

Mostafa Tazarv, Ph.D, PE

Assistant Professor

Department of Civil and Environmental Engineering
South Dakota State University
Box 2219, Brookings SD 57007

E-Mail: mostafa.tazarv@sdstate.edu

Tel: (605) 688-6526; Fax: (605) 688-6476

Website: <https://sites.google.com/people.unr.edu/mostafa-tazarv>



Education

- Ph.D. in Civil Engineering, Structural and Earthquake Engineering, University of Nevada Reno, USA, June 2011- August 2014 (Academic Advisor: [Prof. M. Saiid Saiidi](#)).
- Graduate Study in Structural Engineering, Carleton University, Ottawa, Canada, Sept. 2010-May 2011.
- M.Sc. in Earthquake Engineering, Sharif University of Technology, Tehran, Iran, Jan. 2009 (Academic Advisor: [Prof. A.R. Khaloo](#)).
- B.Sc. in Civil Engineering, University of Tabriz, Tabriz, Iran, Sept. 2006.

Professional Experience

- 2015 - Present: Assistant Professor, South Dakota State University, USA.
- 2014 - 2016: Research Associate, Infrastructure Innovation, LLC, Reno, USA.
- 2014 - 2015: Post-Doctoral Scholar, University of Nevada, Reno, USA.
- 2011 - 2014: Research Assistant, University of Nevada, Reno, USA.
- 2010 - 2011: Research and Teaching Assistant, Carleton University, Ottawa, Canada.
- 2009 - 2010: Structural Engineer (Designer), Mahbad Consulting Engineers, Tehran, Iran.
- 2008 - 2009: Structural Engineer (Designer), BASA, Tehran, Iran.
- 2007 - 2010: Teaching Assistant, Sharif University of Technology, Tehran, Iran.

Research Interests

- Seismic Behavior of Reinforced Concrete Structures,
- Innovative Materials (e.g. shape memory alloy, engineered cementitious composite, ultra-high performance concrete, fiber reinforced polymer, and rubber) for Bridges and Buildings,
- Resilient Infrastructures,
- Large Scale Structural Model Testing,
- Accelerated Bridge Construction,
- Nonlinear Structural Analysis,
- Performance-Based Design.

Research Grants/Industrial Collaborations (Total Grant: \$1,252,471)

1. South Dakota Department of Transportation (SDDOT) and Mountain-Plains Consortium (MPC) – University Transportation Center (UTC), \$164,125, “Methodology for Load Rating Double-Tee Bridges”, Project No. SDDOT 2016-01, PI: **Tazarv**, Co-PI: Seo and Wehbe, Jan. 2017 to Dec. 2018.

2. Mountain-Plains Consortium (MPC) – University Transportation Center (UTC) and South Dakota State University, \$285,146, “Mechanical Bar Splices for Accelerated Bridge Construction of Columns”, PI: **Tazarv**, Co-PI: Wehbe, May 2016 to May. 2018.
3. South Dakota Department of Transportation (SDDOT) and Mountain-Plains Consortium (MPC) – University Transportation Center (UTC), \$160,000, “Rehabilitation of Longitudinal Joints in Double-Tee Bridge Girders”, Project No. SDDOT 2014-20, PI: Wehbe, Co-PI: **Tazarv**, Sept. 2015 to Sept. 2017.
4. South Dakota Department of Transportation (SDDOT) and Mountain-Plains Consortium (MPC) – University Transportation Center (UTC), \$160,000, “Development of an Alternative to the Double Tee Bridge System”, Project No. SDDOT 2014-14, PI: Wehbe, Co-PI: **Tazarv**, Sept. 2015 to Sept. 2017.
5. National Cooperative Highway Research Program (NCHRP), \$450,000, “Proposed AASHTO Seismic Specifications for ABC Column Connections”, Project No. NCHRP 12-105, PI: Saiidi, Co-PIs: Itani, Sanders, **Tazarv**, Murphy, and Reno, Sept. 2015 to Sept. 2019.
6. National Science Foundation (NSF), \$16,000, “Supplement to Sustainable Highway Bridges with Novel Materials and Deconstructible Components- Research Experience for Undergraduate Students”, PI: Saiidi, Non-Co-PI: **Tazarv**; June 2015 to June 2016.
7. National Science Foundation (NSF), Experimental Program to Stimulate Competitive Research (EPSCoR), Registration & Travel Grants for NM EPSCoR Post-Doc Leadership Workshop, Jan. 5-8, 2015, Socorro, NM.
8. SAES Smart Materials Inc., \$10,000 worth SMA bars donation, “Next Generation of Bridge Columns for Accelerated Bridge Construction in High Seismic Zones”, from 2011 to 2014.
9. Lafarge North America Inc., \$4,700 worth UHPC donation, “Next Generation of Bridge Columns for Accelerated Bridge Construction in High Seismic Zones”, from 2011 to 2014.
10. Headed Reinforcement Corp. & Splice Sleeve North America, Inc., more than \$2,500 worth donation of mechanical bar splices and labor, “Next Generation of Bridge Columns for Accelerated Bridge Construction in High Seismic Zones”, from 2011 to 2014.

