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Professor

Earthquake Engineering department  
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## Educational background

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2002-2003	Postdoctoral Research Associate (University of Tokyo/Japan 2002)
October 1999 - September 2002	PhD, University of Tokyo/Japan, Topic: "Micro Computational Approach to Post Cracking Constitutive Laws of Reinforced Concrete and Application to Nonlinear Finite Element Analysis"
September 1995 - March 1998	M.Sc. in Earthquake Engineering, University of Tehran Topic: "Nonlinear Behavior of High Rise Telecommunication Tower"
September 1991 - September 1995	B.S. in Civil Engineering, University of Tehran

## Visiting appointments

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Summer 2005-2010, 2012, 2015	University of Tokyo, Japan
Summer 2018	Yokohama National University, Japan
Summer 2010	Tsinghua University, Beijing, China

## Teaching Experience

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- Continuum mechanics, from 2003 till now (Tarbiat Modares University)
- Random vibration, from 2004 till now (Tarbiat Modares University)
- Advanced engineering mathematics, from 2004 till now (Tarbiat Modares University)
- Seismic evaluation and strengthening of structures, from 2006 till now (Tarbiat Modares University)
- Nonlinear Analysis of Structures, from 2009 till now (Tarbiat Modares University)
- Advance topics in analysis and design of RC members, from 2013 till now (Tarbiat Modares University)

## Research Interests

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- Seismic performance evaluation and strengthening of structures.
- Random Vibration and probabilistic analysis.
- Nonlinear behavior and failure assessment of reinforced concrete.
- Nonlinear constitutive laws and material models of reinforced concrete and masonry.
- Size effect and fracture mechanics.
- Behavior of pre-damaged structures.
- Durability performance-based analysis and design.

## Awards

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- Distinguished Teaching Award, Tarbiat Modares University, Jan 2020.
- Distinguished Research Award, Tarbiat Modares University, Jan 2016.
- Distinguished Research Award for Authorship, Tarbiat Modares University, Jan 2015.
- Best Presentation Award, Japan Society of Civil Engineer (JSCE), Jan 2002.
- One of the three excellent papers of the year 2004, Japan Concrete Institute.

## List of Publications

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### *Journal papers*

- 1 Soltani M., An X., Maekawa K. “Computational Model for Post Cracking Analysis of RC Membrane Elements Based on Local Stress-Strain Characteristics” *Int. Journal of Engineering Structures*, Elsevier Science, 2003, Vol. 25, Issue 8, pp. 993-1007.
- 2 Soltani M., An X., Maekawa K. “Cracking Response and Local Stress Characteristics of RC Membrane Elements Reinforced with Welded Wire Mesh”, *Int. Journal of Cement and Concrete Composite*, Elsevier Science, 2004, vol. 26, pp. 389-404.
- 3 Jin C., Soltani M., An X. “Experimental and Numerical Study of Cracking Behavior of Openings in Concrete Dams.” *Int. Journal of Computers & Structures*, Elsevier Science, 83 (2005) 525–535.
- 4 Soltani M., An X., Maekawa K. “Localized Nonlinearity and Size-Dependent Mechanics of In-plane RC Element in Shear.” *Int. Journal of Engineering Structures*, Elsevier Science, 27 (2005) 891–908.
- 5 Ishida T., Maekawa K., Soltani M. “Theoretically Identified Strong Coupling of Carbonation Rate and Thermodynamic Moisture States in Micro-pores of Concrete” *Int. Journal of Advanced Concrete Technology*, vol 2, No. 2, 213-222,2004 (selected as the best paper of the year by JCI).
- 6 Maekawa K., Soltani M., Ishida T., Yutaka Itoyama “Time-Dependent Space-Averaged Constitutive Modeling of Cracked Reinforced Concrete Subjected to Shrinkage and Sustained Loads”, *Int. Journal of Advanced Concrete Technology*, Vol. 4, No. 1, 1-15, 2006.
- 7 Soltani M., Maekawa K., "Path-dependent mechanical model for deformed reinforcing bars in RC interface under coupled cyclic shear and pullout tension", *Int. Journal of Engineering Structures*, Elsevier Science, 30, 1079–1091, 2008.

