystems](#), Geotechnical Special Publication No.179, ASCE Press, Reston, VA, 2008, 1101p (ISBN: 978-0-7844-0972-5).
11. Reddy, K.R., Guest Editor, [Site Remediation Technologies](#), Special Issue, *Journal of Hazardous Materials*, Vol.143, No. 3, 2007 (ISBN: 0304-3894).
12. Burns, S.E., Culligan, P.J., Evans, J.C., Fox, P.J., Reddy, K.R., and Yesiller, N., Editors, [Geoenvironmental Engineering](#), ASCE Special Publication No.163, ASCE Press, Reston, VA,

2007 (ISBN: 978-0-7844-0897-1).

13. Alshawabkeh, A., Benson, C.H., Culligan, P.J., Evans, J.C., Gross, B.A., Narejo, D., Reddy, K.R., Shackelford, C.D., and Zornberg, J.G., Editors, [Waste Containment and Remediation](#), ASCE Geotechnical Special Publication No. 142, ASCE Press, Reston, VA, 2005, 664p. (ISBN: 0-7844-0769-X).
14. Reddy, K.R., Editor, [In-Situ Remediation of Contaminated Sites](#), Proceedings of the Fourth Great Lakes Geotechnical and Geoenvironmental Conference, Chicago, May 1996.

### **Book Chapters**

1. Reddy, K.R., and Kumar, G. (2017). [Addressing Sustainable Technologies in Geotechnical and Geoenvironmental Engineering](#), Chapter in *Geotechnics for Natural and Engineered Sustainable Technologies (GeoNEst)*, Murali Krishna, A., Dey, A., and Sreedeeep, S. (Eds.), Springer Singapore (in press) (based on keynote lecture presented at Indian Geotechnical Conference 2017).
2. Carpenter, P.J., and Reddy, K.R. (2017). [Geophysical Imaging of Landfill Interiors: Examples from Northern Illinois, USA](#), Chapter 1 in *Geoenvironmental Practices and Sustainability: Linkages and Directions*, Sivakumar Babu, G.L., Reddy, K.R., De, A., and Datta, M. (Eds.), Springer Singapore, 2017 (ISBN 978-981-10-4077-1).
3. Reddy, K. R., and Kumar, G. (2017). [Coupled Hydro-Bio-Mechanical Modeling of Bioreactor Landfills: New Modeling Framework and Research Challenges](#), Chapter 31 in *Geoenvironmental Practices and Sustainability: Linkages and Directions*, Sivakumar Babu, G.L., Reddy, K.R., De, A., and Datta, M. (Eds.), Springer Singapore, 2017 (ISBN 978-981-10-4077-1). [PDF File](#)
4. Cameselle, C., and Reddy, K.R. (2016). [Electrochemical Remediation of Polluted Soils, Sediments and Groundwater](#), in *Engineering Tools for Environmental Risk Management*, Edited by Gruiz, Meggyes, and Fenyvesi, CRC Press/Balkema.
5. Cameselle, C., and Reddy, K.R. (2016). [Elemental Iron and Other Nanotechnologies](#), in *Engineering Tools for Environmental Risk Management*, Edited by Gruiz, Meggyes, and Fenyvesi, CRC Press/Balkema.
6. Sadasivam, B.Y., and Reddy, K.R. (2016). [Approaches to Selecting Sustainable Technologies for Remediation of Contaminated Sites: Case Studies](#), in *Sustainability Issues in Civil Engineering*, Sivakumar Babu, G.L., Saride, S., and Basha, B. M. (Eds.), Springer Singapore (DOI: 10.1007/978-981-10-1930-2).
7. Reddy, K.R. (2012), [Systems of Waste Management \(7.2\) and Case Study: Electronic Waste and Extended Producer Responsibility \(7.3\)](#) in *Sustainability: A Comprehensive Foundation*, T. Theis and J. Tomkin (Eds.), U of I Open Source Text book Initiative, Urbana-Champaign, IL.
8. Dixon, N., Langer, U., Reddy, K., Maugeri, M., Tinjum, J., Mahler, C., and Cho, Y. (2010). [Waste Characterization](#), in *Geotechnical Characterization, Field Measurement, and Laboratory Testing of Municipal Solid Waste*, Geotechnical Special Publication 209, Zekkos, D. (ed.), ASCE, Reston, VA, pp. 135-152. [PDF File](#).
9. Reddy, K.R., and Cameselle, C. (2009). [Overview of Electrochemical Remediation Technologies](#), Chapter 1 in *Electrochemical Remediation Technologies for Polluted Soils, Sediments and Groundwater*, John Wiley & Sons, Inc.(ISBN: 0-470-38343-7).
10. Oonnittan, A., Sillanpaa, M., Cameselle, C., and Reddy, K.R. (2009). [Field Applications of Electrokinetic Remediation of Soils Contaminated with Heavy Metals](#), Chapter 29 in *Electrochemical Remediation Technologies for Polluted Soils, Sediments and Groundwater*, John Wiley & Sons, Inc.(ISBN: 0-470-38343-7).
11. Reddy, K.R. (2008). [Physical and Chemical Groundwater Remediation Technologies](#), Chapter 12 in *Overexploitation and Contamination of Shared Groundwater Resources*, Darnault, C.J.G. (ed.), Springer Science Publisher, pp.257-274 (ISBN: 978-1-4020-6984-0).

12. Reddy, K.R. (2008). Enhanced Aquifer Recharge, Chapter 13 in *Overexploitation and Contamination of Shared Groundwater Resources*, Darnault, C.J.G. (ed.), Springer Science Publisher, pp.275-288 (ISBN: 978-1-4020-6984-0).
13. Jazdanian, A.D., Reddy, K.R., and Chandhuri, K. (2003). Chelated Iron in Fenton-Like Oxidation of BTEX and PAHs in Soils, Chapter 2 in *Contaminated Soils*, Volume 8, Calabrese, E.J, Kostecki, P.T., and Dragun, J. (eds.), Amherst Scientific Publishers, Amherst, Massachusetts, pp.13-26 (ISBN: 1-884940-30-7).
14. Reddy, K.R., and Adams, J.A. (2001). Cleanup of Chemical Spills Using Air Sparging, Chapter 14 in *The Handbook of Hazardous Materials Spill Technology*, M. Fingas (ed.), McGraw-Hill Company, pp.14.1-14.29 (ISBN: 0-07-135171-X).

### Refereed Journal Publications

Total Refereed Journal Publications: 197

Scopus ID: [55191446900](#) \* ORCID: [0000-0002-6577-1151](#) \* ResearchGate: [HomePage](#)

Google Scholar: *h-index: 48* ([Google Scholar](#))

1. Reddy, K.R., Kumar, G., and Giri, R.K. "System effects on bioreactor landfill performance based on coupled hydro-bio-mechanical modeling." *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE.
2. Yargicoglu, E.Y., and Reddy, K.R. "Biochar-amended soil cover for microbial methane oxidation: Effect of biochar amendment ratio and cover profile." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE.
3. Yang, Y-L, Reddy, K.R., Du, Y-J. and Fan, R.D. "SHMP amended calcium bentonite for slurry trench wall applications: Workability and microstructure characteristics." *Canadian Geotechnical Journal*.
4. Reddy, K.R. and Amaya-Santos, G. (2017). "Effects of variable site conditions on phytoremediation of mixed contaminants: Field-scale investigation at Big Marsh site" *Journal of Environmental Engineering*, 143(9), 04017057 (DOI: 10.1061/(ASCE)EE.1943-7870.0001256) [PDF File](#)
5. Reddy, K.R., Amaya-Santos, G., Yargicoglu, E., Cooper, D.E., and Negri, M.C. (2017). "Phytoremediation of PAHs and Heavy Metals at Slag Disposal Site: Three-Year Field Investigation" *International Journal of Geotechnical Engineering*, 1-16 (DOI: 10.1080/19386362.2017.1318231) [PDF File](#)
6. Yargicoglu, E.Y., and Reddy, K.R. (2017). "Microbial abundance and activity in biochar-amended landfill cover soils: Evidences from large-scale column and field experiments" *Journal of Environmental Engineering*, 143(9), 04017058 (DOI: 10.1061/(ASCE)EE.1943-7870.0001254) [PDF File](#)
7. Karaca, O., Cameselle, C., and Reddy, K.R. (2017). "Acid pond sediment and mine tailing contaminated with heavy metals: Physicochemical characterization and electrokinetic remediation." *Environmental Earth Sciences*, 76:408. (DOI: 10.1007/s12665-017-6736-0) [PDF File](#)
8. Yargicoglu, E.Y., and Reddy, K.R. (2017). "Effects of biochar and wood pellets amendments added to landfill cover soil on microbial methane oxidation: A laboratory column study" *Journal of Environmental Management*, 193, 19-31 (DOI: 10.1016/j.jenvman.2017.01.068) [PDF File](#)
9. Thomé, A., Cecchin, I., Reginatto, C., Colla, L.M., and Reddy, K.R. (2017). "Biostimulation and rainfall infiltration: Influence on retention of biodiesel in residual clayey soil" *Environmental Science and Pollution Research*, 24(10), 9594-9604 (DOI: 10.1007/s11356-017-8670-9) [PDF File](#)
10. Amaya-Santos and Reddy, K.R. (2017). "Phytoremediation of heavy metals and PAHs in alkaline slag fill at wet meadow site" *Journal of Hazardous, Toxic and Radioactive Waste*, 21(4), (DOI:

- 10.1061/(ASCE)HZ.2153-5515.0000367)[PDF File](#)
11. Reddy, K.R., Amaya-Santos, G., and Copper, D. (2017). "Field-scale phytoremediation of mixed contaminants in upland area at Big Marsh site, Chicago, USA" *Indian Geotechnical Journal*, 1-16 (DOI: 10.1007/s40098-017-0220-3)[PDF File](#)
  12. Cecchin, I., Reddy, K.R., Thomé, A., Tessaro, E.F. and Schnaid, F. (2017). "Nanobioremediation: Integration of nanoparticles and bioremediation for sustainable remediation of chlorinated organic contaminants in soils" *International Biodeterioration & Biodegradation*.119, 419-428. (DOI: 10.1016/j.ibiod.2016.09.027)[PDF File](#)
  13. Reddy, K.R., Kumar, G., and Giri, R.K. (2017). "Influence of dynamic coupled hydro-bio-mechanical processes on response of municipal solid waste and liner system in bioreactor landfills" *Waste Management*. 63, 143-160. (DOI: 10.1016/j.wasman.2016.12.040)[PDF File](#)
  14. Yang, Y.L., Du, Y.J., Reddy, K.R., and Fan, R.D. (2017). "Effect of phosphate dispersant amendment on workability of Ca-bentonite slurry for slurry trench cutoff-wall construction" *Indian Geotechnical Journal*, 1-8. (DOI: 10.1007/s40098-016-0217-3)[PDF File](#)
  15. Reddy, K.R., Kumar, G., and Giri, R.K. (2017). "Modeling coupled processes in municipal solid waste landfills: An overview with key engineering challenges" *International Journal of Geosynthetics and Ground Engineering*, 3(1), 6. (DOI: 10.1007/s40891-016-0082-2)[PDF File](#)
  16. Yang, Y.L., Du, Y.J., Reddy, K.R., and Fan, R.D. (2017). "Phosphate-amended sand/Ca-bentonite mixtures as slurry trench wall backfills: Assessment of workability, compressibility and hydraulic conductivity" *Applied Clay Science*, 142, 120-127. (DOI: 10.1016/j.clay.2016.10.040)[PDF File](#)
  17. Fan, R.D., Liu, S.Y., Du, Y.J., Reddy, K.R., and Yang, Y.L. (2017). "Impacts of presence of lead contamination on settling behavior and microstructure of clayey soil" *Applied Clay Science*, 142, 109-119. (DOI: 10.1016/j.clay.2016.10.042)[PDF File](#)
  18. Decésaro, A., Rempel, A., Machado, T.S., Thomé, A., Reddy, K.R., Margarites, A.C., and Colla, L.M. (2017). "Bioremediation of soil contaminated with diesel and biodiesel by biostimulation with microalgae biomass" *Journal of Environmental Engineering*, 143(4), 04016091. (DOI: 10.1061/(ASCE)EE.1943-7870.0001165)[PDF File](#)
  19. Moghal, A.A.B., Reddy, K.R., Mohammed, S.A.S., Shamrani, M.A.A., and Zahid, W.M. (2016). "Lime-amended semi-arid soils in retaining copper, lead and zinc from aqueous solutions" *Water, Air, and Soil Pollution*. 227(10), 372. (DOI: 10.1007/s11270-016-3054-1)[PDF File](#)
  20. Moghal, A.A.B., Reddy, K.R., Mohammed, S.A.S., Al-Shamrani, M.A., and Zahid, W.M. (2017). "Sorptive response of chromium ( $\text{Cr}^{+6}$ ) and mercury ( $\text{Hg}^{+2}$ ) from aqueous solutions using chemically modified soils." *ASTM Journal of Testing and Evaluation*. 45(1), 105-119. (DOI: 10.1520/JTE20160066)[PDF File](#)
  21. Moghal, A.A.B., Reddy, K.R., Mohammed, S.A.S., Shamrani, M.A.A., and Zahid, W.M. (2017). "Retention studies on arsenic from aqueous solutions by lime treated semi-arid soils." *Int. J. of GEOMATE*, 12(29), 17-24. (ISSN: 2186-2982(P), 2186-2990(O), Japan.[PDF File](#)
  22. Reddy, K.R., Kulkarni, H.S., Giri, R.K., and Khire, M.V. (2017). "Horizontal trench system effects on leachate recirculation in bioreactor landfills." *Geomechanics and Geoengineering*, 12(2), 115-136 (DOI: 10.1080/17486025.2016.1181793).[PDF File](#)
  23. Chirakkara, R.A., Cameselle, C., and Reddy, K.R. (2016). "Assessing the applicability of phytoremediation of soils with mixed organic and heavy metal contaminants." *Reviews in Environmental Science & Bio/Technologies*. 15(2), 299-326 (DOI: 10.1007/s11157-016-9391-0). [PDF File](#)
  24. Basha, B. Munwar, N. Parakalla, and K. R. Reddy. "Experimental and statistical evaluation of compressibility of fresh and landfilled municipal solid waste under elevated moisture contents." *International Journal of Geotechnical Engineering* 10.1 (2016): 86-98.[PDF File](#)
  25. Du, Y-J., Wei, M-L, Reddy, K.R., and Wu, H-L. (2016). "Effect of carbonation on leachability, strength and microstructural characteristics of KMP binder stabilized Zn and Pb contaminated

- soils.” *Chemosphere*, 144, 1033-1042 (DOI: 10.1016/j.chemosphere.2015.09.082).[PDF File](#).
26. Xie, T., Sadasivam, B.Y., Reddy, K.R., Wang, C., and Spokas, K. (2016). “Effects of biochar amendment on soil properties and carbon sequestration.” *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, 20(1), 04015013 (DOI: 10.1061/(ASCE)HZ.2153-5515.0000293).[PDF File](#).
  27. Cecchin, I., Reginatto, C., Thome, A., Colla, L.M., and Reddy, K.R. (2016). “Influence of physicochemical factors on biodiesel retention in basaltic residual soil.” *Journal of Environmental Engineering*, ASCE, 142(4), 04015093, 1-8 (DOI: 10.1061/(ASCE)EE.1943-7870.0001060).[PDF File](#).
  28. Chirakkara, R.A., and Reddy, K.R. (2015). “Biomass and chemical amendments for enhanced phytoremediation of mixed contaminated soils.” *Ecological Engineering Journal*, 85, 265-274 (DOI: 10.1016/j.ecoleng.2015.09.029).[PDF File](#).
  29. Wei, M-L, Du, Y-J., Reddy, K.R., and Wu, H-L. (2015). “Effects of freeze-thaw on characteristics of new KMP binder stabilized Zn and Pb contaminated soils.” *Environmental Science and Pollution Research*, 22(24): 19473-19484 (DOI: 10.1007/s11356-015-5133-z).[PDF File](#).
  30. Reddy, K.R., Kulkarni, H.S., and Giri, R.K. (2015). “Modeling coupled hydro-mechanical behavior of landfilled waste in bioreactor landfills: Numerical formulation and validation.” *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE (DOI: 10.1061/(ASCE)HZ.2153-5515.0000289).[PDF File](#).
  31. Hoyos, L.R., DeJong, J.T., McCartney, J.S., Puppala, A.J., Reddy, K.R., and Zekkos, D. (2015). “Environmental geotechnics in the U.S. Region: A brief overview.” *Environmental Geotechnics*, 2(6): 319-325 (DOI: 10.1680/envgeo.14.00024).[PDF File](#).
  32. Sadasivam, B.Y., and Reddy, K.R. (2015). “Engineering properties of waste-wood derived biochars and biochar-amended soils.” *International Journal of Geotechnical Engineering*, 9(5):521-535(DOI: 10.1179/1939787915Y.0000000004).[PDF File](#).
  33. Chirakkara, R., Reddy, K.R., and Cameselle, C. (2015). “Electrokinetic amendment in phytoremediation of mixed contaminated soil.” *Electrochimica Acta*, 181, 179-191 (DOI:10.1016/j.electacta.2015.01.025).[PDF File](#).
  34. Chirakkara, R.A., and Reddy, K.R. (2015). “Plant species identification for phytoremediation of mixed contaminated soils.” *J. Hazardous, Toxic and Radioactive Waste*, 19(4), 04015004 (DOI: 10.1061/(ASCE)HZ.2153-5515.0000282).[PDF File](#).
  35. Du, Y.J., Fan, R.D., Reddy, K.R., and Yang, Y.L. (2015). “Impacts of the presence of lead contamination to clayey soil-calcium bentonite cutoff wall backfills.” *Applied Clay Science*, 108, 11-122 (DOI:10.1016/j.clay.2015.02.006).[PDF File](#).
  36. Reddy, K.R., Hettiarachchi, H., Giri, R.K., and Gangathulasi, J. (2015). “Effects of degradation on geotechnical properties of municipal solid waste from Orchard Hills Landfill, USA.” *International Journal of Geosynthetics and Ground Engineering*, 1(3), 1-14(DOI: 10.1007/s40891-015-0026-2).[PDF File](#).
  37. Sadasivam, B.Y., and Reddy, K.R. (2015). “Adsorption and transport of methane in biochars derived from waste wood.” *Waste Management*, 43(9), 218-229(DOI:10.1016/j.wasman.2015.04.025).[PDF File](#).
  38. Fan, R.D., Du, Y.J., Liu, S.Y., Reddy, K.R., and Jin, F. (2015). “Workability, compressibility and hydraulic conductivity of zeolite-amended clayey soil/calcium-bentonite backfills for slurry-trench walls.” *Engineering Geology*, 195(9), 258-268 (DOI:10.1016/j.enggeo.2015.06.020).[PDF File](#).
  39. Reddy, K.R., Kulkarni, H.S., and Giri, R.K. (2015). “Two-phase modeling of leachate recirculation using drainage blankets in bioreactor landfills.” *Environmental Modeling and Assessment*, 20(5), 475-490 (DOI: 10.1007/s10666-014-9435-1).[PDF File](#).

