# Amir Mirmiran, Ph.D., P.E., Fellow ASCE, Fellow ACI Chief Research Officer and Dean of Graduate School

Professor of Civil Engineering The University of Texas at Tyler 3900 University Blvd., Tyler, Texas 75799

Tel: (903) 566-7104

E-mail: <a href="mailto:amirmiran@uttyler.edu">amirmiran@uttyler.edu</a>

## **Education**

1991	Ph.D., Civil Engineering, University of Maryland, College Park, MD
1986	M.S., Civil Engineering, University of Maryland, College Park, MD
1984	B.S., Civil Engineering (Suma Cum Laude), University of Tehran, Iran

## **Academic and Professional Experience**

Since 2025	Chief Research Officer and Dean of Graduate School, The University of Texas at Tyler
2015 – 2025	Vice President for Academic Affairs and Provost, The University of Texas at Tyler
	Sam A. Lindsey Endowed Professor of Civil Engineering, The University of Texas at Tyler
2007 – 2015	Dean, College of Engineering and Computing, Florida International University (FIU)
Also, 2012 -	- 2015 Vasant H. Surti Professor of Civil Engineering, FIU
2010 -	- 2015 Vice President, FIU Research Foundation, Inc.
2007 -	- 2009 Interim Dean, College of Engineering and Computing, FIU
2005 -	- 2015 Founding Director, Titan America Structures & Construction Testing Lab, FIU
2004 - 2007	Professor and Chair, Department of Civil and Environmental Engineering, FIU
2003 – 2004	Director, Center for Infrastructure Renewal and Protection (CIRP), NC State University
2002 – 2004	Director, Technical Services, Constructed Facilities Laboratory (CFL), NC State University
2001 – 2004	Professor, Department of Civil, Construction, and Environmental Engineering, NC State
1999 – 2001	Director, Graduate Program, Structural Engineering Group, University of Cincinnati
1998 – 2001	Associate Professor, Department of Civil and Environmental Engineering, U of Cincinnati
1997 – 1998	Director, Structural Engineering Group, University of Central Florida (UCF)
1997 – 1998	Associate Professor, Department of Civil and Environmental Engineering, UCF
1993 – 1997	Assistant Professor, Department of Civil and Environmental Engineering, UCF
1992 – 1993	Post-Doctoral Fellow, Dept. of Civil and Environmental Engrg, University of Maryland
1990 – 1993	Project Manager, Hurst-Rosche Engineers, Baltimore, MD
1985 – 1990	Project Manager, Johnson, Mirmiran & Thompson, Baltimore, MD

#### **Honors and Awards**

2017	The Albert Nelson Marquis Lifetime Achievement Award
2015	Holder of Sam A. Lindsey Chair, Endowed Professorship in Civil Engineering
2013	Honorary Charter Member, National Academy of Inventors (NAI)
2012	First Holder of Vasant Surti, PhD, PE, Endowed Professorship in Civil Engineering
2011	Excellence in STEM Integration in Public and Community Outreach, STEM florida, Inc.
2010	Service Award, International Institute for FRP in Construction
2009	Engineer of the Year, American Society of Civil Engineers (ASCE) Miami-Dade Branch
2009	U.S. Army Freedom Team Solute, General George W. Casey, US Army Chief of Staff
2006	Elected Fellow, American Society of Civil Engineers (ASCE)
2005	Elected Fellow, American Concrete Institute (ACI)
2004	Applied Research Paper Honorable Mention Award, Construction Institute, ASCE
2001	Young Researcher of the Year, College of Engineering, University of Cincinnati

2000	Foreign Advisor to the Chinese National Committee on FRP Guidelines
2000	Honor Roll Professor, College of Engineering, University of Cincinnati (UC)
1999	University of Cincinnati Research Council Award, UC
1998	Distinguished Researcher of the Year, Department of Civil and Environmental Engineering, UCF
1997	Technology Transfer Award, NASA
1997	Presidential Award for Special Merit & National Recognition, University of Central Florida
1996	NSF Faculty CAREER Development Award, National Science Foundation
1996	Teaching Incentive Award, State University System of Florida
1996	Outstanding Teacher of the Year, Department of Civil and Environmental Engineering, UCF
1993	Research Initiation Award, Florida Engineering and Industrial Experiment Station
1988	National Needs Fellowship, U.S. Department of Education, from 1988 to 1991
1986	Graduate Fellowship, University of Maryland, College Park, MD, from 1986 to 1987
1984	Monbusho Fellowship, Japan Ministry of Higher Education, Nihon University

## **Editorships and Editorial Boards**

Since 2021	Inaugural Member, International Advisory Board, J. Composites for Construction, ASCE
Since 2006	International Editorial Board Member, Advances in Structural Engineering, Multi-Science
Since 2001	International Editorial Board Member, Journal of Composites for Construction, ASCE
2012 - 2015	Advisory Board Member, Construction and Building Materials, Elsevier
2008 – 2015	Editorial Board Member, Advances in Civil Engineering, Hindawi Publishing Corp.
2008 – 2015	Associate Editor, Transactions of Civil Eng & Construction Management, IST Press
2008 – 2010	Regional Editor (U.S.), Construction and Building Materials, Elsevier
1998 – 2001	Associate Editor, Journal of Structural Engineering, ASCE

## **Teaching, Advising and Mentorship**

- Taught 10 different courses in structural engineering and engineering mechanics
- Supervised 12 post-doctoral fellows and visiting faculty, 15 PhD students, 21 MS students with thesis, 3 MS students with research reports, 3 undergraduate students with research reports, and 2 high-school interns

#### **Research and Scholarly Work**

Research: NSF CAREER, NSF I-Corps, 4 inventions, 5 National Academy projects, \$15.6M funding Publications: 4 US patents, 10 books/book chapters, 136 journal papers, 85 conference papers, 42 reports, 72 presentations & keynotes, 48 featured articles, and 12 tv/radio appearances Citations: 11,968 *Google Scholar* citations, *h*-index of 48, *Research Gate* interest score of 4,671

#### **Professional Society Memberships**

American Society of Civil Engineers (ASCE), Member 1991 – 2006, Fellow since 2006 American Concrete Institute (ACI), Member 1993 – 2005, Fellow since 2005 International Institute for FRP in Construction (IIFC), Council Member, 2003 - 2010 American Society for Engineering Education (ASEE), Member, 1997 – 2015 International Community for Composites Engineering (ICCE), since 1994 American Society of Mechanical Engineers (ASME), Affiliate, 1991 National Society of Professional Engineers (NSPE), Member, 1988

#### **Index Listing**

Stanford University's "World's Top 2% Scientists List," 2021 and 2024 Marquis' Who's Who in Science and Engineering, 1994, and Marquis' Who's Who in the World, 2021

Montclair's Who's Who Among Executives and Professionals, Honors Edition, 2008 Academic Keys' Who's Who in Engineering Education, 2005 and Strathmore's Who's Who, 2004

## **Teaching Experience**

- UTT Structural Analysis, Engineering Mechanics: Statics, Prestressed Concrete Design
- FIU Statics, Structural Analysis, Reinforced Concrete Design, Prestressed Concrete Design
- NCSU Structural Analysis, Reinforced Concrete Design, Theory and Design of Prestressed Concrete
- UC Basic Strength of Materials, Structural Analysis II, Reinforced Concrete, Theory of Structures II: Finite Elements, Theory of Structures III: Nonlinear Finite Elements, Bridge Engineering
- UCF Statics, Structural Analysis I, Reinforced Concrete Structures, Concrete Design, Matrix Structural Analysis, Bridge Engineering, Advanced Reinforced Concrete Structures, Structures Finite Elements

## **Teaching Recognitions**

Honor Roll Professor (UC, 2000), State University System of Florida Teaching Incentive Award (UCF, 1996), and Outstanding Teacher of the Year (UCF, 1996)

## **High School Mentoring and Summer Internship**

1. Danies, J. and Bostick, D., Carbon FRP Cables for Post-Tensioning Applications, FIU, Summer 2014.

## **Undergraduate Advising and Mentorship**

- 1. Mentor, Presidential Fellows, UTT, 2019 2021.
- 2. Faculty Advisor, ASCE Student Chapter, FIU, 2005 2006.
- 3. Faculty Mentor, 10 Undergraduate Students, NCSU, 2002 2004.
- 4. Faculty Mentor, Concrete Beam Competitions, Carolinas/Georgia Section, NCSU, 2003.
- 5. Faculty Advisor, Entering Class of 1998, UC, 1998 2001.

### **Undergraduate Research Reports Supervised as Major Advisor**

- 1. Johnson, C., Shrinkage Cracking Control using Carbon FRP Grids, NCSU, 2004.
- 2. Billingsley, R., *Ultrasonic Pulse Velocity Monitoring of Concrete*, NCSU, 2003.
- 3. McCormick, J., NSF–REU: Ultrasonic Damage Assessment of FRP-Concrete, UC, 2000.

#### Masters' (MS) Research Reports Supervised as Major Advisor

- 1. Tyuryayeva, Y., *Alternatives to Steel Grid Decks*, FIU, 2006.
- 2. Mohammed, A., Concrete in Contaminated Structures, FIU, 2006.
- 3. Monte, J.C., Structural Applications of Fiber Composites, UCF, 1995.

#### Masters' (MS) Theses Supervised as Major Advisor

- 1. Yang, X., Constitutive Modeling for UHPC Confined with Steel Reinforcement, FIU, 2012.
- 2. Jiao, X., Punching Shear Strength of Slabs with Partial or Full Depth UHPC, FIU, 2012.
- 3. Canbek, C., Development of FRP Roof to Wall Connection to Resist Hurricanes, FIU, 2009.
- 4. Logan, A., Short-Term Material Properties of High-Strength Concrete, NCSU, 2005.
- 5. Norton, T. (co-advised), Innovative Weaving Technology for Modular Bridge Decks, NCSU, 2004.
- 6. Cook, A., co-advised by Dr. Rizkalla, Corrosion Inhibitors for Concrete Bridges, NCSU, 2004.
- 7. Wu, Z., Field Tests and Analysis of FRP Deck Panels, NCSU, 2003.
- 8. Singhvi, A., Creep and Durability of FRP-RC Beams under Sustained Loads and in Harsh Environments Using Fiber-Optic Instrumentation, UC, 2000.
- 9. Kulkarni, S., Time-Dependent Analysis of Prestressed Girders Made Continuous, UC, 2000.

- 10. Yuan, W., Slenderness Effects in FRP-Reinforced Concrete Columns, UC, 2000.
- 11. Wei, Y., Ultrasonic Pulse Velocity in Concrete-Filled FRP Tubes, UC, 2000.
- 12. El-Khoury, C., Large-Scale Tests on Concrete-Filled FRP Beam-Columns, UCF, 1999.
- 13. Philip, S., Comparison of Acoustic Emission Activity in Steel-Reinforced and FRP-Reinforced Concrete Beams Under Bending, UCF, 1998.
- 14. Zagers, K., Nonlinear Modeling of Concrete-Filled FRP Tubes Using Finite Elements, UCF, 1998.
- 15. El-Echary, H., Length Effect on Concrete-Filled FRP Tubes with Acoustic Emission, UCF, 1998.
- 16. Mastrapa, J.C., *Effect of Construction Bond on Confinement with Fiber Composites*, UCF, 1997.
- 17. Pico, O., Confinement Effectiveness of Square FRP Tubes in Hybrid Columns, UCF, 1997.
- 18. Cabrera, S., Shear Strength and Seismic Performance of Concrete-Filled FRP Tubes, UCF, 1996.
- 19. Scherer, M., Design Optimization and Behavior of Concrete-Filled FRP Tubes, UCF, 1996.
- 20. Xu, Z., Nonlinear Stability of Prestressed Arches with Riks-Wempner Method, UCF, 1995.
- 21. Kargahi, M., FRP Shell as External Reinforcement for Concrete Columns, UCF, 1995.

