大地工程演講公告

日期：民國 102 年 9 月 9 日(星期一)　09:00 - 11:45

地點：國家地震工程研究中心(台北市辛亥路三段 200 號)演講廳 101 室

主辦單位：國家地震工程研究中心、國立台灣大學土木工程學系、國立台灣科技大學營建工程系

協辦單位：中華民國大地工程學會

時間	主題	講者	主持人
08:45-09:00	報到		
09:00-10:15	GeoTech Tools - an Interactive Web-Based Information and Guidance System for Ground Improvement Technologies	Prof. James K. Mitchell Virginia Polytechnic Institute and State University	國立台灣大學 翁作新教授
10:15-10:30	中場休息		
10:30-11:45	An Innovative Soft Soil Improvement Method using Combined Vacuum Consolidation and Dynamic Compaction	Prof. Robert Y. Liang The University of Akron	國立台灣科技大學 林宏達教授

Prof. James K. Mitchell

Prof. Robert Y. Liang

本活動免費，歡迎踴躍參加，並提供公務員終身學習與技師訓練積分申請(請提供身分證號碼)，相關問題，請聯絡:

國立台灣大學 葛宇甯教授(0978030189/ louisge@ntu.edu.tw)

國立台灣科技大學 楊國鑫教授(0983717261/ khy@mail.ntust.edu.tw)

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會員編號#_____, 姓名：_____, 單位：_____

連絡電話：_____, Email：_____

JAMES KENNETH MITCHELL

University Distinguished Professor, Emeritus
Virginia Polytechnic Institute and State University, Blacksburg, Virginia
and
Consulting Geotechnical Engineer

Education

B.S. Civil Engineering, Rensselaer Polytechnic Institute - 1951
S.M. Civil Engineering, Massachusetts Institute of Technology - 1953
Sc.D. Civil Engineering, Massachusetts Institute of Technology - 1956

Work Experience

Soil Engineer, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, 1955
Active Duty, U.S. Army Corps of Engineers, 1956-58
Assistant Professor of Civil Engineering and Assistant Research Engineer, University of California, Berkeley, 1958-63
Associate Professor of Civil Engineering and Associate Research Engineer, University of California, Berkeley, 1963-1968
Professor of Civil Engineering and Research Engineer, University of California, Berkeley, 1968-1989
Chairman of the Department of Civil Engineering 1979-84
Edward G. Cahill and John R. Cahill Professor of Civil Engineering, University of California, Berkeley, 1989-1993
Cahill Professor of Civil Engineering, Emeritus, University of California, Berkeley, 1993 -
Charles E. Via, Jr. Professor of Civil Engineering, Virginia Tech, 1994-1999
University Distinguished Professor, Virginia Tech, 1996-1999
University Distinguished Professor, Emeritus, Virginia Tech, 1999 -
Geotechnical Engineering Consultant, 1960 -

Professional Honors, Awards, and Recognitions

Thomas A. Middlebrooks Award, ASCE, 1962, 1970, 1973, 2001
Distinguished Teaching Award, U.C. Berkeley, 1963
Walter L. Huber Research Prize, ASCE, 1965
Norman Medal, ASCE, 1972; 1995
Medal for Exceptional Scientific Achievement, NASA
Karl Terzaghi Lecture, ASCE, 1984
Karl Terzaghi Award, ASCE, 1985
Rankine Lecturer, British Geotechnical Society, 1991

Honorary Member, American Society of Civil Engineers, 1993
Berkeley Citation, University of California, Berkeley, 1993
International Honorary Member, Japanese Geotechnical Society, 1999
U.S. Army Chief of Engineers Outstanding Service Award, 1999
Kevin Nash Gold Medal of the International Society for Soil Mechanics and Geotechnical Engineering, 2001
National Academy of Engineering - 1976
National Academy of Sciences - 1998
ASCE Outstanding Projects and Leaders Award in Education, 2006

Selected Research Projects

EIGER – Exploring Interfaces through Graduate Education and Research - NSF
Integrated Graduate Education and Research Project
Soil and Site Characterization Using Electromagnetic Waves
Geotechnical Solutions for Soil Improvement and Rapid Embankment Construction (SHRP2 02)

Selected Papers

NOTE: Papers No. 1-35 are republished in Selected Geotechnical Papers of James K. Mitchell, Civil Engineering Classics, edited by I. M. Idriss, ASCE Geo-Institute, 2001, ISBN 0-7844-0567-0, 934 pp.