40. Sadasivam, B.Y., and Reddy, K.R. (2015). "Adsorption and transport of methane in landfill cover soil amended with waste-wood biochars." *Journal of Environmental Management*, 158(8), 11-23(DOI:10.1016/j.jenvman.2015.04.032).[PDF File](#).
41. Reddy, K.R., Yaghoubi, P., and Yukselen-Aksoy, Y. (2015). "Effects of biochar amendment on geotechnical properties of landfill cover soil." *Waste Management & Research*, 33(6), 524-532 (DOI:10.1177/0734242X15580192).[PDF File](#).
42. Reddy, K.R., Kulkarni, H.S., and Giri, R.K. (2015). "Design of vertical wells for leachate recirculation in bioreactor landfills using two-phase modeling." *Journal of Solid Waste Technology and Management*, 41(2), 203-218 (DOI: 10.5276/JSWTM.2015.203).[PDF File](#).
43. Reddy, K.R., Kulkarni, H.S., and Giri, R.K. (2015). "Design of horizontal trenches for leachate recirculation in bioreactor landfills using two-phase modeling." *International Journal of Environment and Waste Management*, 15(4), 347-376 (DOI 10.1504/IJEW.2015.069962).[PDF File](#).
44. Thomé, A., Reddy, K.R., Reginatto, C., and Cecchin, I. (2015). "Review of nanotechnology for soil and groundwater remediation: Brazilian perspectives." *Water, Air, Soil Pollution*, 226(4), 121(DOI: 10.1007/s11270-014-2243-z).[PDF File](#).
45. Yargicoglu, E., and Reddy, K.R. (2015). "Biological diagnostic tools and their applications in geoenvironmental engineering." *Reviews in Environmental Science & Bio/Technologies*, 14(2): 161-194 (DOI: 10.1007/s11157-014-9358-y).[PDF File](#).
46. Yargicoglu, E., Sadasivam, B.Y., Reddy, K.R. and Spokas, K. (2015). "Physical and chemical characterization of waste wood derived biochars." *Waste Management*, 36(2), 256-268 (DOI:10.1016/j.wasman.2014.10.029).[PDF File](#).
47. Xie, T., Reddy, K.R., Wang, C., Yargicoglu, E., and Spokas, K. (2015). "Characteristics and applications of biochar for environmental remediation: A review." *Critical Reviews in Environmental Science and Technology*, 45(9), 939-969 (DOI:10.1080/10643389.2014.924180).[PDF File](#).
48. Giri, R.K., and Reddy, K.R. (2015). "Slope stability of bioreactor landfills during leachate injection: Effects of geometric configurations of horizontal trench systems." *Geomechanics and Geoengineering: An International Journal*, 10(2), 126-138 (DOI: 10.1080/17486025.2014.921335).[PDF File](#).
49. Kasthurba, A.K., Reddy, K.R. and Reddy, D.V. (2014). "Use of laterite as a sustainable building material in developing countries." *Journal of Earth Sciences & Engineering*, 7(4), 1251-1258 (ISSN 0974-5904).[PDF File](#).
50. Fan, R.D., Du, Y.J., Reddy, K.R., Liu, S. Y., and Yang, Y. L. (2014). "Compressibility and hydraulic conductivity of clayey soil mixed with calcium bentonite for slurry wall backfill: Initial assessment." *Applied Clay Science*, 101, 119-127 (DOI:10.1016/j.clay.2014.07.026). [PDF File](#).
51. Reddy, K.R., Giri, R.K., and Kulkarni, H.S. (2014). "Design of drainage blankets for leachate recirculation in bioreactor landfills using two-phase flow modeling." *Computers and Geotechnics*, 62, 77-89 (DOI: 10.1016/j.compgeo.2014.06.013). [PDF File](#).
52. Reddy, K.R., Khodadoust, A.P., and Darko-Kagya, K. (2014) "Transport and reactivity of lactate-modified nanoscale iron particles for remediation of DNT in subsurface soils." *Journal of Environmental Engineering*, ASCE, 140(12), 04014042 (DOI: 10.1061/(ASCE)EE.1943-7870.0000870).[PDF File](#).
53. Reddy, K., Xie, T., and Dastgheibi, S. (2014). "Evaluation of Biochar as a Potential Filter Media for the Removal of Mixed Contaminants from Urban Storm Water Runoff." *Journal of Environmental Engineering*, ASCE, 140(12), 04014043 (DOI: 10.1061/(ASCE)EE.1943-7870.0000872).[PDF File](#).
54. Kasthurba, A.K., Reddy, K.R. and Reddy, D.V. (2014). "Sustainable approaches for utilizing waste in building construction: two case studies in India." *Journal of Earth Sciences &*

- Engineering*, 7(3), 838-844 (ISSN 0974-5904).[PDF File](#).
55. Du, Y.J., Fan, R.D., Reddy, K.R., Liu, S. Y., and Yang, Y.L. (2014). "New phosphate-based binder for stabilization of soils contaminated with heavy metals: Leaching, strength and microstructure characterization." *Journal of Environmental Management*, 146, 179-188 (DOI:10.1016/j.jenvman.2014.07.035).[PDF File](#)
  56. Reddy, K.R., Kulkarni, H.S., and Giri, R.K. (2014). "Validation of two-phase flow modeling of leachate recirculation in bioreactor landfills." *Journal of Waste Management*, Vol. 2014, Article ID 308603, 24 pages (DOI:10.1155/2014/308603).[PDF File](#)
  57. Reddy, K.R., Yargicoglu, E.N., Yue, D., and Yaghoubi, P. (2014). "Enhanced microbial methane oxidation in landfill cover soil amended with biochar." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 140(9), 04014047 (DOI:10.1061/(ASCE)GT.1943-5606.0001148).[PDF File](#).
  58. Du, Y.J., Wei, M.L, Reddy, K.R., and Jin, F. (2014), "Compressibility of cement stabilized zinc-contaminated soil." *Natural Hazards*, 73(2), 671-683 (DOI: 10.1007/s11069-014-1098-3).[PDF File](#).
  59. Reddy, K.R. (2014). "Evolution of geoenvironmental engineering." *Environmental Geotechnics*,1(3), 136-141(DOI: 10.1680/envgeo.13.00088).[PDF File](#).
  60. Giri, R.K., and Reddy, K.R. (2014). "Design charts for selecting minimum setback distance from side slope to horizontal trench system in bioreactor landfills." *Geotechnical and Geological Engineering Journal*, 32(4), 1017-1027 (DOI: 10.1007/s10706-014-9777-0). [PDF File](#).
  61. Reddy, K.R., Xie, T., and Dastgheibi, S. (2014). "Mixed-media filter system for removal of multiple contaminants from urban stormwater: Large-scale laboratory testing." *Journal of Hazardous, Toxic, and Radioactive Waste*, ASCE, 18(3), 04014011(DOI: 10.1061/(ASCE)HZ.2153-5515.0000226).[PDF File](#).
  62. Du, Y-J., Wei, M-L., Reddy, K.R., Shen, Z-P, L. and Jin, F. (2014). "Effect of acid rain pH on leaching behavior of cement stabilized lead-contaminated soil." *Journal of Hazardous Materials*, 271, 131-140 (DOI: 10.1016/j.jhazmat.2014.02.002).[PDF File](#).
  63. Reddy, K.R., Xie, T., and Dastgheibi, S. (2014). "PAHs removal from urban storm water using different filter materials." *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, 18(2), 04014008 (DOI: 10.1061/(ASCE)HZ.2153-5515.0000222).[PDF File](#).
  64. Giri, R.K., and Reddy, K.R. (2014). "Slope stability of bioreactor landfills during leachate injection: Effects of heterogeneous and anisotropic municipal solid waste." *Waste Management & Research*, 32(3), 186-197 (DOI:10.1177/0734242X14522492).[PDF File](#).
  65. Giri, R.K., and Reddy, K.R. (2014). "Slope stability of bioreactor landfills during leachate injection: Effects of unsaturated hydraulic properties of municipal solid waste." *International Journal of Geotechnical Engineering*, 8(2),144-156 (DOI: 10.1179/1939787913Y.0000000013).[PDF File](#).
  66. Sadasivam, B.Y., and Reddy, K.R. (2014). "Landfill methane oxidation in soil and bio-based cover systems." *Reviews in Environmental Science and Bio/Technologies*, 13(1), 79-107 (DOI: 10.1007/s11157-013-9325-z). [PDF File](#).
  67. Richards, K.S., and Reddy, K.R. (2014). "Kinetic energy method for predicting initiation of backward erosion in earthen dams and levees." *Environmental & Engineering Geoscience*, 20(1), 85-97 (DOI: 10.2113/gseegeosci.20.1.85).[PDF File](#).
  68. Reddy, K.R., Xie, T., and Dastgheibi, S. (2014). "Removal of heavy metals from urban stormwater using different filter materials." *Journal of Chemical Environmental Engineering*, 2(1), 282-292 (DOI: 10.1016/j.jece.2013.12.020).[PDF File](#).
  69. Reddy, K.R., Darnault, C.J.G., and Darko-Kagya, K. (2014). "Transport of lactate-modified nanoscale iron particles in porous media." *Journal of Geotechnical and Geoenvironmental*

- Engineering*, 140(2), 1-19 (DOI: 10.1061/(ASCE)GT.1943-5606.0001015).[PDF File](#). ***This paper was nominated for Normal Medal, Croes Medal or Middlebrooks Prize, ASCE.***
70. Reddy, K.R., Xie, T., and Dastgheibi, S. (2014). "Adsorption of mixed nutrients and heavy metals from simulated urban stormwater by different filter materials." *Journal of Environmental Science & Health*, 49(5), 524-539 (DOI: 10.1080/10934529.2014.859030).[PDF File](#).
  71. Sivakumar Babu, G.L., Reddy, K.R., and Srivastava, A. (2014). "Influence of spatially variable geotechnical properties of MSW on stability of landfill slopes." *Journal of Hazardous, Toxic, and Radioactive Waste*, 18(1), 27-37.[PDF File](#). ***This paper received the Best Theoretical-Oriented Paper Award, ASCE-EWRI's Journal of Hazardous, Toxic and Radioactive Waste.***
  72. Reddy, K.R., Xie, T., and Dastgheibi, S. (2014) "Nutrients removal from urban stormwater by different filter materials." *Water, Air, & Soil Pollution*, 225 (1), 1-14.[PDF File](#).
  73. Reddy, K.R., and Chirakkara, R.A. (2013). "Green and sustainable remedial strategy for contaminated site: Case study." *Geotechnical and Geological Engineering Journal*, 31(6): 1653-1661. [PDF File](#).
  74. Reddy, K.R., and Al-Hamdan, A. (2013). "Enhanced sequential flushing process for removal of mixed contaminants from soils." *Water, Air, and Soil Pollution*, 224(12),1-13.[PDF File](#).
  75. Reddy, K.R., Kulkarni, H.S., Srivastava, A., and Sivakumar Babu, G.L. (2013). "Influence of spatial variation of hydraulic conductivity of municipal solid waste on performance of bioreactor landfills." *Journal of Geotechnical and Geoenvironmental Engineering*, 139(11), 1968–1972.[PDF File](#).
  76. Chouksey, S.K., Sivakumar Babu, G.L., and Reddy, K.R. (2013). "Approach for the use of MSW settlement predictions in the assessment of landfill capacity based on reliability analysis." *Waste Management*, 33(10), 2029–2034.[PDF File](#).
  77. Comeselle, C., Chirakkara, R.A., and Reddy, K.R. (2013). "Electrokinetic-enhanced phytoremediation of soils: Status and Opportunities." *Chemosphere*, 93(4), 626-636.[PDF File](#).
  78. Reddy, K.R., Kulkarni, H.S., and Khire, M.V. (2013). "Two-phase modeling of leachate recirculation using vertical wells in bioreactor landfills." *Journal of Hazardous, Toxic and Radioactive Waste*, 17(4), 272-284.[PDF File](#).
  79. Carpenter, P.J., Reddy, K.R., and Thompson, M.D. (2013). "Seismic imaging of a leachate recirculation landfill: Spatial changes in dynamic properties of municipal solid waste." *Journal of Hazardous, Toxic, and Radioactive Waste*, 17(4), 331-41.[PDF File](#).
  80. Comeselle, C., and Reddy, K.R. (2013). "Effects of periodic electric potential and electrolyte recirculation on integrated electrochemical remediation of contaminant mixtures." *Water, Air, and Soil Pollution*, 224(8), 1-13.[PDF File](#).
  81. Ghosh, S., Mukherjee, S., Al-Hamdan, A.Z., and Reddy, K.R. (2013). "Efficacy of fine-grained soil as landfill liner material for containment of chrome tannery sludge." *Geotechnical and Geological Engineering Journal*, 31(2), 493-500.[PDF File](#).
  82. Yukselen-Aksoy, Y., and Reddy, K.R. (2013). "Delivery and activation of persulfate for oxidation of PCBs in clayey soils by electrokinetics." *Journal of Geotechnical and Geoenvironmental Engineering*, 139(1), 175-184.[PDF File](#).
  83. Comeselle, C., Reddy, K.R., Darko-Kagya, K., and Khodadoust, A.P.(2013). "Effect of dispersant on transport of nanoscale iron particles in soils: Zeta potential measurements and column experiments." *Journal of Environmental Engineering*, 139(1), 23-33.[PDF File](#).
  84. Comeselle, C. and Reddy, K.R. (2012). "Development and enhancement of electro-osmotic flow for the removal of contaminants from soils." *Electrochimica Acta*, 86, 10-22. [PDF File](#).
  85. Yukselen-Aksoy, Y., and Reddy, K.R. (2012). "Effect of soil composition on electrokinetically enhanced persulfate oxidation of polychlorobiphenyls." *Electrochimica Acta*, 86, 164-169.[PDF File](#).
  86. Richards, K.S., and Reddy, K.R. (2012). "Experimental investigation of initiation of backward



- erosion piping in soils.” *Geotechnique*, 62(10), 933-942.[PDF File](#).
87. Ghosh, S., Mukherjee, S., Sarkar, K., Al-Hamdan, A.Z., and Reddy, K.R. (2012). “Experimental study on chromium containment by admixed soil liner.” *Journal of Environmental Engineering*, 138(10), 1048-1057.[PDF File](#).
  88. Kulkarni, H.S., and Reddy, K.R. (2012). “Moisture distribution in bioreactor landfills: A review.” *Indian Geotechnical Journal*, 42(3), 125-149.[PDF File](#).
  89. Reddy, K.R., Khodadoust, A.P., and Darko-Kagya, K. (2012). “Transport and reactivity of lactate-modified nanoscale iron particles in PCP-contaminated soils.” *Journal of Hazardous, Toxic, and Radioactive Waste*, 16(1), 68-74.[PDF File](#).
  90. Reddy, K.R., Darko-Kagya, K. and Al-Hamdan, A.Z. (2011). “Electrokinetic remediation of pentachlorophenol contaminated clay soil.” *Water, Air, and Soil Pollution*, 221(1-4), 35-44.[PDF File](#).
  91. Darko-Kagya, K., and Reddy, K.R. (2011). “Two-dimensional transport of lactate-modified nanoscale iron particles in porous media.” *Remediation Journal*, 21(4), 45-72.[PDF File](#).
  92. Adams, J.A., Reddy, K.R., and Tekola, L. (2011). “Remediation of chlorinated solvent plumes using in-situ air sparging- A 2-D laboratory study.” *International Journal of Environmental Research and Public Health*, 8(6), 2226-2239.[PDF File](#)
  93. Reddy, K.R., Al-Hamdan, A.Z., and Ala, P.R. (2011). “Enhanced soil flushing for simultaneous removal of PAHs and heavy metals from industrial contaminated soil.” *Journal of Hazardous, Toxic and Radioactive Waste*, 15(3), 166-174.[PDF File](#)
  94. Reddy, K.R., Darko-Kagya, K. and Al-Hamdan, A.Z. (2011). “Electrokinetic remediation of chlorinated aromatic and nitroaromatic organic contaminants in clay soil.” *Environmental Engineering Science*, 28(6), 405-413.[PDF File](#)
  95. Reddy, K.R., Hettiarachchi, H., Gangathulasi, J., and Bogner, J.E. (2011). “Geotechnical properties of municipal solid waste at different phases of degradation.” *Waste Management*, 31(11), 2275-2286.[PDF File](#)
  96. Reddy, K.R., Darko-Kagya, K., and Cameselle, C. (2011). “Electrokinetic-enhanced transport of lactate-modified nanoscale iron particles for degradation of dinitrotoluene in clayey soils.” *Separation and Purification Technology*, 79(2), 230-237.[PDF File](#).
  97. Sivakumar Babu, G.L., Reddy, K.R., and Chouskey, S.K. (2011). “Parametric study of MSW landfill settlement model.” *Waste Management Journal*, 31(6), 1222-1231.[PDF File](#).
  98. Darko-Kagya, K., Khodadoust, A.P., and Reddy, K.R. (2010). “Reactivity of aluminum lactate-modified nanoscale iron particles with pentachlorophenol in soils.” *Environmental Engineering Science*, 27(10), 861-869.[PDF File](#).
  99. Darko-Kagya, K., Khodadoust, A.P., and Reddy, K.R. (2010). “Reactivity of lactate-modified nanoscale iron particles with 2,4-dinitrotoluene in soils.” *Journal of Hazardous Materials*, 182(1-3), 177-183.[PDF File](#).
  100. Yukselen-Aksoy, Y., Khodadoust, A.P., and Reddy, K.R. (2010). “Destruction of PCB 44 in spiked subsurface soils using activated persulfate oxidation.” *Water, Air, and Soil Pollution*, 209(1-4), 419-427.[PDF File](#).
  101. Reddy, K.R., Cameselle, C., and Ala, P.R. (2010). “Integrated electrokinetic-flushing to remove mixed organic and metal contaminants.” *Journal of Applied Electrochemistry*, 40(6), 1269-1279.[PDF File](#).
  102. Reddy, K.R. (2010). “Technical challenges to in-situ remediation of polluted sites.” *Geotechnical and Geological Engineering Journal*, 28(3), 211-221. [PDF File](#).
  103. Reddy, K.R., Danda, S., and Yukselen-Aksoy, Y. (2010). “Sequestration of heavy metals in soils from two polluted industrial sites: Implications on remediation.” *Land Contamination and Reclamation Journal*, 18(1), 13-23.[PDF File](#).
  104. Sivakumar Babu, G.L., Reddy, K.R., Chouskey, S.K., and Kulkarni, H.S. (2010). “Prediction of

- long-term municipal solid waste landfill settlement using constitutive model.” *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 14(2), 139-150.[PDF File](#).  
**This paper received the ASCE-EWRI Best Theoretical Oriented Paper, 2011.**
105. Richards, K.S., and Reddy, K.R. (2010). “Development of true triaxial apparatus for determining piping potential in earth structures.” *Geotechnical Testing Journal*, ASTM, 33(1), 83-95.[PDF File](#).  
**This paper received the Hogentogler Award from ASTM D18 Committee, 2011.**
  106. Reddy, K.R., Stark, T.D., and Marella, A. (2010). “Beneficial use of shredded tires as drainage material in cover systems for abandoned landfills.” *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 14(1), 47-60.[PDF File](#).
  107. Sivakumar Babu, G.L., Reddy, K.R., and Chouskey, S.K. (2010). “Constitutive model for municipal solid waste incorporating mechanical creep and biodegradation-induced compression.” *Waste Management Journal*, 30(1), 11-22.[PDF File](#).
  108. Reddy, K.R., and Chandhuri, K.S. (2009). “Fenton-like oxidation of PAHs in clayey soils using electrokinetics.” *Journal of Geotechnical and Geoenvironmental Engineering*, 135(10), 1429-1439.[PDF File](#).
  109. Reddy, K.R., Maturi, K., and Comeselle, C. (2009). “Sequential electrokinetic remediation of mixed contaminants in low permeability soils.” *Journal of Environmental Engineering*, 135(10), 989-998.[PDF File](#).
  110. Reddy, K.R., Hettiarachchi, H., Gangathulasi, J., Parakalla, N., Bogner, J.E., and Lagier, T. (2009). “Compressibility and shear strength of municipal solid waste under short-term leachate recirculation operations.” *Waste Management & Research*, 27(6), 578-587.[PDF File](#).
  111. Pantazidou, M., Katsiri, A., and Reddy, K.R. (2009). “Evaluating management options for the disposal of dredged sediments.” *Journal of ASTM International*, 6(6), 1-14.[PDF File](#).
  112. Reddy, K.R., Hettiarachchi, H., Gangathulasi, J., Bogner, J.E., and Lagier, T. (2009). “Geotechnical properties of synthetic municipal solid waste.” *International Journal of Geotechnical Engineering*, 3(3), 429-438.[PDF File](#).
  113. Maturi, K., Reddy, K.R., and Comeselle, C. (2009). “Surfactant-enhanced electrokinetic remediation of mixed contamination in low permeability soils.” *Separation Science & Technology*, 44(10), 2385-2409.[PDF File](#).
  114. Reddy, K.R., Hettiarachchi, H., Parakalla, N., Gangathulasi, J., Bogner, J.E., and Lagier, T. (2009). “Hydraulic conductivity of MSW in landfills.” *Journal of Environmental Engineering*, 135(8), 677-683.[PDF File](#).
  115. Roach, N., Reddy, K.R., and Al-Hamdan, A.Z. (2009). “Particle morphology and mineral structure of kaolin contaminated with heavy metals before and after electrokinetic remediation.” *Journal of Hazardous Materials*, 165(1-3), 548-557.[PDF File](#)
  116. Reddy, K.R., Hettiarachchi, H., Parakalla, N.S., Gangathulasi, J., and Bogner, J.E. (2009). “Geotechnical properties of fresh municipal solid waste at Orchard Hills landfill, USA.” *Waste Management Journal*, 29(2), 952-959.[PDF File](#).
  117. Maturi, K., and Reddy, K.R. (2008). “Extractants for the removal of mixed contaminants from soils.” *Soil & Sediment Contamination: An International Journal*, 17(6), 586-608.[PDF File](#).
  118. Reddy, K.R., Stark, T.D., and Marella, A. (2008). “Clogging potential of tire shred-drainage layer in landfill cover systems.” *International Journal of Geotechnical Engineering*, 2(4), 407-418.[PDF File](#).
  119. Maturi, K., Khodadoust, A.P., and Reddy, K.R. (2008). “Comparison of extractants for removal of lead, zinc, and phenanthrene from manufactured gas plant field soil.” *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 12(4), 230-238.[PDF File](#).
  120. Reddy, K.R., and Karri, M.R. (2008). “Effect of oxidant dosage on integrated electrochemical remediation of contaminant mixtures in soils.” *Journal of Environmental Science & Health*, 43(8), 881-893.

