Curriculum Vitae

Mohammadreza Vafaei (PhD, P. Eng.)

Contact Detail

Postal Address:

School of Civil Engineering, Faculty of Engineering, Universiti Teknologi Malaysia, 81310, Johor Bahru, Johor, Malaysia.

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Personal Information

Date of Birth: March, 1978

Nationality: Iranian

Professional Engineer License Number (Iran): 0-10-300-53526

Professional Background

Senior Lecturer
Department of Structure and Materials, School of Civil Engineering.
Institution: *Universiti Teknologi Malaysia,* UTM
Date: Feb 2015 - Present

Post-Doctoral Researcher
Department of Structure and Materials, Faculty of Civil Engineering.
Institution: *Universiti Teknologi Malaysia,* UTM
Date: 1st November 2013- 1st November 2014

Head of Structural Department
Institution: *Imenrah Consulting Engineers Co., Tehran, Iran.*
Date: March 2003- January 2010.

Academic Qualifications

Post-Doctoral:

Title of research: New Seismic Map for Malaysian National Annex in Euro code.
Institution: Universiti Teknologi Malaysia (UTM), Malaysia
Started: 1st November 2013
Duration: 1 Year

PhD degree:

Major: Earthquake Engineering
Institution: Universiti Teknologi Malaysia (UTM), Malaysia
Date of Graduation: June 2013
Title of Thesis: *Seismic Damage Identification based on Integrated Artificial Neural Networks and Wavelet Transforms.*

Master Degree:

Major: Structural Engineering
Institution: Mazandaran University of Science and Technology, Iran
CGPA: 18.01out of 20.
Date of Graduation: Feb. 2004, (Full time program)
Title of Dissertation: *Seismic Amplification Factor for 4-Legged Self-supporting Telecommunication Towers.*

Bachelor's Degree:

Major: Civil Engineering
Institution: Urmia University, Iran
CGPA: CGPA 16.12 out of 20.
Date of Graduation: Nov. 2000, (Full time program)

Diploma:

Institution: Chamran High School, Iran
Major: Mathematic
CGPA: 16.21 out of 20.
Date of Graduation: May 1996

Research Grants

a) Principal Investigator

No	Fund	Fund Provider	Project Title	Amount (RM)	Duration	Project status
1	Science Fund	Ministry of Science, Technology and Innovation.	Development of an Innovative Sliding Beam to Column Connection	139,200	2015-2017	Completed
2	Fundamental Research Grant Scheme	Ministry of Higher Education.	Damage Identification of Bolted Structures Using Wavelet Transforms and Artificial Neural Networks	124,000	2015-2017	Completed
3	Research University Grant Tier 1	Ministry of Higher Education.	Development of A Visco-Elastic Damper for Vibration Control of Slender Structures	46,100	2016-2018	Completed
4	Potential Academic Staff	Universiti Teknologi Malaysia	Increase in Energy Dissipation Capacity of Columns through Dumbbell-Link Elements	20,000	2015-2017	Completed
5	Product Development Grant	Innovation and Commercialization Center, UTM	SR Hybrid Damper	23,000	2015-2016	Completed
6	Research University Grant Tier 1	Ministry of Higher Education.	Development of seismic fragility curve and optimal retrofit strategies for RC buildings in Sabah, Malaysia	49,500	2018-2020	Completed

7	Prototype Development Fund	Innovation and Commercialization Center, UTM	Ease Connector For IBS Construction	20,000	2018-2019	Completed
8	International Grant	Padideh Tarhofan Consulting Engineers, Iran	Damage Identification Of Bridges Using Artificial Neural Network, Wavelet Transform And Sensor Clustering Techniques	20,000	2020-2022	On-going

b) Member in Research/ Consultation Projects

No	Fund	Fund Provider	Project Title	Amount (RM)	Duration	Project status
1	Science Fund	Ministry of Science, Technology and Innovation, MOSTI	Novel Hybrid Damper for Vibration Control of Structures and Infrastructures	139,400	2015-2017	Completed
2	Fundamental Research Grant Scheme	Ministry of Higher Education, MoHE	Dynamic Behavior of Retrofitted Column with Reinforced Concrete Jacketing using Inoxydable Steel	106,000	2015-2017	Completed
3	Knowledge Transfer Program	Ministry of Higher Education, MoHE	Production of Rubber-Based Damper for Construction Industry in Malaysia	153,000	2015-2017	Completed
4	Fundamental Research Grant Scheme	Ministry of Higher Education, MoHE	Behavior and Seismic Performance of Inoxydable Steel in Reinforced Concrete Structural Elements	79,800	2013-2015	Completed

5	Research University Grant Tier 1	Ministry of Higher Education, MoHE	New Link-Element Design For Increase In Ductility Of Battened-Up Columns For Earthquake Resistant Structures	39,800	2017-2019	Completed
6	Research University Grant Tier 2	Ministry of Higher Education, MoHE	Axial Load Capacity And Cyclic Behavior Of Reinforced Concrete Columns Internally Confined With FRP Sheets	29,500	2019-2021	On-going
7	Prototype Development Research Grant Scheme	Ministry of Higher Education, MoHE	Ductile Inoxydable Connector for Seismic Resistant Columns	88,400	2019-2021	On-going
8	Industry Linkage Fund	Malaysian Rubber Export Promotion Council	Development of a New Type of Visco-Elastic Damper for Vibration Mitigation of Structures and Infrastructures using Natural Rubber	175,000	2020-2022	On-going
9	Consultation Project	Doshin Rubber (M) Sdn. Bhd.	Development of Rubber-based Damper for Vibration Controlled Structures and Infrastructures in Malaysia	60,000	September 2015 – July 2017	Completed
10	Consultation Project	SRS Consulting Engineer	Projek Membina Jambatan dari Semporna ke Pulau Bum-Bum, Sabah (Semporna Bridge Feasibility Study)	625,260	January 2014 – December 2014	Completed
11	Consultation Project	Johor Water Consortium of Malaysia	Slope monitoring and vibration control at Gunung Pulai Water Reservoir	320,000	November 2017 – December 2018	Completed

Publications

H-Index: 9

Journals

ISI-indexed (Web of Science)

[1] **Vafaei, M**., Azlan, A., Ahamd Baharuddin, A.R., (2012). Real-time Seismic Damage Detection of Concrete Shear Wall Buildings Using Artificial Neural Networks. *Journal of earthquake engineering*. 17(1), 137-154**.**

[2] Behnia, A., Kueh A.B.H., Shahbazi, M.M., Ranjbar, N., Behnia, N., **Vafaei, M**., (2013). Finite Element Analysis of High Modal Dynamic Responses of A Composite Floor Subjected to Human Motion Under Passive Live Load. *Latin American Journal of Solids and Structure.* 10 (3), 601-630.