## <u>Doctoral (PhD) Dissertations Supervised as Major Advisor</u>

- 1. Yang, X., Use of Fiber Reinforced Polymer Composite Cable in Post-Tensioning Application, FIU, 2015.
- 2. Ghasemi, S., Innovative Modular High Performance Lightweight Decks for Accelerated Bridge Construction, FIU, 2015.
- 3. Zohrevand, P., Hybrid Columns of FRP Tubes Filled with Ultra High Performance Concrete, FIU, 2012.
- 4. Saleem, M.A., Alternatives to Steel Grid Decks in Moveable Bridges, FIU, 2011.
- 5. Shi, Y., Seismic Performance of Hybrid Fiber Reinforced Polymer-Concrete Pier Columns, FIU, 2009.
- 6. Li, B., Seismic Performance of Bridge Pier Frames Made of Concrete-Filled FRP Tubes, FIU, 2008.
- 7. Kalayci, A.S., Surface Flaw Thresholds for Pre-Cured FRP and Groove Size Tolerance for Near Surface Mounted FRP Systems, FIU, 2008.
- 8. Yalim, B., Thresholds for Surface Preparation in Wet Lay-Up FRP Repair Systems, FIU, 2008.
- 9. Zheng, R., *Performance of FRP-Concrete Bridges under Blast Loading*, FIU, 2007.
- 10. Wu, Z., *High-Strength Structural Concrete in Flexure*, NCSU, 2006.
- 11. Ahmad, I., Fatique and Shear Behavior of FRP-Concrete Composite Columns, NCSU, 2004.
- 12. Zhu, Z., Innovative Connections of FRP-Concrete Composite Members, NCSU, 2004.
- 13. Shao, Y., Behavior of FRP-Concrete Beam-Columns under Cyclic Loading, NCSU, 2003.
- 14. Naguib, W., Long-Term Behavior of Hybrid FRP-Concrete Columns and Beam-Columns, UC, 2000.
- 15. Samaan, M., Analytical and Experimental Investigation of FRP-Concrete Columns, UCF, 1997.

## Post-Doctoral Scholars and Visiting Professors Supervised as Major Advisor

- 1. Zohrevand, P., *Innovative Applications of UHPC*, former PhD student, 2012 2014.
- 2. Pourbaba, M., *Shear Behavior of Ultra-High Performance Concrete Beams*, Tabriz University, Tabriz, Iran, 2013 2014.
- 3. Erdogan, H., *FRP-Strengthened Concrete Slabs for Punching Shear*, Middle East Technical University, Ankara, Turkey, 2008 2009.
- 4. Huang, P., Hurricane Impact on Tile Roofs, Tongji University, Shanghai, China, 2006 2007.
- 5. Wu, Z., Hardening of Concrete Bridges for Blast Loading, former PhD student, 2007.
- 6. Zhu, Z., Repair of Concrete Bridges using FRP, former PhD student, 2005.
- 7. Ahmad, I., *Repair of Concrete Bridges using FRP*, former PhD student, 2005.
- 8. Carrazado, R., *Confinement Modeling of Fiber-Wrapped Concrete Columns using Plasticity Models and Finite Element Analysis*, University of Sao Paolo, Sao Carlos, Brazil, 2004 2005.
- 9. Shao, Y., Control of Shrinkage Cracking of Concrete using Carbon Grids, former PhD student, 2003.

- 10. Lee, J.S., *Time-Dependent Behavior of Prestressed Concrete*, Chungbuk National University, Cheongju, Korea, 2002 2003.
- 11. Aval, B., *Nonlinear Finite Element Analysis of Prestressed Concrete Girders*, Sharif University, Tehran, Iran, 2002 2003.
- 12. Chen, X., FRP-Strengthening of Concrete Structures, Tsinghua University, Beijing, China, 1999 2000.

#### **Citation Metrics**

From Harzing's Publish or Perish, Google Scholar, and Research Gate:

Google's Total Citations: 11,968

Hirsch's *h*-index: 48 [number of papers each cited *h* times or more]

Egghe's g-index: 106 [number of papers collectively cited  $g^2$  times or more] Google's i10-index: 126 [number of papers with 10 citations or more] Google's i100-index: 20 [number of papers with 100 citations or more] Google's i1000-index: 2 [number of papers with 1,000 citations or more]

Highest citation: 1,238 for the 1998 paper on "Model of Concrete Confined by Fiber Composites"

Average citations: 331 per year and 60 per paper

Research Gate: 88,137 Reads, and 4,671 Research Interest Score

#### **Publication Metrics**

4 US Patents and 1 IP disclosure on two separate innovative systems for bridges and buildings 10 Books, 1 Book Chapter, 136 Refereed Journal Papers, 85 Refereed Conference Papers, 42 Research Reports and Technical Publications, 6 Keynote Addresses, 11 Plenary Speeches, and 20 Invited Seminars, 36 Conference Presentations, Abstracts and Posters, 48 Featured Articles, 12 TV and Radio Appearances, and 1 Software Development

Notes: All publications are in reverse chronological order, and \* indicates Mirmiran's advisee.

#### **Patents and Intellectual Property Disclosures**

- 1. Mirmiran, A., Chowdhury, A.G., and Suksawang, N. (2018). Wind Resistant Concrete Roof Component and System and Method for Forming Same II, U.S. Patent 10,138,632 B2.
- 2. Mirmiran, A., Chowdhury, A.G., and Suksawang, N. (2016). Wind Resistant Concrete Roof Component and System and Method for Forming Same I, U.S. Patent 9,428,911 B2.
- 3. Mirmiran, A., Chowdhury, A.G., and Suksawang, N. (2010). *Innovative Non-Intrusive Fiber Reinforced Polymer (FRP) Tie System*, Intellectual Property Disclosure, FIU.
- 4. Mirmiran, A., and Shahawy, M. (2000). *Pre-stressed FRP-Concrete Composite Structural Members*, U.S. Patent No. 6,123,485 A.
- 5. Mirmiran, A., and Shahawy, M. (1997). FRP-Concrete Composite Structural Members, U.S. Patent No. 5,599,599 A. Note: Licensed in 1999 to Intellectual Property Development of Coral Gables, FL.

## **Books and Book Chapters**

- 1. Mirmiran, A., and Fam, A., Part V (Hybrid FRP Composites Systems) of *The International Handbook of FRP Composites in Civil Engineering*, CRC Press, Zoghi, M. (Editor), September 2013.
- 2. Belarbi, A., Bae, S.W., Ayoub, A., Kuchma, D., Mirmiran, A., and Okeil, A. M., *Design of FRP Systems for Strengthening Concrete Girders in Shear*, NCHRP 678, Transportation Research Board, National Academy of Sciences, Washington, DC, 2011.
- 3. Mirmiran, A., Shahawy, M., Nanni, A., Karbhari, V., Yalim\*, B., and Kalayci\*, A.S., Revisions to Recommended Construction Specifications and Process Control Manual for Repair and Retrofit of

- *Concrete Structures Using Bonded FRP Composites*, NCHRP 609, Transportation Research Board, National Academy of Sciences, Washington, DC, 2008.
- 4. Rizkalla, S., Mirmiran, A., Zia, P., Russell, H., and Mast, R., *Application of the LRFD Bridge Design Specifications to High-Strength Structural Concrete: Flexure and Compression Provisions*, NCHRP 595, Transportation Research Board, National Academy of Sciences, Washington, DC, 2007.
- 5. Mirmiran, A., and Nanni, A., *Composites in Civil Engineering*, Proceedings of the 3<sup>rd</sup> International Conference on Composites in Civil Engineering, Miami, FL, December 2006.
- 6. Mirmiran, A., Shahawy, M., Nanni, A., and Karbhari, V., Bonded Repair and Retrofit of Concrete Structures Using FRP Composites: Recommended Construction Specifications and Process Control Manual, NCHRP 514, Transportation Research Board, National Academy of Sciences, Washington, DC, 2004.
- 7. Bakis, C.E. et al., Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures, ACI 440, American Concrete Institute, Farmington Hills, MI, 2002.
- 8. Blandford, G.E., Madugula, M., McClure, G., Mirmiran, A., Ostendorp, M., Penalba, C., Spalding, B., *Dynamic Response of Lattice Towers and Guyed Masts*, ASCE, New York, NY, 2002.
- 9. Miller, R.A., Castrodale, R., Mirmiran, A., and Hastak, M., *Connection Between Simple Span Precast Concrete Girders Made Continuous*, NCHRP 519, Transportation Research Board, National Academy of Sciences, Washington, DC, 2004.
- 10. Bradshaw, R.R., Darvas, R.M., Cuoco, D.A., DeGanyar, T.J., Fantozzi, F.W., Hanaor, A., Kassimali, A., Malla, R.B., Mirmiran, A., Parsons, J.K., Penalba, C.U., Serrette, R.L., Shaeffer, R.E., Tripeny, P., and Wang, S.T., *Guidelines for the Design of Double-Layer Grids*, ASCE, New York, NY, 1997.

## **Peer-Reviewed Journal Papers**

## **Papers Appeared**

- 1. Dadmand, B., Sadaghian, H., Khalilzadehtabrizi, S., Pourbaba\*, and Mirmiran, A. "Exploring the Mechanical Properties of Steel- and Polypropylene-reinforced Ultra-high-performance Concrete through Numerical Analyses and Experimental Multi-target Digital Image Correlation," *Frontiers of Structural and Civil Engineering*, Vol. 17, No. 8, pp. 1228-1248, July 2023.
- 2. Dadmand, B., Sadaghian, H., Khalilzadehtabrizi, S., Pourbaba\*, M., Shirdel, M., and Mirmiran, A. "Studying the Compressive, Tensile and Flexural Properties of Binary and Ternary Fiber-Reinforced UHPC Using Experimental, Numerical and Multi-Target Digital Image Correlation Methods," Case Studies in Construction Materials, Elsevier, e01865, January 2023.
- 3. Ghasemi\*, S., Mirmiran, A., Yulin Xiao, and Mackie, K. "Accelerated Testing of Super Lightweight UHPC Waffle Deck Under Heavy Vehicle Simulator," *Bridge Structures*, IOS Press, Online posting since December 2020, Vol. 16, No. 2-3, pp. 61-74, January 2021.
- 4. Sadaghian, H., Pourbaba\*, M., Andabili, S.Z., and Mirmiran, A. "Experimental and Numerical Study of Flexural Properties in UHPFRC Beams with and without an Initial Notch," *Construction and Building Materials*, Elsevier, Online posting October 2020, Vol. 268, No. 1, pp. 1-15, January 2021.
- 5. Dadmand, B., Pourbaba\*, M., Sadaghian, H., and Mirmiran, A. "Experimental and Numerical Investigation of Mechanical Properties in Steel Fiber-Reinforced UHPC," *Computers and Concrete*, Techno Press, Vol. 26, No. 5, pp. 451-465, November 2020.
- 6. Dadmand, B., Pourbaba\*, M., Sadaghian, H., and Mirmiran, A. "Effectiveness of Steel Fibers in Ultra-High-Performance Fiber-Reinforced Concrete Construction," *Advances in Concrete Construction, An Int'l Journal*, Techno Press, Vol. 10, No. 3, pp. 195-209, September 2020.
- 7. Pourbaba\*, M., Sadaghian, H., and Mirmiran, A. "Flexural Response of UHPFRC Beams Reinforced with Steel Rebars," *Special Issue on Higher Performance Cementitious Materials, Advances in Civil Engineering Materials*, ASTM, Vol. 8, pp. 411-430, November 2019.