121. Al-Hamdan, A.Z., and Reddy, K.R. (2008). "Geochemical assessment of metal transport in glacial till during electrokinetic remediation." *Environmental Monitoring & Assessment Journal*, 139(1-3),137-149.[PDF File](#).
122. Al-Hamdan, A.Z., and Reddy, K.R. (2008). "Transient behavior of heavy metals in soils during electrokinetic remediation." *Chemosphere*, 71(5), 860-871.[PDF File](#).
123. Maturi, K., and Reddy, K.R. (2008). "Cosolvent-enhanced desorption and transport of organic and metal contaminants in soils during electrokinetic remediation." *Water, Air, and Soil Pollution*, 189(1-4), 199-211.[PDF File](#).
124. Al-Hamdan, A.Z., and Reddy, K.R. (2008). "Electrokinetic remediation modeling incorporating geochemical effects." *Journal of Geotechnical and Geoenvironmental Engineering*, 134(1), 91-105.[PDF File](#).
125. Richards, K.S., and Reddy, K.R. (2007). "Critical appraisal of piping phenomena in earth dams." *Bulletin of Engineering Geology and the Environment*, 66(4), 381-402.[PDF File](#).
126. Al-Hamdan, A.Z., and Reddy, K.R. (2006). "Adsorption of heavy metals in glacial till soil." *Journal of Geotechnical and Geological Engineering*, 24(6), 1679-1693.[PDF File](#).
127. Roach, N., and Reddy, K.R. (2006). "Electrokinetic delivery of permanganate into low permeability soils." *International Journal of Environment and Waste Management*, 1(1), 4-19.[PDF File](#).
128. Khodadoust, A. P., Reddy, K. R., and Narla, O. (2006). "Cyclodextrin-enhanced electrokinetic remediation of soils contaminated with 2,4-dinitrotoluene." *Journal of Environmental Engineering*, 132(9), 1043-1050.[PDF File](#).
129. Reddy, K.R., and Karri, M.R. (2006). "Effect of voltage gradient on integrated electrochemical remediation of contaminated mixtures." *Land Contamination & Reclamation*, 14(3), 685-698.[PDF File](#).
130. Reddy, K.R., Ala, P.R., Sharma, S., and Kumar, S.N.(2006). "Enhanced electrokinetic remediation of contaminated manufactured gas plant soil." *Engineering Geology*, 85(1-2), 132-146.[PDF File](#).
131. Reddy, K.R., and Ala, P.R. (2006). "Electrokinetic remediation of contaminated dredged sediment." *Journal of ASTM International*, 3(6), 254-267.[PDF File](#).
132. Maturi, K., and Reddy, K.R. (2006). "Simultaneous removal of heavy metals and organic contaminants from soils by electrokinetics using a modified cyclodextrin." *Chemosphere*, 63(6), 1022-1031.[PDF File](#).
133. Reddy, K.R., Urbanek, A., and Khodadoust, A.P. (2006). "Electroosmotic dewatering of dredged sediments: bench-scale investigation." *Journal of Environmental Management*, 78(2), 200-208.[PDF File](#).
134. Al-Hamdan, A.Z., and Reddy, K.R. (2006). "Geochemical reconnaissance of heavy metals in kaolin after electrokinetic remediation." *Journal of Environmental Science & Health*, A41(1), pp.17-33.[PDF File](#).
135. Al-Hamdan, A.Z., and Reddy, K.R. (2005). "Surface speciation modeling of heavy metals in kaolin: Implications for electrokinetic soil remediation processes." *Adsorption Journal*, 11(5-6), 529-546.[PDF File](#).
136. Saichek, R.E., and Reddy, K.R. (2005). "Surfactant-enhanced electrokinetic remediation of polycyclic aromatic hydrocarbons in heterogeneous subsurface environments." *Journal of Environmental Engineering & Science*, 4(5), 327-339.[PDF File](#).
137. Reddy, K.R., and Ala, P.R. (2005). "Electrokinetic remediation of metal-contaminated field soil." *Separation Science & Technology*, 40(8), 1701-1720.[PDF File](#).
138. Khodadoust, A.P., Reddy, K.R., and Maturi, K. (2005). "Effect of different extraction agents on metal and organic contaminant removal from a field soil." *Journal of Hazardous Materials*, B117(1), 15-24.[PDF File](#).

139. Saichek, R.E., and Reddy, K.R. (2005). "Electrokinetically enhanced remediation of hydrophobic organic compounds in soils: A review." *Critical Reviews in Environmental Science and Technology*, 35(2), 115-192. [PDF File](#).
140. Roach, N., and Reddy, K.R. (2004). "Review of X-ray, electron beam and spectroscopic methods for characterization of contaminated soils." *Trends in Soil Science*, 3, 1-18. [PDF File](#).
141. Khodadoust, A.P., Reddy, K.R., and Maturi, K. (2004). "Removal of nickel and phenanthrene from kaolin soil using different extractants." *Journal of Environmental Engineering Science*, 21(6), 691-704. [PDF File](#).
142. Saichek, R.E., and Reddy, K.R. (2004). "Evaluation of surfactants/cosolvents for desorption/solubilization of phenanthrene in clayey soils." *International Journal of Environmental Studies*, 61(5), 587-604. [PDF File](#).
143. Reddy, K.R., Danda, S., and Saichek, R.E. (2004). "Complicated factors of using ethylenediamine tetracetic acid to enhance electrokinetic remediation of multiple heavy metals in clayey soils." *Journal of Environmental Engineering*, 130(11), 1357-1366. [PDF File](#).
144. Reddy, K.R., and Tekola, L. (2004). "Remediation of DNAPL source zones in groundwater using air sparging." *Land Contamination & Reclamation*, 12(2), 67-83. [PDF File](#).
145. Jazdani, A.D., Reddy, K.R., Gonzalez, J.V., and Ala, P.R. (2004). "Evaluation of different slurry materials for containment wall construction at a DNAPL-contaminated site." *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 8(3), 173-180. [PDF File](#). **This paper received the Best Practice-Oriented Paper Award, from Environment & Water Resources Institute, Environmental Multi-Media Council, ASCE, 2004-2006.**
146. Reddy, K.R., and Saichek, R.E. (2004). "Enhanced electrokinetic removal of phenanthrene from clay soil by periodic electric potential application." *Journal of Environmental Science and Health, Part A- Toxic/Hazardous Substances & Environmental Engineering*, A39(5), 1189-1212. [PDF File](#).
147. Reddy, K.R., and Chinthamreddy, S. (2004). "Enhanced electrokinetic remediation of heavy metals in glacial till soils using different electrolyte solutions." *Journal of Environmental Engineering*, 130(4), 442-455. [PDF File](#).
148. Reddy, K.R., Chaparro, C., and Saichek, R.E. (2003). "Iodide-enhanced electrokinetic remediation of mercury-contaminated soils." *Journal of Environmental Engineering*, 129(12), 1137-1148. [PDF File](#).
149. Adams, J.A., and Reddy, K.R. (2003). "Extent of benzene biodegradation in saturated soil column during air sparging." *Ground Water Monitoring and Remediation*, 23(3), 85-94. [PDF File](#).
150. Reddy, K.R., Chinthamreddy, S., Saichek, R.E., and Cutright, T.J. (2003). "Nutrient amendment for the bioremediation of a chromium-contaminated soil by electrokinetics." *Energy Sources*, 25(9), 931-943. [PDF File](#).
151. Reddy, K.R., and Saichek, R.E. (2003). "Effect of soil type on the electrokinetic removal of phenanthrene using surfactants and cosolvents." *Journal of Environmental Engineering*, 129(4), 336-346. [PDF File](#).
152. Saichek, R.E., and Reddy, K.R. (2003). "Effects of system variables on surfactant enhanced electrokinetic removal of polycyclic aromatic hydrocarbons from clayey soils." *Environmental Technology*, 24(4), 503-515. [PDF File](#).
153. Reddy, K.R., Chaparro, C., and Saichek, R.E. (2003). "Removal of mercury from clayey soils using electrokinetics." *Journal of Environmental Science and Health, Part A- Toxic/Hazardous Substances & Environmental Engineering*, A38(2), 307-338. [PDF File](#).
154. Reddy, K.R., and Chinthamreddy, S. (2003). "Sequentially enhanced electrokinetic remediation of heavy metals in low buffering clayey soils." *Journal of Geotechnical and Geoenvironmental Engineering*, 129(3), 263-277. [PDF File](#).
155. Saichek, R.E., and Reddy, K.R. (2003). "Effect of pH control at the anode for the electrokinetic

- removal of phenanthrene from kaolin soil." *Chemosphere*, 51(4), 273-287. [PDF File](#).
156. Reddy, K.R., and Chinthamreddy, S. (2003). "Effect of initial form of chromium on electrokinetic remediation in clays." *Advances in Environmental Research*, 7(2), 353-365. [PDF File](#).
157. Jazdanian, A., Schilling, D., Milner, L., Szela, C., Matuszak, S., Reddy, K., and Psaradellis. (2002). "Treatability of MGP-soils with cleanup pentanonic." *AEHS Contaminated Soil Sediment and Water: The Magazine of Environmental Assessment and Remediation*, Nov/Dec., 27-29. [PDF File](#).
158. Reddy, K.R., Saichek, R.E., Maturi, K., and Ala, P. (2002). "Effects of soil moisture and heavy metal concentrations on electrokinetic remediation." *Indian Geotechnical Journal*, 32(3), 258-288. [PDF File](#). **This paper received the Best Paper Award from the Indian Geotechnical Society for the papers published in the Indian Geotechnical Journal during 2002-2003.**
159. Reddy, K.R., Chinthamreddy, S., and Al-Hamdan, A. (2001). "Synergistic effects of multiple metal contaminants on electrokinetic remediation of soils." *Remediation: The Journal of Environmental Cleanup Costs, Technologies & Techniques*, 11(3), 85-109. [PDF File](#).
160. Reddy, K.R., Xu, C.Y., and Chinthamreddy, S. (2001). "Assessment of electrokinetic removal of heavy metals from soils by sequential extraction analysis." *Journal of Hazardous Materials*, B84(2-3), 279-296. [PDF File](#).
161. Reddy, K.R., and Adams, J.A. (2001). "Effects of soil heterogeneity on air flow patterns and hydrocarbon removal during in-situ air sparging." *Journal of Geotechnical and Geoenvironmental Engineering*, 127(3), 234-247. [PDF File](#). **This paper was selected as one of the top 10 papers in geotechnical and geoenvironmental engineering by Geo-Institute, ASCE, during 2001.**
162. Reddy, K.R., and Chinthamreddy, S. (2000). "Comparison of different extractants for removing heavy metals from contaminated clayey soils." *Journal of Soil and Sediment Contamination*, 9(5), 449-462. [PDF File](#).
163. Adams, J.A., and Reddy, K.R. (2000). "Removal of dissolved and free- phase benzene pools from ground water using in situ air sparging." *Journal of Environmental Engineering*, 126(8), 697-707. [PDF File](#).
164. Li, A., Cheung, K.A., and Reddy, K.R. (2000). "Cosolvent-enhanced electrokinetic remediation of soils contaminated with phenanthrene." *Journal of Environmental Engineering*, 126(6), 527-533. [PDF File](#)
165. Reddy, K.R., and Adams, J.A. (2000). "Effect of groundwater flow on remediation of dissolved-phase VOC contamination using air sparging." *Journal of Hazardous Materials*, 72(2-3), 147-165. [PDF File](#).
166. Adams, J.A., and Reddy, K.R. (1999). "Laboratory study of air sparging of TCE-contaminated saturated soils and groundwater." *Ground Water Monitoring and Remediation*, 19(3), 182-190. [PDF File](#).
167. Reddy, K.R., Donahue, M.J., Saichek, R.E., and Saasoka, R. (1999). "Preliminary assessment of electrokinetic remediation of soil and sludge contaminated with mixed waste." *Journal of Air and Waste Management Association*, 49(7), 823-830. [PDF File](#).
168. Reddy, K.R., E.S. Motan, and Oliver, C. (1999). "Parametric seismic evaluation of landfill liner and cover slopes." *Journal of Solid Waste Technology and Management*, 26(1), 1-9. [PDF File](#).
169. Reddy, K.R., and Chinthamreddy, S. (1999). "Electrokinetic remediation of heavy metal contaminated soils under reducing environments." *Waste Management*, 19(4), 269-282. [PDF File](#).
170. Chinthamreddy, S. and Reddy, K.R. (1999). "Oxidation and mobility of trivalent chromium in manganese enriched clays during electrokinetic remediation." *Journal of Soil Contamination*, 8(2), 197-216. [PDF File](#).
171. Reddy, K.R., Adams, J.A., and Richardson, C. (1999). "Potential technologies for remediation of brownfields." *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 3(2), 61-68.

172. Reddy, K.R., Semer, R., and Adams, J.A. (1999). "Air flow optimization and surfactant enhancement to remediate toluene-contaminated saturated soils using air sparging." *Environmental Management & Health*, Special Issue on Groundwater, 10(1), 52-63.[PDF File](#). ***This paper received Citation of Excellence for the Highest Quality Paper published in the Journal during 1999.***
173. Reddy, K.R., and Saichek, R.E. (1998). "Assessment of damage to geomembrane liners by shredded scrap tires." *Geotechnical Testing Journal*, ASTM, 21(4), 307-316.[PDF File](#).
174. Reddy, K.R., Zhou, J., and Davis, J. (1998). "In-situ hydraulic conductivity of highly permeable soils using slug tests." *Indian Geotechnical Journal*, 28(4), 315-338.[PDF File](#).
175. Reddy, K.R., and Saichek, R.E. (1998). "Performance of protective cover systems for landfill geomembrane liners under long-term MSW loading." *Geosynthetics International*, 5(3), 287-307.[PDF File](#).
176. Reddy, K.R., and Adams, J.A. (1998). "System effects on benzene removal from saturated soils and groundwater using air sparging." *Journal of Environmental Engineering*, 124(3), 288-299.[PDF File](#).
177. Semer, R., and Reddy, K.R. (1998). "Mechanisms controlling toluene removal from saturated soils during air sparging." *Journal of Hazardous Materials*, 57(1-3), 209-230.[PDF File](#).
178. Semer, R., Adams, J.A., and Reddy, K.R. (1998). "An experimental investigation of air flow patterns in saturated soils during air sparging." *Geotechnical and Geological Engineering Journal*, 16(1), 59-75.[PDF File](#).
179. Reddy, K.R., Parupudi, U.S., Devulapalli, S.N., and Xu, C.Y. (1997). "Effects of soil composition on removal of chromium by electrokinetics." *Journal of Hazardous Materials*, 55(1-3), 135-158.[PDF File](#).
180. Reddy, K.R., and Parupudi, U.S. (1997). "Removal of chromium, nickel and cadmium from clays by in-situ electrokinetic remediation." *Journal of Soil Contamination*, 6(4), 391-407.[PDF File](#).
181. Reddy, K.R., and Shirani, A.B. (1997). "Electrokinetic remediation of metal contaminated glacial tills." *Geotechnical and Geological Engineering Journal*, 15(1), 3-29.[PDF File](#).
182. Reddy, K.R., Bandi, S., Rohr, J.J., Finy, M., and Siebken, J. (1997). "Field evaluation of protective covers for landfill geomembrane liners under construction loading." *Geosynthetics International*, 3(6), 679-700 (Discussion and Closure in 1997, 4(5), 542-546).[PDF File](#).
183. Cecich, V., Gonzales, L., Hoisaeter, A., Williams, J. and Reddy, K.R. (1996). "Use of Shredded tires as a lightweight backfill material for retaining structures." *Waste Management & Research*, 14(5), 433-451.[PDF File](#).
184. Reddy, K.R., Kosgi, S., and Motan, E.S. (1996). "Interface shear behavior of landfill composite liner systems: a finite element analysis." *Geosynthetics International*, 3(2), 247-275.[PDF File](#).
185. Semer, R., and Reddy, K.R. (1996). "Evaluation of soil washing process to remove mixed contaminants from a sandy loam." *Journal of Hazardous Materials*, 45(1), 45-57.[PDF File](#).
186. Reddy, K.R., Kosgi, S., and Zhou, J. (1995). "A review of in-situ air sparging for the remediation of VOC-contaminated saturated soils and groundwater." *Hazardous Waste & Hazardous Materials*, 12(2), 97-118.[PDF File](#).
187. Reddy, K.R., and Saxena, S.K. (1993). "Effects of cementation on stress-strain and strength characteristics of sands." *Soils and Foundations Journal*, 33(4), 123-136.[PDF File](#).
188. Reddy, K.R., and Saxena, S.K. (1992). "Liquefaction resistance of cemented sand under multidirectional cyclic loading." *Canadian Geotechnical Journal*, 29(6), 989-993.[PDF File](#).
189. Reddy, K.R., and Saxena, S.K. (1992). "Constitutive modeling of cemented sand." *Mechanics of Materials Journal*, 14(2), 155-178.[PDF File](#).
190. Reddy, K.R., Saxena, S.K., and Budiman, J. (1992). "Development of a true triaxial testing apparatus." *Geotechnical Testing Journal*, 15(2), 89-105.[PDF File](#).
191. Saxena, S.K., and Reddy, K.R. (1989). "Dynamic moduli and damping ratios for Monterey No.0

- Sand by resonant column tests." *Soils and Foundations Journal*, 29(2), 37-51.[PDF File](#).
192. Saxena, S.K., Reddy, K.R., and Avramidis, A. (1988). "Liquefaction resistance of artificially cemented sand." *Journal of Geotechnical Engineering*, 114(GT12), 1395-1413. [PDF File](#).
  193. Saxena, S.K., Avramidis, A., Reddy, K.R. (1988). "Dynamic moduli and damping ratios for cemented sands at low strains." *Canadian Geotechnical Journal*, 25(2), 353-368.[PDF File](#).
  194. Saxena, S.K., Reddy, K.R., and Avramidis, A. (1988). "Static behavior of artificially cemented sand." *Indian Geotechnical Journal*, 18(2), 111-141.[PDF File](#).
  195. Saxena, S.K., and Reddy, K.R. (1988). "Low strain dynamic properties of artificially cemented sand." Discussion, *Journal of Geotechnical Engineering*, 114(GT8), 950-954.[PDF File](#).
  196. Saran, S., Viladkar, M., and Reddy, K.R. (1987). "Displacement dependent earth pressures." *Indian Geotechnical Journal*, 17(2), 121-141. [PDF File](#).
  197. Reddy, K.R., Saran, S., and Viladkar, M. (1985). "Prediction of displacements of retaining walls under dynamic conditions." *Bulletin of the Indian Society of Earthquake Technology*, 22(3), 101-115.[PDF File](#) *This paper received the Indian Society of Earthquake Technology Best Paper Award for 1985-1988.*

## Conference Publications

### *Refereed Conference Publications*

1. Kumar, G., and Reddy, K.R. (2017). "Reliability-based assessment of bioreactor landfills with variable MSW properties using coupled hydro-bio-mechanical framework." *GeoRisk*, Denver, CO, June 2017.[PDF File](#)
2. Fan, R.D., Du, Y.J., Liu, S.Y., Reddy, K.R., and Yang, Y.L. (2017). "Analysis of workability of soil-bentonite slurry-trench cutoff walls." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
3. Amaya-Sanots, G., and Reddy, K.R. (2017). "Field evaluation of Switchgrass (*Panicum virgatum*) to phytoremediate mixed contaminants at slag fill site." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
4. Reddy, K.R., Kumar, G., and Giri, R.K. (2017). "Numerical Modeling of the Shear Response of a Composite Liner System with Municipal Solid Waste Degradation in Landfills." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
5. Goldenberg, M., and Reddy, K.R. (2017). "Sustainability assessment of conventional and alternate landfill cover systems." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
6. Reddy, K.R., and Kumar, G. (2017). "Permeable reactive filter system for treatment of urban stormwater runoff with mixed pollutants." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
7. Yang, Y.L., Du, Y.J., Reddy, K.R., and Fan, R.D. (2017). "Compatibility of phosphate-amended Ca-Bentonite soil backfill with groundwater impacted by coal ash leachate." *Geotechnical Frontiers*, Orlando, FL, March 2017.[PDF File](#)
8. Marat, G., and Reddy, K. (2016). "Evaluation of prototype geosynthetic clay liners in landfill cover applications." *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016.[PDF File](#)
9. Karaca, O., Cameselle, C., and Reddy, K.R. (2016). "Characterization of heavy metals in mine tailings and lake sediments: Implications on remediation." *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016.[PDF File](#)
10. Karaca, O., Cameselle, C., and Reddy, K.R. (2016). "Electrokinetic removal of heavy metals from mine tailings and acid lake sediments from Can Basin-Turkey." *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016.[PDF File](#)
11. Carpenter, P.J., and Reddy, K.R. (2016). "Effectiveness of ground-penetrating radar (GPR) and

- geophysical well logs at leachate-recirculation (bioreactor) landfill.” *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016.[PDF File](#)
12. Yang, Y-L, Reddy, K.R., and Du, Y-J. (2016). “Soil-bentonite slurry wall for the containment of impacted groundwater at coal ash disposal sites.” *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016.[PDF File](#)
  13. Moghal, A.A.B., Reddy, K.R., Mohammed, S.A.S., Shamrani, M.A.A., and Zahid, W.M. (2016). “Efficacy of lime treatment on the mercury retention characteristics of semi-arid soils.” *GeoChina2016*, China. (DOI: 10.1061/9780784480045.006)[PDF File](#)
  14. Yang, Y-L, Du, Y-J., Reddy, K.R., and Fan, Y-J. (2016). “Effect of phosphate amendment on hydraulic conductivity of soil-calcium bentonite backfill for vertical cutoff walls.” *GeoChicago2016*, Chicago, Illinois, August 14-18, 2016. (DOI: 10.1061/9780784480144.053)[PDF File](#)
  15. Reddy, K.R., and Giri, R.K. (2015). “Comparison of single-phase and two-phase modeling of leachate distribution in bioreactor landfills.” *15th Pan-American Conference on Soil Mechanics and Geotechnical Engineering (XV PCSMGE)*, Buenos Aires, Argentina, November 15-18, 2015. (DOI: 10.3233/978-1-61499-603-3-1129)[PDF File](#)
  16. Sadasivam, B.Y., and Reddy, K.R. (2015). “Shear strength of waste-wood biochar and biochar-amended soil used for sustainable landfill cover systems.” *15th Pan-American Conference on Soil Mechanics and Geotechnical Engineering (XV PCSMGE)*, Buenos Aires, Argentina, November 15-18, 2015. (DOI: 10.3233/978-1-61499-603-3-745)[PDF File](#)
  17. Moghal, A.A.B., Reddy, K.R., Mohammed, S.A.S., Shamrani, M.A.A., and Zahid, W.M. (2015). “Retention studies on arsenic from aqueous solutions by lime treated semi-arid soils.” *Proceedings of the 5th International Conference on Geotechnique, Construction Materials (GEOMATE-Osaka)*, and Environment, Osaka, Japan, November 16-18, 2015 (ISBN: 978-4-9905958-4-5 C3051), 685-690.[PDF File](#)
  18. Giri, R.K., and Reddy K.R. (2015). “Sustainability assessment of two alternate earth-retaining structures.” *Proceedings of IFCEE2015*, ASCE, San Antonio, TX, pp. 2836-2845 (DOI: 10.1061/9780784479087.265)[PDF File](#)
  19. Yargicoglu, E.N., and Reddy, K.R. (2015). “Characterization and surface analysis of commercially available biochars for geoenvironmental applications.” *Proceedings of IFCEE2015*, ASCE, San Antonio, TX, pp. 2637-2646 (DOI: 10.1061/9780784479087.245). [PDF File](#)
  20. Chirakkara, R.A., and Reddy, K.R. (2015). “Phytoremediation of mixed contaminated soils: Enhancement with biochar and compost amendments.” *Proceedings of IFCEE2015*, ASCE, San Antonio, TX, pp. 2687-2696 (DOI: 10.1061/9780784479087.250)[PDF File](#)
  21. Liu, B., Xu, W., and Reddy, K.R. (2015). “Effects of demolishing the deep foundation support system used for tall building construction on adjacent metro line: Modeling and field comparison.” *Proceedings of IFCEE2015*, ASCE, San Antonio, TX, pp. 1107-1121 (DOI: 10.1061/9780784479087.099).[PDF File](#)
  22. Sadasivam, B.Y., and Reddy, K.R. (2015). “Influence of physico-chemical properties of different biochars on landfill methane adsorption.” *Proceedings of IFCEE2015*, ASCE, San Antonio, TX, pp. 2647-2656 (DOI: 10.1061/9780784479087.246).[PDF File](#)
  23. Kasthurba, A.K. and Reddy, K.R. (2014). “Managing building waste for sustainable urban development: Challenges, opportunities and future outlook.” *Proc. International Conference on Sustainable Civil Infrastructure 2014*, Indian Institute of Technology, Hyderabad, India, pp.910-919.[PDF File](#).
  24. Reddy, K.R., Sadasivam, B.Y., and Adams, J.A. (2014). “Social sustainability evaluation matrix (SSEM) to quantify social aspects of sustainable remediation.” *Proc. International Conference on Sustainable Infrastructure*, Long Beach, CA, November 6-8, ASCE, Reston, VA.[PDF File](#).