- 8 Maekawa K., Fukuura N., Soltani M. "Path-Dependent High Cycle Fatigue Modeling of Joint Interface in Structural Concrete." , *Int. Journal of Advanced Concrete Technology*, Vol.6, No.1, 227-242, 2008.
- 9 Badarloo B, Tasnimi AA, Soltani M. "Failure criteria of unreinforced grouted brick masonry based on biaxial compression test", *Scientia Iranica*, Vol. 16, No. 6, pp. 502-511,2009.
- 10 Hashemi S. SH., Tasnimi A.A., Soltani M. "Nonlinear Cyclic Analysis of Reinforced Concrete Frames, Utilizaing New Joint Element.", *Scientia Iranica*, Vol. 16, No.6, pp. 490-502, 2009.
- 11 Lavassani H.H., Tasnimi A.A., Soltani M. "A Complete Hysterical Constitutive Law for Reinforced Concrete Under Earthquake Loading.", *Journal of Seismology and Earthquake Engineering*", Vol. 11, No.1, pp. 17-31, 2009.
- 12 Ghiassi B., Soltani M., " Local Stress Field Approach for Shear Failure Assessment of Reinforced Concrete Members" *Journal of Advanced Concrete Technology*, Japan Concrete Institute, Vol. 8, No. 2, pp. 1-16, 2010.
- 13 Arabzadeh, A., Soltani, M., Ayazi, A. "Experimental investigation of composite shear walls under shear loadings" *Thin-Walled Structures*, Volume 49, Issue 7, Pages 842-854, 2011.
- 14 Ghiassi B., Soltani M., Tasnimi A. A., "Seismic Evaluation of Masonry Structures Strengthened with Reinforced Concrete Layer", *Journal of Structural Engineering*, ASCE, 138 (6), pp. 729-743, 2012.
- 15 Ranjbaran F. Hosseini M., Soltani M., "Simplified Formulation for Modeling the Nonlinear Behavior of Confined Masonry Walls in Seismic Analysis", *International Journal of Architectural Heritage: Conservation, Analysis, and Restoration*, Taylor & Francis Group, LLC, 6(3), 259-289, 2012.
- 16 Ghorbi E., Soltani M., Development of a compressive constitutive model for FRP-confined concrete elements", *J of Composites Part B*, V. 45. 504-517, 2013.
- 17 Ghiassi B., Soltani M., Tasnimi A. A., A Simplified Model for Analysis of Unreinforced Masonry Shear Walls under Combined Axial, Shear and Flexural Loading, *Engineering Structures*" , Vol. 42, 396-409, 2012.
- 18 Ghiassi B., Soltani M., Pourkeramat, P., Local stress field approach for post cracking analysis of FRP strengthened RC elements", *J of Composites Part B*, V. 53. 234-248, 2013.
- 19 Moradi A., Soltani M., Tasnimi A. A., A Simplified Constitutive Model for Dowel Action across RC Crack, *Journal of Advanced Concrete Technology*,10 (8), 264-277,2012.
- 20 Moradi A., Soltani M., Tasnimi A. A., Stress Transfer Behavior of Reinforced Concrete Cracks and Interfaces, *ACI Structural Journal*, 112(1), 69-80, 2015.
- 21 Soltani, M., Maekawa, K. Numerical simulation of progressive shear localization and scale effect in cohesionless soil media, *International Journal of Non-Linear Mechanics*, 69, 1-13, 2015.
- 22 Rahimi, S., Soltani, M. A stochastic simulation algorithm for evaluation of seismic pounding response of adjacent structures, *Journal of Risk and Reliability*, 229, 6, 517-529, 2015.
- 23 Moshirabadi, S., Soltani, M., Maekawa, K., Seismic interaction of underground RC ducts and neighboring bridge piers in liquefiable soil foundation, *Acta Geotechnica*, Springer, 10 (6), 2015. DOI 10.1007/s11440-015-0392-x.
- 24 JahanMohammadi, A., Soltani, M., Towards Combined Local-Average Stress Field Modeling of Reinforced Concrete, *Engineering Structures*, 111, 394-410, 2015.
- 25 JahanMohammadi, A., Soltani, M., Size Effect Simulation of Shear Critical RC Members: Local-Average Stress Field Approach, *Asian Journal of Civil Engineering*, 17 (2), 169-192, 2016.

