

## **In The Name of Allah**

### **- Personal Information**

- **Surname:** Esmaeili
- **First name:** Morteza
- **Birthday:** 1973/09/15
- **Academic ranking:** Professor
- **Department:** Railway Track and Structures
- **Positions:** Director of the department, Faculty Member
- **Tel (Office):** +98-21-77451500 (Ext: 8533)
- **Tel / Fax (Direct):** +98-21-77491201
- **Tel (Cell):** +98-912-3346450
- **Internet fax:** +98-21-73021407
- **Email:** [m\\_esmaeili@iust.ac.ir](mailto:m_esmaeili@iust.ac.ir)



### **- Education**

- **Doctor of Philosophy (PhD)** in Geotechnical Engineering, University of Tehran, Iran, 1997-2005
- **Master of Science (MSc)** in Geotechnical Engineering, University of Tehran, Iran, 1995-1997.
- **Bachelor of Science (BSc)** in Civil Engineering, Iran University of Science and Technology, 1991-1995.

### **- Research Interest and Expertise**

- Dynamic and Vibrational of Railway Tracks
- Railway Geotechnics
- Ballasted and Ballastless Tracks Superstructure
- Vibration of Underground Structure

### **- Courses taught (Undergraduate)**

- Statics
- Materials strength 1 & 2
- Structural analysis 1 & 2
- Reinforced concrete structures
- Concrete structure project
- Steel structure project
- Water and sewerage networks
- Cost estimation of projects
- Structural dynamics
- Foundations and route infrastructures
- Landscaping
- Railway substructure
- Soil mechanics laboratory

#### **- Courses taught (Postgraduate, MSc)**

- Continuum mechanics
- Finite element method
- Numerical methods in Railway Engineering
- Advanced railway substructure

#### **- Courses taught (Postgraduate, PhD)**

- Wave propagation theory

## - Books

1. Jabbar-Ali Zakeri, **Morteza Esmaeili**, Parisa Haji-Abdulrazzagah, “**An introduction on soil-steel Bridges**”. Khaje Nasir Toosi University of Technology Press, 2009.
2. **Morteza Esmaeili**, Faez Bashiri Rad, “**Seismic analysis and design of underground structures**”. Institution of Scientific Press of Sharif University of Technology, 2014.
3. **Morteza Esmaeili**, Kaveh Mehrzad, Seyed-Ali Ghahari, “**An introduction to application of hot mixed asphalt in ballasted railway tracks**”. Training and Research Center of the Railways of Islamic Republic of Iran, Jahantab Press, 2016.
4. **Morteza Esmaeili**, Hamidreza Heydari Noghabi, Seyed-Ali mosayebi, “**Principle and Foundation of Railway Ballastless Track**”, Science And Technology University Press, 2017.

## - Patents

1. **Morteza Esmaeili**, Mehrdad Ghasemizadeh, Mohammad-Mahdi Roozbahani, Elnaz Younesian, “**Development of diagnosis system for railway substructure failures using ground penetration radar (GPR)**”. Iran National Patent, Number: 61318; Date: 2009/10/7.
2. Omid Sayyadi, Jabbar Ali Zakeri, **Morteza Esmaeili**, Majid Honarmand, “**Replacing the natural aggregates by steel slag in production of concrete sleeper**”. Iran National Patent, Number: 70465; Date: 2011/6/29.
3. S.Ali Ghahari, **Morteza Esmaeili**, “**Polymer-fiber railway sleeper with high corrosion resistance**”. Iran National Patent, Number: 72470; Date: 2011/11/21.
4. Ali-Akbar Ramezaniyanpour, S.Ali Ghahari, Mohammad-Hosseini Khazali, **Morteza Esmaeili**, “**Concrete curing apparatus for simultaneous carbonation and chloride ion ingress**”. Iran National Patent, Number: 78462; Date: 2013/01/30.
5. **Morteza Esmaeili**, S.Ahmad S.Hosseini, “**Development of pendulum loading test device (PLTD) of ballasted track**”. Iran National Patent, Number: 82568; Date: 2014/04/09.

6. **Morteza Esmaeili**, Behnam Arbabi, “**Tied back-to-back system in railway embankments for increasing the bearing capacity and reducing the settlement**”. Iran National Patent, Number: 84599; Date: 2014/12/24.
7. **Morteza Esmaeili**, Hosseini Kalantar Neyestanaki, “**Railway nailed sleeper**”. Iran National Patent, Number: 87175; Date: 2015/11/09.
8. **Morteza Esmaeili**, Mohammad Salajeghe, Sharareh Jahangiri “**Simulator of mud pumping in geotextile filter of ballasted railway tracks**”. Iran National Patent, Number: 92607; Date: 2017/06/25.