- 8. Pourbaba\*, M., Sadaghian, H., and Mirmiran, A. "A Comparative Study of Flexural and Shear Behavior of UHPFRC Beams," *Journal of Advanced Structural Engineering*, SAGE, Online posting January 2019, Vol. 22, No. 7, pp. 1727-1738, April 2019.
- 9. Pourbaba\*, M., Joghataie, A., and Mirmiran, A. "Shear Behavior of Ultra-High Performance Concrete," *Construction and Building Materials,* Elsevier, Online posting July 2018, Vol. 183, No. 9, pp. 554-564, September 2018.
- 10. Pourbaba\*, M., Asefi, E., Sadaghian, H., and Mirmiran, A. "Effect of Age on Compressive Strength of Ultra-high-performance Fiber-reinforced Concrete," *Construction and Building Materials,* Elsevier, Online posting April 2018, Vol. 175, No. 6, pp. 402-410, June 2018.
- 11. Xia, J., Titchenda, C., Mackie, K., Saleem\*, M., and Mirmiran, A. "Sectional Analysis for Design of Ultra-high Performance Fiber Reinforced Concrete Beams with Passive Reinforcement," *Engineering Structures*, Elsevier, Vol. 160, No. 1, pp. 121-132, January 2018.
- 12. Amir Sayyafi, E., Chowdhury, A.G., and Mirmiran, A. "Innovative Hurricane-Resistant UHPC Roof System," *Journal of Architectural Engineering*, ASCE, Online posting November 2017, 04017032:1-11, Vol. 24, No. 1, January 2018.
- 13. Yang\*, X., Arockiasamy, M., Mirmiran, A., and Potter, W. "High Creep Stress Test of Carbon Fiber Composite Cable with Field-Made Anchorages," *Journal of Composites for Construction*, ASCE, Online posting March 2017, 06017001:1-5, Vol. 21, No. 5, October 2017.
- 14. Al-Ramahee, M.A., Titchenda, C., Mackie, K., Ghasemi\*, S., and Mirmiran, A. "Lightweight FRP-UHPC Composite Deck System," *Journal of Bridge Engineering*, ASCE, Online posting April 2017, Vol. 22, No. 7, pp. 04017022:1-18, July 2017.
- 15. Motaref, S., Saiidi, M.S., Sanders, D., and Mirmiran, A. "Shake Table Studies of a Precast Bridge Pier with Advanced Materials," *International Journal of Bridge Engineering*, Special Issue, pp. 135-162, November 2016.
- 16. Yang\*, X., Zohrevand\*, P., and Mirmiran, A. "Behavior of Ultrahigh-Performance Concrete Confined by Steel," *Journal of Materials in Civil Engineering*, ASCE, Online posting May 2016, Vol. 28, No. 10, pp. 04016113:1-8, October 2016.
- 17. Yang\*, X., Zohrevand\*, P., Mirmiran, A., Arockiasamy, M., and Potter, W. "Effect of Elastic Modulus of Carbon Fiber Reinforced Polymer Strands on the Behavior of Post-Tensioned Segmental Bridges," *Journal of Composites for Construction*, ASCE, Online posting March 2016, Vol. 20, No. 5, pp. 04016030:1-9, October 2016.
- 18. Mintz, B., Mirmiran, A., Suksawang, N., and Chowdhury, A.G. "Full-Scale Testing of a Precast Concrete SupterTile Roofing System for Hurricane Damage Mitigation," *Journal of Architectural Engineering*, ASCE, Online posting February 2016, Vol. 22, No. 3, B4016002:1-12, September 2016.
- 19. Ghasemi\*, S., Zohrevand\*, P., Mirmiran, A., Xiao, Y., and Mackie K. "A Super Lightweight UHPC-HSS Deck Panel for Movable Bridges," *Engineering Structures*, Elsevier, Vol. 113, No. 4, pp. 186-193, April 2016.
- 20. Mintz, B., Chowdhury, A.G., Mirmiran, A., Suksawang, N., and Kargarmoakhar, R., "Design, Development and Testing of a Composite Roofing System," *Journal of Composites for Construction*, ASCE, Online posting September 2015, Vol. 20, No. 2, pp. 04015052:1-11, April 2016.
- 21. Ghasemi\*, S., Mirmiran, A., Xiao, Y., and Mackie K. "Novel UHPC-CFRP Waffle Deck Panel System for Accelerated Bridge Construction," *Journal of Composites for Construction*, ASCE, Online posting August 2015, Vol. 20, No. 1, pp. 04015036:1-10, February 2016.
- 22. Yang\*, X., Zohrevand\*, P., Mirmiran, A., Arockiasamy, M., and Potter, W. "Comparative Study of Unbonded Carbon Fiber and Steel Strands in Post-Tensioned Pier Caps," *Journal of Composites for Construction*, ASCE, Online posting July 2015, Vol. 20, No. 1, pp. 04015042:1-10, February 2016.
- 23. Zohrevand\*, P., Yang\*, X., Jiao\*, X., and Mirmiran, A. "Punching Shear Enhancement of Flat Slabs with Partial Use of Ultra-High Performance Concrete," *Journal of Materials in Civil Engineering*,

- ASCE, Online posting December 2014, Vol. 27, No. 9, 04014255:1-10, September 2015.
- 24. Saleem\*, M.A., Mirmiran, A., Xia, J. and Mackie, K. "Experimental Characterization of Ultra-High Performance Concrete Bridge Deck System," *Journal of Bridge Engineering*, ASCE, Online posting September 2014, Vol. 20, No. 9, pp. 04014101:1-9, September 2015.
- 25. Yang\*, X., Zohrevand\*, P., Mirmiran, A., Arockiasamy, M., and Potter, W. "Post Tensioning of Segmental Bridges using Carbon Fiber Composite Cables," *PCI Journal*, Vol. 60, No. 3, pp. 50-62, May-June 2015.
- 26. Xia, J., Xiao, Y., Mackie, K.R., Al-Ramaheeb, M., and Mirmiran, A. "Dowel Action and Shear Strength Contribution of High Strength Rebar Embedded in Ultra-high Performance Fiber Reinforced Concrete," *Engineering Structures*, Elsevier, Vol. 83, No. 15, pp. 223-232, January 2015.
- 27. Zheng\*, R., Zohrevand\*, P., Erdogan\*, H., and Mirmiran, A. "Performance of FRP-Retrofitted Concrete Bridge Columns under Blast Loading," *International Journal of Computational Mechanics and Experimental Measurements,* WIT Press, Vol. 2, No. 4, pp. 346-361, December 2014.
- 28. Zohrevand\*, P., and Mirmiran, A., "Stress-Strain Model of Ultra-High Performance Concrete Confined by Fiber Reinforced Polymers," *Journal of Materials in Civil Engineering*, ASCE, Online posting December 2012, Vol. 25, No. 12, pp. 1822-1829, December 2013.
- 29. Erdogan\*, H., Zohrevand\*, P., and Mirmiran, A. "Effectiveness of Externally Applied CFRP Stirrups for Rehabilitation of Slab-Column Connections," *Journal of Composites for Construction*, ASCE, Online posting April 2013, Vol. 17, No. 6, pp. 04013008:1-10, December 2013.
- 30. Zohrevand\*, P., and Mirmiran, A. "Effect of Column Parameters on Cyclic Behavior of Ultra High Performance Concrete-Filled FRP Tubes," *Structural Journal*, ACI, Vol. 110, No. 5, pp. 823-832, September 2013.
- 31. Saleem\*, M.A., Mirmiran, A., Xia, J. and Mackie, K. "Development Length of High-Strength Steel Rebars in Ultra-High Performance Concrete," *Journal of Materials in Civil Engineering*, ASCE, Online posting August 2012, Vol. 25, No. 8, pp. 991-998, August 2013.
- 32. Shi\*, Y., Zohrevand\*, P., and Mirmiran, A. "Assessment of Cyclic Behavior of Hybrid FRP-Concrete Columns," *Journal of Bridge Engineering,* ASCE, Online posting March 2012, Vol. 18, No. 6, pp. 553-563, June 2013.
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### **Peer-Reviewed Conference Papers**

- Mirmiran, A., "Engineering Education: A Departure from Assembly Line Strategy," *International Conference*, Business and Applied Sciences Academy of North America, New York, NY, July-August 2018
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- 31. Wu\*, Z., and Mirmiran, A., "Prestressed FRP Tubular Bridge Decks," *Final Report CFL-RD-03-01*, Constructed Facilities Laboratory, NC State University, Raleigh, NC, 2003.
- 32. Mirmiran, A., "Analytical Modeling of Concrete Beams Retrofitted with Fiber Composites Under Creep or Fatigue Loading," *Final Report*, Structural Research Center, Florida Department of Transportation, Tallahassee, FL, 2000.
- 33. Bishop, P., Islam, S., Mirmiran, A., and Pant, P., "A Guideline for Faculty Recruitment in the Department of Civil and Environmental Engineering," 1999.
- 34. Mirmiran, A., "Hybrid Fiber Reinforced Polymer (FRP)-Concrete Column," *Final Report*, Contract No. BB-056, Florida Department of Transportation, Tallahassee, FL, 1999.
- 35. Mirmiran, A., "FRP-Encased Concrete Piles Phase 3," *Final Report*, Contract No. BA-519, Florida Department of Transportation, Tallahassee, FL, 1999.
- 36. Shahawy, M., Beitelman, T., and Mirmiran, A., "Analysis and Modeling of Fiber-Wrapped Columns and Concrete-Filled Tubes," *Final Report*, Structural Research Center, Florida Department of Transportation, Tallahassee, FL, 1998.

- 37. Mirmiran, A., "FRP-Concrete Composite Column and Pile Jacket Splicing Phase 2," *Final Report*, Contract No. B-9895, Florida Department of Transportation, Tallahassee, FL, 1997.
- 38. Mirmiran, A., "Analytical and Experimental Investigation of Reinforced Concrete Columns Encased in Fiberglass Tubular Jackets and Use of Fiber Jacket for Pile Splicing," *Final Report*, Contract No. B-9135, Florida Department of Transportation, Tallahassee, FL, 1997.
- 39. Mirmiran, A., "Nonlinear Modeling of Concrete-Encased Pultruted Shapes," *Final Report*, Project Number 16-20-933, UCF, Orlando, FL, 1995.
- 40. Mirmiran, A., "Nonlinear Stability Analysis of Prestressed Sandwich Arches Using the Finite Element Method," *Ph.D. Thesis*, University of Maryland, College Park, MD, 1991.
- 41. Mirmiran, A., "Nonlinear Analysis of Sandwich Arches and Frames (NASAF)," in *Handbook of Finite Element Software*, Mackerle and Fredriksson (Eds.), 2<sup>nd</sup> Ed., Sweden 1991 [NASAF is also included in MAKEBASE, an International Finite Element Software Database].
- 42. Mirmiran, A., "Prestressed Masonry Structures," *Research Report*, University of Maryland, College Park, MD, 1986.

## **Keynote Addresses**

- 1. Keynote Speaker, "Technology and Education Converge: Growing Miami's Technology Hub with Education," Greater Miami Chamber of Commerce, Miami, FL, April 2015.
- 2. Keynote Speaker, "Innovative Materials and Systems for Sustainable Structures," Inter-American Conference on Non-Conventional Materials and Technologies in Ecological and Sustainable Construction (14NOCMAT), Rio de Janeiro, Brazil, March 2013.
- 3. Keynote Speaker, "Housing in Megacities: A Systems Approach," World Congress on Housing, International Association for Housing Science (IAHS), Istanbul, Turkey, April 2012.
- 4. Keynote Speaker, Inter-American Conference on Non-Conventional Materials and Technologies in Ecological and Sustainable Construction, Rio de Janeiro, Brazil, November 2005.
- 5. Keynote Speaker, "Future of FRP Composites in Bridge Industry," Second China FRP Composites Conference, Kunming, China, July 2002.
- 6. Keynote Speaker, "North American Perspective on Carbon Fiber Strengthening of Existing Reinforced Concrete Structures," First China FRP Composites Conference, Beijing, China, June 2000.

