CURRICULUM VITAE

Farshad Amini, Ph.D., P.E.
Professor & Founding Chair
Fellow, American Society of Civil Engineers (ASCE)

ADDRESS

Farshad Amini, Ph.D., P.E., F. ASCE
Professor and Founding Chair
Department of Civil & Environmental Engineering,
Industrial Systems, & Technology
Jackson State University
P.O. Box 17068
Jackson, MS 39217-0168
Phone: 601-979-3913
Fax: 601-979-3238
Email: famini@jsums.edu

I. AREAS OF PRIOR RESEARCH GRANTS (Partial List)

Soil Dynamics and Earthquake Engineering
Innovative Levee Strengthening and Coastal Infrastructure Protection
Transportation Rehabilitation
Structural Dynamics and Earthquake Engineering
Infrastructure Materials
Multi-Disciplinary Research

II. TEACHING INTERESTS

- Teach practice-oriented and innovative design courses involving real-life problems.

III. EDUCATION

Ph.D. Civil Engineering, 1986
University of Maryland, College Park, MD

M.S. Civil Engineering, 1983
University of Kansas, Lawrence, KS

B.S. Civil Engineering, 1981
University of Kansas, Lawrence, KS

V. PROFESSIONAL LICENSE

Licensed Engineer (P.E.), State of Mississippi, No. 15287

IV. SPECIAL WORKSHOPS (Partial List)

- "Chairing Academic Departments", Workshop for Academic Chairs and Deans, American Council on Education, San Antonio, Texas, November 2002.
- Certificate for Participation in "Geosynthetic Applications" Workshop, Auburn University, July 1995 (one week).
- Completed "Outcome Assessment for Academic Programs" Workshop, Jackson, MS, June 2001.

VI. ABET ACCREDITATION AND ASSESSMENT EXPERIENCE (Partial List)

- Senior ABET Evaluator, Member of ABET Visitation Team-Engineering Accreditation Commission (EAC) (2002-2012).
- Prepared three ABET reports and coordinated the visit for the Civil Engineering Program.
- Developed a new civil engineering curriculum in accordance with ABET 2000 criteria.
- Prepared accreditation report for both the Department of Civil Engineering and School of Engineering at Jackson State University to meet the SACS (Accreditation body) requirements.
- Published a paper in the area of outcome assessment (Amini, F. and Rahman, S. "A Systematic and Structured Outcome Assessment Plan for a New Engineering Program", *Inter. J. of Eng. Education*, January 2008)
- Completed "Outcome Assessment for Academic Programs" Workshop, Jackson, MS, 2001.

VII. PROFESSIONAL EXPERIENCE

A. Academic Experience

9/00 – Present
Founding Chairman and Professor (Tenured) (9/00 to 8/02 Assoc. Prof., and 8/02 to Present Professor)
Department of Civil & Environmental Engineering, Industrial Systems & Technology
Jackson State University (Carnegie Designation: Research University – High Research Activity)
Responsibilities and Accomplishments (Partial List):

- As founding chairman of the new Civil Engineering Department, that offers quality ABET-accredited undergraduate and graduate programs (M.S. and Ph.D.), provides leadership both within the institution and externally. Articulates a vision and mission to faculty, staff, and students. Instills a sense of enthusiasm and confident climate of innovation. Stimulates all to contribute their best. Developed and led new undergraduate and graduate programs.
- Led fundraising efforts. Obtained substantial external funding (e.g., proposal to foundations)

- Guided and led the new Department to produce a very productive Civil Engineering Department nationwide in the area of externally funded research grants.
- The enrollment increased from 15 in 2001 to 211 in 2017. The enrollment increased by 257% from 2007 to 2017, the fasted increase at JSU.
- Prepared self-study report and coordinated the ABET activities for the new program.
- Developed new research initiatives by initiating cooperative research agreements
- Developed strong industry-government-university relationships. Prepared Strategic Plan, Business Plan, and Vision for the new department.
- Developed more than 12 many new teaching and two new research laboratories (scanning microscope core, and nano laboratories, funded by NSF and DOD).
- Initiated faculty, staff, and student recruitment. Recruited 7 faculty, one laboratory coordinator, one secretary, and several post-doctoral research staff.
- Assisted and developed a new and innovative civil engineering curriculum with input from the Department Advisory Board, employers, and other constituencies, and worked closely with the University Curriculum Committee during the new program and curriculum approval process.
- Developed several new graduate programs including admission requirements, degree requirements, and course syllabi.
- Developed and initiated the Ph.D. in Engineering Program (in 2014).
- Performed substantial fund-raising efforts.
- Prepared detailed course syllabi for more than 60 new courses incorporating the Systems Approach (course syllabi are available upon request.) The syllabi incorporated several issues including a survey of innovative approaches and best practices, ABET 2000 criteria, student learning outcomes and assessment, critical thinking, research integration, communication skills, and multidisciplinary integration aspects of the curriculum. Each syllabus includes such elements as detailed course references, students learning outcomes and assessment, grading scales, and topics by weeks.
- Identified space and infrastructure needs, laboratory utility requirements, equipment and software needs, and classroom and office requirements for both the temporary and permanent facilities. Prepared a detailed plan for ten new laboratories and worked closely with the Architect for the design of the new Engineering Building.
- Prepared agreements for an endowed chair position in Civil Engineering.
- Taught engineering mechanics courses incorporating the Systems Approach, and conducted research. Received several major research grants. Published and presented numerous papers. Received favorable teaching evaluations.

July 2017 - Present
- Manages both “Civil & Environmental Engineering”, and “Industrial Systems & Technology” Programs

2014-Present
Founding Director of the Ph.D. in Engineering

2007-Present
Co-Director, Electron Microscope Lab, College Core Lab

8/89 – 9/00
Associate Professor of Civil Engineering (8/94 to 9/00)
Assistant Prof. from 8/89 to 8/94 and Associate Prof. from 8/94 to 9/00.
Served as coordinator of the Civil Engineering Program (1/97 – 5/99)
University of the District of Columbia
Washington, D.C. 20008
Responsibilities and Accomplishments:

- Teaching: Taught engineering mechanics, soil mechanics Lec. and Lab., foundation engineering, advanced geotechnical design and practical problems in the metropolitan Washington area. Developed a new course for senior students. Emphasized on practical aspects of civil engineering. Developed new testing equipment for soil mechanics laboratory. Used several computer software packages (e.g. settlement analysis, slope stability analysis, direct shear, and consolidation). Designed new experiments. Emphasized on multidisciplinary, practice-oriented, integrative, critical thinking, communication skills, and research integration aspects of the curriculum.
- Research: conducted significant amounts of externally funded research in the areas of geotechnical, structural, and geoenvironmental engineering. Submitted research proposals. Obtained and conducted many major research grants. Published and presented numerous research papers. Participated in various national committees.
- Administrative: Served as the coordinator of the CE program (1/97 to 5/99). Prepared ABET accreditation reports. Identified equipment and software needs for the civil engineering program. Performed leadership responsibilities in the Civil Engineering Program. Established Industry-Government-Alumni Advisory Board for the program. Performed significant recruitment activities. Served as the ASCE faculty adviser for two years. Complete teaching, research, and service portfolios are available upon request.

8/86 - 12/86
Visiting Assistant Professor
Mechanical Engineering Department
University of Maryland, College Park, MD 20742
Responsibilities:

- Taught basic undergraduate courses in the application of numerical methods and computer programming in engineering.

8/85 - 6/86
Instructor
Mechanical Engineering Department
University of Maryland
College Park, MD 20742

B. Industrial Experience

10/86 - 8/89
Senior & Chief Geotechnical Engineer (full-time position)
Soil Consultant, Inc., Chantilly, VA 22021
Responsibilities: In charge of reviewing and preparing subsurface investigation and geotechnical and geoenvironmental engineering reports for special projects. Reviewed more than 1000 reports, and prepared more than 300 reports. Typical projects included design recommendations for landfill design, environmental assessment studies, expansive soils, slope stability analysis, lime stabilization, soil dynamics, liquefaction, pavement failure analysis, reinforced earth retaining walls, shallow and deep foundations and retaining walls, geoenvironmental applications, design specifications for dynamic compaction, and stone columns. Conducted research in the area of foundations on expansive soils. Involved with commercial and residential projects, water towers, antennas, etc. Reviewed reports prepared by project engineers. Prepared proposals for new and special projects. Worked on special projects involving groundwater problems, and slope stability analysis of marine clays. Sample projects are available upon request.

6/83 - 6/85
Construction Engineer (35 hrs/week)
The Driggs Corporation (largest earthwork related construction company in the Washington D.C. area), 8700 Ashwood Dr., Capitol Heights, MD 20743.
Responsibilities: Performed project management, soil specification analysis, quantity take-off, and cost estimating of earthwork and highway-related projects. The duties also included analyzing construction contracts.

8/89 - 12/93
Senior Geotechnical Consultant (part-time position)
Soil Consultants Inc., Chantilly, VA 22021
Responsibilities: In charge of reviewing geotechnical and construction monitoring (soil, steel, and concrete) reports as well as supervision of technicians and project engineers during inspection, construction monitoring, and material testing. See also above.

C. Forensic Studies Experience

Have directed many major forensic studies. Several journal papers have also been published. A partial list is shown below.

1. High-Speed Sled Track, The longest (more than 10 miles long) high-speed sled track in the world. The civil engineering problems included the settlement of the concrete girder, rise of the girder in other locations, and the deterioration of the girder.
2. 1220 13th Street, N.W., Washington, DC. 13,000 ft^2 two-story office building. The structural failure of the various elements including concrete beams, girders, and roofs possibly due to overload was analyzed. civil engineering included (Structural Failure, Expert Witness)
3. Old Post Office Foundation Failure Investigation, VA

4. Aston Park Appartements Pavement Failure Investigation, VA
5. Residential Building Foundation Failure Investigation, VA

D. Consulting Experience

12/93 to 2000 (part-time)
Prepared subsurface investigation and geotechnical engineering reports (e.g. Fairfax County Public School system, commercial and public buildings). Performed liquefaction and permafrost studies for several sites in Alaska. Served as an expert witness on several projects (See also "Forensic Studies Experience").

VII. ADVANCED LABORATORY EXPERIENCE

Serves as co-faculty manager for the Scanning Microscope Laboratory (one of the College's Shared Core laboratories) funded by NSF-MRI. Developed Civil Engineering Nano Lab (funded by ERDC). Developed several new research laboratories including Civil Engineering Nano laboratory and Soil Dynamics Laboratory. Supervised active control experiments of a 3-story scale model structure on a shake table. Developed a new soil dynamics research laboratory at UDC. Acquired new equipment including the Drnevich resonant column apparatus, automated triaxial test device, FFT analyzer, and workstations. Set up a sand filter water quality structure apparatus and conducted experiments.

IX. GRADUATE AND UNDERGRADUATE STUDENT ADVISING

Initiated and developed a new Ph.D. Program at Jackson State University. Developed a cooperative Ph.D. program with the Department of Civil Engineering of the University of Maryland at College Park. Serves as a member of the graduate faculty, graduate council, and graduate curriculum committee at Jackson State University. Hired and supervised many undergraduates, M.S., and Ph.D. students, and post-doctoral associates. Post-doctoral associates: 13; Ph.D. students: 6; MS. students:8; Undergraduate students: 66.