25. Yargicoglu, E.N., and Reddy, K.R. (2014). "Evaluation of PAH and metal contents of different biochars for use in climate change mitigation systems." *Proc. International Conference on Sustainable Infrastructure*, Long Beach, CA, November 6-8, ASCE, Reston, VA.[PDF File](#).
26. Giri, R.K., and Reddy, K.R. (2014). "LCA and sustainability assessment for selecting deep foundation system for high-rise buildings." *Proc. International Conference on Sustainable Infrastructure*, Long Beach, CA, November 6-8, ASCE, Reston, VA.[PDF File](#).
27. Chirakkara, R.A., and Reddy, K.R. (2014). "Synergistic effect of organic and metal contaminants on phytoremediation of soils." Geotechnical Special Publication 241-Geoenvironmental Engineering, *Proc. of the Geo-Shanghai 2014*, Editors: Reddy, K.R. and Feng, S., American Society of Civil Engineers, Reston, VA, pp.1-10.[PDF File](#).
28. Giri, R.K., and Reddy, K.R. (2014). "Effect of geometric configuration of horizontal trench systems on stability of bioreactor landfill slopes." Geotechnical Special Publication 241-Geoenvironmental Engineering, *Proc. of the Geo-Shanghai 2014*, Editors: Reddy, K.R. and Feng, S., American Society of Civil Engineers, Reston, VA, pp.120-129.[PDF File](#).
29. Sadasivam, B.Y., and Reddy, K.R. (2014). "Quantifying the effects of moisture content on methane adsorption capacity of biochars." Geotechnical Special Publication 241-Geoenvironmental Engineering, *Proc. of the Geo-Shanghai 2014*, Editors: Reddy, K.R. and Feng, S., American Society of Civil Engineers, Reston, VA, 191-200.[PDF File](#).
30. Xie, T., Reddy, K.R., Wang, C., and Xu, K. (2014). "Effects of amendment of biochar produced from woody biomass on soil quality and crop yield." Geotechnical Special Publication 241-Geoenvironmental Engineering, *Proc. of the Geo-Shanghai 2014*, Editors: Reddy, K.R. and Feng, S., American Society of Civil Engineers, Reston, VA, pp.170-180.[PDF File](#).
31. Chirakkara, R.A., and Reddy, K.R. (2014). "Synergistic effects of organic and metal contaminants on phytoremediation." Geotechnical Special Publication 234, *Proc. of the Geo-Congress 2014*, Editors: Abu-Farsakh, M., Yu, X., and Hoyos, L.R., American Society of Civil Engineers, Reston, VA.[PDF File](#).
32. Yaghoubi, P., Yargicoglu, E.N., and Reddy, K.R. (2014). "Effects of biochar-amendment to landfill cover soil on microbial methane oxidation: Initial results." Geotechnical Special Publication 234, *Proc. of the Geo-Congress 2014*, Editors: Abu-Farsakh, M., Yu, X., and Hoyos, L.R., American Society of Civil Engineers, Reston, VA.[PDF File](#).
33. Goldenberg, M., and Reddy, K.R. (2014). "Sustainability assessment of excavation and disposal versus in-situ stabilization of heavy metal contaminated soil at a Superfund site in Illinois." Geotechnical Special Publication 234, *Proc. of the Geo-Congress 2014*, Editors: Abu-Farsakh, M., Yu, X., and Hoyos, L.R., American Society of Civil Engineers, Reston, VA.[PDF File](#).
34. Giri, R.K., and Reddy, K.R. (2014). "Effects of heterogeneous and anisotropic properties of municipal solid waste on leachate distribution and slope stability of bioreactor landfills." Geotechnical Special Publication 234, *Proc. of the Geo-Congress 2014*, Editors: Abu-Farsakh, M., Yu, X., and Hoyos, L.R., American Society of Civil Engineers, Reston, VA.[PDF File](#).
35. Sadasivam, B.Y., and Reddy, K.R. (2014). "Sustainability assessment of Subtitle D cover versus biocover for methane oxidation at municipal solid waste landfills." Geotechnical Special Publication 234, *Proc. of the Geo-Congress 2014*, Editors: Abu-Farsakh, M., Yu, X., and Hoyos, L.R., American Society of Civil Engineers, Reston, VA.[PDF File](#).
36. Reddy, K.R. (2013). "Electrokinetic remediation of soils at complex contaminated sites: technology status, challenges, and opportunities." *Proc. Coupled Phenomena in Environmental Geotechnics (CPEG)*, Politecnico Di Torino, Torino, Italy.[PDF File](#).
37. Yargicoglu, E.N., and Reddy, K.R. (2013). "Green and sustainable remediation of contaminated Indian Ridge marsh site in Chicago, USA." *Proc. Coupled Phenomena in Environmental Geotechnics (CPEG)*, Politecnico Di Torino, Torino, Italy.[PDF File](#).
38. Sadasivam, B-Y., and Reddy, K.R. (2013). "Study of methane adsorption by biochar in landfill

- cover.” *Proc. 106<sup>th</sup> Annual Conference & Exhibition, Air & Waste Management Association, Chicago, IL, USA.*[PDF File](#).
39. Xie, T., Wang, C., Reddy, K.R., and Yaghoubi, P. (2013). “Modeling of methane migration and oxidation in biochar-amended landfill cover soil.” *Proc. 106<sup>th</sup> Annual Conference & Exhibition, Air & Waste Management Association, Chicago, IL, USA.*[PDF File](#).
  40. Chirikkara, R.A., and Reddy, K.R. (2013). “Investigation of plant species for phytoremediation of mixed contaminants in soils.” *Proc. 106<sup>th</sup> Annual Conference & Exhibition, Air & Waste Management Association, Chicago, IL, USA.*[PDF File](#).
  41. Giri, R.K., and Reddy, K.R. (2013). “Two-phase flow modeling of leachate injection effects on stability of bioreactor landfill slopes.” *Proc. 106<sup>th</sup> Annual Conference & Exhibition, Air & Waste Management Association, Chicago, IL, USA.*[PDF File](#).
  42. Carpenter, P.J., Reddy, K.R., and Thompson, M.D. (2013) “Dynamic properties of municipal solid waste in a bioreactor cell at orchard hills landfill, Illinois, USA.” *Proc. 7<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, Wheeling, IL, USA.*[PDF File](#).
  43. Srivastava, A., and Reddy, K.R. (2012). “Probabilistic analysis of municipal solid waste landfill slope stability.” *Proc.XII International Symposium on Environmental Geotechnology, Energy and Global Sustainable Development, Los Angeles, CA.*[PDF File](#).
  44. Adams, J.A., and Reddy, K.R. (2012). “State-of-the-practice of characterization and remediation of contaminated sites.” *Proc.Geotechnical Engineering State of the Art and Practice-Geotechnical Special Publication No.226, ASCE, 423-442.*[PDF File](#).
  45. Chouksey, S.K., Sivakumar Babu, G.L., and Reddy, K.R. (2012). “Settlement analysis of MSW based on constitutive modeling approach.” *Proc.GeoCongress2012, Geotechnical Special Publication No.225, ASCE, 4176-4183.*[PDF File](#).
  46. Kulkarni, H., and Reddy, K.R. (2011). “Comparative evaluation of different leachate recirculation systems in bioreactor landfills.” *Proc. 9<sup>th</sup> JGS Symposium on Environmental Geotechnics, Kyoto, Japan.*
  47. Yaghoubi, P., and Reddy, K.R. (2011). “Characteristics of biochar-amended soil cover for landfill gas mitigation.” *Proc.2011 Pan-Am CGS Conference, Toronto, Canada.*[PDF File](#).
  48. Kulkarni, H.S., and Reddy, K.R. (2011). “Effectiveness of drainage blanket for leachate recirculation in bioreactor landfills.”*Proc.2011 Pan-Am CGS Conference, Toronto, Canada.*[PDF File](#).
  49. Chouksey, S.K., Babu, G.L., and Reddy, K.R. (2011). “Effective stress analysis of municipal solid waste response using constitutive model.” *Proc.13<sup>th</sup>International Conference of the International Association for Computer Methods and Advances in Geomechanics(IACMAG 13), Melbourne, Australia.*
  50. Srivastava, A., Sivakumar Babu, G.L., Reddy, K.R., Kulkarni, H.S. (2011). “Effect of leachate recirculation and extent of degradation on the stability of bioreactor landfill slopes.” *Proc. GeoRisk2011, ASCE.*
  51. Reddy, K.R., and Kulkarni, H.S. (2011). “Effectiveness of drainage blanket for leachate recirculation in heterogeneous and anisotropic municipal solid waste.” *Proc. International Conference on Solid Waste 2011: Moving Towards Sustainable Resource Management, 692-695.*[PDF File](#).
  52. Al-Hamdan, A.Z., and Reddy, K.R. (2011). “Electrokinetic remediation modeling incorporating geochemical effects in glacial till (high acid buffering) soil.” *Geotechnical Special Publication No.211, Proc. GeoFrontiers2011- Advances in Geotechnical Engineering, ASCE, 836-845.*[PDF File](#).
  53. Kulkarni, H.S., and Reddy, K.R. (2011). “Effects of unsaturated hydraulic properties of municipal solid waste on moisture distribution in bioreactor landfills.” *Geotechnical Special Publication No.211, Proc. GeoFrontiers2011- Advances in Geotechnical Engineering, ASCE, 1392-*

- 1403.[PDF File](#).
54. Reddy, K.R. (2010). "Nanotechnology for site remediation: Dehalogenation of organic pollutants in soils and groundwater by nanoscale iron particles." Plenary Lecture, *Proc.6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 165-182.[PDF File](#)
  55. Reddy, K.R., and Adams, J.A. (2010). "Towards green and sustainable remediation of contaminated sites." *Proc.6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 1222-1227.[PDF File](#)
  56. Darko-Kagya, K., and Reddy, K.R. (2010). "Monitoring nanoiron transport in porous media using magnetic susceptibility sensor." *Proc.6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 693-698.[PDF File](#)
  57. Kulkarni, H.S., and Reddy, K.R. (2010). "Modeling of moisture distribution under continuous and intermittent leachate recirculation in bioreactor landfills." *Proc. 6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 1717-1722.[PDF File](#)
  58. Gupta, K.K., Reddy, K.R., and Kulkarni, H.S. (2010). "Geotechnical behavior of fine-grained soils mixed with randomly oriented plant roots." *Proc. 6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 1502-1505.[PDF File](#)
  59. Sivakumar Babu, G.L., Reddy, K.R., Srivastava, A., and Kulkarni, H.S. (2010). "Reliability analysis of municipal solid waste landfill slopes." *Proc. 6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 1711-1716. [PDF File](#)
  60. Sivakumar Babu, G.L., Reddy, K.R., and Chouksey, S.K. (2010). "Constitutive model for municipal solid waste incorporating mechanical creep and biodegradation-induced compression - A parametric study." *Proc. 6<sup>th</sup> International Congress on Environmental Geotechnics*, New Delhi, India, 451-456.[PDF File](#).
  61. Reddy, K.R., and Karri, M.R. (2009). "Effect of electric potential on nanoiron particles delivery for pentachlorophenol remediation in low permeability soil." *Proc. 17<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, Alexandria, Egypt, IOS Press BV, Netherlands, 3, 2312-2315.[PDF File](#)
  62. Reddy, K.R., Khodadoust, A.P., and Darko-Kagya, K. (2008). "Transport and reactivity of lactate-modified nanoscale iron particles in PCP-contaminated field sand." *Proc. International Environmental Nanotechnology Conference*, USEPA, Chicago, IL, USA.
  63. Khodadoust, A.P., Reddy, K.R., and Darko-Kagya, K. (2008). "Pentachlorophenol reduction in soils by reactive nanoscale iron particles." *Proc. International Environmental Nanotechnology Conference*, USEPA, Chicago, IL, USA.
  64. Comeselle, C., Darko-Kagya, K., Khodadoust, A.P., and Reddy, K.R. (2008). "Influence of type and concentration of dispersants on the zeta potential of reactive nanoiron particles." *Proc. International Environmental Nanotechnology Conference*, USEPA, Chicago, IL, USA.
  65. Carpenter, P.J., Grellier, S., Reddy, K.R., Adib, R., Peters, C. and Gangathulasi, J. (2008). "Investigating the interior of a landfill cell with leachate injection using electromagnetic conductivity and ground-penetrating radar surveys." *Proc. 21<sup>st</sup> Symposium on the Application of Geophysics to Engineering and Environmental Problems*, Environmental and Engineering Geophysical Society, Denver, CO, 212-222.[PDF File](#)
  66. Reddy, K.R., and Karri, M.R. (2008). "Removal and degradation of pentachlorophenol in clayey soil using nanoscale iron particles." *Proc. Geotechnics of Waste Management and Remediation, Geotechnical Special Publication No.177*, ASCE Press, Reston, VA, 463-469.
  67. Khodadoust, A.P., Reddy, K.R., and Varadhan, S. (2008). "Transport of lactate-modified nanoscale iron particles in sand columns." *Proc. Geotechnics of Waste Management and Remediation, Geotechnical Special Publication No.177*, ASCE Press, Reston, VA, 479-486.
  68. Richards, K.S., and Reddy, K.R. (2008). "Experimental investigation of piping potential in earthen structures." *Proc. Geosustainability and Geohazard Mitigation, Geotechnical Special*

- Publication No.178, ASCE Press, Reston, VA, 367-376.*
69. Al-Hamdan, A.Z., and Reddy, K.R. (2008). "Transport and speciation of heavy metals in soils during electrokinetic remediation: Influence of soil type and electric potential." *Proc. Geotechnics of Waste Management and Remediation, Geotechnical Special Publication No.177, ASCE Press, Reston, VA, 447-454.*
  70. Reddy, K.R., Gangathulasi, J., Hettiarachchi, and Bogner, J. (2008). "Geotechnical properties of municipal solid waste subjected to leachate recirculation." *Proc. Geotechnics of Waste Management and Remediation, Geotechnical Special Publication No.177, ASCE Press, Reston, VA, 144-151.*
  71. Reddy, K.R. (2007). "Technical challenges to in-situ remediation of polluted sites." *Proc. 1<sup>st</sup> Sri Lanka Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka.*
  72. Grellier, S., Reddy, K., Gangathulasi, J., Adib, R., and Peters, C. (2007). "Correlation between electrical resistivity and moisture content of municipal solid waste in bioreactor landfill." *Proc. ASCE Geotechnical Special Publication No. 163, Reston, VA, 14p.* [PDF File.](#)
  73. Reddy, K.R., and Karri, M.R. (2006). "Integrated electrochemical remediation of mixed contaminants in subsurface." *Proc. 5<sup>th</sup> International Congress on Environmental Geotechnics, Cardiff, Wales, UK, Thomas Telford Publishing, London, 271-278.* [PDF File.](#)
  74. Reddy, K.R., and Maturi, K. (2005). "Enhanced electrokinetic remediation of mixed heavy metal and organic contaminants in low permeability soils." *Proc. of the 16<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, Millpress Science Publishers, Rotterdam, Netherlands, 2429-2432.* [PDF File.](#)
  75. Richards, K.S., and Reddy, K.R. (2005). "Slope failure of embankment dam under extreme flooding conditions: comparison of limit equilibrium and continuum models." *Proc. ASCE Geotechnical Special Publication No. 142, ASCE Press, Reston, VA, 12p.* [PDF File.](#)
  76. Reddy, K.R., Ala, P., Sharma, S., and Kumar, S. (2004). "Enhanced electrokinetic remediation of contaminated manufactured gas plant soil." *Proc. 4<sup>th</sup> BGA Geoenvironmental Engineering Conference, Stratford-Upon-Avon, U.K., 126-133.*
  77. Reddy, K.R., and Adams, J.A. (2003). "Remediation of hydrocarbon contamination in groundwater using in-situ biosparging." *Proc. Recent Advances in Groundwater Engineering, Japan, 329-333.*
  78. Jazdanian, A., Schilling, D., Milner, L., Szela, C., Matuszak, S., Reddy, K., and Psaradellis (2002). "Treatability of MGP-soils with cleanup pentanonic." *Proc. 1<sup>st</sup> Annual Conference and Exhibition on Natural Gas Technologies, Orlando, Florida, 27-29.* This paper is selected for publication by the *AEHS Contaminated Soil Sediment and Water: The Magazine of Environmental Assessment and Remediation*, November/December 2002.
  79. Reddy, K.R., and Saichek, R.E. (2002). "Electrokinetic removal of phenanthrene from kaolin using different surfactants and cosolvents." *Proc. Evaluation and Remediation of Low Permeability and Dual Porosity Environments, ASTM STP 1415, American Society for Testing and Materials, West Conshohocken, PA, 138-161.*
  80. Reddy, K.R., Li, A., Saichek, R.E., Chowdiah, P., and Srivastava, V.J. (1998). "Surfactant/cosolvent enhanced electrokinetic remediation of PAH contaminated clayey soils." *Proc. 11<sup>th</sup> International Symposium on Environmental Biotechnologies & Site Remediation Technology, Orlando, FL.*
  81. Reddy, K.R., and Chinthamreddy, S. (1998). "Geochemistry of chromium during electrokinetic remediation." *Proc. 4<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Boston (Danvers), MA.* [PDF File.](#)
  82. Reddy, K.R., and Saichek, R.E. (1998). "A rational design for the protection of landfill geomembrane liners." *Proc. 6<sup>th</sup> International Conference on Geosynthetics, Atlanta, GA, 289-*

- 294.[PDF File](#).
83. Reddy, K.R., and Adams, J.A. (1997). "Effect of pulsed air injection during in-situ air sparging for groundwater remediation." *Proc. ASCE Conference on In-Situ Remediation of the Geoenvironment*, Minneapolis, MN, 68-82. [PDF File](#).
  84. Reddy, K.R., and Zhou, J. (1996). "Finite element modeling of in-situ air sparging for groundwater remediation." *Proc. 2<sup>nd</sup> International Congress on Environmental Geotechnics*, Osaka, Japan, 299-304.
  85. Devulapalli, S.N., and Reddy, K.R. (1996). "Effects of nonlinear adsorption on contaminant transport through landfill clay liners." *Proc. 2<sup>nd</sup> International Congress on Environmental Geotechnics*, Osaka, Japan, 473-478.[PDF File](#).
  86. Reddy, K.R. (1995). "Modeling of volumetric response of cemented sand under cyclic loading." *Proc. 3<sup>rd</sup> International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*, St. Louis, MO, 1079-1082.[PDF File](#).
  87. Semer, R., and Reddy, K.R. (1995). "Remediation of a sandy loam contaminated with mixed pollutants." *Proc. Innovative Technologies for Site Remediation and Hazardous Waste Management*, ASCE, 204-210.
  88. Reddy, K.R., and Schuh, J.C. (1994). "Computer modeling to define the extent of groundwater contamination at a coal refuse disposal facility." *Proc. 1st International Congress on Environmental Geotechnics*, Edmonton, Canada, 539-544.[PDF File](#).