[3] **Vafaei, M**., Azlan, A., (2014). Seismic Damage Detection of Tall Airport Traffic Control Towers Using Wavelet Analysis. *Journal of structure and infrastructure engineering*. *10*(1), 106-127

[4] **Vafaei, M**., Azlan, A., Ahamd Baharuddin, A.R. (2014). A Neuro-Wavelet Technique for Seismic Damage Identification of Cantilever Structures. *Journal of structure and infrastructure engineering. 10*(12), 1666-1684.

[5] **Vafaei, M**., Azlan, A., Ahamd Baharuddin, A.R., (2014). Seismic Performance Evaluation of an Airport Traffic Control Tower through Linear and Nonlinear Analysis. *Journal of Structure and Infrastructure Engineering***.** *10*(8), 963-975.

[6] **Vafaei, M**., Azlan, A., Alih S., Ahamd Baharuddin, A.R. (2015) A Wavelet-based Technique for Damage Quantification via Mode Shape Decomposition. *Journal of structure and infrastructure engineering. 11*(7), 869-883.

[7] **Vafaei, M**., C. Alih, Sophia (2015) Ideal Strain Gage Placement for Seismic Health Monitoring of Structures. *Earthquake and Structures*. 8(3), 541-553.

[8] **Vafaei, M**., C. Alih, Sophia. (2015) Influence of Higher Order Modes and Mass Configuration on the Damage Detection via Wavelet Analysis. *Earthquake and Structures.* 9(6) 1221-1232.

[9] **Vafaei, M**., C. Alih, Sophia. (2015). Assessment of Seismic Design Response Factors of Air Traffic Control Towers. *Bulletin of Earthquake Engineering*. *14*(12), 3441-3461.

[10] Moravej, H., **Vafaei, M.,** Abu Bakar, S. (2016). Seismic Performance of a Wall-Frame Air Traffic Control Tower. *Earthquake and Structures. 10(2).*

[11] Shad, H., Adnan, A., Behbahani, H., **Vafaei, M.,** (2016) Efficiency of TLDs with Bottom-Mounted Baffles in Suppression of Structural Responses. *Structural Engineering and Mechanics, an International Journal*. 60 (1), 131-148.

[12] Behbahani, H., Adnan, A., **Vafaei, M,** Ong Peng P., Shad, H. (2016). Effects of TLCD with maneuverable flaps on vibration control of a SDOF structure. *Meccanica*. 52 (6), 1247-2156.

[13] Behbahani, H., Adnan, A., **Vafaei, M,** Ong Peng P., Shad, H. (2016).Vibration Mitigation of Structures through TLCD with Embedded Baffles. Experimental Techniques. DOI: 10.1007/s40799-016-0163-0.

[14] **Vafaei, M**., C. Alih, Sophia (2019). Adequacy of First Mode Shape Differences for Damage Identification Using Neural Networks. *Neural Computing and Application.* DOI: 10.1007/s00521-017-2846-6

[15] FR Mansour, SA Bakar, **M Vafaei**, SC Alih (2017) Effect of substrate surface roughness on the flexural performance of concrete slabs strengthened with a steel-fiber-reinforced concrete layer. *PCI Journal*. **62** (1) 78-89.

[16] Soltanzadeh R., Osman, H., **Vafaei, M**., Wahedy, Y. (2018) Seismic Retrofit of Masonry Wall Infilled RC Frames through External Post-Tensioning. *Bulletin of Earthquake Engineering*. 16:1487–1510

[17] **Vafaei, M**., C. Alih, S. (2018). Seismic vulnerability of air traffic control towers. *Natural Hazard*. 90, 803-822.

[18] Shad,H., Adnan,A., Behbahani,H., Oladimeji, A. M., **Vafaei, M.,** (2018). Experimental study on TLDs equipped with an upper mounted baffle. *Smart structures and systems.* 21(1)37-51.

[19] **Vafaei, M**., C. Alih, S. Ismail, N., Pabarja, A. (2018). Experimental Study on a New Damping Device for Mitigation of Structural Vibrations. *Earthquake and Structures.* 14(6), 567-576.

[20] Muyideen A., Bakhary N., **Vafaei M**., Md Noor N., Khairul P. (2018). a Non-probabilistic wavelet method to consider uncertainties in structural damage detection. *Journal of Sound and Vibration*. 433, 77-98.

[21] Pabarja, A., **Vafaei,M**., C. Alih, S., Yatim, M., Osman, S. (2019) Experimental study on the efficiency of tuned liquid dampers for vibration mitigation of a vertically irregular structure. *Mechanical System and Signal Processing*. 114, 84-105.

[22] **Vafaei M**., Baniahmadi M., C. Alih S. (2019). The relative importance of strong column-weak beam design concept in the single-story RC frames, *Engineering Structures,* 185, 159-170.

[23] Moravej, H., **Vafaei, M.,** (2019) Seismic Performance Evaluation of an ATC Tower through Pushover Analysis. *Structural Engineering International*. 29 (1), 144-149.

[24] S. C. Alih, **Vafaei, M.** (2019) Performance of reinforced concrete buildings and wooden structures during the 2015 Mw 6.0 Sabah earthquake in Malaysia. *Engineering Failure Analysis*. 110, 351-368.

[25] M., Abdulkareem, N., Bakhary, **M. Vafaei**, N., Md Noor, R. Samat, (2019) Experimental Damage Assessment Of Support Condition For Plate Structures Using Wavelet Transform. *Journal of Theoretical and Applied Mechanics*. 57(2), 501-518.

[26] **Vafaei, M.**, Fallah, A., C. Alih, S. (2020) The Accuracy of the Lumped Plasticity Model for Estimating Nonlinear Behavior of RC Frames under Gradually Increasing Vertical Loads. *Structural Concrete*. 21(1), pp. 65-80.

[27] **Vafaei, M.**, Sheikh, A. M.O., C. Alih, S. (2019) Experimental study on the efficiency of tapered strip dampers for the seismic retrofitting of damaged non-ductile RC frames *Engineering Structures,* 199, Doi: 10.1016/j.engstruct.2019.109601.

[28] Abdulkareem, M., Bakhary, N., **Vafaei, M.**, Noor, N.M., Mohamed, R.N. (2019) Application of two-dimensional wavelet transform to detect damage in steel plate structures. *Measurement,* 146, 912-923.