## **Plenary Remarks**

- 1. Plenary Speaker, "Open Educational Resources," University of Texas System, November 2024.
- 2. Plenary Speaker, "Does Retention/Graduation Keep You Up at Night?" Annual Retreat, Texas Council of Chief Academic Officers, Austin, TX, January 2017.
- 3. Plenary Speaker, "Infrastructure Engineering Forum," Initiative to discuss engineering and education needs in South Florida, Miami, FL, October 23, 2014.
- 4. Plenary Speaker, "Diversity to Sustain Engineering Profession," Deans Summit, HENAAC Conference, Great Minds in STEM, New Orleans, LA, October 3, 2014.
- 5. Invited Speaker, "Surmounting the Barriers: Ethnic Diversity in Engineering Education," Workshop co-sponsored by the American Society for Engineering Education (ASEE) and the National Academy of Engineering (NAE), Washington, DC, September 26-27, 2013.
- 6. Plenary Speaker, "Engineering as Engine for Economic Development in Urban Communities," Addressing the 21<sup>st</sup> Century Imperative: Improving STEM Success in Communities of Color, Urban Education Institute, Greensboro, NC, March 2013.
- 7. Plenary Speaker, "Foundational Grand Challenge for Engineering Education," National Science Foundation (NSF) Annual Engineering Research Center (ERC) Meeting, Panel on Improving Diversity, Washington, DC, November 2012.

- 8. Plenary Speaker, "Role of Hispanic Serving Institutions in STEM," National Action Council for Minorities in Engineering (NACME), Panel on Increasing American Competitiveness: A Conversation with Businesses and The Academy on Broadening Participation in STEM, Capitol Hill, Washington, DC, April 2010.
- 9. Plenary Speaker, "Restore and Improve Urban Infrastructure," NSF-Sponsored National Workshop on Building Partnerships and Pathways to Address Engineering Grand Challenges, El Paso, TX, February 2010.
- 10. Plenary Speaker, "Career Paths in Higher Education," Career Path Seminar, Miami, FL, April 2009.
- 11. Plenary Speaker, "Bridge from Ideas to Patient Care," South Florida's Pipeline of Emerging Technologies Panel Session, EDC's Biotech 2008 on Leveraging Information Technology to Meet Today's Healthcare Challenges, Graham Center, Miami, FL, April 2008.

#### **Invited Seminars**

- Mirmiran, A., "Innovative Structural Applications for Ultrahigh Performance Concrete," Invited Seminar, Department of Civil and Environmental Engineering, University of Houston, Houston, TX, March 2017.
- 2. Mirmiran, A., "High Modulus Carbon FRP Composites for Bridge Applications," Invited Presentation, AASHTO Subcommittee on Bridges and Structures, Technical Subcommittee T-6 on Composites, New York, NY, April 2015.
- 3. Mirmiran, A., "Seismic Performance of FRP-Concrete Bridge Substructure," Invited Seminar, Structural Engineering Seminar Series, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, February 2009.
- 4. Mirmiran, A., "Efficient use of Composites in Seismic Design of Bridge Substructure," Invited Presentation, Louisiana State University, Baton Rouge, LA, February 2006.
- 5. Mirmiran, A., "Effect of Construction Anomalies on Performance of FRP Repair System," Invited Presentation, Transportation Research Board Committee AFF80 on Structural Fiber Reinforced Plastics, Washington, DC, January 2006.
- 6. Mirmiran, A., "Seismic Performance of Concrete Bridge Columns Encased in FRP Tube," Invited Presentation, Transportation Research Board Committee AFF80 on Structural Fiber Reinforced Plastics, Washington, DC, January 2005.
- 7. Mirmiran, A., "Prefabricated Bridge Elements and Systems to Limit Traffic Disruption During Construction," Invited Presentation, ASCE-NC Spring Technical Seminar, Structures Session, Charlotte, NC, May 2004 [Received *Certificate of Appreciation* from the ASCE NC Section].
- 8. Mirmiran, A., "A Vision for the Future," Faculty Seminar, FIU, Miami, FL, April 2004.
- 9. Mirmiran, A., "Rehabilitation of Structures and Buildings with Composites," Invited Presentation, ASCE-NC Spring Technical Seminar, Structures Session, Greensboro, NC, April 2003 [Received *Certificate of Appreciation* from the ASCE NC Section].
- 10. Mirmiran, A., "Construction Specifications and Process Control Manual for Bonded FRP Repair of Concrete Structures," Transportation Research Board (TRB) Annual Meeting, January 2002.
- 11. Mirmiran, A., "Non-destructive Testing of FRP-Confined Concrete Columns," Graduate Seminar, NCSU, Raleigh, NC, June 2001.
- 12. Mirmiran, A., "Long-Term Behavior of Hybrid FRP-Concrete Columns Under Sustained Loads," Graduate Seminar, NCSU, Raleigh, NC, October 2000.
- 13. Mirmiran, A., "Composite Structures Made of FRP and Concrete," Graduate Seminar, Tsinghua University, Beijing, China, June 2000.
- 14. Mirmiran, A., "Hybrid FRP-Concrete Systems," Graduate Seminar, University of Illinois at Chicago, Chicago, IL, November 1999.
- 15. Mirmiran, A., "Carbon Fiber Strengthening of Existing Reinforced Concrete Structures," Invited

- Presentation and Panel Participation, ASCE-ICRI (International Concrete Repair Institute) Joint Session, Mason, OH, November 1999.
- 16. Mirmiran, A., "Use of FRP in Composite Construction with Concrete," Graduate Seminar, UC, Cincinnati, OH, January 1998.
- 17. Mirmiran, A., "Concrete-Filled Plastic Tubes for Piles and Pile Splices," Structures Design Conference, Florida Department of Transportation, Orlando, FL, July 1997.
- 18. Mirmiran, A., "Plastic Tubes as Permanent Formwork and External Reinforcement for Concrete Columns," Structures Design Conference, Florida Department of Transportation, Orlando, FL, August 1996.
- 19. Mirmiran, A., "Modeling of FRP-Confined Concrete," Graduate Seminar, University of Massachusetts, Amherst, MA, February 1996.
- 20. Mirmiran, A., "Use of Fiber Composites in Infrastructure," Graduate Seminar, George Washington University, Washington, DC, May 1995.
- 21. Mirmiran, A., "Composites for Rebuilding the Infrastructure" 5<sup>th</sup> International Conference on Marine Applications of Composite Materials, Melbourne, FL May 1994.

### **Conference Presentations, Abstracts and Posters**

- 1. Al-Ramaheea, M., Mackie, K., Mirmiran, A., Ghasemi\*, S., Fouad, F., and Waldrone, C. (2015). "Lightweight UHPC-FRP Composite Deck System," 2015 University Transportation Center (UTC) Conference for the Southeastern Region, Birmingham, AL, March 2015.
- 2. Ghasemi\*, S., Mirmiran, A., Al-Ramahee, M., and Mackie, K. "UHPC Waffle Deck System Reinforced with HSS or CFRP," ACI Fall Convention, American Concrete Institute, Washington, DC, October 2014.
- 3. Zohrevand\*, P., and Mirmiran, A. "Seismic Performance of Ultra-High Performance Concrete-Filled FRP Tube Columns," Quake Summit 2013, The George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES), Reno, NV August 2013.
- 4. Zohrevand\*, P., and Mirmiran, A. "Application of Ultra-High Performance Concrete in Bridge Columns," ACI Fall Convention, American Concrete Institute, Toronto, Canada, October 2012.
- 5. Zohrevand\*, P., and Mirmiran, A. "Hybrid Construction with FRP and Engineered Cementitious Composites," ACI Fall Convention, American Concrete Institute, Pittsburg, PA, October 2010.
- 6. Zohrevand\*, P., and Mirmiran, A. "Innovative Application of Ultra High-Performance Concrete with Fiber Reinforced Polymer Tubes in Columns," ACI Spring Convention, American Concrete Institute, Chicago, IL, March 2010.
- 7. Zohrevand\*, P., and Mirmiran, A. "Seismic Performance of FRP-Encased Engineered Cementitious Composites for Bridge Substructure," ACI Fall Convention, American Concrete Institute, New Orleans, LA, November 2009.
- 8. Mirmiran, A., Erdogan\*, H., and Singhvi\*, A. "Design Implications of Creep and Long-Term Deflections in FRP-RC Beam-Columns," ACI Spring Convention, American Concrete Institute, San Antonio, TX, March 2009.
- 9. Shi\*, Y., Li\*, B., and Mirmiran, A., "Enhancing Seismic Performance of Concrete Columns by Replacing Lateral Steel with FRP Shell," ACI Spring Convention, American Concrete Institute, San Antonio, TX, March 2009.
- 10. Li\*, B., Shi\*, Y., and Mirmiran, A., "Rapid Construction of Modular Innovative Bridge Substructure," ACI Fall Convention, American Concrete Institute, St Louis, MO, November 2008.
- 11. Li\*, B., Shi\*, Y., and Mirmiran, A., "System Response of FRP-Encased Concrete Bridge Substructure to Seismic Actions," ACI Spring Convention, American Concrete Institute, Los Angeles, CA, March 2008.
- 12. Shi\*, Y., Li\*, B., and Mirmiran, A., "FRP Encasement of Concrete to Improve Seismic Performance

- of Bridge Piers," ACI Fall Convention, American Concrete Institute, Fajardo, Puerto Rico, October 2007.
- 13. Zheng\*, R., and Mirmiran, A., "Performance of FRP Retrofitted Bridges Under Blast Loading," Composites and Polycon 2007, American Composites Manufacturers Association, Tampa, FL, October 2007.
- 14. Kalayci\*, A.S., Yalim\*, B., and Mirmiran, A., "Groove Size Tolerance for Near Surface Mounted FRP Bars and Strips," Composites and Polycon 2007, American Composites Manufacturers Association, Tampa, FL, October 2007.
- 15. Yalim\*, B., Kalayci\*, A.S., and Mirmiran, A., "Flexural Response of FRP Bonded Systems in Presence of Concrete Surface Flaws," Composites and Polycon 2007, American Composites Manufacturers Association, Tampa, FL, October 2007.
- 16. Shi\*, Y., Li\*, B., and Mirmiran, A., "Performance Seismic Performance of Hybrid FRP-Concrete Pier Columns and Frames," Composites and Polycon 2007, American Composites Manufacturers Association, Tampa, FL, October 2007.
- 17. Yalim\*, B., Kalayci\*, A.S., and Mirmiran, A. "Effect of Concrete Surface Preparation on the Bond Behavior of CFRP Sheets," ACI Spring Convention, American Concrete Institute, Atlanta, GA, April 2007.
- 18. Rizkalla, S., Zia, P., and Mirmiran, A. "Recommended Flexure and Compression Provisions to Extend the Application of the LRFD Specifications to High-Strength Concrete," ACI Spring Convention, American Concrete Institute, Atlanta, GA, April 2007.
- 19. Shi\*, Y., Zhu\*, Z., Mirmiran, A., and Saiidi, M.S. "Hybrid FRP-Concrete Systems for Improvement of Seismic Performance," Composites and Polycon 2006, American Composites Manufacturers Association, St Louis, MO, October 2006.
- 20. Yalim\*, B., Kalayci\*, A.S. and Mirmiran, A. "Effect of Construction Anomalies on Performance of FRP Repair System" ACI Spring Convention, American Concrete Institute, Charlotte, NC, March 2006.
- 21. Zhu\*, Z., and Mirmiran, A. "Identify and Secure Key Concrete Bridges against Man-Made Hazards," ACI Fall Convention, American Concrete Institute, Kansas City, MO, November 2005.
- 22. Zhu\*, Z., Ahmad\*, I., Shao\*, Y., and Mirmiran, A. "Seismic Performance of Concrete-Filled FRP Tube Columns for Highway Bridges," ACI Fall Convention, American Concrete Institute, San Francisco, CA, October 2004.
- 23. Ahmad\*, I., and Mirmiran, A., "Fatigue Response of Hybrid FRP-Concrete Bridge Girders," ACI Spring Convention, American Concrete Institute, Washington, DC, March 2004.
- 24. Zhu\*, Z., and Mirmiran, A., "Seismic Performance of Concrete-Filled FRP Tubes As Bridge Pier Columns," ACI Spring Convention, American Concrete Institute, Washington, DC, March 2004.
- 25. Mirmiran, A. and Shao\*, Y., "Performance of Concrete-Filled FRP Tubes Subjected to Cyclic Loading," ACI Fall Convention, American Concrete Institute, Phoenix, AZ, October 2002.
- 26. Mirmiran, A., Amde, A.M., and Xu\*, Z., "Effect of Geometric and Loading Conditions on Stability of Prestressed Arches," Session on Computational Methods in Structural Stability, (only extended abstract), Mechanics and Materials Conference, Symposium on Recent Advances in Stability of Structural Components and Systems, ASME-MD/AMD, ASCE-EM and SES, San Diego, CA, June 2001.
- 27. Mirmiran, A., Singhvi\*, A., and Yuan\*, W., "Buckling and Creep-Buckling of FRP-Reinforced Concrete Columns," ACI Fall Convention, American Concrete Institute, Toronto, Canada, October 2000.
- 28. Mirmiran, A., and Wei\*, Y., "Ultrasonic Pulse Velocity Damage Index for FRP-Confined Concrete," ACI Spring Convention, American Concrete Institute, San Diego, CA, March 2000.
- 29. Mirmiran, A., Miller, R., and Hastak, M., "Positive Moment Cracking in the Diaphragms of Simple-