- 26 Hamidpour, S., Soltani, M., Probabilistic assessment of ground motions intensity considering soil properties uncertainty, *Soil Dynamics and Earthquake Engineering*. Vol. 90, 158–168, 2016.
- 27 Ansari M., Daneshjoo F., Soltani M., The assessment of seismic residual displacement of concrete one column bent bridges with forced-based fiber elements, *Journal of Transportation Research*, 13(1), 46, 2016.
- 28 Mirzabagheri, S., Tasnimi, A.A., Soltani M., Behavior of interior RC wide and conventional beam-column roof joints under cyclic load, *Engineering Structures*, 111(15), 333-344, 2016.
- 29 Bayati, Z. Soltani, M., Ground motion selection and scaling for seismic design of RC frames against collapse, *Earthquakes and Structures*, 11 (3), 445-459, 2016.
- 30 Rahimi, S., Soltani, M. Expected Extreme Value of Pounding Force Between Two Adjacent Buildings, *Structural Engineering and Mechanics*, 61(2):183-192 , January 2017
- 31 Hamidpour, S., Soltani M., Shabdin M., Probabilistic seismic assessment of structures considering soil uncertainties, *Earthquakes and Structures*, 12(2):165-175 2016.
- 32 Amouzadeh, M., Soltani M., In-plane response of unreinforced masonry walls confined by reinforced concrete tie-columns and tie-beams, *Advances in Structural Engineering*, 20(11), 1632-1643, 2017.
- 33 Jafari, M., Soltani, M., A stochastic adaptive pushover procedure for seismic assessment of buildings, *Earthquakes and Structures*, 14(5), 472-492, 2018.
- 34 Ghiassi, B., Soltani, M., Rahnayee Sepehr, S., Micromechanical modeling of tension stiffening in FRP-strengthened concrete elements, *Journal of Composite Materials*, 52(19), 2577-2596, 2018.
- 35 Moshirabadi, S., Soltani, M., Implementation of smeared crack approach in rigid block and spring modeling of reinforced concrete, *Engineering Structures*, 2019.
- 36 Nikooravesh, M., Soltani, M., Behavior of unreinforced masonry piers strengthened using centercore method; experimental investigation, *Construction and Building Materials*, Volume 189, 236-244, 2018.
- 37 Samira Ebrahimi a., Hamzeh Shakib b., Masoud Soltani b., Zahrai M., Hysteretic behavior of link beams with different cross-sections and stiffener arrangements, *Journal of Constructional Steel Research*, 57(6),1051-1064, 2020
- 38 Shari, A., Massomi, A., Soltani, M., Homami, P., Experimental evaluation of nonlinear behavior of unreinforced masonry (URM) walls retrofitted using center-core technique, *Journal of Structural and Construction Engineering*, 8(2), 59-80, 2021.
- 39 Nikooravesh, M., Soltani, M., Mohammadi E., Seismic retrofitting of Persian arched walls by centercore method: Experimental and numerical investigation, *International Journal of Architectural Heritage*, 1-22, 2021.
- 40 Tahaei, R., Soltani, M., Nikooravesh, M., Experimental investigation of twin confinement effects of FRP and steel rebar on cyclic compressive behavior of concrete, *Construction and Building Materials*, 304, 124561, 2021.
- 41 Zakerinejad, M., Soltani, M., Compressive behavior of RC members with rectangular continuous transverse reinforcement, *Structural Concrete*, 22(6), 3396-3413, 2021.
- 42 Yamanoi, Y., Miura, T., Soltani, M., Maekawa K., Multi-Directional Fixed Crack Model Extended to Masonry Structures, *Journal of Advanced Concrete Technology* 19 (9), 977-987, 2021.