X. HONORS AND AWARDS (Partial List)

- ASCE Fellow, American Society of Civil Engineers (ASCE) A very prestigious designation. Indicating significant contributions to the field. Only a very small percentage of the ASCE members have been elected to the Fellow. 2008 – Present

- Faculty Productivity Award, In Recognition of Outstanding Research in the Field of Engineering, Office of Research and Federal Relations, Jackson State University Division of Research, Training and International Programs, Jackson State University August 2006

- Outstanding Research Award, In Recognition of Outstanding Research in the Field of Engineering, Division of Research, Training and International Programs, University of the District of Columbia, August 1994.

- Engineering Excellence Awards Juror, State-Wide Award Sponsored by the Consulting Engineers Council of Mississippi, Awarded by the Governor of Mississippi, Feb. 2001.

- Outstanding Service Award, Jackson State University ASCE Student Chapter; in Recognition of Outstanding Activities in Support of the JSU ASCE Student Chapter, 2008

XI. Fund-Raising Activates (Partial List)

- Yates Construction 2016-present
- Severn Trent Services 2009
- Lamar Endowment 2008
- Neal Schafer Scholarships 2001
- Yates Construction 2016-present
- Hearin Foundation, 2014

XII. Noteworthy Research

- Innovative Levee Strengthening under Hurricane Conditions (Full-Scale Testing, Numerical Modeling, Slope Stability Analysis)
- Liquefaction of Layered Soils
- Effect of Random Loading on Soil Behavior

XIV. FUNDED RESEARCH GRANTS

FUNDED RESEARCH GRANTS (PARTIAL LIST)

Principal investigator or co-principal investigator of more than 50 major research grants from various funding agencies such as NSF, DHS, ARO, Navy, AFOSR, USGS, MDOT, ERDC, CARUP, D.C. Government, and other agencies. This information is summarized below.

Funding Agency	**No. of Grants**	**Remarks**
NSF	10	7 Research Grants; 2 Research Equipment; 1 Research/Education
Army Research Office	4	2 Research Grants; 2 Research Equipment
Air Force Office of Scientific Research	1	Research
ERDC	11	8 Research, three Education
Navy	1	Research
DHS	2	Research
DOD	3	2 Research, one education
U.S.G.S.	5	Research
MDOT	14	8 Research, one Equipment, 6 Education
D.C. Government	1	Research
Army Corps. of Engineers	2	Research
CARUP	2	Research
BCD	1	Research
UDC	2	Research
U.S. DOT	4	Two Research, two Education
NASA	1	Research
MS Board	4	Equipment
Total	**70**	

FUNDED NSF Grants

Title: Development of Augmented Learning Facilitated Teaching Model to Enhance STEM Education
PI: F. Amini, Co-PI: L. Li, Y. Li; J. Yin, W. Walters
Funding Agency: National Science Foundation
Amount: $350,000 (FUNDED)
Dates: 2018-2022

Title: Investigating the Effect of Active Flipped Learning in STEM Education
PI: F. Amini; Co-PI; L. Li; J. Yin, T. Kewmbe
Funding Agency: National Science Foundation,
Amount: $350,000 (FUNDED)

Supported by: National Science Foundation,
Dates: 2016-2021

Title: Collaborative Research: Mixed Reality Transformation of Engineering Education
PI: F. Amini at JSU; PI at RPI: T. Abdoun (Lead University)
Funding Agency: National Science Foundation
Amount: $1.1M (JSU Share: 25K over 4 years) (FUNDED)
Supported by: National Science Foundation,
Dates: 1/1/2020-1/1/2024

Title: MRI: Acquisition of a Multi-Beam SEM/FIB for Multidisciplinary Materials Study and Training
PI: L. Li, Co-PI: F. Amini, W. Walters, A. Hamme
Funding Agency: National Science Foundation,
Amount: $559,660.00 (FUNDED)
Supported by: National Science Foundation,
Dates: October 2015-September 2018

Title: CSEM Enhancement Program
PI: F. Amini; Co-PI: Loretta Moore
Total Amount: $ 343,700.00 (FUNDED)
Supported by: National Science Foundation
Dates: 2001-2007

Title: ESEM for Soil Liquefaction Research
PI: F. Amini
Total Amount: $ 192,900.00 (FUNDED)
Supported by: National Science Foundation
Dates: 2002-2004

Title: Behavior of Stratified Sand-Gravel Composites under Seismic Liquefaction Conditions
PI: F. Amini
Total Amount: $ 157,723.00 (FUNDED)
Supported by: National Science Foundation (NSF)
Dates: 1996 to 1999

Title: Research Equipment for Soil Dynamics Testing and Study of the Effect of Time on Dynamic Soil Properties. This grant provided both salary (about 60K) and equipment funds (60K) (Indirect cost: 22K)
PI: F. Amini
Total Amount: $ 120,000.00 (FUNDED)
Supported by: National Science Foundation (NSF)
Dates: 1992 to 1995

Title: Active Control of Structures Instrumented with Optical Fiber Sensors under Earthquake Loading. (Simulation Studies as well as Experiments on Shake Table, Neural Networks Application in Identification and Control)
PI: J. C. S. Yang, G. Z. Qi, F. Amini, and J. Sirkus
Total Amount: $ 229,425.00 (FUNDED)
Supported by: National Science Foundation (NSF)
Dates: 1992-1995

Title: Identification and Active Control of Structures under Earthquake Loading (Neural Networks Application in Identification and Control)
PI: J. C. S. Yang, G. Z. Qi, and F. Amini
Total Amount: $ 50,000.00 (FUNDED)
Supported by: National Science Foundation (NSF)
Dates: 1991-1992

Other Grants

Title: Advanced Landslide Investigation protocol using Geophysical Testing
PI: S. Khan and F. Amini
Total Amount: $ 300,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 7/12020- 6/30/2022

Title: Performance Evaluation of Highway Slopes on Yazoo Clay
PI: S. Khan and F. Amini
Total Amount: $ 196,500.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2018- 2020

Title: Airborn Survey System for Enhancement of Surveying Engineering Laboratory to Support ABET Accredited Civil Engineering Program at Jackson State University
PI: S. Khan; Co-PI: F. Amini
Total Amount: $ 31,600.00.00 (FUNDED)
Supported by: MS Board for Licensure for Professional Engineers & Surveyors
Dates: 2018-2019

Title: Enhancement of Environmental Engineering Laboratory to Support ABET Accredited Civil Engineering Program at Jackson State University
PI: Danuta Leszczynska and Co-PI: F. Amini
Total Amount: $ 22,000.00 (FUNDED)
Supported by: MS Board for Licensure for Professional Engineers & Surveyors
Dates: 20018- 2020

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 62,000.00 (FUNDED)

Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2018

Title: Numerical Water Quality and Contaminant Modeling
PI: F. Amini
Total Amount: $ 280,000.00 (FUNDED)
Supported by: DOD
Dates: October 1, 2014-November 30, 2016

Title: Update and Documentation of MDOT Warranty Process and Distress Thresholds
PI: F. Wang; Co-PI: F. Amini
Total Amount: $ 198,992.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 10/1/2016- 6/30/2019

Title: JSU-ERDC Education and Research Programs
PI: Y. Li, Co-PI: PI: F. Amini
Total Amount: $ 1,600,000.00 (FUNDED)
Supported by: DOD/ERDC
Dates: 2017-2022

Title: Enhancement of Surveying Engineering Laboratory to Support ABET-EAC Accredited Civil Engineering Program at Jackson State University
PI: F. Amini
Total Amount: $ 25,000.00
Supported by: MS Board for Licensure for Professional Engineers & Surveyors
Dates: 2016

Title: Enhancement of Hydraulics Engineering Laboratory to Support ABET-EAC Accredited Civil Engineering Program at Jackson State University
PI: H. Das and Co-PI: F. Amini
Total Amount: $ 27,168.00
Supported by: MS Board for Licensure for Professional Engineers & Surveyors
Dates: 2016

Title: Innovative Levee Strengthening and Testing under Full-Scale Overtopping Conditions
PI: F. Amini; Co-PI: Dr. Lin Li
Total Amount: $ 1,000,000.00.00 (FUNDED)
Supported by: Department of Homeland Security (DHS)
Dates: 2009-2012

Title: High-Performance Turf Reinforcement Mat Strengthened Levee under Combined wave and Storm Surge Turbulent Overtopping Conditions
PI: F. Amini; Co-PI: Dr. Lin Li
Total Amount: $ 450,000.00 (FUNDED)

Supported by: Department of Homeland Security (DHS)
Dates: 2011-2012

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 58,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2016

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 62,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2017

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 58,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2015

Title: Long-Term Field Studies and Monitoring of Paving Fabric Systems to Reduce Reflective Cracking
PI: F. Amini
Total Amount: $ 218,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2005- 2016

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 58,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2014

Title: Numerical Water Quality and Contaminant Modeling (L-9)
PI: F. Amini
Total Amount: $ 63,000.00 (FUNDED)
Supported by: DOD
Dates: 2013-2014

Title: Hyper-Velocity Impact Resistant and Self Healing Nano Materials in Space Applications
PI: F. Amini (Peter Sukanek; Al-Ostaz, & F. Amini, et al.)
Total Amount: $ 20,000.00 (FUNDED)
Supported by: NASA
Dates: 2013-2016

Title: Numerical Water Quality and Contaminant Modeling
PI: F. Amini
Total Amount: $ 120,000.00 (FUNDED)
Supported by: DOD
Dates: 2012-2014

Title: Summer Transportation Institute
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 58,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2013

Title: Assessment of Pavement Infrastructure
PI: F. Wang; Co-PI: F. Amini; L. Li
Total Amount: $ 712,000.00 (FUNDED)
Supported by: US Department of Transportation
Dates: 2010-2012

Title: Summer Internship Program
PI: Y. Li, Co-PI: PI: F. Amini
Total Amount: $ 2,000,000.00 (FUNDED)
Supported by: DOD/ERDC
Dates: 2012-2017

Title: Cost-Effectiveness Study of the Pavement Warranty Program in Mississippi
PI: Qi, Y., Co-PI: F. Wang & F. Amini
Total Amount: $ 130,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2011-2013

Title: Evaluation of MDOT's Distress Thresholds for Maintained Pavement Projects
PI: F. Wang; Co-PI: F. Amini
Total Amount: $ 120,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2009-2011

Title: Comparative Slope Stability Analysis for Hurricane Protection Systems Using the Method of Planes and the Method of Slices
PI: F. Amini
Total Amount: $ 19,119.00 (FUNDED)
Supported by: Burns Cooley Dennis Inc.
Dates: 2007-2008

Title: Lake Chicot Display Center
PI: F. Amini; Co-PI: L. Li

Total Amount: $ 12,425.00 (FUNDED)
Supported by: U.S. Army Corps. of Engineers – Vicksburg District
Dates: 2007-2008

Title: Protective Technology Research
Principal Investigator: F. Amini
Supported by: U.S. Army Engineering, Research, and Development Center (ERDC)
Total Amount: $463,000.00 (FUNDED)
Dates: 2003-2006

Title: Scientific Visualization of Soil Liquefaction for the Design and Maintenance of Seismic Dams
PI: F. Amini; Co-PI: S. Rahman
Supported by: Engineering, Research, and Development Center (ERDC)
Total Amount: $ 39,700.00 (FUNDED)
Dates: 2003-2004