(Sole author unless otherwise indicated)

1. "The Fabric of Natural Clay and Its Engineering Significance," Proceedings, Highway Research Board, Vol. 35, 1956, pp. 693-713.
2. "Fundamental Aspects of Thixotropy in Soils," Journal of the Soil Mechanics and Foundation Division, Procs., American Society of Civil Engineers, Vol. 86, No. SM3, pp. 15-52, June 1960, Proceedings Paper 22. Winner of A.S.C.E. Middlebrooks Award, 1962.
3. “Studies of Swell and Swell Pressure Characteristics of Compacted Clays," (H. B. Seed, J.K. Mitchell, and C. K. Chan), Highway Research Board Bulletin No. 313, 1962, pp. 12-39.
4. "Shearing Resistance of Soils as a Rate Process," Journal of the Soil Mechanics and Foundations Division, American Society of Civil Engineers, SM-1, 1964, pp. 29-61, Discussions in November 1964 Journal, Closure in May 1965 Journal pp. 107-113.
5. "Permeability of Compacted Clay," (James K. Mitchell, Don R. Hooper, and Richard G. Campanella), Journal of the Soil Mechanics and Foundations Division, American Society of Civil Engineers, Vol. 91, No. SM-4, July 1965, pp. 41-65.
6. "Abnormalities in Hydraulic Flow Through Fine-Grained Soils," (J. K. Mitchell and J. S. Younger), American Society for Testing and Materials, Spec. Tech. Pub. No. 417, pp. 106-139, 1967.
7. "Fundamental Aspects of Electro-Osmosis in Soils," (Donald H. Gray and James K. Mitchell), Journal of the SMFD, Proceedings, ASCE, Vol. 93, SM6, No. 5580, Nov. 1967, pp. 209-236.
8. "A General Stress-Strain-Time Function for Soils," (Awtar Singh and James K. Mitchell), Journal of SMFD, Proceedings, ASCE, Vol. 93, SM1, No. 5728, Jan. 1968, pp. 21-46.
9. "Influence of Temperature Variations on Soil Behavior," (Richard G. Campanella and James K. Mitchell), Journal of the SMFD, Proceedings, ASCE, Vol. 94, No. SM3, May 1968, pp. 709-734.
10. "The Causes of Clay Sensitivity," (James K. Mitchell and William N. Houston), Journal of SMFD, Proceedings, ASCE, Vol. 95, No. SM3, Proc. Paper 6568, May 1969, pp. 845-871.