- Span Prestressed Girders Made Continuous," ACI Spring Convention, American Concrete Institute, San Diego, CA, March 2000.
- 30. Mirmiran, A., Naguib\*, M., and Shahawy, M., "Creep of Concrete-Filled Composite Tubes," ACI Spring Convention, American Concrete Institute, Chicago, IL, March 1999.
- 31. Mirmiran, A., "Integration of Research and Education," Poster Session, NSF-CAREER Awardees Meeting, Washington, DC, January 1999.
- 32. Mirmiran, A., Samaan\*, M., and Shahawy, M., "Performance of Hybrid Columns," ACI Fall Convention, American Concrete Institute, Atlanta, GA, November 1997.
- 33. Samaan\*, M., Mirmiran, A., and Shahawy, M., "Hybrid FRP-Concrete Columns" International Composites Expo, Composites Institute, Nashville, TN, January 1997.
- 34. Mirmiran, A., "The Role of Partnership in Engineering Education," Florida Section Annual Meeting, ASCE, Sarasota, FL, September 1996.
- 35. Samaan\*, M., Mirmiran, A., and Shahawy, M., "Bridge Concrete Columns Confined by Fiber Reinforced Plastic Tubes," ACI Fall Convention, American Concrete Institute, Montreal, Canada, November 1995.
- 36. Mirmiran, A., and Shahawy, M., "Behavior and Design of Reinforced Concrete Columns with External Shell Reinforcement," ACI Spring Convention, American Concrete Institute, Salt Lake City, UT, March 1995.

#### **Featured Articles**

- 1. "College Presidents Ink MOU," *East Texas Review*, November 14, 2024.
- 2. "Kilgore College, UT Tyler Sign Co-enrollment Agreement," Kilgore News Herald, March 22, 2024.
- 3. "UT Tyler Chemical Engineering Programming Earns ABET Accreditation," *The Gilmer Mirror*, September 15, 2023.
- 4. "UT Tyler to Launch Computer Engineering P," Tyler Morning Telegraph, September 3, 2022.
- 5. "UT Tyler, Kilgore College Announce Partnership to Provide Pre-nursing Courses to Longview Area," *East Texas Matters*, December 18, 2019.
- 6. "University President Dr. Mabry Celebrates Last Convocation," *Patriot Talon*, Student-run media outlet, University of Texas at Tyler, September 14, 2016.
- 7. "UT Tyler Honors President Rodney Mabry during His Final Convocation After 18 Years At The School," *Tyler Morning Telegraph*, August 26, 2016.
- 8. "University Announces Plans to Add Marching Band," *Patriot Talon*, Student-run media outlet, University of Texas at Tyler, March 22, 2016.
- 9. "UT Tyler strategic Plan Includes More Than 60 Percent Increase In Enrollment, New Construction And Expanded Degree Programs," *Tyler Morning Telegraph*, February 26, 2016.
- 10. "Amir Mirmiran Named Next Provost," *Patriot Talon*, Student-run media outlet, University of Texas at Tyler, April 22, 2015.
- 11. "FIU Introduces 'Engineers on Wheels' to Promote STEM in Miami Schools," *Hispanic Outlook in Higher Education Magazine*, interview on Engineers on Wheels outreach initiative, March 2015.
- 12. "Middle School Students Compete to Build and Feed the City of the Future," *Miami Herald*, article on Future City competition hosted by College of Engineering and Computing, January 2015.
- 13. "For School Project, Next Stop is Outer Space," *Miami Herald*, article on a joint project of College of Engineering and Computing with the school district on a flight ready satellite, November 2014.
- 14. "FIU Sees Engineering School Loop," *Miami Today*, interview on industry partnership and internship in engineering, October 2014.
- 15. "FIU Brings STEM Education to Miami-Dade County Public Schools with Engineers on Wheels," *PR Newswire*, also featured in *The Oregonian*, September 2014.
- 16. "Combining Telepresence & Robotics with the Telebot," *Product Design & Development*, Interview

- on the FIU's Discovery Lab and its telebot prototype, February 2014.
- 17. "Scholars, Lawmakers Call for Greater Focus on Recruiting, Preparing Engineers of Color," *Diverse Issues in Higher Education*, September 13, 2012.
- 18. "Monster Machines: Behold The World's Only Category 5 Hurricane Simulator," *Gizmodo Australia*, Interview on Wall of Wind, September 2012.
- 19. "FIU Puts OHL Name on Engineering, Computing School," *South Florida Business Journal*, Interview on naming of OHL School of Construction, March 2012.
- 20. "On the Move Honors and Awards," *Concrete International*, American Concrete Institute (ACI), Vol. 32, No. 5, p. 16, news about 2009 Engineer of the Year Award, May 2010.
- 21. "Lack of Construction Codes Sealed Haitian Capital's Fate," *Miami Herald*, Interview on Haiti Earthquake, January 24, 2010.
- 22. "Engineers Urge Overhaul of Haiti's Archaic Building Practices," *Miami Herald*, Interview on Haiti Earthquake, January 23, 2010.
- 23. "Engineering a Lucrative College Degree," *Miami Herald*, Interview on Surge of Interest in Engineering Degrees, November 2009.
- 24. "Progress Announced during Engineering Meeting," *Student Media at FIU*, (www.fiusm.com/articles/756), April 2008.
- 25. "FIU Lab Approved for Hurricane Testing of Building Materials," FIU Press Release, (news.fiu.edu/releases/2008/04-02\_lab.htm), April 2008.
- 26. "South Florida Chapter First Annual Concrete Expo," *Concrete International*, American Concrete Institute (ACI), Vol. 29, No. 7, pp. 22, July 2007.
- 27. "Concrete Expo," *Florida Concrete Magazine*, Florida Concrete and Products Association, pp. 12-15, June 2007.
- 28. "Reno Researchers Shake Things Up," *Engineering News Record (ENR)*, Interview on use of innovative fiber composites for bridges as part of a joint project with the University of Nevada Reno, (enr.construction.com/news/transportation/archives/070226a.asp), February 2007.
- 29. "New Lab Cooperation Leads to "Concrete" Achievement," *Florida Concrete Magazine*, Florida Concrete and Products Association, pp. 12-15, November 2006.
- 30. "Structures Lab" Sunrise Forum of Sun Sentinel, interviewed as Lab Director and department chair on the new FIU Structures Laboratory, May 27, 2005.
- 31. "Home Costs a Shock to New Faculty," South Florida Business Journal, Broward Edition, interviewed as department chair on faculty housing, May 20, 2005 (also: http://southflorida.bizjournals.com/southflorida/stories/2005/05/23/story3.html)
- 32. "FIU Structures and Construction Laboratory (SCL): A Vision into the Future," *CONSTRUCTIONink!*, The Magazine of the Construction Association of South Florida, pp. 22-25, Fall 2004.
- 33. "A Better Way to Bolster Bridges," *NC State Wolfpack: The Alumni Magazine of NC State University*, featured article, P. 6, Spring 2003.
- 34. "New Construction Specifications and Field Guide for Composites in Bridge Repairs," *Composites Technology*, featured article, Vol. 9, No. 2, P. 10, April 2003.
- 35. "How Safe Are Our Bridges? NC State Researcher Focuses on Improved Repair Systems," featured article, Engineering News, College of Engineering, NC State University, Raleigh, NC, (http://www.engr.ncsu.edu/news/news articles/bridges.safe.html), January 29, 2003.
- 36. "Composite Pile: A Successful Drive," FRP International, Vol. IX, No. 1, p. 3, 2001.
- 37. "Notable Research Activity: University of Cincinnati," *FRP International*, Vol. IX, No. 1, pp. 1-2, 2001.
- 38. "Out with the Old, In with the New, Advanced Composite Technology Combines with Innovative Design to Repair Aging Bridges in Ohio," *Roads & Bridges*, Vol. 39, No. 4, p. 56, 2001.
- 39. "Concrete-Filled FRP Tubes Tested," Civil Engineering, Vol. 70, No. 3, p. 28, 2000.

- 40. "Measurements and Models, Time-Dependent Behavior of Concrete-Filled FRP Tubes," *CEE NOW*, Newsletter, Department of Civil and Environmental Engineering, UC, Featured Article, p. 3, 1999.
- 41. "Hybrid FRP-Concrete Columns," FRP International, Vol. VI, No. 1, p. 5, 1998.
- 42. "Science Squadron, Four Capture \$1.2 Million in National CAREER Honors," *UC Currents*, Interview and featured article, Vol. 8, No. 1, p. 3, 1998.
- 43. "Plastic Proves to Be Golden for One UCF Professor," *The Central Florida Future*, Interview and featured article, Vol. 29, No. 16, pp. 1-2, 1996.
- 44. "Patented Design for Bridges Brings in National Science Grant," *The UCF Report*, Interview and featured article, Vol. 19, No. 5, p. 5, 1996.
- 45. "Building Better Bridges," *The Knight Engineer Magazine*, Interview and featured article, Vol. 1, No. 1, p. 11, 1996.
- 46. "Researchers Develop Plastic Support for Bridges," *The UCF Report*, Interview and featured article, Vol. 18, No. 8, pp. 1 and 5, 1995.
- 47. "Engineering Professor Bridges Gap in Technology," *The Central Florida Future*, Interview and featured article, Vol. 28, No. 21, p. 3, 1995.
- 48. "A System for Meeting Client Demands," *Technique*, Data General's Quarterly, an interview on Computer Aided Design (CAD) in engineering, Vol. 4, No. 2, 1988.