Title: Research on Potential Applications of the Static and Dynamic Cone Penetrometers in MDOT Pavement Design and Construction
PI: F. Amini
Total Amount: $ 35,700.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2002-2003

Title: Research on Applications of Paving Fabrics to Reduce Reflective Cracking
PI: F. Amini
Total Amount: $ 37,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2003-2004

Title: Acquisition of Superpave for CE Program enhancement at JSU
PI: F. Amini
Total Amount: $ 125,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: 2002-2003

Title: Computer-Based Unix Laboratory
PI: M. Manzoul, F. Amini, and S. White
Total Amount: $ 138,000.00 (FUNDED)
Supported by: Army Research Office (ARO)
Dates: 2002-2003

Title: Liquefaction at Depth
PI: F. Amini
Supported by: Stennis Space Center, DOD-Navy
Total Amount: $100,000.00 (FUNDED)

Dates: 2001-2002

Title: Microstructure Features of Particulate Materials Using ESEM
PI: F. Amini
Supported by: Army Research Office (ARO)
Total Amount: $237,000.00 (FUNDED)
Dates: 1998 to 2000

Title: Microstructure Features and Dynamic Macro-Behavior of Particulate Materials
PI: F. Amini
Supported by: Air Force Office of Scientific Research
Total Amount: $ 49,570.00 (FUNDED)
Date: 1997

Title: Behavior of Stratified Undrained Contractive Silty Sands Under Seismic Liquefaction Conditions
PI: F. Amini
Total Amount: $ 120,000.00 (FUNDED)
Supported by: Army Research Office (ARO)
Dates: 1993 to 1995

Title: Liquefaction of Layered Silty Sands
PI: F. Amini
Total Amount: $ 28,698.00 (FUNDED)
Supported by: Army Research Office; Dates: 1994-1995

Title: Performance Tests for Model Sand Filters
PI: F. Amini and F. F. M. Chang
Total Amount: $ 10,000.00 (FUNDED)
Supported by: D.C. Government
Date: 1993

Title: An Experimental Study of the Optimal Thickness of Sand Layer in a Sand Filter Water Quality Structure
PI: F. Amini and F. F. M. Chang
Total Amount: $ 31,733.00 (FUNDED)
Supported by: U.S. Geological Survey, Dept. of Interior
Dates: 1993-1994

Title: Definition of Groundwater Flow in the Water Table Aquifer of the Downtown Washington D.C. Area
PI: F. Amini & G. Matheson
Total Amount: $ 42,185.00 (FUNDED)
Supported by: U.S. Geological Survey, Dept. of Interior
Dates: 1994-1995

Title: Definition of Groundwater Flow and Water Quality in the Water Table Aquifer of the Southern Anacostia River Basin
PI: F. Amini & G. Matheson
Total Amount: $ 20,526.00 (FUNDED)
Supported by: U.S. Geological Survey, Dept. of Interior
Dates: 1993-1994

Title: Definition of Groundwater Flow and Water Quality in the Water Table Aquifer of the Southern Anacostia River Basin
PI: F. Amini;
Total Amount: $ 20,526.00 (FUNDED)
Supported by: U.S. Geological Survey, Dept. of Interior;
Dates: 1993-1994

Title: A New Procedure for Estimation of Soil Parameters for Use in Slope Stability Analysis in Northern Virginia
PI: F. Amini
Total Amount: $ 5,120.00 (FUNDED)
Supported by: Center for Applied Research and Urban Policy (CARUP),
Date: 1990

Title: Dynamic Soil Behavior under Impulse Loading Conditions Considering Nonlinear Effects
PI: F. Amini
Total Amount: $ 4,495.00 (FUNDED)
Supported by: Academic Affairs, Peer-Reviewed Faculty Senate Research, UDC, Date: 1991

Title: Dynamic Soil Behavior under Impulse Loading Conditions
PI: F. Amini
Total Amount: $ 5,000.00 (FUNDED)
Supported by: Academic Affairs, Peer-Reviewed Faculty Senate Research, UDC
Date: 1990

Title: Transportation Research and Education Enhancement Program through Graduate Students Support at JSU
PI: F. Amini
Total Amount: $ 16,348.00 (FUNDED)
Supported by: FTA
Dates: 2007-2008

Title: Enhancement of JSU Transportation Engineering through Financial Assistance to students PI: F. Amini
Total Amount: $ 25,800.00 (FUNDED)
Supported by: FTA

Dates: 2007-2008

Title: Enhanced K-12 Outreach for Metropolitan Transportation Education
PI: L. Li; Co-PI: F. Amini
Total Amount: $ 10,159.00 (FUNDED)
Supported by: FTA
Dates: 2007-2008

Title: Summer Transportation Institute
PI: I. Simone; Co-PI: F. Wang & F. Amini
Total Amount: $ 10,000.00 (FUNDED)
Supported by: Mississippi Department of Transportation (MDOT)
Dates: Summer 2011

XV. SELECTED PUBLICATIONS (Partial List)

Author or co-author of more than 200 published research article, with the vast majority in top engineering journals. A partial list is shown below.

A1. Books

1. Li, L., Amini, F., Pan, Y, Yuan, S, and Cetin, B., (2021). *Hydraulics of Levee Overtopping*, CRC Press, Francis & Taylor, ISBN 978-0-367-27727-7.

A2. Refereed Chapters in Books

2. Qi, G. Z., Yang, J. C. S., and Amini, F. (1997). "Neural Network for Identification and Control of Civil Engineering Structures", Chapter 7 in a Book entitled Artificial Neural Network for Civil Engineers: Fundamentals and Applications, ASCE, Kartam, Flood, and Garrett, eds, ASCE, New York, N.Y. 92-123.

B. Refereed Journal Papers

1. Amini, F., Tawfiq, K. S., and Aggour, M. S. (1988). "Cohesionless Soil Behavior under Random Excitation Conditions," Journal of Geotechnical Engineering Div., ASCE, 114(8), 896-914.

2. Aggour, M. S., Taha, M. R., Tawfiq, K. S., and Amini, F. (1989). "Cohesive Soil Behavior under Random Excitation Conditions," Geotechnical Testing Journal, ASTM, June, Vol. 12, No. 2, 135-143.

3. Amini, F. (1990). "Dynamic Soil Properties Using Improved Transfer Function Methods," Journal of Soil Dynamics and Earthquake Engineering, Vol. 9, No. 6, November, 274-279.

4. Amini, F. (1993). "Effect of Confining Pressure on Dynamic Soil Properties Using Improved Transfer Function Estimators," Journal of Soil Dynamics and Earthquake Engineering, Vol. 12, 145-147.

5. Amini, F., (1995). "Time Effects on Dynamic Soil Properties under Random Excitation Conditions," Journal of Soil Dynamics and Earthquake Engineering, Vol. 11, No. 9. pp. 439-443.
6. Amini, F. and Smith, R. L. (1995). "Peak Flow Rates and Volumes Predictions Using Frequency Equivalent Hydrographs," Journal of Water Resources, Planning, and Management, ASCE, Vol. 121, No. 5, Sept., 359-364.

7. Qi, G. Z., Chen, H. M. Tsai, K. H, Yang, J. C. S., and Amini, F. (1995). "Neural Networks for Structure Control," Journal of Computing in Civil Engineering, ASCE, Vol. 9, No. 2, April, 168-176.

8. Qi, G. Z., Chen, H. M. Tsai, K. H., Yang, J. C. S., and Amini, F. (1995). "Neural Network for Structural Dynamic Model Identification," Journal of Engineering Mechanics, ASCE, Vol. 121, No. 12, December. 1377-1381.

9. Amini, F., (1995). "Time Effects on Dynamic Soil Properties Under Random Excitation Conditions," Journal of Soil Dynamics and Earthquake Engineering, Vol. 14, No. 6, 439-443.

10. Fahoum, K., Aggour, M. S., and Amini, F., (1996). "Dynamic Properties of Cohesive Soils Treated with Lime," Journal of Geotechnical Engineering, ASCE, Vol. 122, No. 5, May, 382-389.

11. Khalilian, A. and Amini, F. (1996). "A Case of a Residential Foundation Failure and Preservation by Pressure Grouting," Journal of Performance of Constructed Facilities, ASCE, Vol. 10, No. 4, November, 159-163.

12. Amini, F., Chen, H. M., Qi, G. Z., and Yang, J. C. S., (1996). "Neural Network Based Active Control Experiments on Model Structure," Structural Control., Vol. 1, 294-299

13. Amini, F. (1996). Discussion of "System Identification and Its Application to Estimating Soil Properties by S. Glaser," Journal of Geotechnical Engineering, ASCE, Vol. 122, No. 10.

14. Amini, F. (1996). "Effect of Filter Thickness on the Efficiency of Sand Filter Water Quality Structure," Water Quality Research Journal of Canada, Vol. 31, No. 4, Nov., 801-807

15. Amini, F. and Khalilian, A. (1997). "Old Post Office Foundation Failure Investigation," Journal of Performance of Constructed Facilities, ASCE, Vol. 11, No. 1, February, 13-17.

16. Chen, H. M., Qi, G. Z., Yang, J. C. S., and Amini, F. (1998). "Experimental Study of Active Control Using Neural Network," Journal of Structural Control, Vol. 5, No. 1. 27-43.

17. Amini, F. and Truong, H. V. (1998). "Effect of Filter Media Particle Size Distribution on Filtration Efficiency," Water Quality Research Journal of Canada, Vol. 33, No. 4, 589-594.

18. Amini, F. and Qi, G. Z. (2000). "Liquefaction Testing of Layered Silty Sands," Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 126, No. 3, 208-217.

19. Amini, F. and Sama, K. M. (1999).“Behavior of Stratified Sand-Silt-Gravel Mixtures under Seismic Liquefaction Conditions,” Journal of Soil Dynamics and Earthquake Engineering, Vol. 18, No. 6, 445-455.

20. Amini, F. (1999). “Effect of Time on Dynamic Properties of Cohesive Soils Using Improved Transfer Function Estimators,” Journal of Soil Dynamics and Earthquake Engineering, Vol. 18, No. 6, 457-461.

21. Amini, F. (2002). Closure of “Liquefaction Testing of Layered Silty Sands,” Discussion by M. Hussein, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 128, No. 1.

22. Amini, F., Biddlecome, Rahman, S., and Sharpe, M. (2004). “Liquefaction at Depth Visualization,” Environmental Modeling and Simulation, CAT Press, Vol. 2, 151-155.

23. Amini, F. & Chakravarty, A. (2004). “Liquefaction Testing of Stratified Sand-Gravel Composites,” Geotechnical Testing Journal, ASTM, January, pp. 36-46.

24. Amini, F. & Rahman, S. (2008). **“**A Systematic and Structured Outcome Assessment Plan for a New Engineering Program,” International Journal of Engineering Education, Vol. 24, No. 1, 189-199.

25. Amini, F. (2008). Discussion of “Sample Preparation of Silts for Liquefaction,” by A. S. Bradshaw and C. D. Baxter, Geotechnical Testing Journal, ASTM, Vol. 3, No. 6.

26. Chatterjee, J., Amini, F., and Cooley, L. A. (2009). A Comparative Slope Stability Analysis of New Orleans I-Wall Subjected to Hurricane Loading,” International Journal of Geotechnical Engineering, Vol. 3, No. 3, 459-467.