11. "Property Interrelationships in Sensitive Clays," (William N. Houston and James K. Mitchell), Journal of SMFD, Proceedings, ASCE, Vol. 95, No. SM4, Proc. Paper 6666, July 1969, pp. 1037-1062.
12. "Bonding, Effective Stresses and Strength of Soils," (James K. Mitchell, Awtar Singh and Richard G. Campanella), J. Soil Mech. and Foundations Div., ASCE, Vol. 95, SM5: pp. 1219-1246, Sept., 1969. Winner of A.S.C.E. Middlebrooks Award, 1970.
13. "Apollo 11: Soil Mechanics Results" (Nicholas C. Costes, William D. Carrier III, James K. Mitchell, and Ronald F. Scott), J. Soil Mech. and Foundations Div., ASCE, Vol. 96, SM6: Paper 7704, pp. 2045-2080, Nov., 1970. Winner of Norman Medal, 1972.
14. "Analysis of Load-Bearing Fills Over Soft Subsoils," (James K. Mitchell and William S. Gardner), J. Soil Mech. and Foundations Div., ASCE, Vol. 97, No. SM11, Proc. Paper 8522, pp. 1549-1571, Nov. 1971. Winner of A.S.C.E. Middlebrooks Award, 1973.
15. Chemico-Osmotic Effects in Fine-Grained Soils," (James K. Mitchell, James A. Greenberg and Paul A. Witherspoon), Journal of the Soil Mechanics and Foundations Division, ASCE, Vol. 99, No. SM4, pp. 307-322, April 1973.
16. "Electro-Osmotic Consolidation of Soils," (Tai-Yeu Wan and James K. Mitchell), Journal of the Geotechnical Engineering Division, ASCE, Vol. 102, No. GT5, Proc. Paper 12156, May, 1976, pp. 473-491.
17. "Effects of Sample Preparation on Sand Liquefaction," (J. Paul Mulilis, H. Bolton Seed, Clarence K. Chan, James K. Mitchell and Kandiah Arulanandan), Journal of the Geotechnical Engineering Division, ASCE, Vol. 103, No. GT2, February 1977, pp. 91-108.
18. “Foundation Performance of Tower of Pisa,” (James K. Mitchell, Vitoon Vivatrat, and T. William Lambe), Journal of the Geotechnical Engineering Division, ASCE, Vol. 103, No. GT3, March 1977, pp. 227-249.
19. "Soil Improvement: State-of-the-Art," Proc. Tenth Intl. Conf. on Soil Mechs. & Found. Engrg., Stockholm, Sweden, June 1981, Vol. 4, pp. 509-565.
20. "Cone Resistance, Relative Density and Friction Angle," (Willem C. B. Villet and James K. Mitchell), from Cone Penetration Testing and Experience, edited by G. M. Norris and R. D. Holtz, Proc. Session sponsored by the Geotech. Eng. Div., ASCE Natl. Conv., St. Louis, MO, Oct. 26-30, 1981, pp. 178-208.
21. "Time-Dependent Strength Gain in Freshly Deposited or Densified Sand," (James K. Mitchell and Zoltan V. Solymar), Journal of Geotechnical Engineering, ASCE, Vol. 110, No. 11, Nov. 1984, pp. 1559-1576.
22. "Performance of a Stone Column Foundation," (James K. Mitchell and Timothy R. Huber), Journal of Geotechnical Engineering, ASCE, Vol. III, No. 2, February, 1985, pp. 205-223.
23. "The Causes and Effects of Aging in Quick Clays," (Ghislain Lessard and James K. Mitchell), Canadian Geotechnical Journal, Vol. 22, No. 3, August 1985, pp. 335-346.
24. "Practical Problems from Surprising Soil Behavior," 20th Terzaghi Lecture, Journal, Geotechnical Engineering Division, ASCE, Vol. 112, No. 3, March 1986, pp. 255-289.
25. "Chemical Effects on Clay Hydraulic Conductivity," (with Fritz T. Madsen), Procs., ASCE Specialty Conference on Geotechnical Practice for Waste Disposal '87, Ann Arbor, MI, June 15-17, 1987, Geot. Spec. Publ. No. 13, pp. 87-116.
26. "Assessment of Liquefaction Potential by Cone Penetration Resistance," (James K. Mitchell and Dar-Jen Tseng), Proceedings of the H. B. Seed Memorial Symposium, Berkeley, CA, May 10-11, 1990, pp. 335-350.
27. "American Practice in Mechanically Stabilized Earth Systems," (James K. Mitchell and Barry R. Christopher), Procs. of the ASCE Specialty Conference on the Design and Performance of Earth Retaining Structures, Cornell University, Ithaca, NY, June 18-21, 1990, A.S.C.E. Geotechnical Special Publication No. 24, pp. 322-346.
28. "Conduction Phenomena: From Theory to Geotechnical Practice," Geotechnique, 41, No. 3, 1991, pp. 299-340. The 31st Rankine Lecture of the British Geotechnical Society.