### **- Journals Reviewer**

1. Journal of Geological and Geotechnical Engineering, Springer
2. Journal of Vibration Acoustics, Elsevier, ASME
3. Journal of Transportation Engineering, ASCE
4. International journal of Geomechanics, ASCE
5. Journal of Infrastructure Systems, ASCE
6. Journal of Transport, ICE
7. KSCE journal of Civil Engineering, Springer
8. Journal of Mechanical Science and Technology, Springer
9. Earthquake Engineering and Engineering Vibration, Springer
10. Journal of Mechanical Engineering, Strojniški vestnik
11. International Journal of Civil Engineering, IUST
12. Tunneling and Underground Space Technology, Elsevier
13. Journal of Advances in Mechanical Engineering, SAGE
14. Journal of Vibration and Control, SAGE
15. Scientific review board member, Crown Block Consultants

### **- Editorial Board**

1. International Journal Series in Engineering Science (IJSES), IJS.
2. International Journal of Railway Research, IUST Press.
3. Review Editor of Transportation and Transit Systems, Frontiers Publication.
4. SAGE Journal of Rail and Rapid Transit, Proceedings of the IMechE.
5. The Open Transportation Journal, Bentham Open.
6. International Journal Series in Multidisciplinary Research (IJSMR).
7. Smart Construction Research, Whioce Publishing.
8. Architecture and Design Review, En Press publisher.
9. Probe soil science, Universe Scientific Publishing.
10. Transportation Safety and Environment, Oxford Academic.

11. Tunneling and Underground Space Engineering (TUSE), Shahrood University of Technology.
12. International Journal of Railway Research (IJRARE) (Editor-In-Chief).
13. Polish journal of Rail Vehicles (Pojazdy Szynowe) (Scientific Board).

- **Google Scholar link:** <https://scholar.google.com/citations?hl=en&user=BtYtBDMAAAA>

- **ResearchGate link:** [https://www.researchgate.net/profile/Morteza\\_Esmaeili2](https://www.researchgate.net/profile/Morteza_Esmaeili2)

- **Linkedin link:** <https://www.linkedin.com/in/morteza-esmaeili-09613a39>

### - ISI Journal Papers

1. **M. Esmaeili**, S. Vahdani, A. Noorzad, “**Dynamic response of lined circular tunnel to plane harmonic waves**”, Elsevier Journal of Tunneling and Underground Space Technology 2006; 21(5): 511-519 (DOI:10.1016/j.tust.2005.10.002).
2. H. Shahnazari, **M. Esmaeili** and H. Hosseini Ranjbar, “**Simulating the effects of projectile explosion on a jointed rock mass using 2D DEM: A case study of Ardebil-Mianeh Railway Tunnel**”, Springer International Journal of Civil Engineering 2010; 8(2): 125-133.
3. **M. Esmaeili**, P. Yousefi Mojir, “**Substructure nonlinear effects on sleeper design pressure in heavy haul railway tracks**”, ASCE Journal of Transportation Engineering 2011; 137(9): 656-664 (DOI: 10.1061/(ASCE)TE.1943-5436.0000264).
4. J.A. Zakeri, **M. Esmaeili**, M. Fathali, “**Evaluation of humped slab track performance in desert railways**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2011; 225(6): 566-573 (DOI: 10.1177/0954409711403677).
5. **M. Esmaeili**, J. Sadeghi, M. Fesharaki, “**Vehicle dynamic interaction with railway track embankment**”, Proceedings of the Institution of Civil Engineers journal Transport 2013; 167(1): 15-26 (DOI: 10.1680/tran.11.00024).
6. **M. Esmaeili**, A. Fatollahzadeh, “**Effect of train live load on railway bridge abutments**”, ASCE Journal of Bridge Engineering 2013; 18(6): 576-583 (DOI: 10.1061/(ASCE)BE.1943-5592.0000393).
7. **Morteza Esmaeili**, Morteza Gharouni Nik, Farid Khayyer, “**Experimental and numerical study of micropiles to reinforce high railway embankments**”, ASCE