#### ***Non-Refereed Conference Publications***

89. Reddy, K.R., and Cameselle, C. (2016). "Electrobioremediation: Combined electrokinetics and bioremediation of polluted sites." *Proceedings of Indian Geotechnical Conference (IGC2016)*, IIT Madras, Chennai, India, December 15-17, 2016.
90. Kumar, G., Cecchin, I., Thomé, A., and Reddy, K.R. (2016). "Failure of coal ash containment facilities: Causes, impacts, remediation, and lessons learned." *Proceedings of 5th International Conference on Forensic Geotechnical Engineering*, Indian Institute of Science, Bangalore, India, December 8-10, 2016, pp: 145-156.
91. Reddy, K.R., and Kumar, G. (2016). "Coupled hydro-bio-mechanical modeling of bioreactor landfills: New modeling framework and research challenges." *Proceedings of the US-India Workshop on Establishing Linkages between Geo-environmental Practices and Sustainability*, August 18, 2016, Chicago, IL, USA.
92. Carpenter, P.J., and Reddy, K.R. (2016). "Geophysical imaging of landfill interiors: Examples from Northern Illinois, USA." *Proceedings of the US-India Workshop on Establishing Linkages between Geo-environmental Practices and Sustainability*, August 18, 2016, Chicago, IL, USA.
93. Amaya-Santos, G., and Reddy, K.R. (2016). "Field-scale phytoremediation of mixed contaminants in upland area at Big Marsh site, Chicago, USA." Keynote lecture, *Proceedings of the International Conference on Soil and Environment*, Indian Institute of Science, Bangalore, India, July 22-23, 2016.
94. Reddy, K.R. (2016). "Fundamental research on geochemical processes for the development of resilient and sustainable geosystems." *Proceedings of Workshop on Geotechnical Fundamentals in the Face of New World Challenges*, National Science Foundation, Arlington, VA, July 17-19, 2016.
95. Reddy, K.R., and Giri, R.K. (2015), "Assessing sustainability of ground improvement methods: Quantitative triple bottom line framework and case study." *Keynote lecture, Proceedings of the International Conference on Infrastructure Development for Environmental Conservation and Sustenance (INDECS-15)*, Hosur, Tamilnadu, India, pp. 35-44 (ISBN 978-194384621-4).
96. Reddy, K.R. (2015), "Green and sustainable remediation: New paradigm shift to cleanup polluted sites." *Keynote lecture paper, Proceedings of the VIII Congresso Brasileiro de*

- Geotecnia Ambiental (REGEO' 2015)*, Brasília-DF, Brazil, July 19-21, 2015.
97. Reddy, K.R., and Basha, B.M. (2014), "Slope stability of waste dumps and landfills: State-of-the-art and future challenges." *Keynote lecture paper, Indian Geotechnical Conference 2014 (IGC2014)*, Kakinada, India, December 2014.
  98. Reddy, K.R., and Giri, R.K. (2014), "Integrating sustainability into civil infrastructure design." *Keynote lecture paper, International Conference on Sustainable and Innovative Construction Technologies (ICSICT)*, Coimbatore, India, December 15-16, 2014.
  99. Reddy, K.R., and Giri, R.K. (2014), "Sustainability (triple bottom line) design of civil infrastructure: Methodology and case studies." *Keynote lecture paper, 5th International Conference on Sustainable Built Environment 2014 (ICSBE)*, Kandy, Sri Lanka, December 12-15, 2014.
  100. Srivastava, A., Reddy, K.R., and Babu, G.L.S. (2014), "Geotechnical characterization of MSW and stability of analysis of MSW landfill slopes." *Proceedings of the National Conference GEN 2014*, MNNIT, Allahabad, October 11-12, 2014.
  101. Reddy, K.R. and Giri, R.K. (2014), "Life cycle assessment and sustainable design of civil infrastructure." *Keynote lecture paper, International Conference on Advances in Civil Engineering for Sustainable Development*, Suranaree University of Technology, Nakhon Ratchasima, Thailand, August 27-29, 2014.
  102. Karaca, O., and Reddy, K.R. (2014), Environmental Assessment of Mine Tailings: Can-Etili Basin (Turkey) As A Case Study, *Proc. 14th International Multidisciplinary Scientific Geoconference & Expo (SGEM 2014)*, Albena Resort, Bulgaria, June 17-26, 2014.
  103. Reddy, K.R., Anderson, S., Beena, K.S., Burken, J., Gingery, J.R., Kolev, C., Rosyidi, S.A.P., and Yano, Y. (2013). "General report- session 6 – Case histories on soil property improvement & case histories on geo-environmental problems." *Proc. 7th International Conference on Case Histories in Geotechnical Engineering*, Wheeling, IL. [PDF File](#).
  104. Reddy, K.R., and Chirakkara, R.A. (2012). "Green and sustainable remedial strategy for contaminated site: Case study." *Proc. 17th Great Lakes Geotechnical and Geoenvironmental Conference*, Cleveland, OH.
  105. Carpenter, P.J., and Reddy, K.R. (2011). "Refuse conductivity variations following leachate injection in a bioreactor landfill cell: Modeling EM results and comparison with well logs." *Proc. SAGEEP 2011*.
  106. Reddy, K.R. (2011). "Green and sustainable remediation." *Proc. 26th International Conference on Solid Waste Technology and Management*, Philadelphia, PA, 316-334. [PDF File](#).
  107. Yaghoubi, P., Yue, D., and Reddy, K.R. (2011). "Adsorption of methane in biochar amended landfill cover soil: Preliminary research findings." *Proc. 26th International Conference on Solid Waste Technology and Management*, Philadelphia, PA, 660-670. [PDF File](#).
  108. Reddy, K.R., and Kulkarni, H.K. (2010). "Effect of vertical well configuration on leachate distribution in bioreactor landfills." *Proc. 2nd International Conference on Waste Engineering and Management (ICWEM 2010)*, Shanghai, China, 357-367. [PDF File](#).
  109. Reddy, K.R., and Kulkarni, H.S. (2010). "Effect of inhomogeneous anisotropic MSW on leachate distribution using vertical wells in bioreactor landfills." *Proc. International Symposium on Environmental Geotechnology and Global Sustainable Development, ISEG 2010*, Beijing, China, 80-86. [PDF File](#).
  110. Reddy, K.R., and Kulkarni, H.S. (2010). "Modeling of horizontal trench systems for leachate recirculation in bioreactor landfills." *Proc. 25th International Conference on Solid Waste Technology and Management*, Philadelphia, PA, 643-656. [PDF File](#).
  111. Darko-Kagya, K., and Reddy, K.R. (2009). "Nanotechnology for decontamination of polluted ground: Fundamentals and applications." *Proc. International Conference on Infrastructure Development on Expansive Soils*, Hosur, India. [PDF File](#).

112. Reddy, K.R., Gangathulasi, J., Parakalla, N., Bogner, J., Carpenter, P., and Lagier, T. (2009). "Field monitoring and performance assessment of Orchard Hills bioreactor landfill." *Proc. NSF Engineering Research and Innovation Conference*, Honolulu, HI, 13p.[PDF File](#).
113. Reddy, K.R., Khodadoust, A., and Darko-Kagya, K. (2009). "Transport and reactivity of nanoscale iron particles for remediation of recalcitrant organic pollutants in soils." *Proc. NSF Engineering Research and Innovation Conference*, Honolulu, HI, 12p.[PDF File](#).
114. Reddy, K.R., and Darko-Kagya, K. (2008). "Remediation of contaminated subsurface using nanoscale iron particles." *Proc. Indian Geotechnical Conference on Advances in Geotechnical Engineering*, Plenary and Keynote Lectures, Bangalore, India, 1, 341-357.[PDF File](#).
115. Reddy, K.R., and Adams, J.A. (2008). "Conceptual modeling of air sparging for groundwater remediation." *Proc. 9<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development*, Hong Kong.
116. Reddy, K.R., and Karri, M.R. (2008). "Electrokinetic delivery of nanoiron amended with surfactant and cosolvent in contaminated soil." *Proc. International Conference on Waste Engineering and Management*, Hong Kong.[PDF File](#).
117. Khodadoust, A.P., Reddy, K.R., Darko-Kagya, K., and Vardhan, S. (2008). "Transport and reactivity of lactate-modified RNIP in subsurface soil." *Proc. 6<sup>th</sup> International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, CA.
118. Reddy, K.R. (2007). "Transport of modified reactive nanoscale iron particles in subsurface soils." *Proc. Nanotechnology for Site Remediation Workshop, EPA 905K07001*, USEPA, Region 5 Superfund Division, Chicago, p.11.
119. Vaishya, R.C., Sathy, M.M., and Reddy, K.R. (2007). "Prevention of groundwater contamination through reactive barrier material (RBM) for use in landfill liners and *in situ* barriers to immobilize chromium." *Proc. 6<sup>th</sup> International IAHS Groundwater Quality Conference*, Fremantle, Western Australia.[PDF File](#).
120. Reddy, K.R., and Karri, M.R. (2007). "Electrokinetic delivery of nanoscale iron particles for in-situ remediation of pentachlorophenol-contaminated soils." *Proc. International Symposium on Geo-Environmental Engineering for Sustainable Development*, Xuzhou, China.
121. Reddy, K.R., Khodadoust, A.P., and Karri, M.R. (2007). "Electrokinetic delivery of nanoscale iron particles for remediation of pentachlorophenol in clay soil." *Proc. 6<sup>th</sup> Symposium on Electrokinetic Remediation*, Vigo, Spain, 7-8.[PDF File](#).
122. Reddy, K.R. (2007). "Integrated electrokinetic remediation technologies: Opportunities and challenges." *Proc. 6<sup>th</sup> Symposium on Electrokinetic Remediation*, Vigo, Spain, 105-106. [PDF File](#).
123. Grellier, S., Reddy, K.R., Gangathulasi, J., Adib, R., and Peters, C. (2007). "US MSW and its biodegradation in a bioreactor landfill." *Proc. Sardinia 2007, 11<sup>th</sup> International Waste Management and Landfill Symposium*, S. Margherita di Pula, Cagliari, Italy, 10p.[PDF File](#).
124. Harper, B.E., and Reddy, K.R. (2007). "Design and construction of structures on closed landfills." *Proc. National Conference on Foundations and Retaining Structures*, IIT Roorkee, India.
125. Reddy, K.R. (2006). "Geotechnical aspects of bioreactor landfills." *Proc. Indian Geotechnical Conference 2006- Geotechnical Engineering- Indian Experience*, IIT Madras, India.[PDF File](#).
126. Reddy, K.R. (2006). "Transport of modified reactive nanoscale iron particles in subsurface soils." *Proc. Nanotechnology for Site Remediation Workshop, EPA 905K07001*, USEPA, Region 5 Superfund Division.[PDF File](#).
127. Grellier, S., Reddy, K., Gangathulasi, J., Adib, R., and Peters, C. (2006). "Electrical resistivity tomography imaging of leachate recirculation in orchard hills landfill." *Proc. SWANA Conference*, Charlotte, 7p.[PDF File](#).
128. Reddy, K.R. (2006). "Soil and Geosynthetic liner systems for municipal solid waste landfills." *Proc. International Conference on Infrastructure Development on Expansive Soils*, Erode, India,

- 37-56.
129. Reddy, K.R., and Karri, M.R. (2005). "Coupled Fenton-like oxidation and electrokinetic remediation of contaminated mixtures." *Proc. 4<sup>th</sup> International Conference on Oxidation and Reduction Technologies for In-Situ Treatment of Soil and Groundwater*, Chicago, IL.
  130. Janardhanan, G., Reddy, K.R., and Ilamparuthi, K. (2005). "Stress-strain and strength characteristics of municipal solid waste." *Proc. National Conference on Geotechnics in Environmental Protection*, NIT Allahabad, India.
  131. Reddy, K.R. (2004). "Subsurface contaminant remediation: regulations and case studies." *Proc. Indian Geotechnical Conference on Ground Engineering: Emerging Techniques*, Warangal, India, 2, 108-111. [PDF File](#).
  132. Sethy, M.M., Vaishya, R.C., Reddy, K.R. (2004). "Development of reactive barrier material for use in landfill liners and in-situ barriers to immobilize chromium." *Proc. Indian Geotechnical Conference on Ground Engineering: Emerging Techniques*, Warangal, India, 1, 541-544. [PDF File](#).
  133. Reddy, K.R. (2004). "Geoenvironmental engineering: Challenges and opportunities." *Proc. National Symposium on Advances in Geotechnical Engineering*, IISc Bangalore, India, 101-103.
  134. Roach, N., and Reddy, K.R. (2004). "Electrokinetic delivery of permanganate into low permeability soils." *Proc. 7<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development*, Helsinki, Finland, 2004.
  135. Reddy, K.R., and Bogner, J.E. (2003). "Bioreactor landfill engineering for accelerated stabilization of municipal solid waste." *Proc. International e-Conference on Modern Trends in Foundation Engineering: Geotechnical Challenges and Solutions*, IIT Madras, India, 22p. [PDF File](#).
  136. Rockne, K.J., and Reddy, K.R. (2003). "Bioremediation of contaminated Sites." *Proc. International e-Conference on Modern Trends in Foundation Engineering: Geotechnical Challenges and Solutions*, IIT Madras, India, 22p. [PDF File](#).
  137. Reddy, K.R. (2003). "Remediation of groundwater contaminated with benzene (LNAPL) using in-situ air sparging." *Proc. 2003 Korean Society of Soil and Groundwater Environment*, Jeju, Korea, 11-24.
  138. Reddy, K.R., and Roach, N. (2003). "Electrokinetic delivery of oxidants for subsurface remediation." *Proc. Symposium on Use of Electrical Fields in the Remediation of Contaminated Soils, Sediments, and Groundwater*, Division of Environmental Chemistry, ACS National Meeting, New Orleans, LA, 43(1), 741-747.
  139. Reddy, K.R. (2002). "Assessment and remediation of contaminated sites." *Proc. Indian Geotechnical Conference- Keynote Presentations*, Allahabad, India.
  140. Reddy, K.R., Marella, A., and Ala, P. (2002). "Transmissivity behavior of shredded scrap tire drainage layer in landfill covers system." *Proc. 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development*, Seoul, Korea, 277-285. [PDF File](#).
  141. Tekola, L., and Reddy, K.R. (2002). "Remediation of DNAPLs in groundwater using in-situ air sparging." *Proc. 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development*, Seoul, Korea, 187-193.
  142. Chaparro, C., and Reddy, K.R. (2002). "Technologies for the remediation of mercury-contaminated soils." *Proc. 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development*, Seoul, Korea, 149-157.
  143. Reddy, K.R., and Chaparro, C. (2002). "Electrokinetic decontamination of mercury-polluted soils." *Proc. ACS National Meeting*, Division of Environmental Chemistry, Orlando, FL.
  144. Reddy, K.R., and Al-Hamdan, A.Z. (2002). "Effect of treatment time and voltage gradient on migration of heavy metals in soils during electrokinetics." *Proc. Water Environment Federation*.
  145. Bogner, J., Reddy, K., and Spokas, K. (2001). "Dynamic water balance aspects of bioreactor



- landfills." *Proc. 8<sup>th</sup> International Waste Management and Landfill Symposium*, Sardinia, Italy, 293-302.[PDF File](#).
146. Reddy, K.R., and Marella, A. (2001). "Properties of different size scrap tire shreds: Implications on using as drainage material in landfill cover systems." *Proc. 17<sup>th</sup> International Conference on Solid Waste Technology and Management*, PA.[PDF File](#).
  147. Reddy, K.R., and Chaparro, C. (2001). "Electrokinetic remediation of mercury-contaminated soils." *Proc. International Conference on Containment & Remediation Technology*, Orlando, FL.
  148. Reddy, K.R. (2001). "Integrated electrokinetic technology for the remediation of contaminated soils and groundwater." *Proc. Symposium on Environmental Science and Technology*, University of Illinois at Chicago, Chicago, IL, 8p.
  149. Reddy, K.R. (2000). "Geotechnics of contaminated site remediation and waste containment: An overview." *Proc. Indian Geotechnical Conference- Keynote Presentations*, Bombay, India, 35-40.[PDF File](#).
  150. Reddy, K.R. (2000). "Cleanup options for brownfields sites." *Proc. 8<sup>th</sup> Great Lakes Geotechnical and Geoenvironmental Conference on Geotechnology for Urban Renewal and Redevelopment*, Detroit, MI, 75-88.
  151. Reddy, K.R. (1999). "Use of glass cullet as backfill material for retaining structures." *Proc. 15<sup>th</sup> International Conference on Solid Waste Technology and Management*, PA.[PDF File](#).
  152. Li, A., Cheung, K.A., Reddy, K.R., and Wadden, R.A. (1999). "Effect of cosolvents on the desorption and electrokinetic transport of PAHs in soils." *Proc. Air & Waste Management Association Annual Meeting*, St. Louis, MO.
  153. Adams, J.A., Hirl, P.J., and Reddy, K.R. (1999). "In-situ biosparging for the remediation of hydrocarbon contaminated groundwater." *Proc. 9<sup>th</sup> Annual West Coast Conference on Contaminated Soils and Water*, Oxnard, CA.
  154. Reddy, K.R., and Motan, E.S. (1998). "Shear behavior of different geosynthetics interfaces in landfill liner systems." *Proc. Indian Geotechnical Society Golden Jubilee Conference- IGC 98*, New Delhi, India, 1, 295-300.[PDF File](#).
  155. Reddy, K.R., and Saichek, R.E. (1998). "Characterization and performance assessment of shredded scrap tires as leachate drainage material in landfills." *Proc. 14<sup>th</sup> International Conference on Solid Waste Technology and Management*, PA.[PDF File](#).
  156. Reddy, K.R., Xu, C.Y., and Chinthamreddy, S. (1997). "Speciation of heavy metals in clays during electrokinetic remediation." *Proc. Symposium on Emerging Technologies in Hazardous Waste Management IX*, Industrial & Engineering Chemistry Division, American Chemical Society, PA, 124-127.
  157. Adams, J.A., and Reddy, K.R. (1997). "The effect of grain size distribution on air sparging efficiency." *Proc. 4<sup>th</sup> International Symposium on In Situ and On-Site Bioremediation*, New Orleans, LA, Vol.1, 165-172.[PDF File](#).
  158. Adams, J.A., and Reddy, K.R. (1997). "Synergistic effects of multiple contaminants on air sparging." *Proc. 59<sup>th</sup> Annual American Power Conference*, Chicago, IL, 228-233.
  159. Semer, R., Adams, J.A., and Reddy, K.R. (1996). "Surfactant-enhanced air sparging for groundwater remediation: Preliminary results." *Proc. 4<sup>th</sup> Geotechnical and Geoenvironmental Conference on In-Situ Remediation of Contaminated Sites*, Chicago, IL, 197-213.
  160. Parupudi, U.S., and Reddy, K.R. (1996). "Electrokinetic remediation of electroplating waste sites." *Proc. 4<sup>th</sup> Geotechnical and Geoenvironmental Conference on In-Situ Remediation of Contaminated Sites*, Chicago, IL, 141-150.
  161. Reddy, K.R., and Zhou, J. (1996). "Development of air sparging model for groundwater remediation." *Proc. 4<sup>th</sup> Geotechnical and Geoenvironmental Conference on In-Situ Remediation of Contaminated Sites*, Chicago, IL, 215-225.
  162. Reddy, K.R., Parupudi, U.S., and Devulapalli, S. (1996). "Electrokinetic remediation of soils

- contaminated with electroplating wastes." *Proc. 58<sup>th</sup> Annual American Power Conference*, Chicago, IL, 342-346.
163. Reddy, K.R., and Parupudi, U.S. (1995). "Electrokinetic removal of chromium from glacial clays." *Proc. 8<sup>th</sup> International IGT Symposium on Gas, Oil, and Environmental Biotechnology*, Colorado Springs, CO.
  164. Ruetten, M., Bandi, S., and Reddy, K.R. (1995). "Rational design approach for landfill liner protective soil cover." *Proc. 18<sup>th</sup> International Madison Waste Conference*, Madison, WI, 302-308.[PDF File](#).
  165. Reddy, K.R., Kolloju, P., Ruetten, M., and Bandi, S. (1995). "Characterization of Protective cover soils for landfill geomembrane liners." *Proc. 3<sup>rd</sup> Great Lakes Geotechnical/Geoenvironmental Conference*, Cleveland, OH, 117-143.[PDF File](#).
  166. Oliver, C., and Reddy, K.R. (1995). "Roadway subgrade improvement using geotextiles - A case study." *Proc. 3<sup>rd</sup> Great Lakes Geotechnical/Geoenvironmental Conference*, Cleveland, OH, 183-195.[PDF File](#).
  167. Reddy, K.R., Zhou, J., and Kosgi, S. (1995). "New model to simulate air sparging for groundwater remediation." *Proc. 5<sup>th</sup> Annual WERC Technology Development Conference*, Las Cruces, NM, 299-308. This paper received the Best Paper Award, Technology Development Conference, U.S. Department of Energy, 1995.
  168. Reddy, K.R., and Motan, E.S. (1994). "Behavior of geocomposite landfill liner systems under incremental loading conditions." *Proc. 2<sup>nd</sup> Annual Great Lakes Geotechnical/Geoenvironmental Conference*, Purdue University, West Lafayette, IN, 167-185.
  169. Reddy, K.R., and Schuh, J.C. (1994). "Groundwater contamination due to seepage from surface impoundments." *Proc. 4<sup>th</sup> Annual WERC Technology Development Conference*, Las Cruces, NM, 319-329.[PDF File](#).
  170. Saxena, S.K., and Reddy, K.R. (1990). "Behavior of cemented sands under dynamic loading." *Proc. 8<sup>th</sup> Earthquake Engineering Symposium*, Tokyo, Japan, 757-764.
  171. Saxena, S.K., Reddy, K.R., and Avramidis, A. (1988). "Dynamic behavior of artificially cemented sands." *Proc. 9<sup>th</sup> World Conference on Earthquake Engineering*, Tokyo-Kyoto, Japan, 3, 41-46.
  172. Saxena, S.K., Reddy, K.R., and Sengupta, A. (1987). "Verification of a constitutive model for granular materials." *Proc. International Workshop on Constitutive Equations for Granular Non-cohesive Soils*, Cleveland, Balkema Publishers, 629-645.[PDF File](#).
  173. Saxena, S.K., and Reddy, K.R. (1987). "Behavior of cement stabilized sands." *Proc. Indian Geotechnical Conference*, Bangalore, India, 1, 341-344.
  174. Saxena, S.K., and Reddy, K.R. (1987). "Dynamic properties of sands at low strain amplitudes." *Proc. Pacific Conference on Earthquake Engineering*, Wairakei, New Zealand, 3, 61-72.
  175. Saran, S., and Reddy, K.R. (1984). "Behavior of soils, foundations and slopes during earthquakes." *Proc. International Symposium on Creation of Awareness about Earthquake Hazards and Mitigation of Seismic Risks*, Roorkee, India, 19-24.