Publications (33 in Total)

Journals

1. Boudaqa, A., **Tazarv, M.**, and Tuhin, I. (2017). “Ductility without Confinement - A New Design and Construction Approach for RC Bridge Columns,” *International Journal of Bridge Engineering*, Special Issue, pp. 53-77 ([Link](#)).
2. **Tazarv, M.** and Saiidi, M.S. (2016). “Seismic Design of Bridge Columns Incorporating Mechanical Bar Splices in Plastic Hinge Regions,” *Engineering Structures*, DOI: 10.1016/j.engstruct.2016.06.041, Vol. 124, pp. 507-520 ([Link](#)).
3. **Tazarv, M.** and Saiidi, M.S. (2016). “Design and Construction of UHPC-Filled Duct Connections for Precast Bridge Columns in High Seismic Zones,” *Structure and Infrastructure Engineering*, DOI: 10.1080/15732479.2016.1188969, 11 pp ([Link](#)).
4. Saiidi, M.S., **Tazarv, M.**, Nakashoji, B., Varela, S., and Kavianipour, F. (2015) “Resilient and Sustainable Bridges of the Future”, *International Journal of Bridge Engineering*, Vol. 3, No. 2, pp. 37-48 ([Link](#)).
5. **Tazarv, M.** and Saiidi, M.S. (2015). “UHPC-Filled Duct Connections for Accelerated Bridge Construction of RC Columns in High Seismic Zones,” *Engineering Structures*, DOI: 10.1016/j.engstruct.2015.05.018, Vol. 99, pp. 413-422 ([Link](#)).
6. **Tazarv, M.** and Saiidi, M.S. (2015). “Low-Damage Precast Columns for Accelerated Bridge Construction in High Seismic Zones”, *Journal of Bridge Engineering*, ASCE, DOI: 10.1061/(ASCE)BE.1943-5592.0000806, Vol. 21, No. 3, 13 pp ([Link](#)).

7. **Tazarv, M.** and Saiidi, M.S. (2014). “Reinforcing NiTi Superelastic SMA for Concrete Structures,” *Journal of Structural Engineering*, ASCE, DOI: 10.1061/(ASCE)ST.1943-541X.0001176, 10 pp. ([Link](#)).
8. **Tazarv, M.** and Saiidi, M.S. (2013). “Analytical Studies of the Seismic Performance of a Full-Scale SMA-Reinforced Bridge Column,” (Invited Paper), *International Journal of Bridge Engineering*, Vol. 1, No. 1, pp. 37-50 ([Link](#)).
9. **Tazarv, M.** and Saiidi, M.S. (2013). Discussion on “Simulating Maximum and Residual Displacements of RC Structures: I. Accuracy,” by Yazgan, U. and Dazio, A., *Earthquake Spectra*, EERI, Vol. 29, No. 2, pp. 675-677 ([Link](#)).
10. Khaloo, A. and **Tazarv, M.** (2008). “Effective Parameters on the Displacement Responses and Residual Displacements of Concrete SDOF,” *Concrete Journal of IRAN, Journal of Science and Research*, summer, No. 1, 63-72 (in Farsi).