[29] Abdul Waheed, **Mohammadreza Vafaei**, Sophia C. Alih, Rafiq Ullah (2020) Experimental and numerical investigations on the seismic response of built-up battened columns. *Journal of Constructional Steel Research,* 174 (2020) 106296

SCOPUS-indexed Journals

[1] **Vafaei, M**., Azlan, A. (2011). Seismic Damage Detection Using Pushover Analysis. *Advanced Materials Research.* 255-260, 2496-2499.

[2] Yadollahi, M., Rossli, M., **Vafaei, M.** (2012). A Model for Seismic Vulnerability Score Assignment of Road Infrastructure Using Linear Regression Technique. *Applied Mechanics and Materials*. 147, 266-269.

[3] Vafaei**, M.,** Alih, C. S., Abdul Rahman, Q. (2015). Drift Demands of Low-Ductile Moment Resistance Frames (MRF) Under Far Field Earthquake Excitations Considering Soft-Story Phenomenon. *Journal Teknologi*. *78*(6), 83-92.

[4] M. Abdulkareem, N. Bakhary, **M. Vafaei**, N. M. Noor (2016). Wavelet-based Damage Detection Technique via Operational Deflection Shape Decomposition. *Indian Journal of Science and Technology*.9 (48). 1-7.

[5] Alih S.C., Khelil A., **Vafaei M**., Halim N.H.F.A., (2017), Analytical Tension Stiffening Model for Concrete Beam Reinforced with Inoxydable Steel, *International Journal of Applied Engineering Research*, **12** (15), 5280-5288.

[6] Muyideen, A., Bakhary, N., **Vafaei, M**., Noor,N. (2017). Mode Shape and Mode Shape Difference Evaluation to Damage Location in Plate Structures. *International Journal of Applied Engineering Research.*12(24), 14620-14627.

[7] Halim, N. H. F. A., Alih, S. C., **Vafaei, M**., Baniahmadi, M., & Fallah, A. (2017). Durability of Fibre Reinforced Polymer under Aggressive Environment and Severe Loading: A Review. *International Journal of Applied Engineering Research*, 12(22), 12519-12533.

[8] Halim, N. H. F. A., Alih, S. C., & **Vafaei, M**. (2018) Structural Behavior Of RC Columns Transversely Reinforced With FRP Strips. *International Journal of Civil Engineering and Technology* 9(4), 1572–1583.

[9] **Vafaei, M.**, Alih S.C., Fallah., A., Shad., H., Falahi Abdul Halim., N. H. (2018) Prediction of Strain Values in Reinforcements and Concrete of a RC Frame Using Neural Networks. *International Journal of Advanced Structural Engineering*. In press.

[10] Aisyah, S., **Vafaei, M.**, C. Alih, S. , Kotaiba Aljwim, K. (2019) Seismic Fragility of Tall Concrete Wall Structures in Malaysia under Far-Field Earthquakes: Seismic Fragility of Tall Buildings in Malaysia, *The Open Civil Engineering Journal*,13, 1-7.

[11] Sarehati Umar, **Vafaei, M.**, Alih S.C. (2019) Output-only damage detection using neural network and sensor clustering under ambient vibration. *International Journal of Engineering Research and Technology*. In press.

SCOPUS-indexed Proceedings

[1] Aqilah Ghazali, Hassan Al-Aydrus, **Mohammadreza Vafaei**, Sophia C. Alih (2018), Seismic Fragility Of Concrete Box Girder Bridges In Malaysia, *IOP Conference Series: Materials Science and Engineering* 513(1), 012019.

[2] Halim N.H.F.A., Alih S.C., **Vafaei M**., (2018), Comparison Between Cyclic Response Of Rc Columns Transversely Reinforced With Frp Strips And Carbon Steel, *IOP Conference Series: Materials Science and Engineering* 513(1), 012021

[3] Halim N.H.F.A., Alih S.C., **Vafaei M.,** (2018), Analytical Calculation On Shear Capacity Of Rc Columns Internally Confined With Cfrp Strips, *IOP Conference Series: Earth and Environmental Science* 220(1), 012023.

Other Journal articles

[1] Amiri, G. G., Barkhordari, M. A., Massah, S. R., & Vafaei, M. (2007). Earthquake Amplification Factors for Self-supporting 4-legged Telecommunication Towers. World Applied Sciences Journal. 2(6), 635-643.

[2] **Vafaei, M**., Azlan, A., (2012). Seismic Health Monitoring Of Foundations Using Artificial Neural Networks. *Journal of Civil Engineering and Architecture.* 6(6), 730-737.

[3] Arham Abdullah, **Vafaei, M**., Azlan, A., (2012). Seismic Behavior of 4-Legged Self-Supporting Telecommunication Towers Considering Earthquake Effects In Malaysia. *Malaysian Journal Of Civil Engineering.* 24 (2), 118-147

[4] Soltanzadeh, G., Shad, H., **Vafaei, M.**, Adnan, A., (2014). Seismic performance of 4-legged Self-supporting Telecommunication Towers. *Int. Journal of Applied Sciences and Engineering Research*. 3(2), 319-332.

[5] Sophia C. Alih, **Mohammadreza Vafaei**, Farnoud Rahimi Mansour, Nur Hajarul Falahi Abdul Halim, (2017), A Numerical Study on the Seismic Performance of Built-Up Battened Columns, *International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering,* 11 (5), 609-612.

[6] **Mohammadreza Vafaei**, Amirali Moradi, Sophia C. Alih, (2017), Seismic Vulnerability of Structures Designed in Accordance with the Allowable Stress Design and Load Resistant Factor Design Methods, *International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering,* 11 (5), 613-619.

International Conferences

[1] **Vafaei, M**., Azlan, A. (2011) Sensors Placement in Airport Traffic Control Towers for Seismic health monitoring. *First Middle East International Conference on Smart Monitoring Assessment and Rehabilitation of Civil Structures.* 8-10 Feb 2011, Dubai.

[2] Azlan, A, **Vafaei, M**. (2012) Linear and Nonlinear Seismic Analysis of a Tall Air Traffic Control (ATC) Tower. *15th World Conference on Earthquake Engineering.* 24-28 September. Lisbon, Portugal.

[3] Sadeghi, F., Kueh, A., & **Vafaei, M.** (2013). Dynamic response of composite footbridges under running pedestrian load. In *Business Engineering and Industrial Applications Colloquium (BEIAC), 2013 IEEE* (pp. 273-278). IEEE.

[4] **Vafaei, M.**, C. Alih, Sophia. (2015). Seismic Vulnerability Study of an Air Traffic Control Tower. *Collaborative Conference on Earthquake Science and Engineering* (CCESE 2015). 15 to 18 September, Chengdu, China.