## PRESENTATIONS

### Invited Plenary and Keynote Presentations

1. "Addressing Sustainable Technologies in Geotechnical and Geoenvironmental Engineering." Indian Geotechnical Conference, Indian Institute of Technology Guwahati, December 15, 2017.
2. "Bioreactor Landfills and Leachate Recirculation." GEOSUL 2017, XI Simpósio de Prática de Engenharia Geotécnica da Região Sul, Bento Gonçalves, Rio Grande do sul, July 28, 2017.
3. "Sustainability and Life Cycle Thinking in Geotechnical and Geoenvironmental Engineering." GEORS 2017- IX Seminario De Engenharia Geotecnica Do Rio Grande Do Sul, Universidade

- De Caxias Do Sul, Brazil, April 27, 2017.
4. "Practical Technologies for Polluted Site Remediation: USA Perspective." The 3rd China National Symposium on Geoenvironmental Engineering, Nanjing, China, November 12, 2016.
  5. "Sustainable Bioengineered Cover Systems for Waste Dumps and Landfills." COBRAMSEG/SBMR 2016: XVIII Brazilian Conference on Soil Mechanics and Geotechnical Engineering, Belo Horizonte, Brazil, October 19-22, 2016.
  6. "Field-Scale Phytoremediation of Mixed Contaminants in Upland Area at Big Marsh Site, Chicago, USA." International Conference on Soil and Environment, Indian Institute of Science, Bangalore, July 22-23, 2016.
  7. "Climate Change, Resiliency and Sustainability: Perspectives on Engineering Challenges." Keynote Lecture, Sustainability in Engineering IV Encontro de Engenheiros e Arquitetos do Norte do RS (EENAR2016), University of Passo Fundo-RS, Brazil, May 11, 2016.
  8. "Urban Infrastructure: Innovation and Sustainability." II Encontro Nacional de Tecnologia Urbana, V Simpósio de Pós-Graduação em Engenharia Urbana e o II Simpósio de Infraestrutura e Meio Ambiente, Universidade de Passo Fundo (UPF), Passo Fundo (RS), Brazil, November 12, 2015.
  9. "Assessing Sustainability of Ground Improvement Methods: Quantitative Triple Bottom Line Framework and Case Study." International Conference on Infrastructure Development for Environmental Conservation and Sustenance (INDECS-15), Hosur, Tamilnadu, India, October 28-30, 2015.
  10. "Green and Sustainable Remediation: New Paradigm Shift to Cleanup Polluted Sites." VIII Congresso Brasileiro de Geotecnia Ambiental (REGEO' 2015) e do VII Congresso Brasileiro de Geossintéticos (Geossintéticos' 2015), Brasília-DF, Brazil, July 19-21, 2015.
  11. "Integrating Sustainability into Waste Containment System Design: Framework and Examples." Global Waste Research Institute (GWRI) Geoenvironmental Engineering Symposium, Cal Poly-San Luis Obispo, CA, February 13, 2015.
  12. "Can Solidification/Stabilization be Sustainable Technology for Remediation of Metal Contaminated Soils?" International Workshop on Solidification/Stabilization of Industrially Heavy Metal Contaminated Soils, Beijing, China, May 1, 2015.
  13. "New Binders and Construction Methods for Solidification/Stabilization of Metal Contaminated Soils: US Perspectives." International Workshop on Solidification/Stabilization of Industrially Heavy Metal Contaminated Soils, Beijing, China, May 1, 2015.
  14. "Slope Stability of Waste Dumps and Landfills: State-of-the-Art and Future Challenges." Indian Geotechnical Conference (IGC2014), Kakinada, India, December 18-20, 2014.
  15. "Integrating Sustainability into Civil Infrastructure Design." International Conference on Sustainable and Innovative Construction Technologies (ICSICT 2014), Karunya University, Coimbatore, India, December 15-16, 2014.
  16. "Sustainable (Triple Bottom Line) Design of Civil Infrastructure: Case Studies." 5th International Conference on Sustainable Built Environment (ICSBE), Kandy, Sri Lanka, December 12-15, 2014.
  17. "Bioreactor Landfills for MSW Rapid Degradation: Modeling, Optimization and Performance." XIV Congreso Internacional en Disposición Final de Residuos Sólidos y Perspectivas Ambientales, Pereira-Colombia, September 24-26, 2014.
  18. "Future Directions for Electrokinetic Remediation Research." 13th symposium on electrokinetic remediation (EREM2014), University of Málaga (UMA), Spain, September 7-10, 2014.
  19. "Application of Life Cycle Assessment (LCA) for Sustainable Infrastructure Design." International Conference on Advances in Civil Engineering for Sustainable Development, Suranaree University of Technology, Nakhon Ratchasima, Thailand, August 27-29, 2014.
  20. "Sustainable Landfill Biocover." 24<sup>th</sup> Annual Solid Waste Technical Conference, The

- Engineering Society of Detroit & Michigan Waste Industries Association, East Lansing, MI, March 18, 2014.
21. "LCA and Sustainability Assessment for Selecting Deep Foundation System for High-rise Buildings." Arab American Association of Architects and Engineers (AAAEA) Fall Conference, Hillside, IL. November 23, 2013.
  22. "Quantifying Social Aspects of Sustainable Remediation: Classroom Examples." Sustainable Remediation Forum (SURF) Meeting, Chicago, IL. July 25, 2013.
  23. "Electrokinetic Remediation of Soils at Complex Contaminated Sites: Technology Status, Challenges, and Opportunities." Symposium on Coupled Phenomena in Environmental Geotechnics (CEPG), Politecnico Di Torino, Torino, Italy. July 3, 2013.
  24. "General Report on Case Studies on Ground Improvement and Geoenvironmental Engineering." Seventh Case Histories in Geotechnical Engineering, Wheeling, IL. May 2, 2013.
  25. "Use of Biochar in Landfill Cover Systems to Enhance Methane Oxidation." Keynote Lecture, Purdue Geotechnical Society Workshop, Purdue University, West Lafayette, IN. April 19, 2013.
  26. "New Approach to Assess Piping Potential in Earth Dams and Levees." Indo-US Workshop on Strides in Infra-Development on Expansive and Soft Soils, Indian Institute of Technology, Hyderabad, India. June 27, 2012.
  27. "Geotechnics for Sustainable Environment." Feature Lecturer, GEOMO2012, Missouri University of Science & Technology, Rolla, MO; Presented 6 lectures on landfill liners/covers, bioreactor landfills, green/sustainable remediation, electrochemical remediation, and environmental nanotechnology. April 27, 2012.
  28. "State-of-the-Practice of Characterization and Remediation of Contaminated Sites." Keynote Lecture, GeoCongress2012-ASCE, Oakland, CA. March 26, 2012.
  29. "Green and Sustainable Remediation of Polluted Sites." Institute for Geo-Resources and Environment (Geological Survey of Japan), National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan. October 4, 2011.
  30. "Emerging Trends in Remediation of Contaminated Sites in the United States." US-Japan Workshop on Geoenvironmental Engineering, Kyoto, Japan, October 6, 2011.
  31. "Characterization and Remediation of Contaminated Sites." Association of Engineering Geologists, North Central Section, Chicago, IL. October 18, 2011.
  32. "Lactate-Modified Nanoscale Iron Particles for In-Situ Remediation of Organic Pollutants." RemTEC Summit, Wheeling, Illinois. May 19, 2011.
  33. "Geothermal Heating and Cooling Systems at UIC and Elsewhere." ASCE Illinois Section Geotechnical/Geotech Group Meeting. April 13, 2011.
  34. "Nanotechnology for Site Remediation: Dehalogenation of Organic Pollutants by Nanoscale Iron Particles." Plenary Lecture, 6<sup>th</sup> International Congress on Environmental Geotechnics, New Delhi, India. November 10, 2010.
  35. "Foundations and Earth Retention Systems in Chicago." Invited Presentation, Symposium on Selected Topics in Geotechnical Engineering (STINGE – 2010), J.N. Technological University, Hyderabad, India. November 4, 2010.
  36. "Nanotechnology for Site Remediation." Invited Presentation, National Geophysical Research Institute, Hyderabad, India. November 3, 2010.
  37. "Electrokinetic/Electrochemical Remediation of Polluted Soils and Groundwater." American Institute of Professional Geologists (AIPG)-Illinois/Indiana Section, Spring Meeting, Lisle, IL. April 22, 2010.
  38. "Pile Foundations." ASCE Illinois Section Young Member Group Meeting, Chicago, IL. January 20, 2010.
  39. "Geotechnical Engineering for Pollution Control and Remediation." Keynote Presentation, International Conference on Advances in Concrete, Structural and Geotechnical Engineering,

- Birla Institute of Technology & Science, Pilani, India. October 25, 2009.
40. "Modeling Leachate Recirculation and Geotechnical Stability of Bioreactor Landfills: Approach and Data Needs." Veolia Center for Research, Limay, France. October 2, 2009.
  41. "Nanotechnology for Decontamination of Polluted Ground: Fundamentals and Applications." Keynote Presentation, International Conference on Developments on Expansive Soils (INDEX-09), Hosur, India. August 28, 2009.
  42. "Bioreactor Landfill Engineering: A Sustainable Approach to Manage Municipal Solid Waste." IIT Solid Waste Conference, Chicago, IL. May 1, 2009.
  43. "Remediation of Contaminated Subsurface Using Nanoscale Iron Particles." Keynote Presentation, Indian Geotechnical Conference, Bangalore, India. December 15, 2008.
  44. "Containment Wall Construction at DNAPL-Contaminated Site." Hong Kong Institute of Engineers-Environmental Division, HKIE Headquarter, Hong Kong, May 29, 2008.
  45. "Chemical Oxidation and Reduction of Environmental Pollutants: An Integral Component of Green Remediation." Keynote Presentation, Adventus/Carcus/FMC Workshop on Integration of Technologies, Schaumburg, IL. March 27, 2008.
  46. "Advances in Electrokinetic Remediation of Contaminated Sites." Environmental Science Research Institute, School of Environmental Science and Engineering, Huazhong University of Science and Technology (HUST), China. October 27, 2007.
  47. "Integrated Electrokinetic Remediation Technologies." Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China. October 25, 2007.
  48. "Nanotechnology for Contaminated Site Remediation." International Symposium on Geo-Environmental Engineering for Sustainable Development, Xuzhou, China. October 23, 2007.
  49. "Monitoring and Performance Assessment of Bioreactor Landfills." Department of Environmental Science and Engineering, Tsinghua University, Beijing, China. October 22, 2007.
  50. "Technical Challenges to In-Situ Remediation of Polluted Sites." First Sri Lanka Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka. August 9, 2007.
  51. "Electrokinetic Delivery of Nanoscale Iron Particles for Remediation of Pentachlorophenol in Clay Soil." 6<sup>th</sup> Symposium on Electrokinetic Remediation, Vigo, Spain. June 14, 2007.
  52. "Performance Assessment of Bioreactor Landfills." Association of Environmental & Engineering Geologists-North Central Section Meeting, Chicago, IL. March 20, 2007.
  53. "Geotechnical Aspects of Bioreactor Landfills." Keynote Presentation, Indian Geotechnical Conference, Indian Institute of Technology, Madras, India. December 15, 2006.
  54. "Physical and Chemical Groundwater Remediation Technologies." NATO Advanced Study Institute on Overexploitation and Contamination of Shared Groundwater Resources: Management, (Bio)technological, and Political Approaches to Avoid Conflicts, Varna, Bulgaria. October 9, 2006.
  55. "Enhanced Aquifer Recharge." NATO Advanced Study Institute on Overexploitation and Contamination of Shared Groundwater Resources: Management, (Bio)technological, and Political Approaches to Avoid Conflicts, Varna, Bulgaria. October 7, 2006.
  56. "Remediation of Contaminated Sediments." Workshop on Remediation at 5<sup>th</sup> International Congress on Environmental Geotechnics, Cardiff, Wales, UK. June 29, 2006.
  57. "Technologies for Contaminated Sediment Remediation." 3<sup>rd</sup> International Symposium on Contaminated Sediments, Shizuoka, Japan. May 24, 2006.
  58. "Integrated Electrochemical Remediation of Contaminated Sites: Challenges and Opportunities." Colloquium Honoring Dr. Tamas Meggyes, Federal Institute for Materials Research and Testing (BAM), Berlin, Germany. February 24, 2006.
  59. "Dynamic Water Balance and Geotechnical Stability of Bioreactor Landfills." Workshop on Waste Containment, Federal Institute for Materials Research and Testing (BAM), Berlin, Germany.

- February 21, 2006.
60. "Soil and Geosynthetic Liner Systems for Municipal Solid Waste Landfills." Keynote Presentation, INDEX 2006-International Conference on Infrastructure Development on Expansive Soils, Erode, India. February 2, 2006.
  61. "Interface Shear Behavior of Landfill Composite Liners." Keynote Presentation, Japan-Korea Workshop on Geoenvironmental Engineering, Seoul National University, Seoul, Korea. June 4, 2005.
  62. "Subsurface Contaminant Remediation: Regulations and Case Studies." Keynote Presentation, Indian Geotechnical Conference, Warangal, India. December 19, 2004.
  63. "Geoenvironmental Engineering for Pollution Control and Remediation." Keynote Presentation, Symposium on Awareness of Geoenvironmental Engineering, J.N. Technological University, Kukatpally, Hyderabad, India. December 14, 2004.
  64. "Geoenvironmental Engineering: Challenges and Opportunities." Keynote Presentation, National Symposium on Advances in Geotechnical Engineering (NSAGE-2004), Indian Institute of Sciences, Bangalore, India. July 23, 2004.
  65. "In-Situ Air Sparging for Contaminated Groundwater Remediation: Effects of System Variables." Keynote Lecture, Fall Meeting of Korean Society of Soil and Groundwater Environment, Jeju, Korea. September 26, 2003.
  66. "Assessment and Remediation of Contaminated Sites." Keynote Presentation, Indian Geotechnical Conference, Allahabad, India. December 21, 2002.
  67. "Geotechnics of Contaminated Site Remediation and Waste Containment: An Overview." Keynote Presentation, Indian Geotechnical Conference, Indian Institute of Technology-Bombay, India. December 12, 2000.

#### **Invited Seminars/Webinars**

68. "Life Cycle Sustainability Assessment in Geotechnical and Geoenvironmental Engineering." Department of Civil Engineering, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, May 3, 2017.
69. "Climate Change, Resiliency and Sustainability: Perspectives on Engineering Challenges." UNC Charlotte: Department of Civil & Environmental Engineering, Seminar, September 29, 2016.
70. "Geoenvironmental Engineering Challenges and Opportunities." Indian Geotechnical Society-Bhubaneswar Chapter, Bhubaneswar, India, August 4, 2016.
71. "Sustainable Urban Infrastructure and Environment: Chicago Example." College of Engineering, Bhubaneswar, India, July 31, 2016.
72. "Resilient and Sustainable Site Remediation: New Pathway Forward." State University of Rio de Janeiro, Brazil May 5, 2016.
73. "Protecting Beaches from Urban Stormwater Contamination." UIC Freshwater Lab and EOHS Seminar Class on Water and Health, April 5, 2016.
74. "Permeable Reactive Filter System for Treatment of Urban Stormwater Runoff." EWRI Sustainability Committee Meeting Webinar, March 16, 2016.
75. "Sustainable Design of Civil Infrastructure Systems." Department of Civil Engineering, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, July 24, 2015.
76. "Use of Biochar as Soil Cover Amendment for Landfill Gas Mitigation." China University of Mining and Technology, Beijing, China, December 29, 2014.
77. "Biochar as a Landfill Cover Amendment for Methane Mitigation: Coupled Field and Laboratory Investigations." School of Environment, Tsinghua University, December 25, 2014.
78. "Green and Sustainable Remediation of Polluted Sites." School of Environment, Tsinghua University, Beijing, China, December 24, 2014.
79. "Green and Sustainable Remediation of Polluted Sites." Department of Civil and Environmental

- Engineering, Syracuse, NY, October 31, 2014.
80. "Social Metrics for Sustainable Remediation." AECOM Webinar, Green/Sustainable Remediation (GSR) Technical Practice Group (TPG), May 27, 2014.
  81. "Solid Waste Disposal Challenges." Department of Civil Engineering, Osmania University, Hyderabad, India. August 12, 2013.
  82. "Waste Dumps: Problems and Solutions." J.N. Technological University, Hyderabad, India. August 7, 2013.
  83. "Electrokinetic Remediation of Contaminated Sites." Dipartimento di Ingegneria Civile, Edile e Ambientale, Università degli Studi di Roma "La Sapienza," Rome, Italy. July 5, 2013.
  84. "Leachate Recirculation in Bioreactor Landfills." Department of Geotechnical Engineering, School of Civil Engineering, Tongji University. China, May 23, 2013.
  85. "Green and Sustainable Remediation of Polluted Sites." Department of Civil Engineering, Zhejiang University, Hangzhou, China. May 22, 2013.
  86. "Green and Sustainable Remediation of Polluted Sites." Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China. May 21, 2013.
  87. "Electrochemical Remediation of Polluted Soils and Groundwater." Department of Geo-Engineering and Geo-informatics, Nanjing University, Nanjing, China. May 20, 2013.
  88. "Lactate-modified Nanoscale Iron Particles for the Remediation of Recalcitrant Organic Contaminants in Soils and Groundwater." Institute of Geotechnical Engineering, School of Transportation, Southeast University, Nanjing, China. May 19, 2013.
  89. "Use of Biochar in Landfill Cover Systems to Enhance Methane Oxidation, Institute of Geotechnical Engineering, School of Transportation, Southeast University, Nanjing, China. May 19, 2013.
  90. "Green and Sustainable Remediation of Polluted Sites." Department of Civil Engineering, University of Calgary, Canada. December 17, 2012.
  91. "Electrochemical Remediation of Soils and Groundwater." Department of Civil and Environmental Engineering, University of Michigan, Ann Arbor, MI. October 24, 2012.
  92. "Electrochemical Remediation of Polluted Soils and Groundwater." Department of Civil Engineering, Indian Institute of Science, Bangalore, India. July 9, 2012.
  93. "Landfill Liner and Cover Systems." Indian Geotechnical Society/Indian Institute of Technology, Chennai, India. June 22, 2012.
  94. "Overview of Structural Foundations in Chicago." Department of Civil Engineering, SV University, Tirupati, India. June 19, 2012.
  95. "Study on Leachate Recirculation at Orchard Hills Landfill." USEPA Region 5 RDD Bioreactor Webinar. February 27, 2012.
  96. "Biochar-amended Soil Cover for Mitigation of Methane Emissions." Geosyntec Consultants, Chicago, IL. February 7, 2012.
  97. "Monitoring of Leachate Recirculation and its Effects on Municipal Solid Waste at Bioreactor Landfills." Department of Civil Engineering, Hong Kong University, Hong Kong. May 6, 2011.
  98. "Green and Sustainable Remediation of Polluted Sites." Sustainability Lunch and Learn Seminar Series, Office of Vice Chancellor for Sustainability, University of Illinois at Chicago, Chicago, IL. December 9, 2010.
  99. "Lactate-modified Nanoscale Iron Particles for In-situ Dehalogenation of Organic Pollutants." Department of Building, Civil and Environmental Engineering, Concordia University, Montreal, Quebec, Canada. August 26, 2010
  100. "Green and Sustainable Site Remediation: Is it Hands-off Approach to do Nothing?." UIC/CME Environmental Research Seminar Series, University of Illinois at Chicago, Chicago, IL. March 10, 2010.
  101. "Leachate Recirculation and Geotechnical Stability of Bioreactor Landfills." Department of Civil