Books and Reports

1. Carnahan, Z., Mingo, M., **Tazarv, M.**, Wehbe, N. (2017). “Development of Alternative Superstructure Bridges for South Dakota Local Roads.” South Dakota Department of Transportation, 143 pp.
2. Bohn, L., **Tazarv, M.**, Wehbe, N. (2017) “Rehabilitation of Longitudinal Joints in Double-Tee Girder Bridges.” South Dakota Department of Transportation, 107 pp.
3. Saiidi, M.S., **Tazarv, M.**, Varela, S., Bennion, S., Marsh, M.L., Ghorbani, I., Murphy, T.M. (2017). “Seismic Evaluation of Bridge Columns with Energy Dissipating Mechanisms, Volume 1: Research Overview and Volume 2: Guidelines,” National Academies of Sciences, Engineering, and Medicine, NCHRP Report No. 864, Washington, DC: The National Academies Press. <https://doi.org/10.17226/24985>.
4. **Tazarv, M.** and Saiidi, M.S. (2015). “Design and Construction of Bridge Columns Incorporating Mechanical Bar Splices in Plastic Hinge Zones,” Center For Civil Engineering Earthquake Research, Department of Civil and Environmental Engineering, University of Nevada, Reno, Nevada, Report No. CCEER-15-07, 149 pp ([Link](#)).
5. **Tazarv, M.** and Saiidi, M.S. (2015). “Design and Construction of Precast Bent Caps with Pocket Connections for High Seismic Regions,” Center For Civil Engineering Earthquake Research, Department of Civil and Environmental Engineering, University of Nevada, Reno, Nevada, Report No. CCEER-15-06, 101 pp ([Link](#)).
6. **Tazarv, M.** and Saiidi, M.S. (2014). “Next Generation of Bridge Columns for Accelerated Bridge Construction in High Seismic Zones,” Center For Civil Engineering Earthquake Research, Department of Civil and Environmental Engineering, University of Nevada, Reno, Nevada, Report No. CCEER-14-06, 400 pp ([Link](#)).
7. Tazarv, M. (2006) “Structural Analysis- Preparation Course for Graduate Entrance Exam”, Tabriz University, (256 pages in Farsi).

Conference Papers

1. **Tazarv, M.**, and Alam, M.S., (2018). “Shape Memory Alloy for Bridge Columns.” The 11th U.S. National Conference on Earthquake Engineering, 4 pp., Los Angeles, CA, June 25-29.
2. Boudaqa, A., and **Tazarv, M.** (2018) “Repairable Precast Moment-Resisting Buildings.” The 11th U.S. National Conference on Earthquake Engineering, 8 pp., Los Angeles, CA, June 25-29.
3. **Tazarv, M.**, and Saiidi, M.S. (2017). “Analysis, Design, and Construction of SMA-Reinforced FRP-Confined Concrete Columns,” *Proceedings of the Fourth Conference on Smart Monitoring, Assessment, and Rehabilitation of Civil Structures*, SMAR 2017, ETH Zurich, Switzerland, Sept. 13-15.