## **Featured TV/Radio Appearances**

- 1. "UT Tyler TJC Partnership," KVUT 99.7 FM Radio Station, April 2022.
- 2. "FIU's Wall of Wind Simulates Hurricane Conditions," *NBC Local Channel 6*, Miami, FL, August 2012.
- 3. "FIU Traffic Lab Integrated Intelligent Transportation System Lab," *NBC Local Channel 6*, Miami, FL, May 2009.
- 4. "The Dean of Engineering at FIU talks about new technology to improve the hurricane-resistance of homes," WFIT 89.5 FM (Melbourne, FL) and WQCS 88.9 HD-2 (Ft. Pierce, FL), American Variety with Court Lewis, see <a href="http://www.wfit.org/">http://www.wqcs.org/</a> or <a href="http://americanvarietyradio.com/">http://americanvarietyradio.com/</a>

#### **Software Development**

1. Mirmiran, A., "Nonlinear Analysis of Sandwich Arches and Frames (NASAF)," in Handbook of Finite Element Software, Mackerle and Fredriksson (Eds.), 2<sup>nd</sup> Ed., Sweden 1991 [NASAF is also included in MAKEBASE, an International Finite Element Software Database]

#### **Research Interests**

Fiber Reinforced Plastic (FRP) Composites for Infrastructure, Ultra High-Performance Concrete (UHPC), Prestressed and Reinforced Concrete Bridges, Non-Destructive Testing of Prestressed and Reinforced Concrete and Composites, Nonlinear Finite Elements for Concrete and Composite Structures, and Bridge Engineering and Software Development.

## **Research and Innovation Metrics**

- NSF CAREER Award for "Hybrid Columns of Concrete and FRP"
- NSF I-Corps Award for "Commercializing Innovative Hurricane Damage Mitigation Systems"
- Invented four (4) US Patented structural systems for bridge and building applications
- Five National Academy of Sciences NCHRP Projects 10-59, 12-53, 12-64, 12-75, and 12-101
- Funding from four (4) Departments of Transportation in Florida, Ohio, North Carolina, and Texas
- Total funding of \$15.6M: \$4.6M as PI, and \$11.0M as Co-PI

Funding distribution: \$11.3M federal, \$2.9M state, \$0.2M county, and \$1.0M industry

#### **Research Projects**

- 1. Belarbi, D.J. (University of Houston), Dawood, M. (University of Houston), and Mirmiran, A. (UTT), "Synthesis of Concrete Bridge Piles Prestressed with CFRP System," Texas Department of Transportation, TXDOT Project Number -6917, \$56,000 (10% share), 2016-17.
- 2. Saiidi, M. (Infrastructure Innovation), Buckle, I. (University of Nevada Reno), Marsh, L. (Berger-ABAM), Murphy, T. (Modjeski & Masters), Wassef, W. (AECOM), and Mirmiran, A. (FIU), "NCHRP 12-101: Seismic Design of Bridge Columns with Improved Energy Dissipating Mechanisms," National Academy of Sciences, National Cooperative Highway Research Program, \$250,000 (2.5% share), 2014-16.
- 3. Chowdhury, A., Mirmiran, A., Zohrevand, P., and Moravej, M., "I-Corps: Commercializing Innovative Hurricane Damage Mitigation Systems," National Science Foundation, \$50,000, 2015.
- 4. Mirmiran, A. (FIU), Mackie, K. (UCF), and Fouad, F. (University of Alabama at Birmingham), "Innovative Modular High Performance Lightweight Decks for Accelerated Bridge Construction," National Center for Transportation Systems Productivity and Management (NCTSPM), University Transportation Center at Georgia Tech, \$200,000, 2014-15.
- 5. Mirmiran, A., Suksawang, N., and Zohrevand\*, P., "Use of Fiber Reinforced Polymer Composite Cable for Post-Tensioning Applications," Florida Department of Transportation, Project # BDV29-977-10, \$250,000, 2012-15.
- 6. Mirmiran, A., "Lightweight Solid Decks for Movable Bridges," Florida Department of Transportation, Project # BDV29-977-11, \$200,000, 2012-15.
- 7. Azizinamini, A., Mirmiran, A., and Hadi, M. (FIU), Ralls, M.L., Wipf, T., Phares, B., and Sritharan, S. (Iowa State University), Saiidi, S. and Itani, A. (University of Nevada Reno), "University Transportation Center on Accelerated Bridge Construction," US Department of Transportation, \$5.6M, 2013-15.
- 8. Suksawang, N., and Mirmiran, A., "Long-Term Monitoring of a Segmental Bridge at SR-826/SR836 Interchange Bridge 11," Miami-Dade Expressway Authority (MDX), \$50,000, 2011-14.
- 9. Mirmiran, A., "Extending the application of EC6 Composite Cables to Post-Tensioned Segmental Bridge Construction," Composite Rigging Southern Spars, \$37,800, 2013-14.
- 10. Chowdhury, A.G., Mirmiran, A., Irvin, P., and Fouad, F. (University of Alabama, Birmingham) "Full-Scale Testing and Dynamic Modeling to Evaluate and Enhance Performance of Traffic Infrastructure under Moderate to Extreme Wind and Wind-Driven Rain Conditions," National Center for Transportation System Productivity and Management (NCTSPM), Georgia Institute of Technology, \$90,000, 2012-14.
- 11. Mirmiran, A., and Milani, M., "Building Partnerships and Pathways to Address the Foundational Grand Challenge for Engineering Education Concrete Steps Towards Broadening Participation," National Science Foundation, \$70,000, 2011-12.
- 12. Mirmiran, A. (FIU), and Mackie, K. (UCF), "Alternatives to Steel Grid Decks Phase II," Florida Department of Transportation, \$225,000, 2009-12.
- 13. Saiidi, M., and Buckle, I. (University of Nevada Reno), Fenves, G., and Filippou, F. (University of California Berkeley), Elgamal, A. (University of California at San Diego) and Mirmiran, A. (FIU), "NSF NEESR-SG; Seismic Performance of Bridge Systems with Conventional and Innovative Materials," National Science Foundation, \$2,030,000, 2004-12.
- 14. Chowdhury, A.G., Bitsuamlak, G., Mirmiran, A., and Tao, Y., "CMMI 0923365 MRI: Acquisition of Instrumentation to Create a Transformative Large- and Full-Scale Wind Testing Capability in Support of Sustainable Windstorm-Resilient, Energy-Efficient Communities," National Science Foundation, \$430,874 (includes \$130,159 cost share), 2009-12.

- 15. Chowdhury, A., and Mirmiran, Hurricane Wind Simulation and Testing to Develop Damage Mitigation Techniques: Research Experience for Undergraduates (REU) Supplement," National Science Foundation, \$ 6,000, 2010.
- 16. Chowdhury, A., and Mirmiran, Hurricane Wind Simulation and Testing to Develop Damage Mitigation Techniques: Research Experience for Teachers (RET) Supplement," National Science Foundation, \$ 10,000, 2010.
- 17. Belarbi, A. and Bae, S.W. (Missouri University of Science and Technology), Ayoub, A. (University of Houston), Kuchma, D. (University of Illinois at Urbana-Champaign), Mirmiran, A. (FIU), and Okeil, A. (Louisiana State University), "NCHRP 12-75: Design of FRP Systems for Strengthening Concrete Girders in Shear," National Academy of Sciences, National Cooperative Highway Research Program, \$400,000, 2008-10.
- 18. Chowdhury, A., Mirmiran, A., and Simiu, E., and Cai, S. [LSU] "Development of Innovative Load Transfer Mechanism to Reduce Hurricane-Induced Failures in New and Existing Residential Construction," Gulf of Mexico Regional Sea Grant Program Subcontract to University of Florida, \$300,000, 2008-10.
- 19. Chowdhury, A., Mirmiran, A., and Simiu, E., "Full-Scale Simulation of Hurricane Effects on Residential Building Envelopes to Reduce Hurricane-Induced Losses," Florida Sea Grant Program Subcontract to University of Florida, \$240,000, 2008-10.
- 20. Suksawang, N., and Mirmiran, A., "Performance of Gable End Wall Bracing Retrofit for Hurricane Protection Phase II," Florida Department of Community Affairs Subcontract to International Hurricane Center, \$55,000, 2008-09.
- 21. Suksawang, N., and Mirmiran, A., "Performance of Tile Roofs under Hurricane Impact Phase 3," Florida Department of Community Affairs Subcontract to International Hurricane Center, \$50,000, 2008-09.
- 22. Mirmiran, A. (FIU), and Zhao, L. (UCF), "Alternatives to Steel Grid Decks," Florida DOT, \$225,000, 2007-09.
- 23. Chowdhury, A., and Mirmiran, A., "Hurricane Wind Simulation and Testing to Develop Damage Mitigation Techniques," National Science Foundation, \$149,997, 2007-09.
- 24. Mirmiran, A., Suksawang, N., Wang, T., and Abishdid, C., "Performance of Gable End Wall Bracing Retrofit for Hurricane Protection," Florida Department of Community Affairs Subcontract to International Hurricane Center, \$55,000, 2007-08.
- 25. Suksawang, N., and Mirmiran, A., "Cast-In-Place Aerated Lightweight Concrete Wall," Fortified Homes, Inc., \$34,000, 2008-09.
- 26. Suksawang, N., and Mirmiran, A., "Safe-Up Remedial Action for Failed Pole/Base Plate Weld on High Mast Lighting Pole (HMLP)," Florida Department of Transportation, \$30,000, 2008-09.
- 27. Suksawang, N., and Mirmiran, A., "Performance of Cazaly Hangers for Parking Garages," Structural Prestressed Industries, Inc., \$25,000, 2007-08.
- 28. Chowdhury, A., and Mirmiran, A., "Hurricane Loss Reduction (RCMP)," Florida Division of Emergency Management, \$150,736, 2008.
- 29. Mirmiran, A., Wang, T., and Abishdid, C., "Performance of Tile Roofs under Hurricane Impact Phase 2: Wall of Wind," Florida Department of Community Affairs Subcontract to International Hurricane Center, \$94,274, 2006-07.
- 30. Mirmiran, A., Wang, T., and Abishdid, C., "Performance of Tile Roofs under Hurricane Impact," Florida Department of Community Affairs, International Hurricane Center, \$30,073, 2005-06.
- 31. Mirmiran, A., "A Pilot Study for Assessing, Protecting, Sensing, and Hardening for Safety and Security of Florida Transportation Structures," U.S. Department of Transportation Subcontract to University Consortium for Intermodal Safety and Security at Florida Atlantic University, \$99,700, 2005-07.