27. Chatterjee, J., and Amini, F. (2011). “Slope Stability Analysis of T-Wall Subjected to Hurricanes Loading,” International Journal of Geotechnical Engineering, Vol. 5, No. 1. 103-112.

28. Shin, H., Chiarito, V., and Amini, F. (2011). “Measurements of Strain Relief in Concrete Cubes with Slot Cutting**,”** Journal of Applied Sciences Research, Vol. 7, No. 5. .215 1-2163.

29. Li, L., Peng, B., Santos, F., Li, Y., and Amini, F. (2011). “Groundwater Impacts from Leaching of Coal Combustion Products in Roadways Embankment Construction,” Journal of ASTM International, Vol. 8, No. 8, 1-12.

30. Chatterjee, J., and Amini, F. (2011). “A Comparative Assessment of Slope Stability of New Orleans I-Wall with gap between the Wall and Layered Cohesive

Backfill," Geomechanics and Geoengineering, An International Journal Vol. 6, No. 3, pp. 217-225.

31. Xu, G., Chatterjee, J., and Amini, F. (2011). "A Comparative Slope Stability Analysis of New Orleans Levee Subjected to Hurricane Loading" Electronic Journal of Geotechnical Engineering, Vol. 16/C, 325-336.

32. Amini, F., Xu, Y., and Li, L. (2013). "Two-Dimensional Slope Stability Analysis of Earthen Levee Strengthened by Articulated Concrete Block System under Hurricane Overtopping Flow Conditions." International Journal of Geotechnical Engineering, 7(2). 178-186

33. Amini, F., Turnquest, B., and Ahlrich, R. (2012). "Construction Monitoring of Paving Fabrics Systems to Reduce Reflective Cracking." International Journal of Emerging Technology and Advanced Engineering, 2(6): 413-420.

34. Rao, X., Li, L., Amini, F., & Tang, H. (2012). "Numerical Study of Combined Wave and Surge Overtopping over RCC Strengthened Levee System Using Smoothed Particle Hydrodynamics Method." Ocean Engineering, 54:101-109.

35. Xu, Y., Li, L., and Amini, F. (2012). "Slope Stability Analysis of Earthen Levee Strengthened by High-Performance Turf Reinforcement Mat under Hurricane Overtopping Flow Conditions." Journal of Geotechnical and Geological Engineering, 30:893-905.

36. Pan, Y., Li, L., Amini, F., and Kuang, C. P. (2013). "Comparison of the Hydraulic Performances of Three Levee-Strengthening Systems and Hydraulic Equivalency Analysis between Steady and Intermittent Overtopping." Journal of Waterways, Coastal and Ocean Engineering, ASCE, 139(7), 256-266.

37. Pan, Y., Li, L., Amini, F., and Kuang, C. P. (2012). "Full-Scale HPTRM Strengthened Levee Testing under Combined Wave and Surge Overtopping Conditions: Overtopping Hydraulics, Shear Stress, and Erosion Analysis."Journal of Coastal Research, DOI: 10.2112/JCOASTRES-D-12-00010.1., 29(10, 182-200.

38. Li, L., Pan, Y., Amini, F., and Kuang, C. P. (2012). "Full-Scale Laboratory Study of Combined Wave and Surge Overtopping of a Levee with RCC Strengthening System." Ocean Engineering, 54(1): 70-86.

39. Li, L., Amini, F., Rao, X, and Tang, H. (2012). "SPH Modeling of Surge Overflow over RCC Strengthened Levee," International Journal of Oceans Systems Engineering, 2(4): 200-208.

40. Xu, Y., Li, L., and Amini, F. (2012). "Slope stability Analysis of Earthen Levee Strengthened by Roller-Compacted Concrete under Hurricane Overtopping Flow

Conditions." Journal of Geomechanics and Geoengineering, DOI: 10.1080/17486025. 2012.695400: 1-10

41. Rao, X., Li, L., Amini, F., and Tang, H. (2012). "SPH Modeling of Combined Wave and Surge Overtopping and Hydraulic Erosion of ACB Strengthened Levee System." Journal of Coastal Research, 28(6):1500-1511.

42. Yuan, S., Li, L., Amini, F. and Tang, H. (2013). "Shear Stress and Erosion Simulation Over a HPTRM Strengthened Levee under Turbulent Flow Condition." Journal of Coastal Research, 30 (1), January, 142-157.

43. Li, L., Amini, F., Rao, X., and Tang, H., (2013). "SPH Study of Surge Overflow and Hydraulic Erosion of Earthen Levee Armored by Articulated Concrete Blocks," Current Development in Oceanography, 6(2): 61-80.

44. Amini, F., and Li, L. (2013). "Slope Stability of an Earthen Levee Strengthened by Articulated Bloacks, under Hurricane Overtopping Condition," International Journal of Geotechnical Engineering, 7(2), 178-186.

45. Chatterjee, J. and Amini, F. (2013). "Two-Dimensional Slope Stability Analysis of Sheet Pile Supported I-wall in New Orleans, Louisiana with Sheet Pile Penetrating into Sand Layer." Journal of Geomechanics and Geoengineering. DOI: 10.1080/17486025. 2012.726747: 1-7.

46. Li, L., Amini, F., Pan, Kuang, C. P., and Briaud, J. (2014). "Erosion Resistance of HPTRM Strengthened Levee from Combined Wave and Surge Overtopping." Journal of Geotechnical and Geological Engineering, Vol. 32, No. 4, 847-957.

47. Yuan, S., Li, L. Amini, F., and Tang, H. (2014). "Turbulence Measurement of Combined Wave and Surge Overtopping over a Full Scale HPTRM Strengthened Levee." ASCE Journal of Waterways, Coastal and Ocean Engineering, 140 (4), July/August, 04014014-1 thr. 04014014-15. 10.1061/(ASCE)WW.1943-5460.0000230.

48. Zhao, Q., Li, L., Li, C., Huan, Z., and Amini, F. (2014). "A Full Contact Flexible Mold for Preparing Sample Based on Microbial Induced Calcite Precipitation Technology," ASTM Geotechnical Testing Journal, Vol. 37, No. 5, Sept., doi: 1520/GTJ20130090. 917-921.

49. Li, L., Amini, F., & Wu, J. (2014). Turbulence and Seepage Effect on the Slope Stability of Earthen Levee Strengthened by High Performance Turf Reinforcement Mat, Journal of Geotechnical and Geological Engineering, August, Volume 33, Issue 1 (2015), Page 1-13, DOI: 10.1007/s10706-014-9813-0.

50. Yuan, S., Li, L., Amini, F., and Tang, H., (2014). Development of Hollow Light-Weight Constructional Materials Development through Microbial Induced

Calcium Carbonate Precipitation "Numerical Study of Turbulence and Erosion of an HPTRM Strengthened Levee under Combined Storm Surge Overflow and Wave Overtopping," Journal of Coastal Research, 30(1): 142-157.

51. Li, L., Yuan, S., Amini, F. and Tang, H. (2015). "Numerical Study of Combined Wave Overtopping and Storm Surge Overflow of HPTRM Strengthened Levee." Ocean Engineering, 97, 1-11.

52. Zhao, Q., Li, L., Li, C., Huan, Z., & Amini, F. (2014). "Factors Effecting Improvement of Engineering Properties of MICP-treated Soil Catalyzed by Bacteria and Urease," Journal of Materials, ASCE, 10.1061/(ASCE)MT.1943-5533.0001013 (Jan. 2, 2014).

53. Yuan, S., Li, L., Amini, F., Tang, H. (2015). "Sensitivity of Combined Wave Overtopping and Storm Surge Overflow Response to Variations in Levee Geometry," Journal of Coastal Research, doi: 10.2112/JCOASTRES-D-14-00079.1.

54. Pan, Y., Li, L., Amini, F. & Kuang, C. (2015). "Overtopping Erosion and Failure Mechanism of Earthen Levee Strengthened by Vegetated HPTRM System," Ocean Engineering, 96, 139-148.

55. Yuan, S., Tang, H., Li, L., Amini, F., (2015). "Combined Wave and Surge Overtopping Erosion Failure Model of HPTRM Levees: Accounting for Grass-Mat Strength," Ocean Engineering, 109, 256-269.

56. Li, C., Huang, H., Li, L., Gao, Y., Ma, Y., and Amini, F. (2015). "Geotechnical Hazards Assessment on Wind-eroded Desert Embankment in Inner Mongolia Autonomous Region, North China," Natural Hazards, November, 76(1), 235-257, doi: 10.1007/s11069-014-1484-x.

57. Amini, F., and Li, L. (2015)., "Slope Stability of an Earthen Levee Strengthened by HPTRM under Turbulent Overtopping Condition," International Journal of Civil & Environmental Engineering, Vol. 9, No. 15, 456-459.

58. Pan, Y., Kuang, C. P. Li, L., & Amini, F. (2015). "Full-Scale Laboratory Study on Distribution of Individual wave Overtopping Volumes over a Levee under Negative Freeboard," Coastal Engineering, Vol. 97, 11-20, http://dx.doi.org/10.1016/j.coastaleng.2014.12.007

59. Amini, F., and Li, L., 2015, Slope Stability of an Earthen Levee Strengthened by HPTRM under Turbulent Overtopping Conditions, International Journal of Environmental, Ecological, Geological and Geophysical Engineering, Vol:9, No:5, 2015, 277-280.

60. Li, M., Li, L., Ogbonnaya, U., Wen, K., Tian, A., and Amini, F., (2016). "Impacts of randomly Distributed Discrete Fiber on Geomechanical Properties of MICP-treated Sand," Journal of Materials in Civil Engineering, ASCE, 28(4), DOI: 10.1061/(ASCE)MT.1943-5533.0001442.

61. Li, L., Rao, X., Amini, F., and Tang, H. (2015). "SPH Modeling of Hydraulics and Erosion of HPTRM Levee," Journal of Advanced Research in Ocean Engineering, Vol.1, No.1, 1-13.

62. Yuan, S., Li, L., Tang, H., & Amini, F. (2016). "The Erodibility of HPTRM-Strengthened Earthen Levees Against the Combined Storm Surge Overflow and Wave Overtopping," Journal of Earth Surface Processes and Landforms.,

63. Li, C., Zhu, W., Li, L., Lu, B, Yao, D., and Amini, F., (2016). "A Study on Dynamic Initiation Mechanism of Debris Flows through Geotechnical Tests," Journal of Mountain Science, DOI: 10.1007/s11629-014-3258-z. (IF=1.015)

64. Pan, Y., Li, L., Amini, F., Kuang, C.P., and Chen, Y. (2016). "New Understanding on the Distribution of Individual Wave Overtopping Volumes over a Levee under Negative Freeboard," Journal of Coastal Research, 75: 1207-1211.

65. Li, C., Yao, D., Wang, Z., Liu, C., Wuliji, N., Yang, L., Li, L., and Amini, F., (2016). "Model Test on Rainfall-induced Loess–mudstone Interfacial Landslides in Qingshuihe, China," Environmental Earth Sciences (IF=1.059), 75(9): 835, doi:10.1007/s12665-016-5658-6.

66. Li, C., Zhu, W., Li, L., Lu, B, Yao, D., and Amini, F., (2016). "Experimental Analysis for the Dynamic Initiation Mechanism of Debris Flows," Journal of Mountain Science 13(4): 581-592.