29. "New Perspectives on Soil Creep," (Matthew R. Kuhn and James K. Mitchell), Journal of Geotechnical Engineering Division, ASCE, Vol. 119, No. 3, March 1993, pp. 507-524.
30. "Working Stress Design Method for Reinforced Soil Walls," (Mauricio Ehrlich and James K. Mitchell), Journal of Geotechnical Engineering, ASCE, Vol. 120, No. 4, April 1994, pp. 625-645. Winner of ASCE Norman Medal, 1995.
31. "Understanding-Soil-Behavior Runs Through It - The Role of Soil Behavior in the Continuing Evolution of Geotechnical Engineering," The Arthur Casagrande Memorial Lecture, October 21, 1993, Civil Engineering Practice - Journal of the Boston Society of Civil Engineers/ASCE, Fall/Winter 1994, Vol. 9, No. 2, pp.5 - 28.
32. "Soil Improvement by Blasting," (Wade A. Narin van Court and James K. Mitchell), Explosives Engineering, Part 1: Vol.12, No. 3, Nov/Dec 1994; Part 2: Vol.12, No. 4, Jan/Feb 1995.
33. "Performance of Improved Ground During Earthquakes," (James K. Mitchell, Christopher D.P. Baxter, and Travis C. Munson), Soil Improvement for Earthquake Hazard Mitigation, ASCE Special Geotechnical Publication No. 49, pp. 1-36, 1995.
34. "Analysis and Use of CPT in Earthquake and Environmental Engineering," (James K. Mitchell and Thomas L. Brandon), Geotechnical Site Characterization, Robertson & Mayne, eds., Balkema, Rotterdam, ISBN 90 5410 939 4, (Proceedings of the First International Conference on Site Characterization, ISC'98, Atlanta, Georgia, April 19-22, 1998), pp 69-97.
35. "Design Considerations in Ground Improvement for Seismic Risk Mitigation," (James K. Mitchell, Harry G. Cooke, and Jennifer A. Schaeffer), Emerging Art Paper, Geotechnical Earthquake Engineering and Soil Dynamics III, A.S.C.E. Special Geotechnical Publication No. 75, (P. Dakoulas, M. Yegian, R.D. Holtz, eds.), Vol. 1, 1998, pp. 580-613.
36. "Investigation of Predictive Methodologies for Explosive Compaction," (Wade A. Narin van Court and James K. Mitchell), Geotechnical Earthquake Engineering and Soil Dynamics III, (P. Dakoulas, M. Yegian, R.D. Holtz, eds.) Vol. 1, 1998, pp. 634-653.
37. "Model Studies of the 1988 Kettleman Hills Landfill Slope Failure," (Mu-Hsiung Chang, James K. Mitchell, and Raymond B. Seed), Geotechnical Testing Journal, American Society for Testing and Materials, 161999221, March 1999.
38. "Engineering and Design Guidelines on Ground Improvement for Structures and Facilities," (James K. Mitchell and Patricia M. Gallagher) Publication No. ETL 1110-1-185, U.S. Army Corps of Engineers, Engineering Division, Directorate of Civil Works, Washington, DC, 1 February 1999. http://www.usace.army.mil/inet/usace-docs/eng-tech-ltrs/etl1110-1-185/toc.htm
39. "Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands," (K. M. Lee, C. K. Shen, D. H. K. Leung, and J. K. Mitchell), Journal of Geotechnical and Geoenvironmental Engineering, Vol. 125, No. 10, October 1999, pp. 832-846.
40. "Physicochemistry of Soils for Geoenvironmental Engineering," Chapter 23 of Geotechnical and Geoenvironmental Engineering Handbook, (2001) Kluwer Academic Publishing, Norwell, MA, U.S.A. (R.K. Rowe, Editor) 1088 p. ISBN 0-7923-8316-2.
41. Case Histories of Post-Liquefaction Remediation, Technical Committee for Earthquake Geotechnical Engineering, TC4, International Society for Soil Mechanics and Geotechnical Engineering, (Co-author with R.W. Boulanger and J.I. Baez of seven sections), Published by the Japanese Geotechnical Society, August 2001.
42. "Time - The Fourth Dimension of Soil Behavior in Geotechnical Engineering," The Seventeenth Nabor Carrillo Lecture, Sociedad Mexicana de Mecanica de Suelos, A.C. (SMMS), ISBN 968-5350-12-4, 2004, 73 pp.
43. Fundamentals of Soil Behavior, 3rd Edition (James K. Mitchell and Kenichi Soga) John Wiley & Sons, Hoboken, NJ, May 2005, 577 pp.