[5] **Vafaei, M.,** C. Alih, Sophia, (2015). Seismic Detailing, a Compromised Principal for Seismic Design in Malaysia. *9th Asia Pacific Structural Engineering and Construction Conference* (APSEC 2015). 3-5 November, Kuala Lumpur, Malaysia.

[6] Bakhry, N., Muiyeddin, A.k., **Vafaei, M.** (2015) Application of Wavelet Transform to Damage Detection in Plates using Response-only Measurements, *The 16th Asian Pacific Vibration Conference,* APVC2015, 24-26 November, Hanoi, Vietnam.

[7] **Mohammadreza Vafaei**, Sophia C Alih, Ali Fallah (2016) Seismic Performance of an Innovative Beam-To-Column Connection for Precast Structures. CCESE 2016, September 4-8, Budapest, Hungary.

[8] Sophia C. Alih, **Mohammadreza Vafaei**, Nufail Bin Ismail (2016). A Novel Hybrid Damper for Suppression of Structural Responses. CCESE 2016, September 4-8, Budapest, Hungary.

[9] Sophia C. Alih, **Mohammadreza Vafaei**, Or Tan Teng, Farnoud Rahimi Mansour, (2016) Production Of Rubber-Based Damper For Construction Industry In Malaysia. *3rd National Conference on Knowledge Transfer*, NCKT 2016, November 30-December 1, Pulau Pinang, Malaysia.

[10] **Vafaei, M**., C. Alih, S., Moradi, A., Soltanzadeh, R. (2018). Estimation of Design Base Shear in Concrete Wall Air Traffic Control Towers. 16th European Conference on Earthquake Engineering. 18-21 June , Thessaloniki, Greece.

[11] Ghazali, A., Al-Haris A. H., C. Alih, S. and **Vafaei, M.** (2018) Seismic fragility of concrete box girder bridges in Malaysia. 10th Asia Pacific Structural Engineering and Construction Conference, 13-15 November, Langkawi, Malaysia.

[12] C. Alih, S., **Vafaei, M**., Alhariri, M., Ghanim, I. (2019) Effects of the intensity of design live load on the seismic design modification factors of reinforced concrete frames. Sustainable & Integrated Engineering International Conference, 8 – 9 December 2019, Kuala Lumpur, Malaysia.

Books

[1] Amir Mahdiyar, Arham Abdullah, **Vafaei, M**., Sanaz Tabatabaee, (2016). Green Roof Installation Based On Government, Developers and Owners, *Economic Perspectives, Advances in Environmental Research.* Volume 5, Nova Science Publishers, New York.

[2] **Mohammadreza Vafaei**, Sophia C Alih, (2017). Seismic Vulnerability of Air Traffic Control Towers, *Aviation and Airport Security*. Nova Science Publishers, New Yok.

Teaching Experiences (125 Total Credits)

Post-Graduate Level

Academic Session	Sem	Subject Code	Subject	Credit Hour
20192020	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
	1	MKAE 1123	Structural Seismic and Maintenance	3
		MKAR1053	Structural Failure Investigation and Analysis	3
20182019	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
		MKAE 1113 (P)	Structural Wind and Earthquake Engineering	3
	1	MKAE 1123	Structural Seismic and Maintenance	3
		MKAR1053	Structural Failure Investigation and Analysis	3
20172018	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
	1	MKAE 1123	Structural Seismic and Maintenance	3
		MKAR1053	Structural Failure Investigation and Analysis	3
20162017	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
	1	MKAE 1123	Structural Seismic and Maintenance	3
		MKAR1053	Structural Failure Investigation and Analysis	3
20152016	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
	1	MKAE 1123	Structural Seismic and Maintenance	3
20142015	2	MKAE 1113	Structural Wind and Earthquake Engineering	3
Total Credit Hours				**48**

Under-Graduate Level

Academic Session	Sem	Subject Code	Subject	Credit Hour
20192020	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA 2012	Civil Engineering Laboratory 1	2
		SKAA 3012	Civil Engineering Laboratory 2	2
	1	SKAA 3012	Civil Engineering Laboratory 2	2
		SKAA 3243	Theory of Structures	3
20182019	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA 2012	Civil Engineering Laboratory 1	2
		SKAA3243	Theory of Structures	3
	1	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA3243	Theory of Structures	3
20172018	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA 2012	Civil Engineering Laboratory 1	2
		SKAA3243	Theory of Structures	3
	1	SKAA3243	Theory of Structures	3
		SKAA 3012	Civil Engineering Laboratory 2	2
20162017	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA 2012	Civil Engineering Laboratory 1	2
		SKAA3243	Theory of Structures	3
	1	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA3243	Theory of Structures	3
20152016	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA3243	Theory of Structures	3
		SKAA 2012	Civil Engineering Laboratory 1	2
	1	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA3243	Theory of Structures	3
		SKAA 2012	Civil Engineering Laboratory 1	2
20142015	2	SKAA 4263	Wind and Earthquake Engineering	3
		SKAA 2012	Civil Engineering Laboratory 1	2
		SKAA 3012	Civil Engineering Laboratory 2	2
Total Credit Hours				**77**

Supervision/Co-supervision

Doctor of Philosophy, PhD Students

No.	Year (Since)	Name	Role	Status	Title
1	2015	Yousef Karimi Vahed	Co-supervisor	Graduated (2017)	Seismic Retrofit of Non-Ductile Columns through Concrete Jacketing using Inoxydable Reinforcement
2	2015	Gholamreza Soltanzadeh	Co-supervisor	Graduated (2017)	Seismic Retrofit of Brick Wall Infill Panels through Post-Tensioning
3	2015	Amir Mahdiyar	Co-supervisor	Graduated (2017)	Decision Support System to Obtain the Ideal Design of Green Roof in Malaysia
4	2015	Farnoud Rahimi Mansour	Co-supervisor	Graduated (2017)	Seismic Retrofit of Steel Moment Resisting Frames Using Viscoelastic Damper
5	2015	Abdulkareem Muyideen Oladimeji	Co-supervisor	Graduated (2018)	Vibration-Based Damage Detection Using Artificial Neural Network
6	2015	Mahmoud Bani Ahmadi	Main Supervisor	Graduated (2018)	Seismic Performance of Partially Infilled RC Frames Strengthen with CFRP
7	2015	Ali Pabarja	Co-supervisor	Graduated (2018)	Suppression in the dynamic response of Irregular structures using modified TLD
8	2015	Ali Fallah	Main Supervisor	Final Semester	Innovative Sliding Beam to Column Connection for Industrialized Building System
9	2017	Nur Hajarul	Co-	Waiting	Behavior of Internally Wrapped