- International Journal of Geomechanics 2013; 13(6): 729-744 (DOI: 10.1061/(ASCE)GM.1943-5622.0000280).
8. **Morteza Esmaeili**, Hamidreza Heydari Noghabi, “**Investigating seismic behavior of ballasted railway track in earthquake excitation using finite-element model in three-dimensional space**”, ASCE Journal of Transportation Engineering 2013; 139(7): 697-708 (DOI: 10.1061/(ASCE)TE.1943-5436.0000535).
  9. A.A. Ramezani pour , **M. Esmaeili** , S.A. Ghahari , M.H. Najafi, “**Laboratory study on the effect of polypropylene fiber on durability, and physical and mechanical characteristic of concrete for application in sleepers**”, Elsevier Journal of Construction and Building Materials 2013; 44: 411-418 (DOI: 10.1016/j.conbuildmat.2013.02.076).
  10. **Morteza Esmaeili**, Jabbar Ali Zakeri, Seyed Ali Mosayebi, “**Effect of sand fouled ballast on train induced vibration**”, Taylor & Francis International Journal of Pavement Engineering 2013; 15(7): 635-644 (DOI: 10.1080/10298436.2013.818146).
  11. **Morteza Esmaeili**, Saeed Amiri, Kazem Jadidi, “**An investigation into the use of asphalt layers to control stress and strain levels in railway track foundations**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2014; 228(2): 182-193 (DOI: 0954409712468850).
  12. Jabbar Ali Zakeri, **Morteza Esmaeili**, Seyed-Ali Mosayebi, “**Numerical investigation of the effectiveness of a step-shaped trench in reducing train-induced vibrations**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2014; 228(3): 298-306 (DOI: 10.1177/0954409712473094).
  13. **Morteza Esmaeili**, Morteza Gharouni Nik, Farid Khayyer, “**Efficiency of micro piles in reinforcing embankments**”, Proceedings of the ICE Ground Improvement 2014; 167(2): 122-134 (DOI: 10.1680/grim.12.00015).
  14. **Morteza Esmaeili**, Jabbar Ali Zakeri, Seyed Ali Mosayebi, “**Investigating the optimized open V-shaped trench performance in reduction of train induced ground vibrations**”, ASCE Journal of Geomechanics 2014; 14(3) (DOI: 10.1061/(ASCE)GM.1943-5622.0000331).
  15. Mohammad Mehrali, Saeed Mohammadzadeh, **Morteza Esmaeili**, Mehrdad Noori, “**Investigating on vehicle-slab track interaction considering random track bed stiffness**”, Sharif Scientia Iranica 2014; 21(1): 82-90.

16. Saeed Mohammadzadeh, **Morteza Esmaeili**, Mohammad Mehrali, “**Dynamic response of double beam rested on stochastic foundation under harmonic moving load**”, Wiley International Journal for Numerical and Analytical Methods in Geomechanics 2014; 38(6): 572-592 (DOI: 10.1002/nag.2227).
17. A.A. Ramezaniapour, S.A. Ghahari, **M. Esmaeili**, “**Effect of combined carbonation and chloride ion ingress by an accelerated test method on microscopic and mechanical properties of concrete**”, Elsevier Journal of Construction and Building Materials 2014; 58: 138-146 (DOI: 10.1016/j.conbuildmat.2014.01.102).
18. **M. Esmaeili**, M. Gharouni Nik, H. khajehee, “**Evaluation of deep soil mixing efficiency in stabilizing loose sandy soils using laboratory tests**”, ASTM Geotechnical Testing Journal 2014; 37(5), (DOI: 10.1520/GTJ20130099).
19. **M. Esmaeili**, J.A. Zakeri, A. Kaveh, A. Bakhtiary, M. Khayat Azad, “**Designing granular layers for railway tracks using ray optimization algorithm**” , Sharif Scientia Iranica A 2015; 22(1): 47-58.
20. Meysam Naeimi, Jabbar Ali Zakeri, **Morteza Esmaeili**, Morad Shadfar, “**Influence of uneven rail irregularities on the dynamic response of the railway track using a three-dimensional model of the vehicle-track system**”, Taylor & Francis Vehicle System Dynamics: International Journal of Vehicle Mechanics and Mobility 2015; 53(1): 88-111 (DOI: 10.1080/00423114.2014.998243).
21. **Morteza Esmaeili**, Nazanin Rezaei, “**In situ impact testing of a light-rail ballasted track with tyre-derived aggregate subballast layer**”, Taylor and Francis International Journal of Pavement Engineering 2015; 17(2): 176-188 (DOI: 10.1080/10298436.2015.1007226).
22. Meysam Naeimi, Jabbar Ali Zakeri, Morad Shadfar, **Morteza Esmaeili**, “**3D dynamic model of the railway wagon to obtain the wheel-rail forces under track irregularities**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part K, Journal of Multi-body Dynamics 2015; 229(4): 357-369 (DOI: 1464419314566833).
23. **Morteza Esmaeili**, Behnam Arbabi, “**Railway embankments stabilization by tied back-to-back system**”, Elsevier Journal of Computers and Geotechnics 2015; 67: 110-120 (DOI: 10.1016/j.compgeo.2015.02.019).
24. Meysam Naeimi, Jabbar Ali Zakeri, **Morteza Esmaeili**, Mohammad Mehrali, “**Dynamic response of sleepers in a track with uneven rail irregularities using a**