4. Saiidi, M.S., Mohebbi, A., Itani, A., **Tazarv, M.**, and Varela, S. (2016). "New Horizons in Seismic Design of Highway Bridges with Advanced Materials and Construction Methods," (Keynote Paper), *Proceedings of The 14th International Symposium on Structural Engineering, ISSE-14*, Beijing, China, Oct. 12-15.
5. Saiidi, M.S., Varela, S., and **Tazarv, M.** (2015). "Smart Materials for Accelerated Bridge Construction in High Seismic Zones," (Keynote Paper), *Proceedings of The Third Conference on Smart Monitoring, Assessment and Rehabilitation of Structures, SMAR2015*, Antalya, Turkey, Sept. 7-9.
6. Saiidi, M.S., **Tazarv, M.**, Varela, S., and Kavianipour, F. (2015). "Earthquake-Resistant Resilient Bridges with Advanced Materials", (Keynote Paper), *Proceedings of 4th International Conference on bridges, 4IBC2015*, Tehran, Iran, Jan. 24-26.
7. Saiidi, M.S., **Tazarv, M.**, Nakashoji, B., Varela, S., and Kavianipour, F. (2014). "Resilient and Sustainable Bridges of the Future", (Keynote Paper), *Proceedings of 2nd International Conference on bridges "Innovations on Bridges and Soil-Bridge Interaction"*, IBSBI 2014, Athens, Greece, Oct. 16-18, pp. 57-68.
8. **Tazarv, M.**, Haber, Z.B., and Saiidi, M.S. (2013). "Precast Column Connections for Accelerated Bridge Construction in High Seismic Regions," *Proceedings of 2013 PCI Convention and National Bridge Conference*, Grapevine, USA, Sept. 21-24, Paper No. 58, 12 pp.
9. **Tazarv, M.** and Saiidi, M.S. (2013). "Emulative Moment-Resistant RC Bridge Column-Footing Connection for Accelerated Bridge Construction in High Seismic Zone," *Proceedings of 7th National Seismic Conference on Bridges & Highways*, Oakland, USA, May 20-22, Paper No. B6-2, 10 pp.
10. **Tazarv, M.** and Saiidi, M.S. (2012). "Mitigation of Residual Displacement of RC Bridge Columns by Shape Memory Alloy under Seismic Loads", *Proceedings of 5th European Conference on Structural Control*, Genoa, Italy, June 18-20, paper No. 085.
11. Khaloo, A., **Tazarv, M.**, Javid, Y. (2009). "Location of First Plastic Hinges in the Moment-Resisting Frames," *Safety, Reliability and Risk of Structures, Infrastructures and Engineering Systems*, Furuta, Frangopol & Shinozuka (eds), Taylor & Francis Group, London, ISBN 978-0-415-47557-0, *Proceedings of Tenth International Conference for Structural Reliability and Safety (ICOSSAR-2009)*, Kansai University, Osaka, Japan, Sept. 12-17.
12. Khaloo, A., **Tazarv, M.**, Javid, Y. (2009). "Reduction of Residual Displacements of concrete columns by High Strength Rebars," *Safety, Reliability and Risk of Structures, Infrastructures and Engineering Systems*, Furuta, Frangopol & Shinozuka (eds), Taylor & Francis Group, London, ISBN 978-0-415-47557-0, *Proceedings of Tenth International Conference for Structural Reliability and Safety (ICOSSAR-2009)*, Kansai University, Osaka, Japan, Sept.12-17.
13. Khaloo, A., **Tazarv, M.** (2009). "New Method For Mitigation of Concrete Bridge Piers", *Proceeding of 8th International Congress on Civil Engineering*, Shiraz University, Shiraz, Iran, May.
14. Khaloo, A., Javid, Y., **Tazarv, M.** (2008). "Experimental Study of the Internal and External (FRP) Confinement Effect on Performance of Compressive Concrete Members," *Proceeding of 14th world Conference on Earthquake Engineering*, Beijing, China, Oct.
15. Khaloo, A., **Tazarv, M.** (2008). "First location of Plastic Hinge in The Moment Resisting Frames," *Proceeding of 4th National Congress on Civil Engineering*, Tehran University, Tehran, Iran, May, (in Farsi).
16. **Tazarv, M.** (2005). "Two Spans Method, New Technique for Analysis of Continuous Beams," *Proceeding of 12th National Civil Engineering Student Conference*, Iran University of Science and Technology, Tehran, Iran, (in Farsi).

Invited Speaker, Conference Oral/Poster Presentations & Workshops (17 in Total)