44. “Biological Considerations in Geotechnical Engineering,” (James K. Mitchell and Carlos Santamarina) Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 131, No. 10, October 2005, pp. 1222-1232.
45. “New Frontiers in Geotechnical Engineering – Challenges and Opportunities”, Site and Geomaterial Characterization, A. J. Puppala, D. Fratta, K. Alshibli, and S. Pamukcu, eds. ASCE Geotechnical Special Publication No. 149, 2006, pp.1-15.
46. “Mitigation of Liquefaction Potential of Silty Sands”, in From Research to Practice in Geotechnical Engineering, ASCE Geotechnical Special Publication 180, J.E. Laier, D.K. Crapps, and M.H. Hussein, eds., pp.433-451, 2008.
47. “Mitigation of Seismic Risk to Existing Dams,” Keynote Paper, ASCE Geotechnical Special Publication 181, Geotechnical Earthquake Engineering and Soil Dynamics, 2008.
48. “Aging of Sand – A Continuing Enigma?”, 6th International Conference on Case Histories in Geotechnical Engineering, Arlington, VA, Aug. 11-16, 2008, 21 pp.
49. "Modelling electromagnetic properties of saturated sand and clay," (N. Liu and J.K. Mitchell) Geomechanics and Geoengineering: An International Journal, Vol. 4, No. 4, December 2009, 252-269.
50. "Ground Improvement in the 21st Century: A Comprehensive Web-Based Information System," (Schaefer, V.R., Mitchell, J.K., Berg, R.R., Filz, G.M., and Douglas, S.C.) in Geotechnical Engineering State of the Art and Practice, K. Rollins and D. Zekkos, eds., ASCE Geotechnical Special Pub. No. 226, 2012, pp. 272-293.

Robert Y. Liang, Ph.D., P.E., F. ASCE

University Distinguished Professor
The University of Akron, Akron, OH 44325-3905
Professional Engineer (PE) Registration in California and Ohio.
Registered Civil Engineer in Taiwan.

Education

- Ph.D., 1985, Department of Civil Engineering, University of California, Berkeley, CA. Dissertation: "Evaluation of a Constitutive Model for Soft Clay Using the Centrifuge." Dissertation Advisor: Professor James K. Mitchell
- M.S., 1979, Department of Civil Engineering, North Carolina State University, Raleigh, NC.
- B.S., 1974, Department of Civil Engineering, Tam Kang University, Taipei, Taiwan.

Academic Experience

- 2010 – Present, Distinguished Professor and Director of Center for Infrastructure Materials and Rehabilitation, The University of Akron.
- 2000 - 2010, Professor and Director of Center for Infrastructure Materials and Rehabilitation, The University of Akron.
- 1995-2000, Department Chair, Dept. of Civil Engineering, The University of Akron.
- 1995 – Present, Director, Joint University of Akron (UA) and Case Western Reserve University (CWRU) Center for Infrastructure Materials and Rehabilitation.
- 1994-1995, Acting Department Chair, Department of Civil Engineering, The University of Akron, Akron, OH 44325-3905
- 1994 – Promoted to Professor, Dept. of Civil Engineering, The University of Akron
- 1990 – Promoted to Associate Professor with Tenure, Department of Civil Engineering, University of Akron, Akron, OH 44325-3905