67. Li, L., Wen, K., Li, C. and Amini, F., (2017). "FIB/SEM Imaging of Microbial Induced Calcite Precipitation in Sandy Soil," Microscopy and Microanalysis, 23(S1), pp.310-311, doi: 10.1017/S1431927617002239

68. Wen, K., Li, L., Li, Y., L, M., Li. C., and Amini, F., (2019). "Effects of Multiple MICP Treatment on Sandy Soil with Lower Cementation Media Concentration," Journal of Geotechnical and Geological Engineering., DOI: 10.1007/s10706-018-0669-6.

69. Bu, C., Wen, K., Liu, S., Ogbannaya, U., Li, L. and Amini, F., (2019). "Development of a Rigid Full Contact Mold for Preparing Bio-Beams through Microbial Induced Calcite Precipitation," Geotechnical Testing Journal, ASTM, 42(3):20170148

70. Amini, F., and Wen, K. (2017). "Long-Term Field Performance of Paving Fabric Interlayer Systems to reduce Reflective Cracking," International Journal of Civil & Environmental Engineering, Vol. 4, No. 5

71. Li, L., and Amini (2017). "Concept of Active Flipped Learning in Engineering Mechanics," International Journal of Geotechnical and Geological Engineering, Vo. 4, No. 7.

72. Wen, K., Li, L., Zhang, R., Li, Y., and Amini, F. (2019). "Micro-Scale Analysis of Microbial-Induced of Calcite Precipitation in Sandy Soils through FIB/SEM Imaging," Microscopy Today, January, doi:10.1017/S1551929518001293.

73. Huang, W., Wen, K., Li, D., Deng, X., Li, L., and Amini, F. (2019). "Experimental Study of Lateral Unloading Stress Path and Excess Pore Water Pressure on Creep Behavior of Soft Soil," Advances in Civil Engineering, 2019, Article ID 9898031, 9 pages, DOI: 10.1155/2019/9898031.

74. Wen, K., Li, Y., Huang, W., Amini, F., and Li, L. (2019). "Mechanical Behaviors of Hydrogel-Treated Sand," Construction and Building Materials, Vol. 207, No. 20, 274-280

75. Wen, K., Amini, F., and Ahlridge, R. (2019). "Long-Term Field Performance of Paving Fabrics on Reduction of Reflective," International Journal of Pavements, in print.

76. Liu, S., Wen, K. Li, L., Armwood, C., Bu, C., Li, C., and Amini, F., (2019). "Environmental Durability of MICP-Treated Sandy Soils and Methods to Improve Its Resistant Ability," Journal of Material in Civil Engineering, ASCE 31(12):04019294.

80. Liu, S., Du, K., Wen, K., Huang, W., Amini, F., Li, L. (2019). "Sandy Soil Improvement through Microbially Induced Calcite Precipitation (MICP) by Immersion," Journal of Visual Experiments (151), e60059, doi:10.3791/60059.

81. Nobahar, M., Khan, S., Ivoke, J., & Amini, F. (2020). "Impact of Rainfall Variation on Slope Made of Expansive Yazoo Clay Soil in Mississippi", Transportation Infrastructure Geotechnology, https://doi.org/10.1007/s40515-019-00083-w

82. Luo, X., Wang, F., Wang, N., Tao, J., Qiu, X. and Amini, F. (2019). "Rebuilding the Distress Thresholds for Pavement Warranty Program in Mississippi," Journal of TRB, Transportation Research Record, 2673 (1), January.

83. Luo, X., Wang, F., Wang, N., Amini, F., Qiu, X., and Tao, J. (2020). "Analyses of Influencing Factors for Maintenance Decisions in Pavement Warranty Program," International Journal of Pavement Engineering, 1477-268X, DOI: 10.1080/10298436.2020.1766039

84. Wen, K., Li, Y., Li, L., and Amini, F. (2020). "Impact of Bacteria and Urease Concentration on Precipitation Kinetics and Crystal Morphology of Calcium Carbonate," Acta Geotechnica, 15(1), pp.17-27.

85. Li, Y., Wen, K., Li, L., Huang, W., Bu, C. and Amini, F., 2020. Experimental investigation on compression resistance of bio-bricks. Construction and Building Materials, 265:120751.

86. Liu, S., Du, K., Huang, W., Wen, K., Amini, F., and Li, L., (2020). "Enhanced Erosion-Resistance of Cement-treated Bricks using Multiple Bio-surface Treatment," Advances in Cement Research, in press.

87. Liu, S., Du, K., Huang, W., Wen, K., Amini, F., and Li, L., (2020). "Investigation of Enhanced Erosion-Resistance of Bio-Bricks through MICP," Geosynthetics International, under review.

88. Huang, W., Wen, K. Liu D., and Amini F., (2019). 'Experimental Study on Influence of Excess Pore Water Pressure and Unloading Ratio on Unloading Mechanical Properties of Marine Sedimentary Soft Soils," Ocean Engineering, 195, p.106680. https://doi.org/10.1016/j.oceaneng.2019.106680.

89. Liu, S., Du, K, Huang, W., Wen, K., Amini, F., and Li, L. 2020, "Enhancement of Erosion-Resistance of Bio-bricks through Fiber and Multiple MICP Treatments," Construction and Building Materials, in press.

90. Liu, S., Wen, K., Amini, F., and Li, L. (2020). "Investigation of Nonwoven Geotextiles for Full Contact Flexible Mold Used in Preparation of MICP-treated Geomaterial," International Journal of Geosynthetics and Ground Engineering, 6, 14 https://doi.org/10.1007/s40891-020-00197-z.

91. Xu, W., Amini, F., Li, L., Giang, C., Brwon, W., Yin, J. (2020). "Mobile Augmented Reality for Teaching Trigonometry," Futurum. Vol. 6. November, 86-90. https//doi.org/10.33424/FUTURUM84

92. Liu, S., Du, K, Huang, W., Wen, K., Amini, F., and Li, L. (2020). "Influence of Rainfall-induced Erosion on the Stability of Sandy Slopes Treated by MICP," Acta Geotechnica, in press.

93. Ogbonnaya, U., Wen, K., and Lin Li, (2021). "The Effects of Fine-Grained Content on Microbial Improved Sandy Materials," Arabian Journal of Geoscience, in Press.

94. Huang, Wen, K., Xiaojia, D., Junjie, L., Zhijian, J., Li, Y., Li, L., & Amini, F. (2020). "Constitutive Model of Lateral Unloading Creep of Soft Soil under

Excess Pore Water Pressure," Mathematical Problems in Engineering, Article ID 5017546, 13 pages, https//doi.org/10.1155/2020/5017546.

95. Huang, W., Wen, K.*, Li, J., Fu, X., Liu, S., Li, Y.*, **Li, L.** and Amini, F. 2020, Mechanical Properties of Soft Soils Experiencing Lateral Unloading under Initial Excess Pore Water Pressure, Arabian Journal of Geosciences, 13:718, https://doi.org/10.1007/ s12517-020-05734-8

96. Huang, W., Wen, K., Liu, S., Li, L., Li, D., & Amini, F. (2021). "Development of Hollow Light-Weight Constructional Materials Development through Microbial Induced Calcium Carbonate Precipitation," Construction and Building Materials, in Press.

97. Ogbonnaya, U., Wen, K., Li, C., Li, L., & Amini, F. (2021). "Investigation on Effect of Variability in Grading of Sand Particles for Microbial Induced Calcite Precipitated Soils," Journal of Geotechnical and Geological Engineering, under review.

98. Nobahar, M., Khan, M.S., Stroud, M., Amini, F., and Ivoke, J. (2020). "Progressive Development of the Perched Water Zone in Highway Slopes Made of Highly Plastic Clay", Journal of Transportation Research Board: Transportation Research Record, in press.

99. Khan M.S., Ivoke, J. and Amini, F. (2021). "Changes of Hydraulic Properties of Yazoo Clay at Different Wet-Dry Cycles," Journal of Transportation Research Board, under review.

100. Khan, M.S., Ivoke, J., Nobahar, M. and Amini, F. (2021). "Artificial Neural Network (ANN) based Soil Temperature model of Highly Plastic Clay;" Geomechanics and Geoengineering: An International Journal, under review.

101. Khan M. S., Nobahar M., Stroud M., Amini F., and Ivoke J. (2020), "Evaluation of Rainfall Induced Moisture Variation Depth in Highway Embankment Built on Yazoo Clay", Transportation Geology, under review.

102. Ivoke, J., Khan, M.S., Amini, F.; and Nobahar, M. (2020), *"*Effect of Hydraulic Conductivity Variation of Expansive Yazoo Clay on Highway Slope*"* International Journal of Geomechanics, under review.

C. Refereed Articles in Monographs, Books, and Proceedings (Partial List)

C1. ASCE Peer-Reviewed Publications

103. Wen, K., and Amini, F. (2020). "Effect of Paving Fabric on Reduction of Reflective Cracking," ASCE Geotechnical Special Publication, ASC, Reston, VA, pp 418-425.

104. Li, L., Wen, K., Bu, C. and Amini, F., (2020). February. Enhancement of Bio-Sandy Brick through Discrete Randomly Distributed Fiber. Biogeotechnics, ASCE, Reston, VA, pp. 39-45

105. Wen, K., Li, Y., Li, L., and Amini, F. (2018). "Development of a Multiple Treatment Laboratory Method to Enhance Microbial-Induced Soil Stabilization," ASCE Geotechnical Special Publication No. 296, 12-18, ASCE, Reston, VA.

106. Li, L., Li, M., Ogbonnaya, U., Wen, K., Xu, Y., and Amini, F. (2017). "Study of a Discrete Randomly Distributed Fiber on the Tensile Strength Improvement of Microbial-Induced Soil Stabilization," ASCE Geotechnical Special Publication, No. 280: 12-19, ASCE.

107. Li, L., and Amini (2017). "Concept of Active Flipped Learning in Engineering Mechanics," International Scholarly and Scientific Research Innovation," 4(7), 1999.36/75040.

108. Li, L., M., Ogbonnaya, U., Wen, K. & Amini, F. (2016). "Experimental Investigation of Discrete Randomly Distributed Fiber on the Mechanical Properties of Microbial-Induced Soil Improvement," ASCE Geotechnical Special Publication, No. 269, 52-61, ASCE, Reston, VA

109. Li, L., M., Ogbonnaya, U., Wen, K. & Amini, F. (2016). "Experimental Investigation of Discrete Randomly Distributed Fiber on the Mechanical Properties of Microbial-Induced Soil Improvement," ASCE Geotechnical Special Publication, No. 268; 52-61. ASCE, Reston, VA 2016.

110. Amini, F., Li, l., Yi, P. Yuan, S. (2015). "Failure Mechanism of Earthen Levee Strengthened by Vegetated HPTRM System and Design Guideline for Hurricane Overtopping Conditions," ASCE Geotechnical Special Publication, No. 252, 15-157, Reston, VA 2015.

111. Li, L., Zhao, Q., Li, C., & Amini, F. (2015). "Development of a Flexible Mold for Bio-Mediated Soil," ASCE Geotechnical Special Publication, ASCE, ASCE, Reston, VA 2015.

112. Li, L. Amini, F., Pan, Y., Li, C. (2014). Stability Monitoring of Articulated Concrete Block Strengthened Levee in Combined Wave and Surge Overtopping Conditions, Geo Characterization and Modeling for Stability, ASCE Geotechnical Special Publication, No. 234, 262-271, ASCE, Reston, VA, 2014.