- 3D vehicle-track model with sleeper beams**", Springer Archive of Applied Mechanics 2015; 85(11):1679-1699 (DOI: 10.1007/s00419-015-1012-9).
25. Akbar Salemi, **Morteza Esmaili**, Farhang Sereshki, "**Normal and shear resistance of longitudinal contact surfaces of segmental tunnel linings**", Elsevier International Journal of Rock Mechanics and Mining Sciences (IJRMMS) 2015; 77: 328-338 (DOI: 10.1016/j.ijrmms.2015.04.014).
  26. **Morteza Esmaili**, Morteza Gharouni Nik, Hamed Hoseinpour, "**Assessment of grouting applicability in type C Tehran alluvium**", Proceedings of the ICE Ground Improvement 2015; 168(3): 162-178 (DOI: 10.1680/grim.12.00029).
  27. J. Zakeri, **M. Esmaili**, S.A. Mosayebi, O. Sayyadi, "**Experimental investigation of the production of sleepers from concrete that contains blast furnace slag**", SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2016; 230(1): 77-84 (DOI: 10.1177/0954409714527928).
  28. J. Zakeri, **M. Esmaili**, A. Kasraee, A. Bakhtyari, "**A numerical investigation on lateral resistance of frictional sleepers in ballasted railway tracks**", SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2016; 230(2): 440-449 (DOI: 10.1177/0954409714543507).
  29. J. Zakeri, **M. Esmaili**, H. Heydari Noghabi, "**A field investigation into the effect of under sleeper pads on the reduction of railway-induced ground-borne vibrations**", SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2016; 230(3): 999-1005 (DOI: 10.1177/0954409714565499).
  30. J. Sadeghi, A. Khajehdezfuly, **M. Esmaili**, D. Poorveis, "**An efficient algorithm for nonlinear analysis of vehicle/track interaction problems**", International Journal of Structural Stability and Dynamics 2016; 16 (8) (DOI: 10.1142/S0219455415500406).
  31. **Morteza Esmaili**, Alireza Khodaverdian, Hossein Kalantar Neyestanaki, Saharnaz Nazari, "**Investigating the effect of nailed sleeper on increasing the lateral resistance of ballasted track**", Elsevier Journal of Computers and Geotechnics 2016; 71: 1-11 (DOI: 10.1016/j.compgeo.2015.08.006).
  32. J. Sadeghi, A. Khajehdezfuly, **M. Esmaili**, D. Poorveis, "**Dynamic interaction of vehicle and discontinuous slab track considering nonlinear Hertz contact model**", ASCE Journal of Transportation Engineering 2016; 142(4) (DOI: 10.1061/(ASCE)TE.1943-5436.0000823).



33. S.A. Mosayebi, J. Zakeri, **M. Esmaeili**, “**Field test investigation and numerical analysis of ballasted track under moving locomotive**”, Springer Journal of Mechanical Science and Technology (JMST) 2016; 30(3): 1065-1069 (DOI: 10.1007/s12206-016-0209-3).
34. **Morteza Esmaeili**, S.Ahmad S.Hosseini, Majeed Sharavi, “**Experimental assessment of dynamic lateral resistance of railway concrete sleeper**”, Elsevier Journal of Soil Dynamics and Earthquake Engineering 2016; 82: 40-54 (DOI: 10.1016/j.soildyn.2015.11.011).
35. J. Zakeri, **M. Esmaeili**, S.A. Mosayebi, “**Some aspects of support stiffness effects on dynamic ballasted railway tracks**”, Journal of Periodica Polytechnica Civil Engineering 2016; 60(3): 427-436 (DOI: 10.3311/PPci.7933).
36. **Morteza Esmaeili**, Jabbar Ali Zakeri, Hamed Ebrahimi, Mohammad Khadem Sameni, “**Experimental study on dynamic properties of railway ballast mixed with the derived aggregate (TDA) by modal shaker test**”, SAGE Journal of Advances in Mechanical Engineering 2016; 8(5): 1-13 (DOI: 10.1177/1687814016640245).
37. J. Sadeghi, A. Khajehdezfuly, **M. Esmaeili**, D. Poorveis, “**Investigation of rail irregularity effects on wheel/rail dynamic force in slab track: Comparison of two and three dimensional models**”, Elsevier Journal of Sound and Vibration 2016; 374: 228-244 (DOI:10.1016/j.jsv.2016.03.033).
38. S.A. Ghahari, A.M. Ramezaniapour, A.A. Ramezaniapour, **M. Esmaeili**, “**An accelerated test method of simultaneous carbonation and chloride ion ingress: Durability of silica fume concrete in severe environments**”, Hindawi Journal of Advances in Materials Science and Engineering 2016; 2016:1-12 (DOI: 10.1155/2016/1650979).
39. Jabbar Ali Zakeri, Seyed Ali Mosayebi, **Morteza Esmaeili**, “**Numerical and field investigations of track dynamic behavior caused by light and heavy railway vehicles**” PTMTS Journal of Theoretical and Applied Mechanics 2016; 54(3): 871-879 (DOI: 10.15632/jtam-pl.54.3.871).
40. S.A. Mosayebi, J. Zakeri, **M. Esmaeili**, “**A comparison between the dynamic and static stiffness of ballasted track**”, Techno-Press International Journal of Geomechanics and Engineering 2016; 11(6): 757-769 (DOI: 10.12989/gae.2016.11.6.757).