		Falahi Binti Abdul Halim	supervisor	for viva voce	Reinforced Concrete Columns with Fiber Reinforced Polymer
10	2018	Abdul Wahid	Main Supervisor	On-going	Seismic response and retrofitting of built-up battened columns
11	2018	Sarehati binti Omar	Main Supervisor	Viva voce Passed	Structural Damage Detection Using Nonlinear Autoregressive With Exogenous Inputs Neural Network
12	2019	Rafiq Ullah	Main Supervisor	On-going	Development of a new buckling restraint brace for seismic protection of structures
13	2019	Ahmed Sabah	Co-supervisor	On-going	Seismic retrofitting of ground soft-story low ductile RC frames through concentric brace and metallic dampers
14	2019	Bahram Mehrabi	Co-supervisor	On-going	Seismic performance of industrialized building system

Master Students: Course-Work Program (Supervision of Dissertation)

No.	Year (Since)	Name	Status	Title
1	2015	Elahe Esmaeli	Graduated (2016)	Seismic performance of concrete shear walls reinforced by inoxydable reinforcements
2	2015	Mohammad Darvish	Graduated (2016)	Effects of different steel design methods on the seismic vulnerability of a tall building with moment resistant frame and concentric brace
3	2015	Amir Shams	Graduated (2016)	Effects of different steel design methods on the seismic vulnerability of a tall

				building with moment resistant frame and Eccentric brace
4	2015	Skandar Deylam	Graduated (2016)	Displacement amplification factor for dual lateral load resisting systems composed of RC MRF and shear walls
5	2015	Saleh Nafaspour	Graduated (2016)	Displacement amplification factor for dual lateral load resisting systems composed of steel MRF and shear walls
6	2015	Reza Kordjazi	Graduated (2016)	Displacement amplification factor for dual lateral load resisting systems composed of steel MRF and Special concentric brace
7	2015	Saeid Mehraein	Graduated (2016)	Damage identification in the slabs of airport apron through artificial neural networks
8	2016	Nurul Nabila Binti Fazilan	Graduated (2017)	Seismic Fragility of Low Ductile Bare Reinforced Concrete Frame in Malaysia
9	2016	Nur Amalina Binti Anuar	Graduated (2017)	Seismic Fragility of Low Ductile Partially Infilled Reinforced Concrete Frame in Malaysia
10	2016	Nurul Amiera Binti Rosman	Graduated (2017)	Seismic Fragility of Low Ductile Fully Infilled Reinforced Concrete Frame in Malaysia
11	2017	Aqilah Ghazali	Graduated (2018)	Seismic Fragility Curve for Bridges in Malaysia subjected to Near Field Earthquake
12	2017	Hasan Al Haris Alaydrus	Graduated (2018)	Seismic Fragility Curve for Bridges in Malaysia subjected to Far Field Earthquake

13	2017	Abdirehman Mursel	Graduated (2018)	Performance of Non-Ductile Reinforced Concrete Frame Retrofitted with Damper
14	2017	Mahmoud Albhaisi	Graduated (2018)	Performance of Ductile Reinforced Concrete Frame Retrofitted with Damper
15	2018	Kotaiba Soliman Aljwim	Graduated (2018)	Seismic fragility curves for tall wall concrete building in Malaysia under near-field earthquakes
16	2018	Siti Aisyah Bt Fathol Karib	Graduated (2018)	Seismic fragility of tall concrete wall structures in malaysia under far-field earthquake
17	2018	Teh Kun Jie	Graduated (2018)	Efficiency of tuned liquid dampers in mitigating vibration of a plan-irregular structure
18	2018	Mas Iliani Rosli	Graduated (2018)	Influence of Consideing Malaysia National Annex in Seismic Design on The Increase in Size and Reinforcement of RC Building
19	2018	Issa Ghanim Hussein	Graduated (2018)	Seismic performance of low-ductile Reinforced Concrete frames Designed for different intensity of live load
20	2018	Mohammad Jamal Al Hariri	Graduated (2018)	Seismic Performance of High Ductile Reinforced Concrete Frames Design For Different Intensity of Live Load
21	2018	Abdul Qaher Yousufzai	Graduated (2018)	Seismic performance of low-ductile Steel frames Designed for different intensity of live load
22	2018	Mohamad Ammar Zineddin	Graduated (2018)	Seismic performance of high-ductile Steel frames Designed for different intensity of live load

23	2019	Mahesan Bavan	Graduated (2020)	Seismic Fragility of concrete building in Malaysia considering the effects of inadequate lap splice length
24	2019	Mohammad Masoud	Graduated (2020)	Seismic Fragility Curve for Tall Concrete Wall Buildings in Malaysia Under Near-Field Earthquakes Considering Lack Splice Length Effects
25	2019	Yasir Mahmood	Graduated (2020)	Seismic Fragility Curve for Tall Concrete Wall Buildings in Malaysia Under Far Field Earthquakes Considering Lack Splice Length Effects
26	2019	Koon Foo Siong	Graduated (2020)	Seismic fragility of low ductile RC frame in Malaysia under far field earthquakes considering inadequate lap splice length
27	2019	Chong Jia Hoe	Graduated (2020)	Seismic Performance Of Low Ductile Rc Frame Designed In Accordance With Malaysia National Annex To Eurocode 8
28	2019	Wong Woon Keong	Graduated (2020)	Seismic Performance Of High Ductile Rc Frame Designed In Accordance With Malaysia National Annex To Eurocode 8

Bachelor Degree Students (Final Year Project)

No.	Year	Name	Status	Title
1	2015	Nur Hajarul Falahi Binti Abdul Halim	Graduated (2016)	Seismic Mitigation Plan through Increase in Public Preparedness
2	2015	Nufail Bin Ismail	Graduated (2016)	Performance of Novel Hybrid Damper for Structural Dynamic Response Reduction
3	2015	Muhammad Nidzam Bin	Graduated (2016)	Behaviour of Innovative Sliding Beam to Column Connection Under Cyclic Load

		Hasnan		
4	2016	Gerry Brandon Stanley	Graduated (2017)	Seismic Performance Of Conventional Built-Up Battened Column Under Quasi-Static Cyclic Loading
5	2016	Mohd. Luqman Bin Akhrir	Graduated (2017)	Seismic Performance Of Modified Built-Up Battened Column Under Quasi-Static Cyclic Loading
6	2017	Tang Wei Jian	Graduated (2018)	Visco-Elastic Damper for Vibration Control of Slender Structures
7	2018	Adam Afiq Bin Azenan	Graduated (2019)	Determination of seismic design factor of high ductility reinforced concrete frame with different span length
8	2018	Nurul Afifah Sharul Azman	Graduated (2019)	Determination of seismic design factor of medium ductility reinforced concrete frame with different span length
9	2018	Christine Nerisha Anak Stephen Liat	Graduated (2019)	Determination of seismic design factor of medium ductility steel frame with different span length
10	2018	Nadhirah Bt Borhan	Graduated (2019)	Determination of seismic design factor of high ductility steel frame with different span length

Professional Bodies Memberships/ Fellowship

1- Earthquake Engineering Research Institute (EERI), USA

2- American Society of Civil Engineering (ASCE), USA

3- Seismological Society of America (SSA), USA.