113. Li, L., Amini, F. and Yuan S. (2014). Modeling Study of Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions, Geo Characterization and Modeling for Stability, ASCE Geotechnical Special Publication, No. 234, 1052-1061, ASCE, Reston, VA, 2014.

114. Amini, F., Li, L. and Xu Y. (2013). "Slope Stability Analysis of Three Innovative Earthen Levee Strengthening Systems under Hurricane Overtopping Flow Conditions." Stability and Performance of Slopes and Embankments, ASCE Geotechnical Special Publication No. 231, ASCE, Reston, VA, 2013.1882-1891.

115. Li, L., Amini, F., and Pan, Y. (2013). "Erosion Resistance of Earthen Levee Strengthened by HPTRM System under Combined Wave and Surge Overtopping Conditions." "Stability and Performance of Slopes and Embankments, ASCE Geotechnical Special Publication No. 231, ASCE, Reston, VA, 2013. 1892-1901.

116. Chatterjee, J., and Amini, F, (2012). "An Investigation of the Design Criteria for the Analysis of I-wall in New Orleans, Louisiana for Flood Side Gap Condition," State of the Art and Practice in Geotechnical Engineering, ASCE Geotechnical Special Publication No. 225, ASCE, Reston, Virginia. 507-515.

117. Li, L., Santos, F., Wei, S., Qian, Z., and Amini, F. (2012),"Evaluation of Fly Ash and Soil Mixtures for Use in Highway Embankments," State of the Art and Practice in Geotechnical Engineering, ASCE Geotechnical Special Publication No. 225, ASCE, Reston, Virginia. 3672-3680 507-515.

118. Chatterjee, J., and Amini, F, (2011). "An Investigation of Effect of Seepage on the Stability of Sheet Pile Supported I-Wall in New Orleans, Louisiana," Advances in Geotechnical Engineering, ASCE Geotechnical Special Publication No. 211, ASCE, Reston, Virginia. 3536-3545.

119. Chatterjee, J., and Amini, F, (2010). "A Comparative Evaluation Unbalanced Loads in the Stability Analysis of T-Walls Subjected to Hurricane Loading," Advances in Analysis, Modeling, and Design, ASCE Geotechnical Special Publication No. 199, ASCE, Reston, Virginia. 2173-2181.

120. Amini, F. (2004). "Dynamic Cone Penetrometer in Quality Control of Compaction, State-of-the Art Report," in Geotechnical Engineering for Transportation Projects, ASCE Special Geotechnical Publication No. 126, ASCE, Reston, VA, 1023-1031.

121. Salami, M., and Amini, F. (2002). "Numerical Model for the Implementation of Discontinuous Deformation Analysis in Finite Element Mesh," In Discrete Element Methods; Numerical Modeling of Discontinua, ASCE, Reston, VA, 151-154.

122. Amini, F. (1995). "A Nonlinear Hydrograph for Volume Predictions," in Water Resources Engineering, ASCE, New York, N.Y., Vol. 1, 1091-1095.

123. Rude, L. C. and Amini, F. (1989). "Foundations on Expansive Soils in Northern Virginia," in Foundation Engineering: Current Principles and Practices, Vol. 1, ASCE, New York, N.Y., 209-220.

C2. Other Peer-Reviewed Publications

124. Khan M. S., Nobahar M., Ivoke J., and Amini F. (2018). "Effect of Rainfall on Slope made of Yazoo Clay soil in Mississippi." Proceedings, 97th Annual Meeting of Transportation Research Board, Corundum of Papers, Washington D.C.
125. Pan, Y., Yuan, S. Y., Tan, H. M., Gan, L., Li, L., Amini, F. (2018). "Recent Understanding on the Hydraulic Erosion of Vegetated HPTRM System," Earth and Environmental Science, Vol.99.
126. Khan, M.S., Nobahar, M., Ivoke, J. and Amini, F., (2017). "Rainfall Induced Shallow Slope Failure Over Yazoo Clay In Mississippi", Proc. Pan-AM Unsat 2017, Dallas, Texas.

127. Li, L., Zhao, Q., Li, C., & Amini, F. (2015). "Development of a Flexible Mold for Bio-Mediated Soil Improvement," Proceedings, Geosynthetics 2015, Portland, Oregon, Feb.

128. Amini, F., and Wen, K. (2017). "Long-Term Field Performance of Paving Fabric Interlayer Systems to Reduce Reflective Cracking," Proceedings of the 19th International Conference on Civil Engineering & Architecture, Montreal, Canada May.

129. Li, L., and Amini (2017). "Concept of Active Flipped Learning in Engineering Mechanics," Proceedings of the 19th International Conference on Civil, Geomechanical, and Geotechnical Engineering, Zurich, July.

130. Amini, F., and Wen, K. (2017). "Effect of Overlay Thickness Field Performance of Paving Fabric Interlayer Systems to Reduce Reflective Cracking," Proceedings of the 19th International Conference on Civil, Geomechanical, and Geotechnical Engineering, Zurich, July 2017.

131. Amini, F., Li, L., Wu, J. (2015). "Slope Stability of an Earthen Levee Strengthened by High Performance Turf Reinforcement Mat under turbulent Overtopping Conditions," International Conference on Civil & Building Engineering, Montreal, Canada, May.

132. Amini, F. and Li, L., (2013). Sensitivity Analysis of Extended Land-Side Slope to the Erosion Impact in the HPTRM Strengthened Levee, Proceedings, the 23rd

International Offshore (Ocean) and Polar Engineering Conference, June 30−July 5, 2013, Anchorage, Alaska, 1217-1222.

133. Li, L., Wen, K., Li, C., and Amini, F., (2017). "FIB/SEM Imaging of Microbial Induced Calcite Precipitation in Sandy Soil," Proceedings Microscopy & Microanalysis Proceedings 23 (Suppl 1), 300-305.

134. Li, L., and Amini, F., (2017). Concept of the Active Flipped Learning in Engineering Mechanics, International Scholarly and Scientific Research & Innovation, 4(7), 1999.36/75040

135. Khan, M.S., Nobahar, M., Ivoke, J. and Amini, F., (2017). "Rainfall Induced Shallow Slope Failure Over Yazoo Clay In Mississippi", Proc. Pan-AM Unsat 2017, Dallas, Texas.

136. Li, L., Zhao, Q., Li, C., & Amini, F. (2015). "Development of a Flexible Mold for Bio-Mediated Soil Improvement," Proceedings, Geosynthetics 2015, Portland, Oregon, Feb.

137. Amini, F., Li, L., Wu, J. (2015). "Slope Stability of an Earthen Levee Strengthened by High Performance Turf Reinforcement Mat under turbulent Overtopping Conditions," International Conference on Civil & Building Engineering, Montreal, Canada, May.

138. Amini, F. and Li, L., (2013). Sensitivity Analysis of Extended Land-Side Slope to the Erosion Impact in the HPTRM Strengthened Levee, Proceedings, the 23rd International Offshore (Ocean) and Polar Engineering Conference, June 30−July 5, 2013, Anchorage, Alaska, 1217-1222.

139. Amini, F. and Li, L. (2013). Performance of RCC Strengthened Levee in Full-Scale Overtopping Tests." Proceedings of the USSD 33rd Annual Meeting and Conference, Phoenix, AZ, February 11-15, 2013.

140. Amini, F. and Li, L. (2013). Design guidelines of innovative levee strengthening systems under full-scale overtopping turbulence testing, Proceedings of Dam Safety, Providence, RI, September 8-12, 2013.

141. Li, L., & Amini, F. (2013). "Design of Earthen Levee Strengthening with High Performance Turf Reinforcement Mat for Hurricane Overtopping Conditions," Proceedings, Geosynthetics 2013, Long Beach, CA

142. Pan, Y., Li, L., Amini, F. & Kuang, C. (2013). ".Discussion of the Failure Mechanics of Levees under Combined Wave and Surge Overtopping" Proceedings of 2013 IAHR World Congress, June.

143. Amini, F., Li, L. and Pan, Y. (2012). "Performance of HPTRM Strengthened Levee in Full-Scale Overtopping Tests." Proceedings of the 5th Annual National Dam Security Forum, Denver, CO, September 16-20, 2012, paper accepted for publication.

144. Santos, F., Li, L., Li, Y., and Amini, F. (2011). "Geotechnical Properties of Fly Ash and Soil Mixtures for Use in Highway Embankments," World of Coal Ash (WOCA), Denver, Colorado, http://www.flyash.info/.

145. Li, L., Peng, B., Santos, F., Li, Y., and Amini, F. (2011). "Groundwater Impacts from Leaching of Coal Combustion Products in Roadways Embankment Construction," Proceedings of the International Symposium on Testing and Specification of Recycled Materials for Sustainable Geotechnical Construction, Baltimore, MD, February, ASTM, Feb.

146. Rao, X., Li, L. and Amini, F. (2010). "Modeling of Surge Overtopping and Hydraulic Erosion of an Earthen Levee using Smoothed Particle Hydrodynamics." Environmental Geotechnics for Sustainable Development, 1695-1698, McGraw Hill.

147. Rao, X., Li, L., and Amini, F. (2010). "Numerical Simulation of Wave Overtopping and Erosion of Levee," Engineering in Sustainable World, Proceedings of the Second Specialty Conference on Disaster Mitigation, Public Par Publishing Comp., Editors, Redacteur, and El-Salakawy, pp. DM-09-01- DM-09-05, June 2010.

148. Rao, X., Li, L. and Amini, F. (2009). "Numerical Simulation of Surge Overflow at a Levee using Shallow Water SPH Method." World Academy of Science, Engineering and Technology, 60: 331-334.

149. Chatterjee, J., and Amini, F. (2010). "Slope Stability Modeling of New Orleans Hurricane Protection Levees with Geotextile Reinforcements," Environmental Geotechnics for Sustainable Development, Tata McGraw Hill 1699-1704.

150. Amini, F. (2008). "Lessons Learned from Performance of Paving Fabric Systems to Reduce Reflective Cracking," Proc. MTI Conference, Choctaw, Mississippi, October.

151. Amini, F. (2008). "Effect of Frequency Content on Dynamic Behavior of Reinforced Soils Using Improved Transfer Function Methods," Proceedings, 14th World Conference on Earthquake Engineering, Beijing, China, October.

152. Amini, F. (2007). "Paving Fabric Systems and their Performances to Reduce Reflective Cracking," Proceedings of the 12th International Conference of Hong Kong Society for Transportation studies, Hong Kong, China, Dec.

153. Amini, F. (2006). "Performance of Paving Fabric Systems to Reduce Reflective Cracking," MTI Conference, Tunica, Mississippi, October.

154. Amini, F. (2004). "Effect of Frequency Content on Shear Moduli of Silty Sands under Random Excitation Conditions," Proceedings of the 22th International Modal Analysis Conference, Detroit, Michigan, Jan.

155. Amini, F. (2004). "Effect of High Confining Pressures on Shear Moduli of Clayey Soils under Random Excitation Conditions," Proceedings of the 22th International Modal Analysis Conference, Detroit, Michigan, Jan.

156. Amini, F. (2004). "Effect of Soil Plasticity on Damping of Clayey Silty Soils Using Improved Transfer Function Estimators," Proceedings of the 22th International Modal Analysis Conference, Detroit, Michigan, Jan.