1. **Tazarv, M.** and Boudaqa, A. (2018). “Repairable Reinforced Concrete Bridge Columns” *ASCE Structures Congress 2018*, Fort Worth, TX, April 20.
2. **Tazarv, M.**, Mingo, M., Wehbe, N. (2018). “Fully-Precast Superstructure Bridges for Local Roads,” *ACI Spring 2018 Convention*, Salt Lake City, UT, March 26.
3. **Tazarv, M.**, Bohn, L., Wehbe, N. (2018). “Rehabilitation of Longitudinal Joints of Double-Tee Bridges,” *ACI Spring 2018 Convention*, Salt Lake City, UT, March 25.
4. **Tazarv, M.** and Boudaqa, A. (2018). “Repairable Moment-Resisting Precast Bridge Columns,” *Transportation Research Board 96 Annual Meeting*, TRB Committee AFF50 Meeting Session, Washington DC, Jan. 8.
5. **Tazarv, M.** and Alam, S. (2017). “Application of SMA for Bridge Columns,” *ACI Spring 2017 Convention*, ACI Committee 341A Meeting Session, Detroit, MI, March 26.
6. **Tazarv, M.** and Tuhin, I.A. (2017). “Rubber Confined Concrete for Rapid Rehabilitation of Bridge Columns;” *Transportation Research Board 96 Annual Meeting*, TRB Committee AFF50 Meeting Session, Jan. 11, Washington, DC.
7. Tazarv, M (2016). “Design and Construction of Bridge Columns Incorporating Mechanical Bar Splices in Plastic Hinge Regions;” *International Bridge Conference*, One-Hour Workshop, June 10, 2016.
8. **Tazarv, M.** and Saiidi, M.S. (2016). “Design Guideline for SMA-Reinforced ECC Bridge Columns”, *ACI Spring 2016 Convention*, Concrete Bridges Built with Advanced Materials Session, Milwaukee, WI.
9. Tazarv, M (2016). “Application of Advanced Materials and New Detailing for ABC Column Connections;” *Accelerated Bridge Construction University Transportation Center (ABC-UTC)*, Monthly Webinar Series, Jan. 29 ([Link](#)).
10. Tazarv, M (2016). “Highlights of Seismic ABC Column Connection Studies;” *Transportation Research Board 95 Annual Meeting*, TRB Committee AFF50 Meeting Session, Jan. 12, Washington, DC
11. Tazarv, M. (2015). “Emulative and Damage-Free Precast Columns for ABC”, *ACI Fall 2015 Convention*, ACI Committee 341A Meeting Session, Denver, CO, Nov. 8-12.
12. **Tazarv, M.** and Saiidi, M.S. (2015). “Mechanical Splices in Earthquake-Resistant ABC Connections”, *International Bridge Conference*, Pittsburgh, PA.
13. **Tazarv, M.** and Saiidi, M.S. (2015). “Low Damage Columns for Accelerated Bridge Construction in High Seismic Zones”, *ASCE Structures Congress*, Portland, Oregon ([Link](#)).
14. **Tazarv, M.**, Saiidi, M.S., Itani, A., Mehraein, M., and Mehrsoroush, A. (2014), “Behavior and Design of Precast Bridge Cap Beams with Pocket Connections”, Poster Session, 2014 National Accelerated Bridge Construction (ABC). Conference, Miami, Florida.
15. **Tazarv, M.**, Saiidi, M.S., Itani, A., and Shrestha, K. (2014). “Evaluation of Seismic Performance of Bridge Columns with Couplers and Development of Design Guidelines”, Poster Session, 2014 National Accelerated Bridge Construction (ABC) Conference, Miami, Florida.
16. Mohebbi, A., Saiidi, M.S., Itani, A., and **Tazarv, M.** (2014). “Development and Seismic Evaluation of Pier Systems with Pocket Connections and Hollow PT/UHPC Columns”, Poster Session, 2014 National Accelerated Bridge Construction (ABC) Conference, Miami, Florida.
17. **Tazarv, M.** and Saiidi, M.S. (2014). “UHPC-Filled Duct Connections for Accelerated Bridge Construction of Bridge Columns in High Seismic Regions,” *ACI Spring 2014 Convention*, UHPC Innovation in Seismic Performance Session, Reno, NV ([Link](#)).