4- International Society for Structural Health Monitoring of Intelligent Infrastructure.

5- Iranian Construction Engineer Organization. (Membership No.: 10-3-0-48999)

6- Iranian Earthquake Engineering Association.

7- Nan Yang Academy of Science (Singapore)

Editorial Board Member for Journals

1) Editorial Board for the Open Civil Engineering Journal (Scopus Index)
2) Editorial Board for the Open Construction & Building Technology Journal (Scopus Index)
3) Editorial Board for the International Journal of Civil Engineering and Building Materials.
4) Editorial Board for Journal of Structural Engineering and Management.
5) Editorial Board for Recent Trends in Civil Engineering and Technology.
6) Editorial Board for Journal of Building Material and Structural Engineering.
7) Editorial Board for Journal of Architectural Environment and Structural Engineering Research

Reviewer for Journals and Conferences

1) Reviewer for the Journal of Structure and Infrastructure Engineering.
2) Reviewer for Bulletin of Earthquake Engineering Journal.
3) Reviewer for Construction and Building Materials Journal.
4) Reviewer for Journal Teknologi.
5) Reviewer for Malaysian Journal of Civil Engineering.
6) Reviewer for the International Journal of Electrical Power and Energy Systems.
7) Reviewer for 2011 International Conference on Civil Engineering and Building Materials (2011 CEBM) Kunming, China, July 29-31, 2011.

8) Reviewer for International Conference on Advanced Science, Engineering and Technology (ICASET) 2015, Pulau Pinang, Malaysia.

9) Reviewer for Structural Engineering and Mechanics, an International Journal.

10) Reviewer for Advances in Civil Engineering

11) Reviewer for Mechanical systems and Signal Processing

12) Reviewer for Earthquake Engineering and Engineering Vibration

International Committee

1) Editorial Board for the "The Fourth International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering". Prague, Czech Republic, 1-4 September 2015.

2) Technical Committee of International Conference on Design and Manufacturing Engineering (ICDME2016), Auckland, New Zealand during July 4-6, 2016.

3) International Scientific Committee of Advances in Civil Engineering and Building Materials, Peer Reviewed papers from 2th International Conference on Civil Engineering and Building Materials (CEBM 2012), 17-18 November, Hong Kong.

4) International Scientific Committee of Advances in Civil Engineering and Building Materials, Peer Reviewed papers from 3rd International Conference on Civil Engineering and Building Materials (CEBM 2013), 7-8 December, Hong Kong.

5) International Scientific Committee of Advances in Civil Engineering and Building Materials IV, Peer Reviewed papers from 4th International Conference on Civil Engineering and Building Materials (CEBM 2014), 15-17 November, Hong Kong.

6) Technical Committee of 2016 International Conference on Frontiers of Composite Materials (ICFCM2016), 19-21 November, Auckland, New Zealand.

7) Technical Committee of International Conference on Mechanics, Civil Engineering and Building Material [MCEBM2017], 21-23 April 2017, Nanjing, China.

8) Technical Committee of International Conference on Geological and Civil Engineering (ICGCE 2018) Phuket, Thailand, January 10-12, 2018.

9) Technical Committee of International Conference on Civil, Architectural and Environmental Engineering (ICCAEE 2018), Dec 21-23, Cairo, Egypt.

10) Technical Committee of 3rd International Conference on Frontiers of Composite Materials (ICFCM2018), Sydney, Australia, November 16-18, 2018.

11) Technical Committee for 2018 International Conference on Civil, Architecture and Disaster Prevention, Hefei, China, November 2-4, 2018

12) International Scientific Committee of 5th International Conference on Civil Engineering, Nanchang, China, Dec. 20-21, 2018.

13) Editorial Board for the "Fifth International Conference on Soft Computing & Optimisation in Civil, Structural and Environmental Engineering". Riva del Garda, near Lake Garda, Italy, 16-19 September, 2019.

Awards

September 2019	**Gold Medal** in International Conference and Exposition on Inventions by Institutions of Higher Learning (Pecipta) 2019, UTHM for "Innovative Visco-Elastic Damper for Vibration Control in Structures and Infrastructures"
August 2019	**Anugerah Penerbitan,** Anugerah Kualiti Sekolah Kejuruteraan Awam 2018
July 2019	**Anugerah Perkhidmatan Cemerlang**, Citra Karisma UTM 2019
November 2018	**Research Advisor** for Nan Yang Academy of Science (Singapore)
October 2018	**Silver Medal** for Earthquake resistance Smart Column from INATEX
July 2018	**Anugerah Harta Intelek,** Anugerah Kualiti Fakulti Kejuruteraan Awam 2017
October 2017	**Silver Medal** in International Conference and Exposition on Inventions by Institutions of Higher Learning (Pecipta) 2017, Kuala Terengganu for "EASE Connector for Industrialized Building System"
June 2017	**Best Paper Award** in the 19th International Conference on Urban Earthquake Engineering and Seismology, Spain for "Seismic Vulnerability of Structures Designed in Accordance with the Allowable Stress Design and Load Resistant Factor Design Methods
February 2017	**Silver Medal** in Malaysia Technology Expo 2017, MTE Kuala Lumpur for "EASE Connector for Industrialized Building System"

October 2016	**Silver Medal** in 18th Industrial Arts and Technology Exhibition, INATEX, Johor Bahru, Malaysia for "Hybrid Damper"
May 2016	**Silver Medal** in 27th International Invention, Innovation & Technology Exhibition 2016, ITEX, Kuala Lumpur, for "Innovative Sliding Beam to Column Connector for Industrialized Building System".
November 2015	**Silver Medal** in 17th Industrial Arts and Technology Exhibition, INATEX, Johor Bahru, Malaysia for "Innovative Sliding Beam to Column Connector for Industrialized Building System".
November 2015	**Bronze Medal** in 17th Industrial Arts and Technology Exhibition, INATEX, Johor Bahru, Malaysia for "Dumb-bell Link Element for Increase in Columns' Energy Dissipation Capacity".
April 2015	**Gold Medal** in Invention, Innovation & Design Exposition, IIDEX 2015, Kuala Lumpur for "Innovative Sliding Beam to Column Connection"
April 2015	**Silver Medal** in Invention, Innovation & Design Exposition, IIDEX 2015, Kuala Lumpur for "SR-Hybrid Damper"
April 2013	**Excellent Award** for Journal Publication, Post-graduate Student Society 2013, Faculty of Civil Engineering, Universiti Teknologi Malaysia
July 2012	**Silver Medal** in the Hari Inovasi Nuklear Malaysia 2012 for "SEER-SAG Seismo-Accelerograph
December 2010	**Merit Winner** in the Business Plan Competition 2010 MSC Malaysia-IHL (National Level)
October 2015	**3rd Place** Business Plan Competition 2010 Universiti Teknologi Malaysia
April 2013	**Excellent Award** for Journal Publication, Post-graduate Student Society 2013, Faculty of Civil Engineering, Universiti Teknologi Malaysia