- 1985 - 1990, Assistant Professor, Department of Civil Engineering, University of Akron, Akron, OH 44325 - 3905
- 1981 - 1985, Research Assistant, Department of Civil Engineering, University of California, Berkeley.
- 1979 - 1979, Teaching Assistant, Department of Civil Engineering, North Carolina State University, Raleigh, NC

Work Experience

- 2009 - present, Technical Advisor, Tubular Piles, LLC, USA
- 2007 - present, Technical Advisor, Shanghai Geoharbour Group, China
- 2007 - present, Technical Advisor, Hai Tong Hi-Tech Company, China
- 1990 - present, Technical Advisor, Delta Engineering, Inc., USA
- 1990- present, President, Delta Engineering, Inc., USA
- 1990 - Present, Consulting assignments: E.L. Robinson Engineering of Ohio, CH2M Hill, HNTB Inc., GeoSyntech Consultants, Master Builders, Tran System, Richland Engineering, Goodyear, Timmerman Geotechnical Group, Richland Engineering, BBC&M, MS Consultant, Ohio Department of Transportation, Colorado Department of Transportation, Hyundai Construction Research Institute, Shen Ye Construction Co., Ltd., DLZ Inc., Prime Engineering, Diagnostic and Integrated Applied Research, LLC, AMEC, Triggs and Associates, Summit Testing, Federal Highway Administration, National Park Service, Hyundai Construction, NASA, Jordan Valley Water Authority, Bureau of Mines, Summit County Engineers Offices, City of Cleveland Port Authorities, US Army Corp of engineers, Gannett Fleming, PPG Industries, OSI, Agra Foundation, Inc., GRL, Burgess and Niple, Ltd., J & L Laboratories, Inc., H.C. Nutting Company, AFCON, Inc., Environmental Design Group, Anthony Allega, Inc., among others.
- 1981 - 1981, Structural Engineer, James M. Montgomery Consulting Engineers, Inc., CA
- 1979 - 1980, Geotechnical Engineer, Civil Engineering & Applied Research, Inc., Raleigh, NC
- 1975 - 1978, Civil Engineer, Bureau of Engineering Service, Inc. (BES), Taiwan

Professional Honors, Awards, and Recognitions

- Louis Hill Award, College of Engineering, University of Akron, 1997.
- Wendell R. Ladue Civil Engineer Award, ASCE, Akron-Canton Section, 1997.
- Outstanding Research Award, College of Engineering, University of Akron, 1999.
- National Academy TRB (Transportation Research Board) Research Committee Award for the Best Value Research Return on Deep Foundations for Sound Walls, 2000
- Outstanding Service Award, Great Lakes Geotechnical and Geoenvironmental Organization, 2004
- Outstanding Geotechnical Engineer Award, Great Lakes Geotechnical and Geoenvironmental Conference Executive Committee, 2006

Editorial Position

- Associate Editor, Journal of Engineering Mechanics, ASCE, 1994 - 1998.
- Associate Editor, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, 2010 to present
- Editorial Board Member, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, 2008 to 2011
- Current Editorial Board Member, International Journal of Georisk
- Current Editorial Board Member, Journal of GeoEngineering
- Current Advisory Editorial Board Member, Jordan Journal of Civil Engineering, an International Refereed Research Journal
- Co-Editor, ASCE Geotechnical Special Publication GSP No. 43, Fracture Mechanics Applied to Geotechnical Engineering, 1994
- Co-Editor, ASCE/ASME, Mechanics of Deforamtion and Flow of Particulate Materials, 1997
- GReview Board, ASCE Geotechnical Special Publication No. 185, Contemporary Topics in Deep Foundations", 2009
- Review Board, ASCE Geotechnical Special Publication No. 186, Contemporary Topics in In-Situ Testing, Analysis, and Reliability of Foundations, 2009
- Review Board, ASCE Geotechnical Special Publication No. 187, Contemporary Topics in Ground Modification, Problem Soils, and Geo-Support, 2009
- Review Board, ASCE Geotechnical Special Publication GSP No. 199, Drilled Shafts and Deep Foundations, 2010
- Co-Editor, ASCE Geotechnical Special Publication No. 205, Deep Foundations and Geotechnical In Situ Testing, 2010, pp.396.
- Co-Editor, ASCE Geotechnical Special Publication, GSP 216, Slope Stability and Earth Retaining Walls, 2011, pp.213