41. Akbar Salemi, Farhang Sereshki, **Morteza Esmaeili**, “**Investigating the mechanical performance of contact point in bolted segments by laboratory tests**”, Taylor & Francis European Journal of Environmental and Civil Engineering 2017; 21(2): 148-171 (DOI: 10.1080/19648189.2015.11110053).
42. Masoud Fathali, Fereidoon Moghadas Nejad, **Morteza Esmaeili**, “**Influence of tire derived aggregates on the properties of railway ballast material**” ASCE Journal of Materials in Civil Engineering 2017; 29(1) (DOI:10.1061/(ASCE)MT.1943-5533.0001702).
43. **Morteza Esmaeili**, Reza Nouri, Kaveh Yousefian, “**Experimental comparison of the lateral resistance of tracks with steel slag ballast and limestone ballast materials**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2017; 231(2): 175-184 (DOI: 10.1177/0954409715623577).
44. **Morteza Esmaeili**, Jabbar Ali Zakeri, Mohammad Babaei, “**Laboratory and field investigation of the effect of geogrid-reinforced ballast on railway track lateral resistance**”, Elsevier Journal of Geotextiles and Geomembranes 2017; 45(2): 23-33 (DOI: 10.1016/j.geotexmem.2016.11.003).
45. Jabbar-Ali Zakeri, **Morteza Esmaeili**, Seyed-Ali Mosayebi, “**Vehicle/track dynamic interaction considering developed railway substructure models**”, Techno-Press International Journal of Structural Engineering and Mechanics 2017; 61(6): 775-784.
46. Ahmad Hosseini, **Morteza Esmaeili**, “**Effect of different contact surfaces between concrete sleeper and ballast on mobilized lateral resistance against impact loads**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2017; 231(6): 678-689 (DOI: 10.1177/0954409716636924).
47. **Morteza Esmaeili**, Ahmad Hosseini, “**Investigating the behavior of railway short panels under lateral impact loading: A laboratory study**”, Springer Journal of Experimental Techniques 2017; 41(3): 289-307 (DOI: 10.1007/s40799-017-0170-9).
48. **Morteza Esmaeili**, Peyman Aela, Ahmad Hosseini, “**Experimental assessment of cyclic behavior of sand-fouled ballast mixed with tire derived aggregates**”, Elsevier Journal of Soil Dynamics and Earthquake Engineering 2017; 98: 1-11 (DOI: 10.1016/j.soildyn.2017.03.033).

49. Fatemeh Khatibi, **Morteza Esmaeili**, Saeed Mohammadzadeh, “**DEM analysis of railway track lateral resistance**”, Elsevier Journal of Soils and Foundations 2017; 57(4): 587-602 (DOI: 10.1016/j.sandf.2017.04.001).
50. J.A. Zakeri, **M. Esmaeili**, S.A. Mosayebi, “**Effects of sleeper support modulus on dynamic behavior of railway tracks caused by moving wagon**”, Inderscience International Journal of Heavy Vehicle Systems 2017; 24(3): 277-287 (DOI: 10.1504/IJHVS.2017.084852).
51. **Morteza Esmaeili**, Behnam Arbabi, “**Stabilising railway embankments using an integrated tied back-to-back strengthening system**”, Proceedings of the ICE Ground Improvement 2017; 170(1): 26-34 (DOI: 10.1680/jgrim.16.00004).
52. Seyed-Ali Mosayebi, **Morteza Esmaeili**, Jabbar-Ali Zakeri, “**Numerical investigation of the effects of unsupported railway sleepers on train induced environmental vibrations**”, SAGE Journal of Low Frequency Noise, Vibration and Active Control 2017; 36(2): 160-176 (DOI: 10.1177/0263092317711990).
53. Mohammad Ali Rezvani, **Morteza Esmaeili**, Mohammad Mahdi Feizi, “**Discrete mass modeling for dynamic response of buildings in the vicinity of railway tracks due to train induced ground vibrations**” Sharif Scientia Iranica B 2017; 24(4): 1922-1939 (DOI: 10.24200/SCI.2017.4283).
54. J. Zakeri, **M. Esmaeili**, S.A. Mosayebi, “**Effects of Train Bogies Patterns on the Mechanical Performance of the Ballasted Railway Tracks with Unsupported Sleepers**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2017 (DOI: 10.1177/0954409716664932).
55. **M. Esmaeili**, Hamed Ebrahimi, Mohammad Khadem Sameni, “**Experimental and numerical investigating the dynamic behavior of ballasted track containing ballast mixed with TDA**”, SAGE Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2017 (DOI: 10.1177/0954409716664937).
56. **Morteza Esmaeili**, Hamidreza Heydari Noghabi, Ayyob Sayyadi, “**Field Investigation on the Lateral Resistance of Railway Tracks including Hot Mix Asphalt Layer**”, Taylor & Francis Journal of Road Materials and Pavement Design 2017 (DOI: 10.1080/14680629.2016.1250666).
57. H. Heydari Noghabi, J. Zakeri, **M. Esmaeili**, “**Field study of using additional rails and approach slab as transition zone from slab track to ballasted track**”, SAGE

- Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit 2017; (DOI: 10.1177/0954409717708527).
58. Masoud Fathali, Fereidoon Moghadas Nejad, **Morteza Esmaeili**, “**Effect of tire derived aggregates mixed with ballast on train-induced ground-borne vibrations**”, Journal of Vibroengineering 2017 (Accepted, Under Press).
59. Amir Tabatabaee, **Morteza Esmaeili**, Javad Sadeghi, “**Investigation of optimum height of railway embankments during earthquake based on their stability in liquefaction**”, Taylor & Francis Journal of Earthquake Engineering 2017 (DOI: 10.1080/13632469.2017.1342301).
60. Hamidreza Heydari Noghabi, José Nuno Varandas Ferreira, **Morteza Esmaeili**, Jabbar Ali Zakeri, “**Investigating the influence of auxiliary rails on dynamic behavior of railway transition zone by a 3D train-track interaction model**”, Latin American Journal of Solids and Structures 2017 (DOI: 10.1590/1679-78253906).
61. Mohsen Sabermahani, **Morteza Esmaeili**, Hossein Kalantar Neyestanaki, “**Effect of the grouted tied back-to-back system on the stability of railway embankments**”, ICE International Journal of Physical Modelling in Geotechnics 2017 (DOI: 10.1680/jphmg.17.00022).
62. **Morteza Esmaeili**, Kaveh Yousefian, Reza Nouri, “**Vertical load distribution in ballasted railway tracks with steel slag and limestone**”, Taylor & Francis International Journal of Pavement Engineering 2017 (DOI: 10.1080/10298436.2017.1380808).
63. **Morteza Esmaeili**, Kaveh Yousefian, Peyman Asgharzadeh, “**An investigation on abrasion and wear characteristics of steel slag and granite ballasts**”, ICE Journal of Construction Materials 2017 (DOI: 10.1680/jcoma.17.00044).
64. **Morteza Esmaeili**, Farshad Astaraki, Hamid Khajehee, “**Laboratory investigation on the effect of microsilica additive on mechanical properties of deep soil mixing columns in loose sandy soils**”, Taylor & Francis European Journal of Environmental and Civil Engineering 2017 (DOI: 10.1080/19648189.2017.1382394).
65. Seyed-Ali Mosayebi, Jabbar Ali zakeri, **Morteza Esmaeili**, “**Investigations on Vehicle Interaction with CWR Tracks Considering Some Aspects of Rail Support Modulus**”, Journal of Periodica Polytechnica Civil Engineering 2017(DOI: 10.3311/PPci.10752).

66. **Morteza Esmaeili**, Hamidreza Heydari Noghabi, Mehdi Kamali, “**Numerical Investigation of Railway Transition Zones Include of Auxiliary Rails**” Proceedings of the Institution of Civil Engineers Journal of Transport 2017 (DOI: 10.1680/jtran.17.00035).
67. **Morteza Esmaeili** , Behnood Naderi , Hossein Kalantar Neyestanaki, Alireza Khodaverdian, “**Investigating the Effect of Geogrid on Stabilization of High Railway Embankments**”, ELSEVIER Journal of Soils and Foundations 2018 (DOI: 10.1016/j.sandf.2018.02.005).
68. Saeed Mohammadzade, **Morteza Esmaeili**, Fatemeh Khatibi, “**A new field investigation on lateral and longitudinal resistance of ballasted track**”, SAGE Journal of Rail and Rapid Transit 2018, (DOI: 10.1177/0954409718764190).
69. Javad Mir Mohammad Sadeghi, **Morteza Esmaeili**, Amir Tabatabayi, “**Investigation of sand columns effect on stability of railway embankments overlaid on liquefiable foundations**”, Journal of Earthquake Engineering 2018, (DOI: 10.1080/13632469.2018.1453408).
70. **Morteza Esmaeili**, Masoud Yaghini, Shila Moslemipour Iranmanesh, ” **Optimization of embedded rail slab track with respect to the environmental vibrations**”, Journal of Scientia Iranica 2018, (Accepted, Under Press).
71. **Morteza Esmaeili**, Saeed Majidi Parast, Ahmad Hosseini, “**Comparison of dynamic lateral resistance of railway concrete, wooden and steel sleepers subjected to impact loading**”, Journal of Road Materials and Pavement Design 2018, (DOI:10.1080/14680629.2018.1468804).
72. **Morteza Esmaeili**, Peyman Aela, Ahmad Hosseini, “**effect of moisture on the performance of mixture of sand-fouled ballast and tire derived aggregates under cyclic loading**”, Journal of Materials in Civil Engineering 2018, (DOI: 10.1061/(ASCE)MT.1943-5533.0002586).
73. **Morteza Esmaeili**, Boheira Tavakoli, “**Finite Element Method Simulation of Explosive Compaction in Saturated Loose Sandy Soils**”, Journal of Soil Dynamics and Earthquake Engineering 2018, (DOI: 10.1016/j.soildyn.2018.09.048).
74. Javad Sadeghi, Amin Khajehdezfuly, **Morteza Esmaeili** , Davood Poorveis, “**Development of optimum modeling approach in prediction of wheelflats effects on railway forces**”, journal of Structural Engineering and Mechanics 2019, (DOI: 10.12989/sem.2019.69.5.499).