Academic Services / Committee

April 2019	**Coordinator** for Research Grant and Researchers of School of Civil Engineering, Faculty Engineering until present
October 2019	**Committee Member** for Asia Pacific Structural Engineering and Construction Conference (APSEC) until present

February 2019	**Committee Member** for Research Management and Innovation of School of Civil Engineering until present
February 2019	**Committee Member** for Poster Competition and Students' Products, Engineering Research Festival, Faculty Engineering 2019
October 2018	**Task Force Member** for Research Grant (Faculty of Engineering) until present
October 2018	**Task Force Member** for Engineering Carnival (Faculty of Engineering) until August 2019
August 2018	**Task Force Member** for Innovation and Commercialization (School of Civil Engineering) until present
July 2017	**Coordinator** for MyRA Section B: Quantity and Quality of Researchers (Faculty of Civil Engineering) until present
September 2016	**Course Coordinator** for Structural Failure Investigation and Analysis – Post Graduate Level until present
September 2016	**Analyses Panel** of the Faculty of Civil Engineering until present
October 2016	**Networking Officer** of Universiti Teknologi Malaysia in the Pameran Pendidikan Matrikulasi 2016/2017, Pusat Matrikulasi Labuan.
July 2016	**Networking Officer** for the Memorandum of Understanding between Universiti Teknologi Malaysia and Shakesh Pajouh Research Institute, Iran.
May 2016	**Networking Officer** of Universiti Teknologi Malaysia in Post-Graduate Studies and Research Collaboration Meeting with Shakesh Pajouh Research Institute, University of Isfahan Iran
March 2016	**Task Force Member** - "Research Proposal Writing", Faculty of Civil Engineering, Universiti Teknologi Malaysia, until December 2016
September 2015	**Academic Evaluator** for PhD Research Progress Presentation (PhD in Civil Engineering Program) until present
September 2015	**Academic Evaluator** for Master Degree (Structure) Final Presentation (Dissertation) until present

June 2015	**Academic Evaluator** of Final Year Project Presentation (Bachelor Degree in Civil Engineering Program) until present
September 2015	**Academic Evaluator** for Pre-Project of Bachelor Degree Program until present
March 2015	**Task Force Leader** - "To promote involvement in international advisory panel", Faculty of Civil Engineering, Universiti Teknologi Malaysia, until December 2015
April 2015	**Reviewer** for the Research Seminar Civil Engineering, SEPKA 2014

Invited Speaker / Facilitator

a) Keynote Speaker (International)

1) International Conference on Mechanics, Civil Engineering and Building Material. 21-23 April, 2017, Nanjing, China.

2) 2nd Global Conference and Expo on Applied Science, Engineering and Technology, October 15-17, 2018, Amsterdam, Netherlands.

3) 3rd Global Conference and Expo on Applied Science, Engineering and Technology, October 07-09, 2019, Dubai, UAE.

b) Invited Speaker (International)

1) Invited Speaker for Collaborative Conference on Earthquake Science and Engineering (CCESE 2015), 15-18 September, Chengdu, China.

2) Invited Speaker for International Conference on Design and Manufacturing Engineering (ICDME2016), 4-6 July, Auckland, New Zealand.

3) Invited Speaker for Collaborative Conference on Earthquake Science and Engineering (CCESE 2016), 4-8 September, Budapest, Hungary.

4) Invited Speaker for Seminar on High-Damping Natural Rubber Bearings Technology as Seismic Isolator, 18 September 2019, Pullman Jakarta Thamrin Hotel, Indoesia.

c) Invited Speaker (National)

1) Seismic Design of Building According to Eurocode and Malaysian National Annex, 16th March 2019, Johor Bahru. –Organized by The Institution of Engineers Malaysia, IEM, Southern Branch.

2) Seminar Teknikal Kebangsaan: Gempa Bumi Dan Tsunami 2018, 27-28 March 2018, Kuala Lumpur. - Organized by Malaysian Meteorological Department.

3) Seismic Vulnerability and Rehabilitation Strategies for Structures and Infrastructures in Sabah, Workshop given at Public Works Department, PWD of Sabah, 27-28 April 2017, PWD Headquarter Kota Kinabalu, Sabah

4) Tall Buildings and Their Design Challenges, 8th August 2016, Johor Bahru. –Organized by The Institution of Engineers Malaysia, IEM, Southern Branch.

5) Seismic Design of Bridge in Accordance with Eurocode, 8th October 2016, Johor Bahru. –Organized by The Institution of Engineers Malaysia, IEM, Southern Branch.

6) Geotechnical Earthquake Engineering in Malaysia, 1-2 March 2016, Kuala Lumpur. – Organized by Ministry of Works Malaysia.

7) Tall Buildings and Their Design Challenges, 23rd February 2016. Johor Bahru. - Organized by Center for Forensic Engineering.

8) Seismic Design of Structures in Accordance with Eurocode 8, 6-7 November, 2015, Johor Bahru. –Organized by The Institution of Engineers Malaysia, IEM, Southern Branch.

9) Structural Investigations on Damaged Buildings due to Sabah Earthquake and Available Retrofit Strategies, 1st August, 2015, Johor Bahru. –Organized by The Institution of Engineers Malaysia (IEM) Southern Branch.

10) 2015 Sabah Earthquake; Structural Forensic Investigations and Retrofit Strategies, 9th July 2015, Kuala Lumpur. –Organized by Public Works Department, PWD.

11) Health Monitoring of Civil Structures. 3rd October 2015. Johor Bahru, Universiti Teknologi Malaysia. –Organized by Center for Forensic Engineering.

12) Seismic Design of Structures, Eurocode, Performance Based Design and Fragility Curves. 5-6 March 2014, Kuala Lumpur. –Organized by Malaysian Structural Steel Association.