- 43 Nikooravesh, M., Soltani, M., Experimental and analytical investigation of seismic behavior of centercore-retrofitted masonry walls, *Engineering Structures* 244, 112823, 2021.
- 44 Zewdie, E., Soltani, M., Maekawa, K., Extended Multi-directional Crack Model Applied to the RC Precast Joint Interface with Shear Dowel, *Journal of Advanced Concrete Technology*, 20, 535-549, 2022.
- 45 Saeidi Moein, R., Tasnimi, A.A., Soltani, M., Flexural performance of RC beams strengthened by bonded CFRP laminates under monotonic and cyclic loads, *Scientia Iranica*, 23(1), 66-78, 2016.
- 46 Zakian, P., Khaji, N., Soltani, M., A Monte Carlo adapted finite element method for dislocation simulation of faults with uncertain geometry, *Journal of Earth System Science*, 126(7), 125, 2017.
- 47 F Homaei, H Shakib, M Soltani, Probabilistic seismic performance evaluation of vertically irregular steel building considering soil–structure interaction, *International Journal of Civil Engineering*, 15(4), 611-625, 2017.
- 48 Ansari, M., Daneshjoo, F., Soltani M., On Estimation of Seismic Residual Displacements in Reinforced Concrete Single-Column Bridges Through Force–Displacement Method, *International Journal of Civil Engineering* 15(4), 473-486.
- 49 Nikooravesh, M., Soltani, M., Behavior of unreinforced masonry piers strengthened using centercore method; experimental investigation, *Construction and Building Materials*, 189, 236-244, 2018.
- 50 B Yousefi, M Soltani, An equivalent fiber frame model for nonlinear analysis of masonry structures, *International Journal of Architectural Heritage*, 15(4), 644-668, 2021.
- 51 Hamidpour, S., Shakib, H., Paolucci, R.,Correia, A., Soltani, M., Empirical Models to Formulate the Nonlinear Response of Rocking Shallow Foundations, *Bulletin of Earthquake Engineering* 20(15), 8099-8122, 2022.
- 52 Rahimi, S., Soltani, M., A probabilistic seismic demand model for required separation distance of adjacent structures, *Earthquake and Structures*, 22(2), 147-155, 2022.
- 53 Rezaee, S.R. Soltani, M, Nikooravesh, M., Cyclic in-plane behavior of unreinforced and confined masonry walls retrofitted by shotcrete: Experimental investigation, *Engineering Structures* 264, 114432, 2022.
- 54 Zakerinejad, M.M., Soltani, M., A theoretical model for prediction of shear strength in reinforced concrete beams with discrete or continuous transverse reinforcement, *Structures* 44, 436-456, 2022.

**journal papers in Persian**

- 55 Salehi, D.I., Soltani M., Tasnimi, AA. Nonlinear behavior of brick-mortar interface element in shear, *Modares Civil Engineering journal*, 36, 79-98, 2009.
- 56 Salehi, D.I., Soltani M., Tasnimi, AA. Linear Homogenization of Brick Masonry Structures *Modares Civil Engineering journal*, 10 (2), 39-59, 2010.
- 57 Ghorbi, E., Soltani M., Development of a compressive constitutive model for FRP-confined concrete elements, *International Journal of Engineering Science (IJES)*, 19, 8-2. 2008.
- 58 Bondarabadi Azizi H., Aghakouchak A.A., Soltani M., Seismic analysis of the in-plane behavior of masonry wall retrofitted with RC overlay. *International Journal of Engineering Science (IJES)*, 19(101), 157-166. 2008.