157. Amini, F. (2004). "Effect of Soil Plasticity on Damping of Silty Soils under Random Excitation Conditions," Proceedings of the World Confer. on Earthquake Engineering, Vancouver, Canada.

158. Amini, F. (2004). "Effect of Frequency Content on Dynamic Soil Behavior of Silty Soils Using Improved Transfer Function," Proceedings of the World Conference on Earthquake Engineering, Vancouver, Canada.

159. Biddlecome, T., Amini, F., Rahman, S., and Sharpe, M. (2004). "Scientific Visualization of Soil Liquefaction," Proceedings of the Army Science Conference, Orlando, Florida.

160. Amini, F. (2003)., "Clay Content effect on Soil Damping Using Improved Transfer Function Methods," Proceedings of the 21th International Modal Analysis Conference, Orlando, Fl.

161. Amini, F. (2003). "Effect of Soil Plasticity on Shear Moduli of Clayey Soils under Random Excitation Conditions," Proceedings of the 21th International Modal Analysis Conference, Orlando, Fl.

162. Amini, F. (2003). "High Confining Pressure Effects on Soil Damping Using Transfer Function Methods," Proceedings of the 21th International Modal Analysis Conference, Orlando, Fl.

163. Amini, F. (2002). "Soil Damping under Variable Frequency Content and Improved Transfer Function Estimators," Proceedings of the 20th International Modal Analysis Conference, Los Angeles, CA, Feb., 224-226.

164. Amini, F. (2002). "Artificial Neural Network Approach for Experimental Model Identification and Control," Proceedings of the 20th International Modal Analysis Conference, Los Angeles, CA, Feb., 1318-1321.

165. Amini, F. (2002). "Silt Content Effect on Soil shear Moduli Using Improved Transfer Estimators," Proceedings of the 20th International Modal Analysis Conference, Los Angeles, CA, Feb., 1224-1226.

166. Amini, F., and Duan, Z. (2002). "Centrifuge and Numerical Modeling of Liquefaction at Depth," Proceedings of the 15th ASCE Engineering Mechanics Conference, New York, N.Y. June.

167. Amini, F., and Duan, Z. (2002). "A Numerical Model for Liquefaction at Depth," Proceedings of the 14th U.S. National Congress on Theoretical and Applied Mechanics, Blacksburg, VA, June.

168. Amini, F. (2001). "Effect of Fines Content on Soil Damping Using Improved Transfer Function Estimators," Proc. ASCE-ASME-SES Symposium on Recent Developments in Geomechanics, San Diego, CA , June, 192.

169. Amini, F. (2001). "Behavior of Anisotropically Consolidated Layered Silty Sands under Liquefaction Conditions," Proc. ASCE-ASME-SES Symposium on Inelastic Behavior of Geomaterials, San Diego, CA, June, 109.

170. Amini, F., Rezvanian, O., and Amini, F (2000). "New Improvement in Predictive Pulse Active Control using Bounded State Algorithm," Proceedings of the First International Conference on Motion and Vibration, Sydney, Australia, Dec. 2000.

171. Amini, F. (1998). "Time Effects on Dynamic Soil Properties Using Improved Transfer Function Methods," in Developments in Theoretical and Applied Mechanics, C. T. Tsai and K. K. Stevens, eds. Vol. 19, 344-349.

172. Amini, F. and K. M. Sama (1998). "Effect of Sample Preparation on Liquefaction Behavior of Stratified Sand-Gravel Composites," Proceedings of the 11th European Conference on Earthquake Engineering, Paris, France, Sept., 1-4.

173. Amini, F. (1998). "Effect of Sample Preparation on Liquefaction of Layered Silty Sands," in Developments in Theoretical and Applied Mechanics, Tsai and K. K. Stevens, eds. Vol. 19, 340-344.

174. Amini, F. & H. J. Bastian (1998). "Time Effects on Damping and Shear Modulus Using an Improved FFT Technique," Proceedings of the 11th European Conference on Earthquake Engineering, Paris, France, Sept. 120-125.

175. Amini, F., Chen, H. M., Qi, G. Z., and Yang, J. C. S., (1997). "Generalized Neural Network Based Model for Structural Dynamic Identification, Analytical and Experimental Studies," in Intelligent Information Systems, IEEE Press, Dec., 138-142.

176. Amini, F., Chen, H. M., Qi, G. Z., and Yang, J. C. S. (1994). "Neural Network for Identification and Control of Structures," Proceedings of the First International Conference on Control, Pasadena, CA, Aug, 43-51.

177. Yang, J. C. S., Amini, F., Sirkus, J., Qi, G. Z. (1993). "Active Control of Structure Instrumented with Optical Fiber Sensors," Proc. of the First NSF Coordination Meeting, Ann Arbor, Michigan.

178. Amini, F. (1993). "Time Dependent Nature of Dynamic Soil Behavior under Earthquake Loading, State-of-the-Art," Proceedings of the Second International Conference on Soil Mechanics and Foundation Engineering, Tehran, Iran, Nov., 5-10.

179. Amini, F. (1992). "Lessons Learned from Earthquake Losses and Prevention Systems in Urban Areas of the United States," Proceedings of the First International Conference on Disaster Prevention in Urban Areas, Tehran, Iran, 1992, 234-238

180. Qi, G. Z., Chen, H. M., Tsai, K. H., Yang, J. C. S., and Amini, F. (1992). "Neural Controller for Structures Subjected to Dynamic Loadings," Proceedings of the Joint US/China/Japan Workshop on Structural Control, China, October, 225-234.

181. Amini, F. (1992). "Analysis and Design of Concrete Face Rockfill Dams under Earthquake Loading," Proceedings of the Second International Conference in Concrete Design, Tehran, Iran, Nov. 1992, 442-449.

182. Amini, F. (1991). "Effect of Density on Damping and Shear Modulus of Soils Using Two New Estimators of the Transfer Function," in Constitutive Laws for Engineering Materials, ASME Press., New York, N.Y., 1991, 795-799.

183. Amini, F. (1991). "Effect of Random and Impulse Loading on Dynamic Soil Properties," Proceedings of the First International Conference on Seismology and Earthquake Engineering, Tehran, Iran, May, 419-427.

184. Amini, F. (1990). "Effect of Void Ratio on Dynamic Soil Properties Using an Improved FFT Technique," Proceedings of the Eighth International Modal Analysis Conference, Orlando, FL, Feb., 474-477.

185. Amini, F., and Rude, L. C. (1989). "Damping of Soils Determined by a New FFT Technique," Proceedings of the Seventh International Modal Analysis Conference, Vol. II, Feb., Orlando, FL, 1448-1452.

186. Aggour, M. S., Tawfiq, K. S., and Amini, F. (1987). "Effect of Frequency Content on Dynamic Properties of Cohesive Soils," in Soil Dynamics and Liquefaction, Elsevier Publishing Company, New York, N.Y., 31-39.

187. Tawfiq, K. S., Amini, F., and Aggour, M. S. (1987). "Effect of Time on Dynamic Soil Properties of Cohesive Soils," Proceedings of the VIII National Conference on Soil Mechanics and Foundation Engineering, Warsaw, Poland, Oct., 30-34.

188. Amini, F., Tawfiq, K. S., and Aggour, M. S. (1986). "Soil Properties Determined by Random Loading," Proceedings of the 8th European Conference on Earthquake Engineering, Lisbon, Portugal, Sept., 1-8.

189. Amini, F., Tawfiq, K. S., and Aggour, M. S. (1986). "Damping of Sandy Soils Using Autocorrelation Function," Proc., 8th Symposium on Earthquake Engineering, Roorkee, India, Dec., I, 181-188.

D. Technical Reports (Partial List)

Author or co-author of more than 70 technical reports. A partial list is shown below. Complete list is available.

190. Amini, F., and Aggour, M. S. (1986). "Dynamic Soil Behavior under Random Excitation Conditions," Dept. of Civil Engineering, Report No. UMD-AG-10, College Park, MD.

191. Amini, F. (1990). "Dynamic Soil Behavior under Impulse Loading Conditions," Faculty Senate Research Report, University of the District of Columbia.

192. Amini, F. (1991). "Dynamic Soil Behavior under Impulse Loading Conditions Considering Nonlinear Effects," Faculty Senate Research Report, University of the District of Columbia, 1991.

193. Amini, F. (1993). "Research Equipment for Soil Dynamics Testing – Study of the Effect of Time on Dynamic Soil Properties," Progress Report, National Science Foundation, 1993.

194. Yang, J.C. S., Qi, G. Z., Amini, F., and Sirkus, J. (1993). "Active Control of Structures Instrumented with Optical Fiber Sensors under Earthquake Loading," Progress Report, National Science Foundation, 1993.

195. Matheson, M. M., Schneider, J., Zmijewski, D., and Amini, F. (1994). "Definition of Groundwater Flow in the Water Table Aquifer of the Southern Anacostia River Basin," D.C. Water Resources Research Center Report No. 147.

196. Amini, F., and Chang, F. F. M. (1994). "Model of a Storm Water Management Facility," A Report to the Environmental Regulation Administration, Government of the District of Columbia. April.

197. Amini, F., Chang, F. F. M., and Schneider, J. (1994). "An Experimental Study of the Optimal Thickness of a Sand Layer in a Sand Filter Water Quality Structure," D.C. Water Resources Research Center, Report No. 153.

198. Amini, F. (1994). "Behavior of Stratified Undrained Contractive Silty Sands Under Seismic Liquefaction Conditions, Progress Report, Army Research Office, 1994.

199. Amini, F. (1994). "Research Equipment for Soil Dynamics Testing – Study of the Effect of Time on Dynamic Soil Properties," Progress Report, National Science Foundation, 1994.

200. Yang, J. C. Qi, G. Z., Amini, F., and Sirkus, J. (1994). "Active Control of Structures Instrumented with Optical Fiber Sensors under Earthquake Loading," Progress Report, National Science Foundation, 1994.

201. Amini, F. (1995). "Summary of Spartan and Sprint Launch Stations Design," Technical Research Report Prepared for BMDO, October 1995.

202. Matheson, G. M., Flick, B. A., and Amini, F. (1995). "Development of Groundwater Contour Map for the Water Table Aquifer of the Atlantic Coastal Plain Deposits of Washington, D.C," D.C. Water Resources Research Center, Report No. 156.

203. Amini, F. (1995). "Behavior of Stratified Undrained Contractive Silty Sands under Seismic Liquefaction Conditions, Progress Report, Army Research Office, 1995.

204. Yang, J. C. S., Qi, G. Z., Amini, F., and Sirkus, J. (1995). "Active Control of Structures Instrumented with Optical Fiber Sensors under Earthquake Loading", Final Report, National Science Foundation, 1995.

205. Amini, F. (1995). "Liquefaction of Layered Silty Sands," Final Report, Army Research Office, 1995.

206. Amini, F. (1996). "Research Equipment for Soil Dynamics Testing – Study of the Effect of Time on Dynamic Soil Properties," Progress Report, National Science Foundation, 1996.

207. Amini, F. (1996). "Summary of Minuteman Silo Design," Technical Research Report Prepared for BMDO, May 1996.

208. Amini, F. (1996). "A Summary of Critical Environments for a Missile Silo, Airblast, Ground Shock, and Crater Related Effects," Technical Research Report Prepared for BMDO, May 1996.