Academic Mentorship (2 PhD, 8 MSc, 1 Undergraduate)

1. Heath Pederson, MSc (2017-2019), South Dakota State University, “Repairable Moment-Resisting Steel Buildings”.

2. Sandip Rimal, MSc (2016-2018), South Dakota State University, “Methodology for Load Rating Double-Tee Bridges”.
3. Puskar Kumar Dahal, MSc (2016-2018), South Dakota State University, “Mechanical Bar Splices for Accelerated Bridge Construction of Columns”.
4. Abdullah Boudaqa, PhD (Class 2018), South Dakota State University, “Repairable Precast Buildings and Bridges”.
5. Abdullah Al Hashib, MSc (Class 2017), South Dakota State University, “Effect of Mechanical Bar Splices on Seismic Behavior of RC Buildings,” ([Link](#)).
6. Lucas Michael Bohn, MSc (Class 2017), South Dakota State University, “Rehabilitation of Longitudinal Joints in Double-Tee Girder Bridge,” ([Link](#)).
7. Zachary Charles Carnahan, MSc (Class 2017), South Dakota State University, “Glulam Timber Bridges for Local Roads,” ([Link](#)).
8. Ishtiaque Ahmed Tuhin, MSc (Class 2016), South Dakota State University, “Application of New Materials and Innovative Detailing for Reinforced Concrete Structures,” ([Link](#)).
9. Michael James Mingo- MSc (Class 2016), South Dakota State University, “Precast Full-Depth Deck Panels Supported on Inverted Bulb-Tee Bridge Girders,” Advisors: Wehbe, Co-Advisor: **Tazarv** ([Link](#)).
10. Alireza Mohebbi, PhD (2014-2017), University of Nevada, Reno, “Development and Seismic Evaluation of Pier Systems with Pocket Connections and Hollow PT/UHPC Columns,” Academic Advisors: Saiidi, Itani, Co-Advisor: **Tazarv**.
11. Colton Schaefer, Undergraduate (Class of 2015), University of Nevada, Reno, “Behavior and Design of Precast Bridge Cap Beams with Pocket Connections”.

Current and Completed Projects

1. South Dakota Department of Transportation (SDDOT 2016-01) and Mountain-Plains Consortium (MPC) – University Transportation Center (UTC), “Methodology for Load Rating Double-Tee Bridges”.
2. Mountain-Plains Consortium (MPC-511) – University Transportation Center (UTC) and South Dakota State University, “Mechanical Bar Splices for Accelerated Bridge Construction of Columns”.
3. National Cooperative Highway Research Program (NCHRP) 12-105 “Proposed AASHTO Seismic Specifications for ABC Column Connections”.
4. South Dakota Department of Transportation (SDDOT) 2014-20 “Rehabilitation of Longitudinal Joints in Double-Tee Bridge Girders”, **Completed**.
5. South Dakota Department of Transportation (SDDOT) 2014-14 “Development of an Alternative to the Double Tee Bridge System”, **Completed**.
6. National Cooperative Highway Research Program (NCHRP) 12-101 “Seismic Design of Bridge Columns with Improved Energy Dissipating Mechanisms”, **Completed**.

Patents

- **Tazarv, M.** and Boudaqa, A. “Repairable Precast Moment-Resisting Buildings”, US Patent Pending.
- **Tazarv, M.** and Khaloo, A.R. “Self-centering Concrete Columns”, Patent No: IR61998.

Courses I Taught

- CEE 792 - Advanced Topics in Reinforced Concrete Design Rating: 4.8/5
- EM 741 - Finite Element Analysis Rating: 4.7/5
- CEE 759 - Structural Dynamics Rating: 4.5/5

- CEE 443/543 - Matrix Analysis of Structures
- CEE 353 - Structural Theory

Rating: 4.6/5
Rating:

Professional Licenses and Memberships

- Registered Professional Engineer, Nevada.
- Holder of Engineer Intern Certification, Board of Professional Engineers and Land Surveyors, Nevada.
- Member of the American Society of Civil Engineers (M.ASCE).
- Member of the American Concrete Institute (ACI).
- Young Member of the TRB AFF50 Seismic Committee (2015-2018).
- Member of the SEI ASCE Seismic Effect Committee (2015-2021).
- Member of the ACI Committee 341, Earthquake-Resistant Concrete Bridges.
- Associate Member of ASCE 7-22 Main Committee.
- Associate Member of ASCE 7-22 Seismic Subcommittee.