- 59 Barimany, A., Soltani, M., Tasnimi, AA., Modeling and Analysis of Masonry Elements by Fixed Smear Crack Approach, *Modares Civil Engineering journal*, 10(3), 1-16, 2010.
- 60 Rahnamay S., Soltani M., Modeling of Tension-Stiffening Behavior of Reinforced Concrete Elements Strengthened with FRP, *Sharif Journal of Civil Engineering*. 2(2), 11-19, 2010.
- 61 Ahmadvand, S., Khaji, N., Soltani, M., Seismic Rehabilitation of Masonry Arch Bridges Using Post-Tensioning Method *Journal of transportation engineering*, 1(2), 1-19, 2010.
- 62 Soltani, M., Ghiassi, B., A Review of Foundations Evaluation Using Seismic Codes. *Modares Civil Engineering journal*, 83-95, 2011.
- 63 Shabdin, M Soltani , M., Evaluation of direct displacement based method for seismic design of reinforced concrete shear walls, *Sharif Journal of Civil Engineering*, 4, 25-38, 2012.
- 64 Ghiassi B., Soltani M., Tasnimi A. A., Linear Homogenization and Mechanical Characterization of Strengthened Masonry Elements with Concrete Overlay, *Civil Engineering Infrastructures Journal (CEIJ)*, 45(4), 455-466, 2011.
- 65 Amouzadeh, M., Soltani M., Tasnimi A. A., Behavioral Curve of Unreinforced Masonry Walls Confined by RC Ties, *Modares Civil Engineering journal*,12(3), 61-75, 2012.
- 66 Garivani, S., Aghakoucheh, A.A., Soltani, M., Effects of Masonry Infills on Seismic Behavior of Steel Frames with Khoreeni Connections and Their Elements, *Modares Civil Engineering journal*, 12(1), 55-69, 2012.
- 67 Aneshkani, M. A., Soltani, M., Aghakoucheh, A.A.,Evaluation of Effective Uncertainty in the Behavior of Reinforced Concrete Frames, *Ferdowsi Civil Engineering Journal*, 23(2), 21-36, 2012.
- 68 Moradi, A.R., Soltani, M., Tasnimi, A.A., Numerical and Experimental Simulation of Dowel Action across RC Cracks under Cyclic Loading, *Modares Civil Engineering Journal*, 13(2), 133-148, 2013.
- 69 Soltani, M., Rahimi, S., Aghakoucheh, A.A., The influence of masonry infill panels on the progressive collapse response of reinforced concrete structures, *Modares Civil Engineering*, 13(2), 11-, 2013.
- 70 Rahimi, S., Soltani, M., Aghakoucheh, A.A., Simulation of the Interaction Effect of Masonry Infill Panels-RC Frame on the Progressive Collapse Potential., *Modares Civil Engineering*, 13(3), 37-50, 2013.
- 71 Hedayati, J., Soltani, M., Yazdani, M., Buckling Behavior of Piles in Liquefiable Soils, *Ferdowsi Civil Engineering Journal*, 23(2), 1-20, 2012.
- 72 Shabdin, M., Soltani, M., Evaluation of direct displacement based method for seismic design of reinforced concrete shear walls. *Sharif Journal of Civil Engineering*, 4, 25-38, 2012.
- 73 Sepasi, M., Soltani, M., Seismic Performance Evaluation of Adjacent Reinforced Concrete Frames Considering Pounding Effects. *Modares Civil Engineering*, 14(3) 93-106, 2014.
- 74 Moradi, A.R., Soltani, M., Tasnimi, A.A., Simulating Shear Transfer Mechanism in RC Pavements, *Journal of Transportation Engineering*, 2(48), 347-361. 2011.
- 75 Rahimi, S., Soltani, M., Probability distribution of relative displacement of two adjacent single degree of freedom systems, *Modares Civil Engineering journal*, 14(20), 49-63, 2014.
- 76 Safaeian, A., Soltani, M., Constitutive Laws of Corroded RC Elements Repaired by FRP, *Amirkabir Journal of Civil Engineering*, 45(2), 13-29, 2013.