75. Mohammad Mehrali, **Morteza Esmaeili**, Saeed Mohammadzadeh, “**Application of Data Mining Techniques for Investigation of Track Geometry and Stiffness Variation**” SAGE Journal of Rail and Rapid Transit 2019, (DOI: 10.1177/0954409719844885).
76. **Morteza Esmaeili**, Mohammad Salajegheh, Sharare Jahangiri Famenin, “**Experimental assessment of geotextile serviceability lifetime as ballasted railway filter focusing on clogging phenomenon**”, Elsevier Journal of Construction & Building Materials 2019, (DOI: 10.1016/j.conbuildmat.2019.03.281).
77. **Morteza Esmaeili**, Shervan Ataei, Moahammad Siahkoohi, “**A case study of dynamic behavior of short span concrete slab bridge reinforced by Tire Derived Aggregates (TDA) as sub-ballast**”, International Journal of Rail Transportation 2019, (DOI: 10.1080/23248378.2019.1613938).
78. Seyed-Ali Mosayebi, **Morteza Esmaeili**, Jabbar Ali zakeri, “**Study on the train-track dynamic interaction focusing on stress distribution patterns in ballasted track layers**”, ASCE Journal of Transportation Engineering, Part B: Pavements 2019, (DOI:10.1061/JPEODX.0000140).
79. **Morteza Esmaeili**, Moahammad Siahkoohi, “**Tire Derived Aggregate (TDA) Layer Performance in Railway Bridges as a Novel Impact Absorber: Numerical and Field Study**”, Wiley Journal of Structural Control and Health Monitoring 2019, (DOI:10.1002/stc.2444).
80. Masoud Fathali, **Morteza Esmaeili**, Fereidoon Moghadas Nejad, “**Influence of tire-derived aggregates mixed with ballast on ground-borne vibrations**”, Springer Journal of Modern Transportation 2019, (DOI: 10.1007/s40534-019-00201-x).
81. Boheira Tavakoli, **Morteza Esmaeili**, “**Numerical evaluation of square arrangement of charges in explosive compaction**”, Journal of Soil Dynamics and Earthquake Engineering 2020, (DOI: 10.1016/j.soildyn.2019.106001).
82. **Morteza Esmaeili**, Mohsen Paricheh, Milad Hossein Esfahani, “**Laboratory Investigation on the Behavior of Ballast Stabilized with Bitumen-Cement Mortar**”, Elsevier Journal of Construction & Building Materials 2020, (DOI: 10.1016/j.conbuildmat.2020.118389).
83. Ramin Heydari, **Morteza Esmaeili**, Morteza Gharouni Nik, “**Effects of Train Operational Parameters on Ground Borne Vibrations Induced by Twin Metro**