13) Performance Based Seismic Design. 21-22 January 2014, Johor Bahru. –Organized by UTM Engineering Seismology and Earthquake Engineering Research Group.

14) ANSYS Training Workshop & IT Application in Civil Engineering. 7-8 March 2014, Johor Bahru. –Organized by Universiti Teknologi Malaysia.

d) Facilitator (University Level)

1) Research Proposal and Journal Writing Workshop, 28-29 November 2016, Pulai Spring Resort. –Organized by School of Civil Engineering, UTM Johor

2) Research Proposal Writing (Mosti Grants) eSciencefund Workshop, 31 March 2016, M46 UTM. –Organized by School of Civil Engineering, UTM Johor

3) Journal Writing Workshop, 24 May 2018, D04 UTM. –Organized by Forensic Engineering Centre, UTM Johor

4) Talk on eDana Research Grant Opportunities, 5 July 2018, PBL 1, UTM. –Organized by School of Civil Engineering, UTM Johor

Patent Filed

PI 2015 01336 *SR. Column Ductilizer*
Seismic retrofit of column to increase their energy dissipation capacity when subjected to dynamic loads (wind and earthquake)
Inventors: Mohammadreza Vafaei, Sophia C. Alih

PI 2015 04630 *SR. Hybrid Damper*
An effective cost competitive hybrid damper which combines a Tuned Liquid Damper with a Mass Damper.
Inventors: Mohammadreza Vafaei, Sophia C. Alih

PI 2015 704364 *Tuned Liquid Column Damper With Maneuverable Slats*
A damper device for stabilizing structures against vibration.
Inventors: Mohammadreza Vafaei, Azlan Adnan, Hamid Behbahani

PI 2015 02533 *SR. Hybrid Piston Damper*
A novel damper for vibration-controlled structure.
Inventors: Mohammadreza Vafaei, Sophia C. Alih

PI 2016 00755 *SR. Innovative Sliding Beam to Column Connector*
An innovative connector for beam-to-column connection in industrialized building system.
Inventors: Mohammadreza Vafaei, Sophia C. Alih

PI 2017 700571 *SR. Innovative Sandwich Visco-elastic Damper*
An innovative connector for beam-to-column connection in industrialized building system.
Inventors: Mohammadreza Vafaei, Sophia C. Alih, Or Tan Teng, Farnoud Rahimi Mansour

PI 2019006468 Fuse Damper And Buckling-Restrained Brace System for Protecting Building Structure Against Lateral Loads
Inventors: Mohammadreza Vafaei, Sophia C. Alih

Consultancy Projects:

a) National Level

1) **Development of Rubber-based Damper for Vibration Controlled Structures and Infrastructures in Malaysia**
   Value: RM 60,000
   Client: Doshin Rubber (M) Sdn. Bhd.
   Vot: R.J130000.7822.4L511
   Duration: September 2015 – July 2017

2) **Projek Membina Jambatan dari Semporna ke Pulau Bum-Bum, Sabah (Semporna Bridge Feasibility Study)**
   Value: RM 625,260.00
   Client: SRS Consulting Engineer
   Vot: 724
   Duration: January 2014 – December 2014

3) **Slope monitoring and vibration control at Gunung Pulai Water Reservoir**
   Value: RM 320,000
   Client: Johor Water Consortium of Malaysia
   Vot: 1124
   Duration: November 2017 – December 2018

b) International Level

1) **Persian Gulf Airport, Iran**
   Design and supervision of construction of all buildings located inside the airport including Air Traffic Control (ATC) Tower, VIP building, Water Reservoirs, Fire stations, electrical power stations and the meteorology building.

2) **Keram International Airport, Iran**
   Design of Air Traffic Control (ATC) tower and technical block of Kerman International Airport, Iran.

3) **Rasht International Airport, Iran**
   Design of Air Traffic Control (ATC) tower, technical block and main terminal of Rasht Int. airport, Iran.

4) **Tabriz International Airport, Iran**
   Design of Air Traffic Control (ATC) tower and technical block of Tabriz Int. airport, Iran.

5) **Orumye International Airport, Iran**
   Design of Air Traffic Control (ATC) tower and technical block of Orumye airport, Iran.

6) **Hamedan Airport, Iran**
   Design of main terminal building of Hamedan airport, Iran.

7) **Kalaleh Airport, Iran**
   Design of Air Traffic Control (ATC) tower and technical block of Kalaleh Airport, Iran.

8) **Abadan International Airport, Iran**
   Seismic evaluation and rehabilitation of the technical block of Abadan airport, Iran.

9) **Mashhad International Airport, Iran**
   Design of extension of Mashhad airports' main terminal, Iran.

10) **Eilam Airport, Iran**
   Design of Eilam airport's main terminal, Iran.

11) **Bojnord Airport, Iran**
Design of Bojnord airports' main terminal, Iran.

12) **Qeshm International Airport, Iran.**
Design of Airport Traffic Control (ATC) tower and technical block of Qeshm Airport, Iran.

13) **Other Consultancy projects**:
Design of following projects:
- Rangin Kaman complex building in Khoram Abad, Iran.
- Mosque of Bonab Islamic Azad University, Iran.
- Zanjan complex swimming championship, Iran.
- Waste water refinery building of Homa Airline, Iran.
- Seismic rehabilitation of Javad- ol-aeme Hotel in Mashad , Iran.

Qualification in Codes of Practice

Completely familiar with the latest version of different international codes and provisions including:
Eurocode 8, IBC, AISC 7-2010, ACI 318, FEMA 356, ATC 40, EIA-222-F,ASCE 41

Software Qualifications

1- Professional in working with "***Perform 3D***". This software is used to analyze nonlinear behavior of structures with more emphasize on the performance-based design of structures.

2- Professional in working with "***SAP2000, Ver.19***". This is one of the famous software in structural engineering which is used to analyze linear and nonlinear behavior of structures .This software is capable of designing concrete and steel structures.

3- Professional in working with "***ETABS, Ver. 2016***". This is one of the famous software in structural engineering which is used to analyze linear and nonlinear behavior of structures. This software is capable of designing concrete and steel structures with more emphasize on buildings.

4- Professional in working with "***SAFE***". This is one of the famous software in structural engineering which is used to analyze behavior of foundations& slabs. This software is capable of designing concrete foundations and slabs.

5- Professional in working with software like "*Windows, Microsoft office, Auto Cad 2015"*.

Language

English: Very good
Persian: Mother tongue
Turkish: Good
Kurdish: Good

Field of Specialty and Interest

- Seismic rehabilitation of structures
- Performance-based seismic design
- Seismic damage identification
- Non-linear behavior of structures against seismic loads
- Structural health monitoring
- Neural networks and Wavelet Transforms