Current Research Projects

- Field Instrumentation, Monitoring of Drilled Shafts for Landslide Stabilization and Development of Pertinent Design Method, Federal Highway Administration and Ohio Department of Transportation
- Development and Integration of ODOT Geological Hazard Management System and Technical Support, Further Modification and Providing Web Service at the UA Facility, Federal Highway Administration and Ohio Department of Transportation
- Long Term Validation of an Accelerated Polishing Test Procedure for HMA Pavements, Federal Highway Administration and Ohio Department of Transportation
- Development and Implementation of Geo-LIMS, Ohio Department of Transportation and Federal Highway Administration
- Integration and Implementation of EQUIS, GHMS, RCDA, and DocMS, Ohio Department of Transportation and Federal Highway Administration
- Pipeline Corrosion and Preventions, National Council of Science and Technology – Mexico (CONACYT)

- Rockfall Concrete Barrier Evaluation and Design Criteria, Ohio Department of Transportation and Federal Highway Administration
- Role of Non-Uniform Corrosion Product Growth on Concrete Degradation, The Department of Defense of America
- Development and Implementation of GeoMS-Geotechnical Data Management System, Ohio Department of Transportation and Federal Highway Administration

List of Publications

1. Mitchell, J.K. and Liang, R.Y. (1986), "Centrifuge Evaluation of a Time-Dependent Numerical Model for Soil Clay Deformation", ASTM STP 892, Consolidation of Soils: Testing and Evaluation, R.N. Yong and F.C. Townsend, eds., 567-592.
2. Liang, R.Y., Sobhanie, M., and Shaw, H.L. (1988)", A Joint-Invariant Bounding Surface Plasticity Model for Anisotropic Behavior of Sands", Constitutive Equations for Granular Non-Cohesive Soils, Edited by A. Saada and G. Gianchina, A.A. Balkema, 383-402.
3. Triggs, J. Fred and Liang, R.Y. (1988), "Development of and Experiences from a Light-Weight, Portable Penetrometer Able to Combine Dynamic and Static Cone Tests", Penetration Testing (ISOPT-1), De Ruiter (ed.), Balkema, Orlando, FL., 467-473.
4. Liang, R.Y. and Mitchell, J.K., (1988), "Centrifuge Evaluation of Numerical Model for Clay", Journal of Geotechnical Engineering, ASCE, Vol. 114, No. 3, 265-283.
5. Liang, R.Y. (1989), "Numerical and Analytical Methods for Deep Foundations", Geotechnical Specialty Publication No. 23, ASCE, 211-224.
6. Liang, R.Y. and Shaw, H.L. (1991), "Anisotropic Hardening Plasticity Model for Sands", Journal of Geotechnical Engineering, ASCE, Vol. 117, No. 6, 913-933.
7. Liang, R.Y. and Li, Y.N. (1991), "Simulation of Nonlinear Fracture Process Zone in Cementitious Materials - A Boundary Element Approach", International Journal of Computational Mechanics, Vol. 7, No. 5/6, 413-427.
8. Liang, R.Y. and Li, Y.N. (1991), "A Study of Size Effect in Concrete Using Fictitious Crack Model", Journal of Engineering Mechanics, ASCE, Vol. 117, No. 7, 1631-1651.
9. Liang, R.Y. and Li, Y.N. (1991), "Prediction of Size-Dependent Maximum Loads of Concrete Beams", Journal of Engineering Mechanics, ASCE, Vol. 117, No. 5, 1059-1069.
10. Liang, R.Y. (1991), "In Situ Determination of Smith Soil Model Parameters for Wave Equation Analysis", Geotechnical Specialty Publication, No. 27, ASCE, 65-75.
11. Liang, R.Y., Hu, J.L., and Choy, F.K. (1991), "Detection of Cracks in Beam Structures Using Measurements of Natural Frequencies", Journal of the Franklin Institute, Vol. 328, No. 4, 505-518.
12. Li, Y.N., Liang, R.Y., and Wang, D.J. (1991), "On Convergence Rate of Finite Element Eigenvalue Analysis with Mass Lumping by Nodal Quadrature", Computational Mechanics, Vol. 8, No. 4, 249-256.
13. Liang, R.Y., Hu, J.L., and Choy, F.K. (1992), "A Theoretical Study of Crack-Induced Eigenfrequency Changes on Beam Structures", Journal of Engineering Mechanics, ASCE, Vol. 118, No. 2, 384-396.
14. Liang, R.Y., Hu, J.L. and Choy, F.K. (1992), "A Quantitative NDE Technique for Assessing Damage in Beam Structures", Journal of Engineering Mechanics, ASCE, Vol. 118, No. 7, 1468-1487.