- 77 Alinejad, M., Soltani, M., TasnimI, A.A., Seismic behavior of masonry infill walls in RC frames under simultaneous in-plane and out-of plane loads, *Sharif Journal of Civil Engineering*, 4(1), 106-119. 2014.
- 78 Garivani, S., Aghakoucheq, A.A., Soltani, M., Effects of Strengthening the Masonry Infills by Reinforced Shotcrete on Seismic Behavior of Steel Frames with Khourjeeni Connections and their Elements, *Modares Civil Engineering journal*, 13(4), 85-100, 2013.
- 79 Ebrahimi, S., Shakib, H., Soltani M., A Model for Increasing the Distances and Decreasing the Dimensions of Stiffeners for Tubular Link Beams in Eccentrically Braced Frames, *Modares Civil Engineering journal*, 13(5), 1-13. 2014.
- 80 Moshirabadi, S., Soltani, M., Numerical study of effective mechanisms on seismic response of underground structures buried in liquefiable sandy soil, *Sharif Journal of Civil Engineering*, 3, 15-25, 2014.
- 81 Rahimi, S., Soltani, M., Aghakoucheq, A.A., A stochastic simulation algorithm for determination of probability distribution and extreme value of seismic response of dynamic systems, *Sharif Journal of Civil Engineering*, 32(3), 47-57, 2016.
- 87 Jahanmohammadi, A., Soltani, M., Tasnimi, A., A., Local-average stress field concept in the post-crack analysis of RC members, *Modares Civil Engineering journal*, 15, 53-66, 2015.
- 89 Ansari, M., Daneshjoo, F., Soltani, M., A New Combinational Force-Displacement Hysteresis Model Presented to Estimate Seismic Residual Displacement in Single-Column Concrete Bridges, *Journal of Transportation Engineering*, 7(2), 223-236, 2016.
- 90 Nikooravesh, M., Arabzadeh, M., Soltani, M., Plastic-damage modeling of RC beams under torsion, *Modares Civil Engineering journal*, 16(1), 169-180, 2016.
- 91 Zeighami,E.,Jandaghi Alae, F.,Jamee, M. Soltani, M., Experimental investigation of pull-out behavior of inclined fiber from cementitious matrix, *Modares Civil Engineering journal*, 16(2), 173-186, 2016.
- 92 Kamranirad, R., Soltani, M., Tension Stiffening Modeling of Steel Fiber Reinforced Concrete, *Modares Civil Engineering journal*, 17(1), 191-203, 2017.
- 93 Jafari, M., Soltani, M., The investigation of pushover lateral force profile characteristics considering record uncertainties, *Modares Civil Engineering journal*, 17(6), 93-107, 2018.
- 94 Hashemi S., Tasnimi, A.A., Soltani M., Nonlinear Analysis of 3D Reinforced Concrete Frames Considering Bar-concrete Interaction, *Journal of Civil and Surveying Engineering*, 45(2), 141-154, 2011.
- 95 Ansari, M., Daneshjoo, F., Soltani M., A New Combinational Force-Displacement Hysteresis Model Presented to Estimate Seismic Residual Displacement in Single-Column Concrete Bridges, *Journal of Transportation Engineering*, 7(2), 223-236, 2016.
- 96 Moshirabadi, S., Soltani, M.,Development of discrete element method fr nonlinear analysis of unreinforced masonry members, *Modares Civil Engineering journal*, 19 (4), 173-186, 2019.
- 97 Zakerinejad, M.M., Soltani, M., An Analytical Model for Shear Capacity Assessment of RC panels and Application to RC Beams, *Modares Civil Engineering journal*, 21(2), 119-132, 2021.
- 98 B Yousefi, M Soltani, A Macro-element Model for Nonlinear Analysis of Masonry Structures, *Amirkabir Journal of Civil Engineering* 53 (5), 2003-2021, 2021.
- 99 Mohebbi Amir Hoseini, A., Soltani, M., A macro-scale truss model for nonlinear analysis of masonry walls, *Modares Civil Engineering journal*, 22(4), 127-141, 2022.