Awards

- 2017 Young Investigator of the Year Award, J. Lohr College of Engineering, SDSU, Dec. 29, 2017.
- 2017 Grantswinship Award, J. Lohr College of Engineering, SDSU, Aug. 20, 2017.
- ASCE ExCEEEd Fellow, Florida Gulf Coast University, June 18-23, 2017.
- **2016 DC Boot Camp** –The Office of Research Assurance and Sponsored Programs, SDSU.
- **UNR Selectee**, and one of three selectees form Nevada for NM EPSCoR Post-Doc Leadership Workshop, Jan. 5-8, 2015, Socorro, NM.
- **Travel Award**, University of Nevada, Reno, Office of Research and Innovation, to attend NM EPSCoR Post-Doc Leadership Workshop, Jan. 5-8, 2015, Socorro, NM.
- **Conference Registration Scholarship**, 2014 National Accelerated Bridge Construction Conference, Miami, Florida.
- **Research Assistant**, University of Nevada Reno, Jun. 2011-May 2014.
- **Teaching Assistant**, University of Nevada Reno, Fall 2013.
- **Civil Engineering Department Scholarship**, Carleton University, Sept. 2010-May 2011.
- **Research Assistant**, Carleton University, Sept. 2010-May 2011.
- **Teaching Assistant**, Carleton University, 2010-2011.
- **Teaching Assistant**, Sharif University of Technology, 2007-2010.
- **Best-Paper-Award**, 12th National Civil Engineering Student Conference, 2005, Tehran, Iran.
- Member of "**National Elite Foundation**" of Iran (www.bmn.ir).
- Ranked among Top 0.5% of Graduate Entrance Exam of IRAN (63 out of 15000).
- Ranked among Top 0.5% of Undergraduate Entrance Exam of IRAN (2200 out of half a million).

Service Activities

- **Journal Review:** ACI Structural Journal; ACI Material Journal; Journal of Earthquake Engineering; Journal of Bridge Engineering ASCE, Engineering Structures, Structure and Infrastructure Engineering.
- **Research Proposal Review:** Pacific Northwest Transportation Consortium (PacTrans).
- **External Reviewer:** ACI Committee 345, "Guide for Maintenance of Concrete Bridge Members," *ACI 345.1R*, Feb., 2014.
- **Conference Moderator/Co-moderator:**
 1. Accelerated Bridge Construction – ACI Spring 2018 Convention, Salt Lake City, March 26.
 2. Novel Bridges for Seismic Resilience and Enhanced Constructability, 2018 ASCE Congress, Fort Worth, Texas, April 20, 2018.

3. Seismic, 2014 National Accelerated Bridge Construction Conference, Miami, Florida.
4. Advanced Materials Session, Quake Summit 2013, Reno, NV, Aug., 7-8, 2013.

Work Experience

- Research Associate, Infrastructure Innovation, LLC, August 2014 to Feb. 2016- developing design specifications for AASHTO.
- Structural Engineer at MAHBAD, May 2009 to Sept. 2010- Structural Design of Low to Mid- Rise Structures.
- Structural Engineer at BASA, Jan. 2008 to July 2008- Rehabilitation of Yazd Schools.
- More than **861,000** ft^2 Structural Design and Detailing of Buildings and Offices.

Graduate Research Topics

- **Ph.D Dissertation:** Next Generation of Bridge Columns for Accelerated Bridge Construction in High Seismic Zones.
Advisor: Professor *M. Saiid Saiidi* ([website](#)).
- **M.Sc. Thesis:** Reduction of Residual Displacement of RC Bridge Columns Using High Strength Reinforcements.
Advisor: Professor *Alireza Khaloo* ([website](#)).

Grade Point Average

- Ph.D GPA: **3.95** out of 4.00,
- Graduate Study at Carleton University: GPA: **11.2** out of 12.00,
- M.Sc. GPA: **17.30** out of 20, Ranked 6 out of 20 students (Top Student GPA: 17.65),
- B.Sc. GPA: **16.15** out of 20, Ranked 11 out of 85 students.

Software/Programs

- Elastic Response Spectrum,
- Modal Time History Analysis of Structures.

More than 6400 downloads worldwide since 2011. Link to the online archive:
<http://www.mathworks.com/matlabcentral/fileexchange/authors/131003>