15. Liang, R.Y. and Ma, F. (1992), "An Anisotropic Plasticity Model for Undrained Cyclic Behavior of Clays, I: Theory", Journal of Geotechnical Engineering, ASCE, Vol. 118, No. 2, 229-245.
16. Liang, R.Y. and Ma, F. (1992), "An Anisotropic Plasticity Model for Undrained Cyclic Behavior of Clays,II: Verification", Journal of Geotechnical Engineering, ASCE, Vol. 118 No. 2, 246-265.
17. Li, Y.N. and Liang, R.Y. (1992), "Stability Theory of the Cohesive Crack Model", Journal of Engineering Mechanics, ASCE, Vol. 118, No. 3, 587-603.
18. Liang, R.Y. (1992), "Experimental and Theoretical Study of Flexural Behavior of Polymer Fiber Reinforced, Cement-Treated Soils," Geotechnical Specialty Publication No. 30, ASCE, Vol. 2, 1080-1091.
19. Liang, R.Y. and Ma, F. (1992), "A Unified Elasto-Viscoplasticity Model for Clays, Part I: Theory", Computers and Geotechniques, An International Journal, Vol. 13, No. 2, 71-97.
20. Liang, R.Y. and Ma, F. (1992), "A Unified Elasto-Viscoplasticity Model for Clays, Part II: Verification", Computers and Geotechniques, An International Journal, Vol. 13, No. 2, 89-102.
21. Choy, F.K., Liang, R.Y., and Xu, P. (1992), "Fault Identification in Beam Structures", The Journal of Franklin Institute, Vol. 329, No. 4, 697-713.
22. Liang, R.Y. (1992), "Theoretical Interpretation of Smith Model Parameters", Application of Stress Wave Equation to Piling, Balkeman, Hague, The Netherlands, 111-116.
23. Morgano, M. and Liang, R.Y. (1992), "Energy Transfer in Standard Penetration Test -Rod Length Effect," Application of Stress Wave Equation to Pilings, Balkeman, Hague, The Netherlands, 121-127.
24. Liang, R.Y. and Husein, A.I. (1993), "Simplified Dynamic Method for Pile Driving Control", Journal of Geotechnical Engineering, ASCE, Vol. 119, No. 4, 694-713.
25. Li, Y.N. and Liang, R.Y. (1993), "The Theory of the Boundary Eigenvalue Problem in the Cohesive Crack Model and Its Application, Journal of the Mechanics and Physics of Solids, Vol. 41, No. 2, 331-350.
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