- Engineering, Indian Institute of Science, Bangalore, India. August 26, 2009.
102. "Nanotechnology for Decontamination of Polluted Soils and Groundwater." Environmental Occupational Health Sciences, School of Public Health, University of Illinois at Chicago, Chicago, IL. May 21, 2009.
  103. "Containment of Groundwater Pollution: A Case Study." College of Engineering, J.N. Technological University, Kukatpally, Hyderabad, India. December 16, 2008.
  104. "Climate Change and Water Crisis." Two-days seminar for UIC Chicago Teachers-as-Scholars program, organized by the University of Illinois at Chicago Graduate College, Chicago Newberry Library, Woodrow Wilson Foundation, Polk Foundation, and Fry Foundation. November 18-19, 2008.
  105. "Bioreactor Landfills: New Paradigm in Design and Operation of Municipal Solid Waste Landfills." Department of Civil, Architectural & Environmental Engineering, Illinois Institute of Technology, Chicago, IL. February 20, 2008.
  106. "Field Monitoring and Performance Evaluation of Bioreactor Landfills." UIC/CME Environmental and Water Resources Seminar Series, University of Illinois at Chicago, Chicago, IL. March 16, 2007.
  107. "Geotechnics of Bioreactor Landfills." SV University and Indian Geotechnical Society Tirupathi Chapter, Tirupathi, India. December 19, 2006.
  108. "Overview of Geotechnical and Geoenvironmental Engineering at UIC." Burns & McDonnell Company, Downers Grove, IL. November 9, 2006.
  109. "Environmental Remediation Research: Focus on Contaminated Sediments." USEPA Great Lakes National Program Office (GLNPO), Chicago, IL. August 24, 2006.
  110. "Environmental Pollution Control and Remediation: An Overview." UIC/CME Environmental Research Seminar Series, University of Illinois at Chicago, Chicago, IL. January 13, 2006.
  111. "Settlement of Municipal Solid Waste in Conventional and Bioreactor Landfills." Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL. April 21, 2005.
  112. "Interface Shear Behavior of Composite Liner Systems." Department of Civil and Environmental Engineering, Wayne State University, Detroit, MI, March 28, 2005.
  113. "Geoenvironmental Engineering Education and Research at UIC." Institute of Environmental Science and Policy Steering Committee Meeting, November 2003, and ASCE Student Chapter Meeting, Chicago, IL. February 9, 2004.
  114. "Electrokinetically Enhanced In-Situ Remediation of Contaminated Sites." Korea Advance Institute for Science and Technology (KAIST), Department of Chemical and Biomolecular Engineering, Dajeon, Korea. September 24, 2003.
  115. "Electrokinetically Enhanced In-Situ Remediation of Contaminated Soils." Department of Civil & Environmental Engineering, University of Massachusetts, Amherst, MA. October 23, 2002.
  116. "Characterization and Remediation of Brownfield Sites." Guest Lecture, Course on Brownfields, University of Illinois at Chicago Urban Transportation Center, Chicago, IL. October 8, 2001.
  117. "Electrokinetic Remediation of Contaminated Soils." Department of Engineering Science, Oxford University, Oxford, UK. August 15, 2001.
  118. "Electrokinetic Remediation of Contaminated Sites." Environmental Protection Training and Research Institute (EPTRI), Hyderabad, India. December 20, 2000.
  119. "Environmental Geotechnology: An Overview." College of Engineering, Jawaharlal Nehru Technological University (JNTU), Hyderabad, India. December 19, 2000.
  120. "Remediation of Contaminated Soils and Groundwater at Brownfield Sites." Guest Lecture, Course on Brownfields, University of Illinois at Chicago Urban Transportation Center. October 17, 2000.
  121. "Use of Shredded Scrap Tires as Drainage Material in Landfill Covers." Department of Civil,



- Urban, and Geosystem Engineering, Seoul National University, South Korea. July 4, 2002.
122. "Remediation of Soils Contaminated with Heavy Metals." Midwest Metals Meeting, University of Illinois at Chicago, Chicago, IL. May 12, 2002.
  123. "Adaptive Electrokinetic Remediation of Contaminated Soils and Groundwater." School of Civil Engineering, Purdue University, West Lafayette, IN. September 20, 2000.
  124. "Remediation of Hazardous Waste Sites." Department of Civil Engineering and Construction Technology, Bradley University, Peoria, IL. April 13, 2000.
  125. "New Strategies for the In-Situ Remediation of Contaminated Soils and Groundwater." American Society of Civil Engineers- Geotechnical Group Meeting, Chicago, IL. December 2, 1997.
  126. "New Strategies for the In-Situ Containment and Remediation of Contaminants in Soils and Groundwater." Department of Earth and Environmental Sciences, University of Illinois at Chicago, Chicago, IL. November 20, 1997.
  127. "Soil Compositional Influence on Electrokinetic Remediation of Chromium-Contaminated Sites." Institute of Gas Technology, Des Plaines, IL, August 31, 1995.
  128. "Air Sparging for Groundwater Remediation." Illinois Groundwater Association, Utica, IL. March 22, 1995.
  129. "Design of Waste Containment Systems- Two Case Studies." University of Illinois at Chicago, Chicago, IL. May 27, 1993.

#### **Invited Symposia and Workshop Presentations**

130. "Application of Life Cycle Assessment to Geotechnical and Geoenvironmental Projects." Purdue Geotechnical Society Workshop Program, Purdue University, West Lafayette, IN, April 21, 2017
131. "Coupled Hydro-Bio-Mechanical Modeling of Bioreactor Landfills: New Modeling Framework and Research Challenges." US-India Workshop on Establishing Linkages between Geoenvironmental Practices and Sustainability, Chicago, August 18, 2016.
132. "Geophysical Imaging of Landfill Interiors: Examples from Northern Illinois, USA." US-India Workshop on Establishing Linkages between Geoenvironmental Practices and Sustainability, Chicago, August 18, 2016. (With Phil Carpenter, NIU)
133. "Bioengineered Systems and Role of Geochemistry: New Research Developments." US-Japan Workshop on Geoenvironmental Engineering, August 14, 2016.
134. "Fundamental Research on Geochemical Processes for the Development of Resilient and Sustainable Geosystems." NSF Workshop on Geotechnical Fundamentals in the Face of New World Challenges, Washington, D.C., July 16, 2016.
135. "Sustainable Biocover System for Methane Oxidation in Landfills." Department of Civil Engineering, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, November 14, 2015.
136. "Sustainable Stormwater Infrastructure," Water After Borders Summit, University of Illinois at Chicago, April 24, 2015.
137. "PCBs in Soils and Their Remediation." Workshop on a Persistent Pollutant: PCBs and Their Impact on Illinois, Illinois Sustainability Technology Center, Chicago, Illinois, September 17, 2014.
138. "Evaluation of Biochar as a Potential Filter Media for the Removal of Mixed Contaminants from Urban Stormwater Runoff." Midwest Biochar Conference, Champaign, Illinois, August 8, 2014.
139. "Bioreactor Landfills: State-of-the-Practice & Research Challenges." Symposium on Landfill Engineering: Perspectives and Practices, Indian Institute of Technology Hyderabad, India. August 5, 2013.
140. "Development of Biochar-amended Soil Cover for Landfill Gas Mitigation." Illinois Biochar

- Group Meeting, Urbana, IL. November 7, 2011.
141. "Green and Sustainable Remediation: Incorporating in Curricula." Interstate Technology & Regulatory Council, Fall Meeting, Denver, CO. October 28, 2011.
  142. "Contaminated Site Remediation Using Nanotechnology." Nanoscience Working Group, University of Illinois at Chicago, Chicago, IL, April 24, 2007.
  143. "Remedial Options for Contaminated Sediments." Symposium on Contaminated Sediments: Challenges and Opportunities, ACS National Meeting, Chicago, IL, March 29, 2006.
  144. "Transport of Modified Reactive Nanoscale Iron Particles in Subsurface Soils." U.S. EPA Workshop on Nanotechnology for Site Remediation, Chicago, IL, September 6, 2006.
  145. "Electrochemical Remediation of Mixed Contaminants in Soils." 27<sup>th</sup> Annual Midwest Environmental Chemistry Workshop, University of Wisconsin, Madison, WI, October 17, 2004.
  146. "Subsurface Contaminant Remediation: Regulations and Case Studies." Workshop on Remediation of Contaminated Soils and Groundwater in Korea, Jeju, Korea, September 25, 2003.
  147. "Mathematical Modeling of Air Sparging." Symposium on Emerging Technologies in Hazardous Waste Management, 224<sup>th</sup> ACS National Meeting, Boston, MA, August 19, 2002.
  148. "Chelated Iron in Fenton-Like Oxidation of Organic Contaminants in Soils." Symposium on Emerging Technologies in Hazardous Waste Management, 224<sup>th</sup> ACS National Meeting, Boston, MA, August 19, 2002.
  149. "Electrokinetic Remediation Modeling Incorporating Geochemical Reactions." Symposium on Emerging Technologies in Hazardous Waste Management, 224<sup>th</sup> ACS National Meeting, Boston, MA, August 18, 2002.
  150. "Remediation of DNAPLs in Groundwater using In-Situ Air Sparging." The 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Seoul, Korea, July 5, 2002.
  151. "Technologies for the Remediation of Mercury-Contaminated Soils." The 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Seoul, Korea. July 3, 2002.
  152. "Transmissivity Behavior of Shredded Scrap Tire Drainage Layer in Landfill Cover System." 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Seoul, Korea, July 3, 2002.
  153. "Protection of Geomembranes from Mechanical Damage." Short Course on Constructing with PVC Geomembranes, PVC Geomembrane Institute, Naperville, IL, July 21, 2000.
  154. "Removal of HOCs from Heterogeneous Soils Using Electrokinetically Enhanced Surfactant/Cosolvent Flushing." Symposium on Emerging Technologies: Waste Management in the 21<sup>st</sup> Century, American Chemical Society, San Francisco, CA, March 29, 2000.
  155. "Integrated Electrokinetic Technology for the Remediation of Contaminated Soils and Groundwater." Symposium on Environmental Science & Technology, University of Illinois at Chicago, Chicago, IL, February 16, 2001.
  156. "Field Assessment of Air Sparging for Remediation of LUST Sites." Environmental Professionals of Iowa Fall Symposium, Ames, IA, November 17, 2000.
  157. "Electrokinetic Remediation of Low Permeability Soils Contaminated by Polycyclic Aromatic Hydrocarbons." *ASTM Symposium*, Reno, NV, January 25, 2001.
  158. "Geochemistry of Chromium during Electrokinetic Remediation." 4<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Boston (Danvers), MA, August 11, 1998.
  159. "Speciation of Heavy Metals in Clays during Electrokinetic Remediation." ACS I&EC Special Symposium, Pittsburgh, PA, September 16, 1997.
  160. "The Effect of Grain Size Distribution on Air Sparging Efficiency." Fourth International Symposium on In Situ and On-Site Bioremediation, New Orleans, LA, April 29, 1997.

161. "Geochemical Characterization of Heavy Metals in Clays during Electrokinetics." Committee on Physicochemical Phenomenon in Soils, Transportation Research Board Meeting, Washington, D.C, January 14, 1997.
162. "Electrokinetic Removal of Chromium from Glacial Clays." Eighth International IGT Symposium on Gas, Oil, and Environmental Biotechnology, Colorado Springs, CO, December 1995.
163. "New Applications of Shredded Scrap Tires and Glass Cullet in Civil Engineering." OSWR Solid Waste Research Symposium, Rosemont, IL. March 29, 1995.
164. "Seismic Performance Evaluation of Solid Waste Landfills in Illinois." OSWR Solid Waste Research Symposium, Rosemont, IL. March 28, 1995.
165. "Development of Rational Design Method for Landfill Liner Protective Soil Cover." OSWR Solid Waste Research Symposium, Rosemont, IL. March 28, 1995.
166. "Contaminant Transport through Landfill Composite Liners." OSWR Solid Waste Research Symposium, Rosemont, IL. March 28, 1995.
167. "Deformation Characteristics of Landfill Composite Liners under Incremental Refuse Loading Conditions." OSWR Solid Waste Research Symposium, Rosemont, IL March 28, 1995.

### **Conference Presentations**

- In addition to the above invited presentations, over 100 presentations were made at various conferences on a wide range of topics (excluding the presentations made by my students and other co-authors). See the refereed and non-refereed conference publications sections for details on the presentation titles and conference themes and locations.

## **TEACHING EXPERIENCE**

### **University Courses Developed and Taught**

- Sustainable Engineering (CME514)
- Computer Methods in Geoenvironmental Engineering (CME594)
- Introduction to Geoenvironmental Engineering (CME415)
- Hazardous Waste and Site Remediation Engineering (CME425)
- Subsurface Flow and Contaminant Transport Modeling (CME549)
- Solid Waste Management and Landfill Engineering (CME516)
- Soil Mechanics and Laboratory (CME315)
- Foundation Analysis and Design (CME405)
- Advanced Soil Mechanics (CME505)
- Environmental Pollution Control (CME216)
- Honors Seminar (HON201)

### **Undergraduate Senior Design/Honors Projects**

- Advised numerous undergraduate senior design and Honors projects; many of them have received the best project awards at the annual Engineering Expo held at UIC.

### **Teaching Evaluations**

- Student evaluations have been consistently excellent. Several awards received for excellence in teaching, including the UIC CETL Teaching Recognition Award, the UIC Award for Excellence in Teaching, and the Harold Simon Award.

### **Professional Short Courses Developed and Taught**

- GIAN (Global Initiative of Academic Networks) Short Course on Polluted Sites: Characterization

- and Remediation, Indian Institute of Technology Bhubaneswar, India, July 25- August 5, 2016.
- GIAN (Global Initiative of Academic Networks) Short Course on Landfills and Geoenvironmental Engineering, National Institute of Technology, Jalandhar, India, May 30 – June 3, 2016.
  - Short course on “Sustainable Remediation of Contaminated Sites” Faculdade de Engenharia e Arquitetura (FEAR), University of Passo Fundo (UPF), RS, Brazil, May 8-13, 2016.
  - Short course on “Soil and Groundwater Remediation” Faculdade de Engenharia e Arquitetura (FEAR), University of Passo Fundo (UPF), RS, Brazil, July 27-29, 2015.
  - One-week short course on “Advances in Geoenvironmental Engineering”, Southeast University, Nanjing, China, December 5-11, 2015.
  - One-day short course on “Life Cycle Assessment and Sustainable Geoenvironmental Engineering”, ASCE Illinois Section Geo-Institute Chapter, Chicago, September 9, 2013.
  - One-week short Course on “Geoenvironmental Engineering”, Southeast University, Nanjing, China, May 12-21, 2013.
  - One-day short course on “Advances in Geoenvironmental Engineering: Remediation of Contaminated Soils, Sediments, and Groundwater”, GeoCongress-2012, ASCE, Oakland, California, March 25, 2012.
  - One-day short course on “Design, Construction and Monitoring of Landfills”, First Sri Lanka Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, August 7, 2007.

## **SERVICE- UNIVERSITY OF ILLINOIS AT CHICAGO**

### **University Level**

- Faculty Fellow (January 1994-Present), Council Member (August 1997-Present) & Member of various ad-hoc committees (1994-Present). UIC Honors College.
- Chair, UIC Award for Excellence in Teaching Review Panel, 2014, Appointed by the Vice Chancellor for Faculty Affairs.
- Member, Diversity Committee, 2013-2015, UIC Honors College.
- Member, Campus Review Board, 2010-Present, Appointed by the Vice Chancellor for Research.
- Review Committee, Chancellor’s Supplemental Graduate Fellowship Program, Graduate College, 2009, 2012, 2014, Appointed by the Graduate College Dean.
- Member, All-Campus Promotion and Tenure Committee, 2008-2012, Appointed by the Provost.
- Faculty Mentor to Assistant Professors on academic career development, 2008-2010, Appointed by the Vice Chancellor for Faculty Affairs.
- Committee Chair, University of Illinois Scholar Award Review Panel, 2009, 2010, Appointed by the Vice Chancellor for Faculty Affairs.
- Member, Council for Excellence in Teaching and Learning, 2008-2012, Appointed by the Vice Chancellor for Faculty Affairs.
- Member, Various ad-hoc committees dealing with research, facilities, awards, etc., 2000-Present. Appointed by Vice Chancellor for Research and Vice Chancellor for Faculty Affairs.
- Member, University Senate, 2005-2008. Elected.
- Presenter/Panel Member, Brown Bag Lunch Interdisciplinary Discussion on “Water: Recreation and Health,” Office of Vice Chancellor for Research, October 30, 2007.
- Reviewer, Campus Research Board, 2000-Present.
- Reviewer, CETL Teaching Recognition Program, 2000-Present.
- Steering Committee Member and Fellow, Institute for Environmental Science and Policy. 2002-Present.

- Co-Director, PVC Geomembrane Institute-Technology Program (PGI-TP). University of Illinois at Urbana-Champaign. 1998-2010.
- Faculty Advisor, Sustainable Remediation Forum- UIC Student Chapter. 2012-Present.

### **College Level**

- Member, Diversity Strategic Thinking and Planning Committee.2009-2015. Appointed by the Dean of College of Engineering.
- Member, Laboratory Space Committee, 2006-2007. Appointed by the Dean of College of Engineering
- Faculty Judge, Engineering Senior Design Expo.1994, 1996, 1997, 2002, 2004.
- Member, Research Award Committee, 2001-2002.
- Member, Power Electronics Research Center, 2001-2003.
- Member, College ABET Accreditation Committee, 1998-1999.
- National Engineers Week Open-Lab Host. 1996.

### **Department Level**

- Member, Department Advisory Committee, 1995-96, 2004-06, 2006-2008, 2011-2013.
- Member, Department Graduate Committee, 1994-2015.
- Member, Civil Engineering Graduate Committee, 1996-2010, 2012-2015.
- Member, Civil Engineering Undergraduate Committee, 1995-2013, 2015-Present.
- Organizer, Environmental Research Seminar Series, spring 2006, Fall 2013.
- Member, Structural Mechanics Faculty Search Committee, Spring 2006.
- Faculty Advisor, ASCE Student Chapter, 1998-2006.
  - Participant. ASCE Zone III Workshop for Student Chapter Leaders (WSCL), Dallas, TX. February, 2003.
  - Participant. ASCE Practitioner & Faculty Advisor Training Workshop (PFATW), Reston, VA. September, 2002.
- Member, Laboratory Committee, 1997-2014, 2015-Present.
- Member, Scholarship Committee, 2015-Present
- Member, Computer Committee, 2003-2015.
- Member, CME Distinguished Seminars Committee, 2004-2005.
- Member, Langelier Scholarship Committee, 1997-2006.
- Director, Sustainable Engineering Research Laboratory, 2010-Present.
- Director, Geotechnical and Geoenvironmental Engineering Laboratory, 1993-Present.
- Chair, Environmental Engineering Faculty Search Committee, 1999-2000.
- Director of Undergraduate Studies, 1998-1999.
- Member, Faculty Search Committee, 1995-1996.
- Department Faculty Secretary, 1994-1996.
- Steering Committee Member, UIC Environmental Engineering and Health Center, 1994-1996.
- Department Web Master, 1996-1998.
- Chairperson, Department Seminars, 1996-1999.

### **PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers/Geo-Institute (Member, 242310)
- American Society for Testing and Materials
- International Society of Soil Mechanics and Geotechnical Engineering

- Sustainable Remediation Forum (SURF)
- Association of Ground Water Scientists and Engineers/National Ground Water Association
- American Chemical Society
- Illinois Groundwater Association
- Association of Environmental Health and Science
- Illinois Association of Environmental Professionals
- Transportation Research Board, National Academies, Washington, D.C.
- Clays and Clay Mineralogy
- International Society of Environmental Geotechnology
- Indian Geotechnical Society
- Association of Environmental Engineering and Science Professors (AEESP)
- United States Universities Council on Geotechnical Education and Research (USUCGER)

## **PROFESSIONAL SERVICE**

### **Offices Held**

- Illinois Section, American Society of Civil Engineers
  - Director, Board of Directors, 2007-2012.
  - Chair, Student Chapter Committee. 2008-2012.
  - Member, Student Outreach Committee. 2008-2012.
  - Member, Membership Committee, 2008-2012.
  - Member, Awards Committee, 2008-2012.
  - Member, Infrastructure Report Committee, 2008-2012.
  - Participated in the 2008 Workshop for Section and Branch Leaders. January 25-26, 2008. Austin, TX.
- Great Lakes Geotechnical and Geoenvironmental Conference Steering Committee
  - Secretary/Treasurer (1997-Present)
  - President (1996)
  - Vice President (1995)
- Geotechnical Group/Geo-Institute Chapter, Illinois Section, American Society of Civil Engineers
  - Chairman (1999-2000)
  - Vice Chairman (1998-1999)
  - Secretary/Treasurer (1997-1998)
- Honorary Advisor, International Society of Environmental Geotechnology. 2004-Present.