- 32. Mirmiran, A., "Structures and Construction Testing System," Consortium of companies in South Florida, including Steel Fab, Titan America, Supermix, Cemex, Florida Rock Industries, Tarmac, Continental Heidelberg, Community Asphalt, HJ Foundation, Condotte America, Mo Steel, Gerdau Steel, De Moya Group, C&C Concrete, Mello Concrete, and GFA International, \$850,000.
- 33. Mirmiran, A., Shahawy, M. (SDR Engineering), Nanni, A. (Missouri University of Science and Technology), and Karbhari, V. (University of California, San Diego), "NCHRP 10-59: Construction Specs for Bonded Repair and Retrofit of Concrete Structures using FRP Composites, Phase II," National Academy of Sciences, National Cooperative Highway Research Program, \$250,000, 2004-07.
- 34. Sumner, E., and Mirmiran, A., "NCDOT 2005-18: Full Scale Testing of Overhang Falsework Hangers on NCDOT Modified Bulb Tee (MBT) Girders," North Carolina DOT, \$72,856, 2004-05.
- 35. Mirmiran, A. [changed to Co-PI after moving from NC State], and Rahman, S., "NCDOT 2005-10: Traffic Control Design for Portable Concrete Barriers," North Carolina DOT, \$87,168, 2004-05.
- 36. Mirmiran, A. [changed to Co-PI after moving from NC State], Rizkalla, S., and Zia, P., "NCHRP 12-64: Application of the LRFD Bridge Design Specifications to High-Strength Structural Concrete: Flexure and Compression Provisions," National Academy of Sciences, National Cooperative Highway Research Program, \$600,000, 2003-06.
- 37. Rizkalla, S., and Mirmiran, A., "Innovative Weaving Technology for Modular Bridge Decks," National Science Foundation, \$186,290, 2003-05.
- 38. Rizkalla, S., and Mirmiran, A., "NCDOT 2004-15: Value Engineering and Cost Effectiveness of Various FRP Repair Systems," North Carolina Department of Transportation, \$154,243, 2003-05.
- 39. Sumner, E., and Mirmiran, A., "NCDOT 2004-13: Review of NCDOT Practices for Analyzing Overhang Falsework," North Carolina Department of Transportation, \$35,572, 2003-04.
- 40. Mirmiran, A., "Control of Plastic Shrinkage Cracking of Concrete with Carbon FRP Grids," TechFab Industry in South Carolina, \$14,000, 2003-04.
- 41. Mirmiran, A., "Confinement of High Strength Concrete using Fiber Composites: Undergraduate Research," Office of Vice Provost for Undergraduate Affairs, NCSU, \$1,000, 2003-04.
- 42. Mirmiran, A., and Rizkalla, S., "NCDOT 2003-14: Corrosion Inhibitors for Concrete Bridges," North Carolina Department of Transportation, \$169,827, 2002-04.
- 43. Mirmiran, A., "Ultrasonic Pulse Velocity Monitoring of Concrete: Undergraduate Research," Office of Vice Provost for Undergraduate Affairs, NCSU, \$2,500, 2002-03.
- 44. Mirmiran, A., and Nunez, R., "Introduction of Fiber Composite Technology into Design and Construction Curriculum of Developing Countries as a Technical Tool for Disaster Mitigation and Recovery," Office of International Programs, Provost Office, NCSU, \$5,000, 2002-03.
- 45. Mirmiran, A., Shahawy, M. (SDR Engineering), Nanni, A. (Missouri University of Science and Technology), and Karbhari, V. (University of California, San Diego), "NCHRP 10-59: Construction Specs for Bonded Repair and Retrofit of Concrete Structures using FRP Composites, Phase I," National Academy of Sciences, National Cooperative Highway Research Program, \$225,000, 2001-04.
- 46. Mirmiran, A., "Low-cycle Fatigue of Plastic Piles at Connections: 3<sup>rd</sup> year Non-Federal Match of NSF CAREER," Florida Department of Transportation, \$45,000, 2001-02.
- 47. Mirmiran, A., "Hybrid FRP-Concrete Columns: 4<sup>th</sup> year Match of NSF CAREER," National Science Foundation, \$25,000, 2001-02.
- 48. Swanson, J., and Mirmiran, A., "Tyler Road Bridge in Delaware County, Ohio, Supplement Funding," Fiber Reinforced Systems, \$25,962, 2000-02.
- 49. Swanson, J., and Mirmiran, A., "Field Test and Analysis of Existing Steel Truss Bridge before and after Deck Replacement with FRP Panels," Delaware County, Ohio, \$113,406, 2000-02.
- 50. Swanson, J., Mirmiran, A., Baseheart, M., and Miller, R., "Project 100: Field Test and Analysis of

- Existing Prestressed Concrete Bridge after Deck Replacement with FRP Panels," Hamilton County, Ohio, \$54,282, 2000-01.
- 51. Miller, R., and Mirmiran, A., "Transverse Early Cracking of High Performance Concrete Bridge Decks after One Season or 6-8 Months," Ohio Department of Transportation, \$104,279, 2000-01.
- 52. Mirmiran, A., "Creep and Fatigue of RC T-Beams Strengthened with Carbon FRP Sheets," Department of Civil and Environmental Engineering, UC, \$24,000, 2000-01.
- 53. Miller, R., Mirmiran, A., and Hastak, M., "NCHRP 12-53: Connection between Simple-Span Precast Concrete Girders Made Continuous," National Academy of Sciences, National Cooperative Highway Research Program, \$300,000, 1999-2003.
- 54. Mirmiran, A., "Drop-hammer Impact on Plastic Piles under Simulated Field Conditions: 3<sup>rd</sup> year Non-Federal Match of NSF CAREER," Florida Department of Transportation, \$22,000, 1999-2001.
- 55. Mirmiran, A., "Hybrid FRP-Concrete Columns: 3<sup>rd</sup> year Match of NSF CAREER," National Science Foundation, \$25,000, 1999-2001.
- 56. Shahrooz, B., Miller, R., and Mirmiran, A. [Investigator], "Field Performance Evaluation of Multiple Fiber Reinforced Polymer Bridge Deck Systems Over Existing Girders," Ohio Department of Transportation, \$5,000 [Mirmiran's share], 1999-2001.
- 57. Mirmiran, A., "Research Experience for Undergraduates (REU) on NSF CAREER Project," National Science Foundation, \$5,000, 1999-2000.
- 58. Mirmiran, A., "Hybrid FRP-Concrete Column: 2<sup>nd</sup> year Non-Federal Match of NSF CAREER," Florida Department of Transportation, \$28,000, 1998-2000.
- 59. Mirmiran, A., "Hybrid FRP-Concrete Columns: 2<sup>nd</sup> year Match of NSF CAREER," National Science Foundation, \$25,000, 1998-2000.
- 60. Mirmiran, A., "Creep and Durability of FRP-RC Beams," Department of Civil and Environmental Engineering, UC, \$24,000, 1998-2000.
- 61. Mirmiran, A., "Development of a Structurally Integrated Fiber Optic Damage Assessment for Hybrid Structures of Concrete and FRP," University Research Council, UC, \$4,500, 1998-99.
- 62. Mirmiran, A., Onyemelukwe, O., and El-Tawil, S., "Equipment Grant: Large-Scale Structural Research Laboratory Cash Match," College of Engineering, UCF, \$44,833, 1998.
- 63. Mirmiran, A., Onyemelukwe, O., and El-Tawil, S., "Equipment Grant: Large-Scale Structural Research Laboratory," National Science Foundation, \$44,833, 1998.
- 64. Mirmiran, A., "Hybrid FRP-Concrete Columns: 1<sup>st</sup> year Match of NSF CAREER," National Science Foundation, \$25,000, 1997-99.
- 65. Mirmiran, A., "Hybrid FRP-Concrete Column: 1<sup>st</sup> year Non-Federal Match of NSF CAREER," Florida Department of Transportation, \$25,000, 1997-99.
- 66. Mirmiran, A., "Develop a New Data Acquisition System in Structures Laboratory," Department of Civil and Environmental Engineering, UCF, \$12,000, 1997-98.
- 67. Mirmiran, A., "Design, Fabricate, and Install Structural Steel Reaction Frame," Addison Steel, Alan & Conrad, and Florida DOT, Equipment Donation, \$20,000, 1997-98.
- 68. Mirmiran, A., "Digital Acoustic Emission Cards," Physical Acoustics Corp., Equipment Donation, \$7,785, 1997.
- 69. Mirmiran, A., "NSF-CAREER: Hybrid Columns of Concrete and FRP," National Science Foundation, \$209,250, 1996-2002.
- 70. Mirmiran, A., "Non-Destructive Testing and Instrumentation in a Concrete Lab Cash Matching," College of Engineering, UCF, \$13,390, 1996-98.
- 71. Mirmiran, A., "Non-Destructive Testing and Instrumentation in a Concrete Lab," National Science Foundation, \$13,390, 1996-98.
- 72. Mirmiran, A., "FRP-Encased Concrete Piles Phase 3: Pile Driving," Florida Department of Transportation, \$84,263, 1996-98.

- 73. Mirmiran, A., "Design and Fabrication of a New Mandrel for FRP Tubes with Internal Ribs," Department of Civil and Environmental Engineering, UCF, \$12,000, 1996-97.
- 74. Mirmiran, A., "FRP-Concrete Column and Pile Jacket Splicing -Phase 2," Florida Department of Transportation, \$76,910, 1995-97.
- 75. Mirmiran, A., "Application of Boundary Elements to Structural Damage Assessment," Department of Civil and Environmental Engineering, UCF, \$12,000, 1995-96.
- 76. Mirmiran, A., "Analytical and Experimental Investigation of RC Columns Encased in FRP Tubular Jackets and Pile Jacket Splicing," Florida Department of Transportation, \$77,986, 1994-96.
- 77. Mirmiran, A., "Nonlinear Stability of Prestressed Arches using Riks-Wempner Method," Department of Civil and Environmental Engineering, UCF, \$12,000, 1994-95.
- 78. Mirmiran, A., "Nonlinear Modeling of Concrete-Encased Pultruted FRP Shapes," Office of Sponsored Research, UCF, \$6,000, 1994-95.
- 79. Mirmiran, A., "DG-AViiON™ Workstation," Data General Corp., Equipment Donation, \$12,831, 1994.
- 80. Mirmiran, A., "Dynamic Stability of Prestressed Sandwich Composite Arches," Florida Engineering and Industrial Experiment Station, \$10,000, 1993-94.

## **Community Engagement and Civic Services**

- 1. Alt Chairman, Airport Advisory Board, Tyler Pounds Regional Airport, City of Tyler, since 2020.
- 2. Member, Airport Advisory Board, Tyler Pounds Regional Airport, City of Tyler, 2019-20.
- 3. Principal for a Day, John Tyler High School, Tyler Independent School District, November 2018.
- 4. Principal for a Day, Robert E. Lee High School, Tyler Independent School District, November 2017.
- 5. University Member, Leadership Tyler Executive Orientation Class of 2017, Spring 2017.
- 6. Principal for a Day, Three Lakes Middle School, Tyler Independent School District, November 2016.
- 7. University Member, 4x4 Management Board (4 university and 4 community members), Discovery Science Place Museum, Tyler, Texas, 2015-18.
- 8. University Member, Tyler Area Partnership 4 Education, 2015-18.
- 9. Florida Chamber of Commerce, Member of the Innovation & Economic Development Caucus, Six Pillars Caucus System, 2011-2015.
- 10. Greater Miami Chamber of Commerce, 2008-2015.
- 11. Advocate for Coding Hour and Girls who Code at Miami-Dade School Commission, 2014.
- 12. Engineering Careers, Career Talk, Broward Elementary Schools, 2012-13.
- 13. Eugenio Pino and Family Global Entrepreneurship Center, Board of Advisors, 2012-2013.
- 14. Judging the 17<sup>th</sup> Annual Physics Olympics, Orlando, FL 1995.
- 15. National Teach-In Program, Orange County, FL, 1994.

### **Academic Services**

## State and University System Committees

- 1. Member, The University of Texas System Provosts Forum, since 2015.
- 2. Member, Texas Council of Chief Academic Officers (TCCAO), since 2015.
- 3. Member, Florida Council of Engineering Deans, 2007-2015.

## **University Committees**

- 1. Chair, Space Allocation Committee, UTT, since 2015.
- 2. Chair, Handbook of Operating Policies (HOP) Committee, UTT, since 2015.
- 3. Chair, University Council, since 2015.
- 4. Member, President's Cabinet, since 2015.