209. Amini, F. (1996). "EMP Effects on Missile Silo," Technical Research Report Prepared for BMDO, May 1996.

210. Amini, F. (1996). "NMD Basing Modes, Underground Vs. Aboveground Structures," Technical Research Report Prepared for BMDO, July 1996.

211. Amini, F. (1996). "NMD Basing Modes, Evaluation of Materials for Construction," Technical Research Report Prepared for BMDO, August 1996.

212. Amini, F. (1997). "NMD Construction Feasibility in Alaska, Permafrost and Other Engineering Considerations," Technical Research Report Prepared for BMDO, March 1997.

213. Amini, F. (1997). "NMD Construction Feasibility in Alaska, Seismic Considerations," Technical Research Report Prepared for BMDO, April 1997.

214. Amini, F. (1997). "NMD Construction Feasibility in Alaska, Local Geology of Selected Sites," Technical Research Report Prepared for BMDO, June 1997.

215. Amini, F. (1997). "NMD Construction Feasibility in Alaska, Geologic-Seismic Hazards Including Soil Liquefaction for Selected Sites," Technical Research Report Prepared for BMDO, December 1997.

216. Amini, F. (1997). "Behavior of Stratified Sand-Gravel Composites under Seismic Liquefaction Conditions, "Progress Report, National Science Foundation, 1997.

217. Amini, F. (1998). "Microstructure Features and Dynamic Macro-Behavior of a Multiphase Particular Material," Defense Technical Information Center (DTIC) Report No. ADA321514, Report Submitted to the Air Force Office of Scientific Research, March 1998.

218. Amini, F. (1998). "Lessons Learned from Nuclear Explosion Tests in Southwestern Alaska, The Long Shot Experiment," Technical Research Report Prepared for BMDO, July 1998.

219. Amini, F. (1998). "Lessons Learned from Nuclear Explosion Tests in Southwestern Alaska, The Milrow and Cannikin Experiments," Technical Research Report Prepared for BMDO, August 1998.

220. Amini, F. (1998). "Civil Engineering Issues at Holloman High Speed Sled Track," Technical Research Report Prepared for BMDO, December 1998.

221. Amini, F. (1998). "Behavior of Stratified Sand-Gravel Composites under Seismic Liquefaction Conditions, Progress Report, National Science Foundation, 1998.

222. Amini, F. (1999). "Microstructure Features of Particulate Materials Using ESEM," Progress Report Submitted to the Army Research Office, July 1999.

223. Amini, F. (1999). “Preliminary Recommendations for Civil Engineering Repair at Holloman High Speed Sled Track, “Technical Research Report Prepared for BMDO, Feb. 1999.

224. Amini, F. (1999). “Behavior of Stratified Sand-Gravel Composites under Seismic Liquefaction Conditions, Final Report, National Science Foundation, 1999.

225. Amini, F. (2000). “Microstructure Features of Particulate Materials Using ESEM,” Research Report Submitted to the Army Research Office, July 2000.

226. Amini, F. (2003). “Potential Applications of the Static and Dynamic Cone Penetrometers in MDOT Pavement Design and Construction,” Report No. FHWA/MS-DOT-RD-03-131, Report Prepared for the Mississippi Department of Transportation (MDOT).

227. Amini, F. (2005). “Applications of Paving Fabrics to Reduce Reflective Cracking,” Report No. FHWA/MS-DOT-RD-05-174, Report prepared for the Mississippi Department of Transportation (MDOT).

228. Amini, F. (2006). “CSEM Enhancement Program at JSU,” Annual Report, NSF, Oct.

229. Amini, F. (2006). “Acquisition of ESEM for Soil Liquefaction Research,” Final Report, NSF, Oct.

230. Amini, F. (2007). “CSEM Enhancement Program at JSU,” Final Report, NSF, Nov.

231. Amini, F., and Turnquest, B. (2008). “Construction Monitoring of Filter Fabric Systems to Reduce Reflective Cracking,” Interim Report**.** No. FHWA/MS-DOT-RD-08-184, Report prepared for the Mississippi Department of Transportation (MDOT).

232. Amini, F., and Li, L. (2013),.“Full- Scale Overtopping Tests on Three Innovative Levee Strengthening Systems,” SERRI Report 80009-01, Report prepared for the U.S. Department of Homeland Security (DHS)

233. Amini, F., and Li, L. (2013), “High Performance Turf Reinforcement Mat Strengthened Levee under Combined Wave and Storm Surge Turbulent Overtopping Conditions,” SERRI Report 80009-02, Report Prepared for the U.S. Department of Homeland Security (DHS)

234. Li, L., Forster, P., and Amini, F., (2011). Mississippi Greenway Rating System: Moving the Concept of Sustainability Forward, Institute for Multimodal Transportation, Jackson State University, September 14, 2011.

235. Amini, F. and Wen, K. (2016). "Long-Term Field Monitoring of Paving Fabric Interlayer Systems to Reduce Reflective Cracking," Applications of Paving Fabrics to Reduce Reflective Cracking," Report No. FHWA/MDOT-RD-19-184, Report prepared for the Mississippi Department of Transportation (MDOT).

236. Wang, F., Amini, F., Luo, X., and Tao, J. (2019). "Update and Documentation of MDOT Warranty Process and Distress Thresholds," FHWA/MDOT-RD-19-273, Report prepared for the Mississippi Department of Transportation (MDOT).

237. Khan, M.S., Amini, F. and Nobahar, M. (2020), "State Study 286: Performance Evaluation Highway Slope Made of Yazoo Clay", Final Report Submitted to Mississippi Department of Transportation, Pp 251.

XVI. T.V/Radio Appearance and Invited Presentations

A. T.V./Radio Appearances (Partial List)

1. Amini, F. "Oil Spills Impact, Mississippi Universities Respond," MPB News, June 2, 2010, 4:40 P.M.
2. Amini, F., "Collapse of Minnesota Bridge-One Year Later," Fox News, August 1, 2009, 5:0 P.M.
3. Amini, F., "New Nissan Plant in Mississippi," CBS Evening News, November 9, 2000, 6:0 P.M.
4. Amini, F., "The 1994 Northridge, CA Earthquake," Cross Talk Show, Jazz 90.1 FM, Washington, D.C., Feb. 2, 1994, 12:30 to 1:00 P.M.

B. Invited Presentations (Partial List)

B1. Keynote Speaker

1. Second International Conference in Concrete Design (1992)

B2. Other Invited Presentations (Partial List)

Have made more than 150 invited presentations. A partial list is shown below.

- "Performance of Three Innovative systems under Full scale Overtopping Conditions," Paper Presented at US Army Corps of Engineers, New Orleans District, September 12, 2013 (Invited Presentation)
- "Performance of Three Innovative Systems under Full scale Overtopping Conditions," Paper Presented at University of Shanghai for Science & Technology, Shanhai, China, June 3, 2013 (Invited Presentation)
- "Performance of Three Innovative Systems under Full scale Tesing and Design Guidelines," Paper Presented at Tongi University Shanghai, China, June 4, 2013 (Invited Presentation)

- "Overtopping Hydraulics and Erosion of Three Systems under Full Scale Overtopping Conditions," Paper Presented at Hohai University, Nanji, China, June 5, 2013 (Invited Presentation)
- "Design Guidelines for Innovative Levee Strengthening Systems under Full scale Overtopping Conditions," Paper Presented at Donghua University, Shanghai, China, June 6, 2013 (Invited Presentation)
- Dams Sector R&D Workshop, (2012). Vicksburg, MS (Invited) "Innovative Levee Strengthening under Full Scale Overtopping Conditions
- Indian institute of Technology, New Delhi, Delhi (2010)
- "B+30 Model Law", Mississippi Engineering Society (2009) (Invited Presentation)
- George Mason University (2009)
- West Virginia University (2008)
- University of Nevada (2003)
- University of Louisville (2002)
- Western Michigan University (2000 & 2001)
- University of North Florida (2000)
- University of Utah (1999)
- University of Texas (1999)
- North Carolina A & T State University (1999 & 2001)
- Columbia University (1998)
- Utah State University (1998)
- Rutgers University (1998)
- Rowan University (1997) "Future of Undergraduate Engineering Education"
- California State University, Los Angeles (1997)
- Boise State University (1996)
- San Jose State University (1995)
- Southern Georgia U. (1995)
- Polytechnic University (1998)
- University of Texas at Arlington (1989)

XVII. PROFESSIONAL SERVICES

A. National Scientific Committees (Partial List)

1. Member of Editorial Board, *Journal of Geotechnical and Geoenvironmental Engineering, ASCE* (the most respected journal in my field). Reviewed and

coordinated more than 100 journal papers for the *Journal of Geotechnical and geoenvironmental Engineering, ASCE* (1990-2002).

2. Member of the Several NSF Review Panels, e.g., National Science Foundation (NSF), Geoenvironmental Engineering and Mitigation Hazards Division. (March 2003); NSF's Major Research Instrumentation (MRI), (May 2005).
3. Member of the Review Panel, Environmental Protection Agency (EPA). (Sept. 2001, Sept. 2003, and Sept. 2004, and March 2010).
4. Reviewer for several journals including *J. of Geotechnical & Geoenvironmental Engineering, ASCE, ASTM Geotechnical Testing Journal, J. of Structural Engineering & Mechanics, International Journal of Engineering Education*, etc.
5. Member of Advisory Committee, *The First International Conference on Composites in Infrastructure (ICCI '96)*, Sponsored By NSF and U. of Arizona, Tucson, Arizona, January 15-17, 1996. (Reviewed research papers and participated in the planning process for the conference.)
6. Member of *the IASTED Technical Committee* on "Neural Networks", 2001-2007.
7. Session Moderator, *International Conference on Pavement Recycling*, Sao Paulo, Brazil, 2005.
8. Member of Scientific Committees for more than 10 conferences

B. University Committees (Partial List)

Jackson State University (2000-present)

1. Member of University-Wide Graduate Faculty Status , Graduate Council, and Graduate Curriculum Committee
2. Member of University-Wide Extra Compensation Committee
3. Member of College-Wide Graduate Curriculum Committee
4. Member of College-Wide Tenure & Promotion Supplemental Criteria Committee
5. Faculty Handbook Committee, Member, University wide

Wrote a major portion of the new faculty handbook
DMU on Post Tenure Process, Member, University Wide
Distinguished Professor Guidelines, Chairman, University wide
DMU on Tenure and Promotion Process, Member, University wide.

6. Advisory Research Council, Member, University wide
7. Associate Dean Search Committee, School of Engineering, Member
8. Committee on Committees, Member, University wide
9. Multi-Cultural Education Committee, Member, University wide
10. Scholarship Committee, Member, University wide
11. Faculty and Staff Welfare Committee, Member, University wide
12. University Press Committee, Member, University wide

University of the District of Columbia (1989-2000)

1. Indirect Cost Recovery Distribution Committee, University wide, Chairman
   Developed a logarithmic formula for the distribution of indirect cost from grants among administrators, faculty, and PI's
2. Research Council, Member, University wide
3. Research Committee, Chairman, College wide

4. Research Committee, Chairman, Department wide
5. ABET Report Committee, Member and chairman, Department wide
6. Evaluation Committee, Chairman, Department wide

C. Community Service (Partial List)

Served as judge for projects sponsored by Consulting Engineers Council of Mississippi
Provided free consulting services to Howard County Department of Public Works, Meyers Consulting Engineers, and other government agencies and Private companies, a complete list along with documents are available.
Performed significant students' recruitment activities.