## ***Books***

- 1 Soltani, M., Experiences and lessons of seismic rehabilitation, Ilm-O-Adab Publisher, 2011, in Persian, Book chapters.
- 2 Soltani, M., Rahimi, S., Probabilistic methods in seismic evaluation of structures, Tarbiat Modares University Press, 2020, in Persian.

## **Research Projects & Technical Reports**

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- “National Building Regulations, Chapter 11”, A member of research team, 2005.
- “Revision of Instruction for Seismic Rehabilitation of Existing Buildings, Chapter 4” A member of developing team, 2010.
- “Development of a technical provision for seismic design, evaluation and rehabilitation of hospitals and medical centers in the Tehran region, A member of research team, 2010. JAAM Consultant Engineers.
- “Seismic assessment of historic masonry schools”, Project Manager, State Organization of Schools Renovation, development and mobilization, 2012-2015.
- “Regulations for Seismic Evaluation and Rehabilitation of Masonry Walls Retrofitted by Shotcrete”, Project Manager, State Organization of Schools Renovation, development and mobilization. 2013 until now.
- “National Building Regulations, Chapter 8”, Design and Construction of Masonry Buildings, member of technical committee, 2012 until now.
- “National Building Regulations, Chapter 9”, Design and Construction of Reinforced Concrete Buildings, member of authors committee, 2012 until now.
- “Iranian Concrete Design Code”, member of technical committee, authors committee, coordination and integration committee 2014 until now.
- “Guidelines for Performance Based Design of Structure and Non-structural Elements of Hospital Buildings”, Code No 816, member of authors & contributors committee, 2020.
- “Recommended Practice for Assessment and Rehabilitation of the Structures of Existing Buildings”, Road, Housing and Urban Development Research Center, member of authors & contributors committee, 2021.

## **Work Experience**

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- Concrete Laboratory of the University of Tokyo from 1999 to 2002 on the project "Structural Modeling of Cracked RC" in Ph.D.
- Research Associate, University of Tokyo, 2002-2003 "Numerical Simulation of the durability of reinforced concrete structures".
- Technical Project Manager for Seismic Evaluation of Fars, Neyshabour and Loshan Thermal Power Plants in 2003.
- Collaboration in the Project “Seismic Performance Evaluation of Infrastructures” Invited Scholar, Department of Civil Engineering, Tokyo University. 2005.

- Collaboration in the Project “A computational method for evaluating fatigue in precast reinforced concrete connections under the simultaneous impact of shear and tension“, Invited Scholar, Department of Civil Engineering, Tokyo University. 2006.
- Collaboration in the Project “Soil constitutive models and numerical simulation of soil-structure interaction”, Invited Scholar, Department of Civil Engineering, Tokyo University. 2007.
- Collaboration in the Project “Development of COM3 software, progressive yielding and shear bands in granular domain and liquefaction simulation”, Invited Scholar, Department of Civil Engineering, Tokyo University. 2009.
- Member of Structural Committee of Iranian Resources and Engineering Management Company, IREMCO, (Project Manager Co. for Iran's Residential Building and Lifelines)
- Collaboration with JAMM Design and Development Eng. Co., (Project Manager Co. for Tehran Schools Rehabilitation), -2012
- Collaboration with JAMM Design and Development Eng. Co., for “Development of a technical provision for seismic design, evaluation and rehabilitation of hospitals and medical centers in the Tehran region”, 2011-2012.
- Member of the Technical Committee for the Renovation and Rehabilitation of Schools. Organization for Development, Renovation and Equipping Schools of Iran, 2010-2014.
- Academic member, Department of Earthquake Engineering, Tarbiat Modares University, 2003-till now.

## **Student Supervision**

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Supervision of more than 70 Master and Ph.D students