- 5. Member, Advisory Board, NSF ADVANCE Project, "Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE)," FIU, 2012-2015.
- 6. Member, Kauffman Professor Selection Committee, Global Entrepreneurship Center, FIU, 2011.
- 7. Co-Chair, University Committee for Role of Faculty Senate in a Research University, 2010 2012.
- 8. Member, Deans' Advisory Committee, Applied Research Center (ARC), 2010-2015.
- 9. Member, Deans' Advisory Committee, International Hurricane Research Center (IHRC), 2010-2015.
- 10. Member, Search Committee, International Hurricane Research Center (IHRC) Director, 2010.
- 11. Vice Chair, Engagement Committee for University Strategic Planning, 2009.
- 12. Member, Search Committee, International Hurricane Research Center (IHRC) Business Mgr., 2008.
- 13. Member, Search Committee, Executive Director of Applied Research Center (ARC), 2008.
- 14. Member, Deans' Advisory Council, FIU, 2007.
- 15. Member, Graduate School Dean's Faculty Advisory Council, FIU, 2007.
- 16. Member, Chairs' Planning Committee, FIU, 2007.
- 17. Member, G-51 Chairs Group, FIU, 2004 2007.
- 18. Graduate Faculty and External Examiner, University of British Columbia, since 2006.
- 19. Member, Advisory Committee, International Hurricane Research Center (IHRC), FIU, 2006-2015.
- 20. Chair, Search Committee, Director of Research, Applied Research Center (ARC), FIU, 2005 2006.
- 21. Member, Internal Advisory Council, Applied Research Center (ARC), FIU, 2005 2007.
- 22. Faculty Senator, UCF Faculty Senate, 1998.

#### **College Committees**

- 1. Member, College Research Space Task Committee, FIU, 2006.
- 2. Member, Chairs' Advisory Council, 2004 2007.
- 3. Member, College Teaching Incentive Award Selection Committee, UCF, 1997 1998.
- 4. Member, College Honors Committee, UCF, 1995 1998.

## **Departmental Committees**

- Co-Chair, Departmental Committee on Release Time Policy, NCSU, 2004.
- 2. Chair, Ad hoc Committee for Tenure and Promotion, NCSU, 2003 2004.
- 3. Member, Departmental Committee on Promotion and Evaluation, NCSU, 2002 2004.
- 4. Member, Task Force of Structural Engineering and Mechanics Group to review analysis course sequence, NCSU, 2003 2004.
- 5. Member, Task Force of Structural Engineering and Mechanics Group to review graduate program, NCSU, 2002 2003.
- 6. Member, Task Force of Structural Engineering and Mechanics Group to review teaching assistance policy, NCSU, 2001 2002.
- 7. Member, ABET Assessment Committee for Learning Outcome "a", NCSU, 2001 2004.
- 8. Secretary and Treasurer, Executive Committee for the Department Advisory Board, UC, 2001.
- 9. Director, Civil Division Graduate Seminar, UC, 2001.
- 10. Member, Committee on Workload Policy, UC, 2001.
- 11. Member, Committee on Graduate Assistant Performance Criteria, UC, 2001.
- 12. Chair, Civil Division Ph.D. Standardizing Committee, UC, 2001.
- 13. Faculty Mentor for Junior Structural Faculty, U.C. Mentoring Program, 1999 2000.
- 14. Member, Committee on Faculty Recruitment Policy, UC, Summer 1999.
- 15. Member, Search Committee for Structural Faculty, UC, 1998 1999.
- 16. Member, Ph.D. Self-Study Committee for Ohio Board of Regents, UC, 1998 1999.
- 17. Faculty Advisor for Undergraduate Class of 2003, UC, 1998 2001.

- 18. Member, Instructional Quality Committee, UCF, 1997 1998.
- 19. Member, Strategic Planning Committee, UCF, 1997 1998.
- 20. Member, Graduate Committee, UCF, 1997 1998.
- 21. Member, Personnel Committee, UCF, 1997 1998.
- 22. Member, Committee to establish *Construction Engineering* program, UCF, 1996 1997.
- 23. Member, ABET Preparation and Course Documents, UCF, 1995.

#### **Professional Society Services**

## **Local and State Committees**

- 1. Director, ASCE, Miami-Dade Branch, 2005 2007.
- 2. Chair, ASCE Structural Technical Group, East Central Florida Branch, 1998.
- 3. Vice Chair, ASCE Structural Technical Group, East Central Florida Branch, 1997.
- 4. Treasurer, ASCE Structural Technical Group, East Central Florida Branch, 1996.
- 5. Secretary, ASCE Structural Technical Group, East Central Florida Branch, 1995.

#### **National Committees**

- 1. Member, Engineering Deans Public Policy Colloquium of Engineering Deans Council, American Society for Engineering Education, 2013 2015.
- 2. Campus Lead Designated by Provost for Minority Males in STEM Initiative (MMSI) of the Association of Public and Land-grant Universities (APLU), 2011-2014.
- 3. Member appointed by the Board of Direction of the American Concrete Institute, Committee on Awards for Papers (CAP), subcommittee SC3 "Chester Paul Siess Award for Excellence in Structural Research," American Concrete Institute (ACI), 2007 2009.
- 4. Member, Best Paper Awards Committee, *Journal of Composites for Construction*, ASCE, August 2008.
- 5. Chair, Subcommittee on Nondestructive Evaluation (NDE) of the Committee on Structural Fiber Reinforced Plastics, AFF80, Transportation Research Board (TRB), 2004-2008.
- 6. Webmaster, Committee on Structural Fiber Reinforced Plastics, AFF80, Transportation Research Board (TRB), 2004-2008.
- 7. Member, Consortium of Universities for Research in Earthquake Engineering (CUREE), 2003 2004.
- 8. Member, Committee on Structural Fiber Reinforced Plastics, AFF90, Transportation Research Board (TRB), since 2003.
- 9. Member, National Cooperative Highway Research Program Project Panel, NCHRP Project 10-64, Field Inspection of FRP Bridge Decks, 2002 2004.
- 10. Co-Chair, ACI Committee 440-J on FRP Stay-In-Place Form, 2000-2014.
- 11. Member, ACI Committee E803, Faculty Network Coordinating Committee, since 2000.
- 12. Co-Chair and Secretary, ACI Committee 440-C on FRP State-of-the-Art, 1999 2001.
- 13. Voting Member, ACI Committee 440, FRP Reinforcement, since 1999.
- 14. Member, Local Arrangements Committee, 5<sup>th</sup> Materials Engineering Congress, ASCE, Cincinnati, OH, 1999.
- 15. Member, Technical Committee, 5<sup>th</sup> Materials Engineering Congress, ASCE, Cincinnati, OH, 1999.
- 16. Member, Steering Committee of the ASCE Structures Congress, New Orleans, LA, 1999.
- 17. Member, National Cooperative Highway Research Program Project Panel, NCHRP Project 12-49, Seismic Design of Highway Bridges, 1998 2001.
- 18. Member, ACI Committee 440-J on FRP Stay-In-Place Form, since 1998.
- 19. Associate Member, ASCE-ACI Committee 343 on Concrete Bridges, since 1998.
- 20. Associate Member, ACI Committee 440, FRP Reinforcement, 1997 1999.

- 21. Member, International Advisory Board, International Conference on Composites Engineering (ICCE/4), Hawaii, HA, 1997.
- 22. Control Group Member, ASCE Administrative Committee on Metals, 1996 1998, and 2000 2002.
- 23. Member, ASCE Committee on Composite Construction, 1996 2000.
- 24. Chair, ASCE Committee on Special Structures, 1996 1999.
- 25. Member, ASCE Committee on Computer Aided Analysis and Design, 1996 2002.
- 26. Voting Member, ASCE-ACI Committee 343 on Concrete Bridges, 1995 1998.
- 27. Chair, ASCE Subcommittee on Tension-Based Structures, 1995 1998.

#### **International Committees**

- 1. Member, International Scientific Committee, 42<sup>nd</sup> International Association of Housing Sciences (IAHS) World Congress, "The Housing for the Dignity of Mankind," Naples, Italy, April 2018.
- 2. Member, International Scientific Committee, 9<sup>th</sup> International Conference on FRP Composites in Civil Engineering (CICE 2018), Paris, France, December 2018.
- 3. Member, International Scientific Committee, 8<sup>th</sup> International Conference on FRP Composites in Civil Engineering (CICE 2016), Hong Kong, China, December 2016.
- 4. Member, International Scientific Advisory Committee, 41<sup>st</sup> International Association of Housing Sciences (IAHS) World Congress, "Sustainable and Innovation for the Future," Albufeira, Algarve, Portugal, September 2016.
- 5. Member, International Scientific Advisory Committee, First International Interactive Symposium on Ultra-High Performance Concrete," Des Moines, IA, July 2016.
- 6. Member, International Scientific Advisory Committee, 40<sup>th</sup> International Association of Housing Sciences (IAHS) World Congress, "Sustainable Housing Construction," Funchal, Portuguese Madeira Island, December 2014.
- 7. Member, Technical Committee, Inter-American Conference on Non-Conventional Materials and Technologies in Ecological/Sustainable Construction (14NCMAT), Rio de Janeiro, Brazil, March 2013.
- 8. Member, International Scientific Committee, 4<sup>th</sup> International Conference on FRP Composites in Civil Engineering (CICE 2010), Beijing, China, September 2010.
- 9. Member, Best Paper Awards Committee, Editorial Board of *Advances in Structural Engineering*, Multi-Science, 2008.
- 10. Member, International Scientific Committee, Asian-Pacific Conference on FRP in Structures (APFIS 2009), Organized by Hanyang University, Seoul, Korea, December 2009.
- 11. Member, International Advisory Board, 1<sup>st</sup> International Conference on Composites: Materials Characterization, Fabrication, and Application (CCFA-1), Kish Island, Iran, December 2008.
- 12. Member, International Scientific Committee, 5<sup>th</sup> International Conference on Advanced Composite Materials in Bridges and Structures (ACMBS-V), Winnipeg, Canada, September 2008.
- 13. Member, Best Paper Awards Committee, International Conference on FRP Composites in Civil Engineering (CICE 2008), Zurich, Switzerland, July 2008.
- 14. Member, International Advisory Committee, International Conference on FRP Composites in Civil Engineering (CICE 2008), Zurich, Switzerland, July 2008.
- 15. Conference Chair, Third International Conference on FRP Composites in Civil Engineering (CICE 2006), The Official Conference of IIFC, Miami, FL, December 2006.
- 16. Member, International Scientific Committee, International Symposium of Bond Behavior of FRP in Structures (BBFS), Hong King, China, December 2005.
- 17. Invited Referee, International Scientific Committee Panel of Referees, 33<sup>rd</sup> World Congress of Housing: Transforming Housing Environments Through Design, Pretoria, South Africa, Sept. 2005.

- 18. Conference Coordinator, International Institute for FRP in Construction (IIFC), 2005 2006.
- 19. Invited Member, Advisory Committee, "Third International Conference on Construction in the 21<sup>st</sup> Century: Advancing Engineering, Management and Technology," Athens, Greece, September 2005.
- 20. Member, International Advisory Committee, 2<sup>nd</sup> International Conference on FRP Composites in Civil Engineering (CICE 2004), Adelaide, Australia, December 2004.
- 21. Invited Member, Conference Scientific Committee, "First Conference on Application of FRP Composites in Construction and Rehabilitation of Structures," Organized by Building and Housing Research Center (BHRC), Tehran, Iran, May 2004.
- 22. Member and Associate Editor, International Editorial Advisory Board, Handbook of FRP Composites in Civil Engineering, CRC Press, 2003.
- 23. Member, Council for International Institute for FRP in Construction (IIFC), since 2003.
- 24. Member, Scientific Committee and Review Board, International Conference on Composites Engineering (ICCE/9), San Diego, California, July 2002.
- 25. Member, Ad-Hoc Organizing Committee, International Association for FRP Composites in Construction, Hong Kong, China, 2002 2003.
- 26. Member, International Advisory Committee, International Conference on FRP Composites in Civil Engineering (CICE 2001), Hong Kong, China, December 2001.
- 27. Member, Scientific Committee, International Conference on Composites Engineering (ICCE/8), Tenerife, Spain, July 2001.
- 28. Foreign Advisor to the Chinese National Committee on FRP Guidelines, 2000.
- 29. Member, International Advisory Board, International Conference on Composites Engineering (ICCE/7), Denver, CO, 2000.