### **Committee Memberships**

- Member, Technical Coordinating Council (TCC), Geo-Institute/ASCE (2015-Present)
- Member, ASCE Committee on Sustainability (2015-Present)
- Member, ASCE/GI Committee on Sustainability in Geotechnical Engineering (2013-Present)
- Member, ASCE/EWRI Committee on Sustainability (2015-Present)
- Chair, Committee on Geoenvironmental Engineering, American Society of Civil Engineers/Geo-Institute (Member: 1998-2008; Chair: 2008-2015). Received the Committee of the Year Award 2013 for major accomplishments.
- Member, Committee on Codes and Standards, American Society of Civil Engineers/Geo-Institute (2013-Present).
- Member, Environmental Geotechnics Committee, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), 2010-Present.

- Member, ASCE Illinois Section Sustainability Committee, 2010-Present.
- Member, ITRC Team on Stormwater BMP Pollution-Reduction Determinations and Performance Verification, 2015-Present.
- Member, ITRC Team on Green and Sustainable Remediation, 2009-2012.
- Member, ITRC Team on Contaminated Sediments-Remediation, 2009-Present
- Member, ITRC Team on Remediation Management of Complex Sites, 2009-Present.
- Member, AFP40-Committee on Physicochemical and Biological Processes in Soils, Transportation Research Board, 1994-2010.
- Member, ASTM Technical Committees: D18.06-Physical-Chemical Interactions of Soil and Rock; D18.14-Industrial Byproducts and Recycled Materials; D18.21.07-Ground Water and Vadose Zone Remediation Technologies, 1999-Present.
- Member, Research Committee, United States Universities Council on Geotechnical Education and Research (USUCGER), 2004-2010.
- Member, Committee on Ground Water, American Society of Civil Engineers/Geo-Institute, 1999-2001.

### **EDITORSHIPS AND EDITORIAL BOARDS**

- Associate Editor, *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, 2009-Present.
- Editorial Board Member, *Innovative Infrastructure Solutions*, Springer, 2015-Present.
- Editorial Board Member, *Environmental Nanotechnology, Monitoring & Management*, 2013-Present.
- Editorial Board Member, *International Journal of Geotechnical Engineering*, 2011-Present.
- Editorial Board Member, *International Journal of Earth Sciences and Engineering*, 2009-Present.
- Editorial Board Member, *Environmental Geotechnics*, 2012-Present.
- Editorial Board Member, *Waste and Biomass Valorization Journal*, 2009-Present.
- Editorial Board Member, *Frontiers of Environmental Science & Engineering*, 2012-Present.
- Editorial Board Member, *Journal of Soil and Sediment Contamination*, 2002-Present.
- Editorial Board Member, *Indian Geotechnical Journal*, 2012-Present.
- Guest Editor, Special Issue on Bioreactor Landfills, *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, 2013.
- Guest Editor, Special Issue on Site Remediation Technologies, *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, 2011.
- Editor, *Land Contamination & Reclamation Journal*, 2005-2012.
- Editorial Board Member, *Journal of Hazardous Materials*, 2006-2010.
- Editorial Board Member, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 2004-2008.
- Guest Editor, Special Issue on Site Remediation Technologies, *Journal of Hazardous Materials*, 2007.
- Editorial Board Member, *Geotechnical Testing Journal*, ASTM International, 2002-2007.
- Board Member, Special Issue on Electrochemical Decontamination of Soil and Water, *Journal of Hazardous Materials*, 1997.

### **PROPOSAL, PAPER AND BOOK REVIEWS**

#### **Research Proposal Review (1993-Present)**

- Strategic Environmental Research and Development Program, U.S. Department of Energy
- National Science Foundation, Washington, D.C.

- National Environment Research Council, UK
- National Research Council, Canada
- International Science and Technology Center/U.S. Civilian Research and Development Foundation, Washington, D.C.
- International Foundation for Science, Stockholm, Sweden
- University of Wisconsin Water Resources Institute Madison, Wisconsin
- Research Grants Council of Hong Kong, Hong Kong
- Water Resources Research Institute, University of North Carolina
- Mountain-Plains Consortium, North Dakota State University
- Natural Sciences and Engineering Research Council (NSERC) of Canada
- King Abdullah University of Science and Technology (KAUST), Office of Competitive Research Funds (OCRF), Saudi Arabia
- Environmental Research & Education Foundation (EREF), Raleigh, NC
- W.M. Keck Foundation
- National Fund for Scientific & Technological Development (FONDECYT), Santiago-Chile

**Journal Paper Review (1993-Present):** Approximately 2-4 papers reviewed per month.

- *Journal of Environmental Engineering, ASCE*
- *Journal of Geotechnical and Geoenvironmental Engineering, ASCE*
- *Geotechnical Testing Journal, ASTM*
- *Journal of Hazardous Materials*
- *Journal of Soil and Sediment Contamination*
- *Advances in Environmental Research*
- *Geosynthetics International*
- *Journal of Air and Waste Management Association*
- *Environmental & Engineering Geoscience*
- *Environmental Engineering Science*
- *Waste Management*
- *Geotechnical and Geological Engineering*
- *Journal of Contaminant Hydrology*
- *Journal of Environmental Technology*
- *Progress in Energy and Combustion Science: An International Review Journal*
- *Environmental Monitoring & Assessment (EMA): An International Journal*
- *Water Research*
- *Land Contamination and Reclamation*
- *Environmental Science & Technology*
- *Indian Geotechnical Journal*
- *The Total Science of Environment*
- *Industrial and Engineering Chemistry Research*
- *Chemosphere*
- *The Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management, ASCE*
- *Separation Science and Technology*
- *Journal of Environmental Management*
- *Electrochemistry Communications*
- *Journal of Materials in Civil Engineering, ASCE*
- *Canadian Biosystems Engineering Journal*



- *Environmental Progress, AIChE*
- *Kuwait Journal of Science and Engineering*
- *International Journal of Environment and Waste Management*
- *Electrochimica Acta*
- *Water, Air, & Soil Pollution*
- *The Journal of Engineering Research, Oman*
- *Plant and Soil Journal*
- *International Journal of Soil, Sediment and Water: Documenting the Cutting Edge of Environmental Stewardship*
- *Journal of ASTM International*
- *Waste Management and Research*
- *Applied Clay Science*
- *International Journal of Geotechnical Engineering*
- *Journal of Applied Electrochemistry*
- *Environmental Nanotechnology, Monitoring & Management*
- *Engineering Geology*

#### **Conference Proceedings Paper Review**

- Reviewed numerous papers for the Transportation Research Board Technical Sessions, ASCE/Geotechnical Institute Conferences, ACS Symposium Series, Geosynthetics Conferences, and other national and international conferences.

#### **Book Proposal Review**

- Reviewed book proposals for McGraw-Hill Book Co., John Wiley, Inc. and Cengage Learning.

### **CONFERENCES, SYMPOSIA AND WORKSHOPS**

#### **Chair or Organizer**

- Conference Chair, International Conference on *Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering*, National Institute of Technology, Jalandhar, India March 29-31, 2018.
- Conference Chair, *GEO-CHICAGO 2016: Sustainability, Energy and the Geoenvironment*, Specialty Conference of GI/ASCE, Chicago, August 14-18, 2016.
- Organizing Committee Member, 12<sup>th</sup> International Symposium on Electrokinetic Remediation, Boston. June 2013.
- Organizer, The First US-India Workshop on Global Geoenvironmental Engineering Challenges, funded by the U.S. National Science Foundation, New Delhi, India. November 7, 2010.
- Organizer and Steering Committee Member, ASCE's Geotechnical Lecture Series on Case Studies in Geotechnical Engineering, University of Illinois at Chicago, April 2010.
- Organizer/Steering Committee Member, ASCE's Geotechnical Lecture Series on Current Topics in Foundation Engineering, University of Illinois at Chicago, April 2010.
- Conference Co-Chair, GeoCongress2008: The Challenge of Sustainability in the Geoenvironment, ASCE/GI Annual Conference, New Orleans, LA. March 9-12, 2008.
- Organizer, Combined Chicago Geotechnical Lecture Series & 14<sup>th</sup> Great Lakes Geotechnical and Geoenvironmental Conference on Geotechnical Aspects of Earth Retention and Shoreline Protection, University of Illinois at Chicago, May 2006.
- Organizer, NSF Workshop on Emerging Geoenvironmental Technologies for Pollution Control and

Remediation, University of Illinois at Chicago, September 2003.

- Organizer/Steering Committee Member/Panel Member, Geotechnical Lecture Series on Performance Monitoring of Geotechnical Structures, University of Illinois at Chicago, May 2003.
- Organizer, Symposium on Emerging Technologies in Hazardous Waste Management, 224<sup>th</sup> ACS National Meeting, Boston, MA, August 2002.
- Symposium Chair, Environmental Science and Technology University of Illinois at Chicago, February 2001.
- Organizer, Chicago Geotechnical Lecture Series, University of Illinois at Chicago, February-March 1998; March-April 2000.
- Conference Chair, Great Lakes Geotechnical/Geoenvironmental Conference on In-Situ Remediation of Contaminated Sites, May 1996.

#### **Conference Advisory or Scientific Committee Member**

- Technical Advisory Committee Member, Second International Symposium on Coupled Phenomena in Environmental Geotechnics (CPEG2), University of Leeds, Leeds, UK, September 6-7, 2017.
- International Scientific Committee Member, Geo-Risk 2017: Geotechnical Risk from Theory to Practice, ASCE, Denver, CO, June 4-7, 2017.
- International Advisory Committee Member, International Conference on Advances in Civil Infrastructure and Development of Smart Cities (ICACIDS-2K16), Department of Civil Engineering, Rajarambapu Institute of Technology, Rajaramnagar, Islampur, Sangli, Maharashtra State, India, February 26-28, 2016
- Scientific Committee Member, 6<sup>th</sup> International Conference on Structural Engineering and Construction Management 2015, December 2015, Kandy, Sri Lanka
- International Advisory Committee Member, 2<sup>nd</sup> International Conference on Earth Sciences and Engineering (ICEE-2015), Coimbatore, India, March 2015
- International Advisory Committee Member, Sixth International Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental Conditions, IIT Madras, Chennai, India, January 2015.
- Advisory Committee Member, International Conference on Geotechnical Engineering (ICGE-2015), Sri Lankan Geotechnical Society (SLGS), Colombo, Sri Lanka, August 2015.
- International Advisory Committee Member, International Conference on Sustainable Civil Infrastructure, IIT Hyderabad, Hyderabad, India, October 2014.
- International Advisory Committee Member, International Conference on Environmental Geotechnics (ICEGEO'14), Bharathidasan Institute of Technology, Anna University, Tiruchirapalli, India, October 2014.
- Technical Committee Member, 7th International Congress on Environmental Geotechnics, Melbourne, Australia, November 2014.
- Technical Committee Member, GeoShanghai2014, May 2014.
- Scientific Committee Member, BOSICON International Conference on polluted Site Remediation, Rome, Italy, September 2012.
- Scientific Committee Member, International Conference on Solid Waste Technology and Management, Held annually in Philadelphia, PA. 2012-Present.
- Technical Committee Member, 6th International Congress on Environmental Geotechnics, International Society of Soil Mechanics & Geotechnical Engineering, New Delhi, India, November 8-12, 2010.
- Scientific Committee Member, 9<sup>th</sup> Symposium on Electrokinetic Remediation, Taiwan, June

2010.

- International Advisory Committee Member, 11<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Beijing, China, October 2010.
- International Scientific Committee Member, 11<sup>th</sup> International Environmental Specialty Conference which is organized by the Environmental Engineering Division of the Canadian Society for Civil Engineering, Winnipeg, Manitoba, Canada, June 9-12, 2010.
- International Advisory Committee Member, International Conference on Developments on Expansive Soils (INDEX-09), Hosur, India, August 27-29, 2009.
- Scientific Committee Member, 8<sup>th</sup> Symposium on Electrokinetic Remediation, Lisbon, Portugal, July 27-28, 2009.
- International Scientific Committee Member, 4<sup>th</sup> ASTM International Symposium on Contaminated Sediments- Sustainable Management and Remediation, Dublin, Ireland, June 30-July 3, 2009.
- International Advisory Committee Member, 12<sup>th</sup> International Association for Computer Methods and Advances in Geomechanics (IACMAG) Conference, Goa, India, October 2008.
- International Scientific Committee Member, The Third International Meeting on Environmental Biotechnology and Engineering (3IMEBE), Palma de Mallorca, Spain, September 21-25, 2008.
- Scientific Committee Member, 7<sup>th</sup> Symposium on Electrokinetic Remediation, Seoul, Korea, August 19-22, 2008.
- International Scientific Committee Member, 9<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Hong Kong, June 1-4, 2008.
- International Advisory Committee Member, International Conference on Waste Engineering and Management, Hong Kong, May 28-30, 2008.
- International Scientific Committee Member, International Symposium on Geoenvironmental Engineering for Sustainable Development, Xuzhou, China, October 22-24, 2007.
- International Advisory Committee Member, First Sri Lanka Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, August 6-11, 2007.
- International Advisory Committee Member, International Conference on Cleaner Technologies and Environmental Management (ICCTEM2007), Pondicherry, India, January 2007.
- International Review Panel Member, International Conference on New Developments in Geoenvironmental and Geotechnical Engineering (IETeC2006), Incheon, Korea, November 2006.
- Advisory Committee Member, INDEX 2006-International Conference on Infrastructure Development on Expansive Soils, Erode, India, February 2006.
- International Scientific Committee Member, International Conference on Environmental Management (ICEM2005), Hyderabad, India, October 2005.
- Scientific Committee Member, International Conference on Energy, Environment and Disasters (INCEED 2005), Charlotte, NC, July 2005.
- Advisory Committee Member, International Conference on Geoenvironmental Engineering and Geosynthetics, Indian Institute of Technology, Bombay, India, December 2004.
- Advisory Committee Member, 7<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Helsinki, Finland, June 2004.

#### **Technical Session Chair or Organizer**

- Session Chair: LCA and Geoenvironmental session, Soil & Groundwater Remediation session, and Geosynthetics in Waste Containment session at Geotechnical Frontiers, Orlando, March 2017.
- Working Group Organizer, Sustainable Stormwater Infrastructure, Water After Borders Summit, University of Illinois at Chicago, April 23, 2015.

- Session Chair, Waste Recycling for Construction, International Conference on Solid Waste 2011: Moving Towards Sustainable Resource Management, Hong Kong, May 3, 2011.
- Session Chair, Landfills, 26th International Conference on Solid Waste Technology and Management, Philadelphia, PA, March 28, 2011.
- Session Chair/Co-Chair for sessions: (1) Advances in Site Remediation Technologies-I & II, (2) Elevated Temperatures in Landfills, (3) Unsaturated Characteristics and Behavior of Solid Waste Fills, (4) Use of Geosynthetics for Containment Systems, Geofrontiers2011, Dallas, Texas, March 14-16, 2011.
- Session Chair, Advances in Site Remediation Technologies-I & II, Geofrontiers2011, Dallas, Texas, March 2011.
- Session Chair, Contaminated Sites, Ground Water, Control and Remediation, 6<sup>th</sup> International Congress on Environmental Geotechnics, New Delhi, India, November 10, 2010.
- Session Chair, Plenary Session: Invited Lectures, 6<sup>th</sup> International Congress on Environmental Geotechnics, New Delhi, India, November 11, 2010.
- Session Chair, Landfills, 25<sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, PA, March 15, 2010.
- Session Chair, Physico-Chemical Response of Soil, GeoFlorida2010: Advances in Analysis, Modeling & Design, ASCE, West Palm Beach, FL, February 22, 2010.
- Session Chair, Advances in Concrete Engineering, International Conference on Advances in Concrete, Structural and Geotechnical Engineering, BITS-Pilani, India, October 25, 2009.
- Session Chair, Techniques of Contaminated Site Remediation, 9<sup>th</sup> International Symposium on Environmental Geotechnology and Global Sustainable Development, Hong Kong, June 2, 2008.
- Session Chair, Characterization and Management of Wastes, International Conference on Waste Engineering and Management, Hong Kong, May 29, 2008.
- Session Chair, Panel Discussion on Current Topics in Foundation Engineering, ASCE's Chicago Geotechnical Lecture Series, Chicago, IL, April 10, 2008.
- Session Chair, Opening and Closing Plenary Sessions of GeoCongress2008: The Challenge of Sustainability in the Geoenvironment, New Orleans, LA, March 9-12, 2008.
- Session Chair, International Symposium on Geo-Environmental Engineering for Sustainable Development, Xuzhou, China, October 23, 2007.
- Session Chair, Geotechnical Construction, First Sri Lanka Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, August 9, 2007.
- Opening Plenary Speaker and Chair for Technical Session on Electrokinetic Barriers, 6th Symposium on Electrokinetic Remediation (EREM 2007), Vigo, Spain, June 13, 2007.
- Session Organizer/Chair, Symposium on Contaminated Sediment Remediation: Challenges and Opportunities, ACS Annual Meeting, Chicago, IL, March 2007.
- Session Organizer/Chair, Symposium on Nanotechnology for Contaminated Site Remediation, ACS Annual Meeting, Chicago, IL, March 2007.
- Session Chair, Advances in Waste Utilization and Disposal, Geo-Denver Conference, Denver, CO, February 2007.
- Session Chair, Panel Discussion on Geotechnical Aspects of Earth Retention and Shoreline Protection, Combined Chicago Geotechnical Lecture Series and the 14th Annual Great Lakes Geotechnical and Geoenvironmental Conference, University of Illinois at Chicago, Chicago, IL, May 12, 2006.
- Session Chair, Geotechnical Issues with Infrastructure Development on Expansive Soils, INDEX 2006-International Conference on Infrastructure Development on Expansive Soils, Erode, India, February 2006.

- Session Chair/Organizer, Bioreactor Landfills Update, Geo-Frontiers2005 Conference, Austin, TX, January 2005.
- Session Chair, Brownfields Redevelopment-Case Studies, ASCE Annual Conference, Nashville, TN, October 2004.
- Session Co-Chair, Soil-Waste Interaction Behavior, Indian Geotechnical Conference, Allahabad, India, December 2002.
- Session Co-Chair, Site Remediation Techniques and Management, 6<sup>th</sup> International Symposium on Environmental Geotechnology and Global Development, Seoul, Korea, July 2002.
- Session Chair, Recent Experiences and Initiatives in Brownfield Redevelopment, Remaking Chicago Conference, Chicago, IL, November 2000.
- Session Chair, Emerging Technologies for the Remediation of Contaminated Soils and Groundwater, American Chemical Society Conference, San Francisco, CA, March 2000.
- Session Chair, Assessment, Characterization and Remediation of Contaminated Transportation Facilities, Transportation Research Board Meeting, Washington, D.C, January 1998.
- Session Chair, Groundwater Remediation at Petroleum Spill Sites, American Power Conference, Chicago, IL, April 1997.

#### **EXTERNAL PH.D. EXAMINER**

- Federal University of Rio Grande do Sul (UFRGS), Brazil
- University of Passo Fundo, Brazil
- University of Calgary, Canada.
- University of British Columbia, Canada
- University of Western Ontario, London, Canada
- Concordia University, Montreal, Quebec, Canada
- Politecnico di Torino-Italy, Scuola Interpolitecnica di Dottorato, Water and Territory Management Engineering, Turin, Italy
- University of Wollongong, Australia
- Indian Institute of Technology-Roorkee, India
- Indian Institute of Technology-Delhi, India
- Indian Institute of Technology-Kanpur, India
- Indian Institute of Technology-Guwahati, India
- Indian Institute of Technology-Bombay, India
- Indian Institute of Science, Bangalore, India
- National Institute of Technology, Hamirpur, India
- National Institute of Technology, Calicut, India
- National Institute of Technology, Suratkal, India
- Motilal Nehru National Institute of Technology, Allahabad, India
- Indian School of Mines, Dhanbad, India
- Anna University, Chennai, India
- Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, India
- Pondicherry Engineering College, Pondicherry, India
- University of Allahabad, Allahabad, India
- Visvesvaraya Technological University, Belgaum, India
- Manipal University, Manipal, Karnataka, India
- Bengal Engineering and Science University, Shibpur (Formerly Bengal Engineering College), Howrah, West Bengal, India

- University of Engineering and Technology, Lahore, Pakistan
- Edith Cowan University (MS Thesis), Australia

#### **OTHER SIGNIFICANT SERVICE ACTIVITIES**

- Technical Advisory Board Member, Global Waste Research Institute, California Polytechnic State University, San Luis Obispo, CA, 2010-Present.
- Invited External Reviewer, Geo-engineering Program at Queens University, Canada Foundation for Innovation, January 26-28, 2010.
- Invited External Reviewer, Civil & Environmental Engineering Graduate Program, Southern Illinois University, December 2-4, 2009.
- Foreign Principal Investigator, Global Research Lab (GRL) Program Pre-proposal with multi-Korean and foreign universities and industries led by the Korean Advanced Institute for Science and Technology on the Development of Novel Nano/Bio- Remediation Technologies for Ecosystem Restoration, March 2006 and September 2007.
- Invited Participant, European Research Project on Integrated Risk Assessment and Risk-Based Management for River Basin Systems, 2004, 2005.
- NSF-funded collaborative research on electrokinetic remediation with Korean Advanced Institute of Science & Technology (KAIST) and Korea Institute of Construction Technology (KICT), 2004-2006.
- Advisory Committee Member, Center for Geoenvironmental Engineering, J.N. Technological University, Hyderabad, India, 2000- Present.