- Tunnels**”, Journal of International Journal of Rail Transportation, 2020 (DOI: 10.1080/23248378.2020.1749901).
84. Guoqing Jing, Peyman Aela, FU Hao, **Morteza Esmaeili**, “**Numerical and Experimental Analysis of Lateral Resistance of Biblock Sleeper on Ballasted Tracks**”, ASCE International Journal of Geomechanics 2020, (DOI: 10.1061/(ASCE)GM.1943-5622.0001689).
85. Jabbarali Zakeri, **Morteza Esmaeili**, Mehrad Mousavi-Rahimi, “**Effect of foundation shape and properties of the adjacent buildings on the railway-induced vibrations**”, Springer Asian Journal of Civil Engineering 2020, (DOI: 10.1007/s42107-020-00264-w).
86. **Morteza Esmaeili**, Armin Shamohammadi, Saeid Farsi, “**Effect of deconstructed tire under sleeper pad on railway ballast degradation under cyclic loading**”, Elsevier Journal of Soil Dynamics and Earthquake Engineering 2020 (DOI: 10.1016/j.soildyn.2020.106265).
87. **Fatemeh Khatibi**, Morteza Esmaeili, Saeed Mohammadzadeh, “**Numerical investigation on the effect of ballast properties on continues welded rail (CWR) track buckling**”, AGE Journal of Rail and Rapid Transit 2020 (Accepted Under Press).
88. **Morteza Esmaeili**, Farshad Astaraki, Mohammad Reza Roozbini, “**Influence of Geocell on Bearing Capacity and Settlement of Railway Embankments: An Experimental Study**”, Taylor & Francis Journal of Geomechanics and Geoengineering 2020 (DOI: 10.1080/17486025.2020.1827168).
89. **Morteza Esmaeili**, Boheira Tavakoli, “**Numerical and in-situ evaluation of explosive compaction effectiveness in railway subgrade improvement**”, Elsevier Journal of Transportation Geomechanics 2020 (DOI: 10.1016/j.trgeo.2020.100475).
90. Masoud Fathali, Jafar Chalabii, Farshad Astaraki, **Morteza Esmaeili** “**A new degradation model for life cycle assessment of railway ballast materials**”, Elsevier Journal of Construction & Building Materials 2020 (DOI: 10.1016/j.conbuildmat.2020.121437).
91. Ramin Heidari, **Morteza Esmaeili**, Morteza Gharouni Nik, “**Evaluation of the soil layering and soil lens effect on the ground-borne vibrations induced by twin metro tunnels**”, European Journal of Environmental and Civil Engineering 2021. (DOI: <https://doi.org/10.1080/19648189.2021.1875265>).

92. Amin Razzaghi Khalajahi, **Morteza Esmaeili**, Jabbar Ali Zakeri, **“Dynamic analysis of a coupled high-speed train and bridge system subjected to sea wave hydrodynamic load”**, Latin American Journal of Solids and Structures 2021.
93. Guoqing Jing, Mohammad Siahkouhi, Haoyu Wang, **Morteza Esmaeili**, **“The improvement of the dynamic behavior of railway bridge transition zone using furnace slag reinforcement: A numerical and experimental study”**, Journal of Rail and Rapid Transit 2021. (DOI: <https://doi.org/10.1177/09544097211020603>).
94. Farshad Astaraki, **Morteza Esmaeili**, **“Slope stabilisation of railway embankments over loose subgrades using deep-mixed columns”**, ICE Journal of Ground Improvement 2021. (DOI: <https://doi.org/10.1680/jgrim.20.00049>).
95. **Morteza Esmaeili**, Farshad Astaraki, Hamed Yaghouti, Majid Movahedi Rad, **“Laboratory Investigation on the Effect of Microsilica Additive on the Mechanical Behavior of Deep Soil Mixing Columns in Saline Dry Sand”**, Periodica Polytechnica Civil Engineering 2021. (DOI:<https://doi.org/10.3311/PPci.18126>).
96. Sadeghi.J, Haghighi.E, **Esmaeili.M** **“Performance of under foundation shock mat in reduction of railway-induced vibrations”**, Techno press journal of Structural Engineering and Mechanics 2021.
97. Peyman Aela, Lu Zong, **Morteza Esmaeili**, Mohammad Siahkouhi, Guoqingjing, **“Angle of repose in the numerical modeling of ballast particles focusing on particle-dependent specifications: Parametric study”**, Elsevier journal of Particuology 2021.
98. Amin Razzaghi Kalajahi, **Morteza Esmaeili**, Jabbar Ali Zakeri, **“Dynamic Stability Analysis of High-Speed Trains Moving over Sea-Cross Bridge subjected to Rail Irregularities”**, Springer International Journal of Coastal & Offshore Engineering, 2021. (DOI: 10.52547/ijcoe.5.2.56).
99. Hamidreza Heydari, Jabbarali Zakeri, **Morteza Esmaeili**, **“Evaluating the Elastic Sleeper Efficiency in Reduction of Railway Ground Vibrations by in Situ Impact-Response Test”**, International Journal of Vehicle Noise and Vibration, 2021.
100. Milad Hossein Esfahani, **Morteza Esmaeili**, Mohsen Tadayon, **“The Effects of Admixtures on the Mechanical Behavior of Preplaced Ballast Concrete for Use in Slab Track Systems”**, Springer International Journal of Pavement Research and Technology, 2021. (DOI: <https://doi.org/10.1007/s42947-021-00117-y>).



101. Ramin Heidary, **Morteza Esmaeili**, Morteza Gharouni Nik, “**Experimental and numerical analysis of vibrations induced by twin tunnels underground railway**”, Hungarian Journal of Applied Sciences (Acta Polytechnica Hungarica), 2021.
102. **Morteza Esmaeili**, Hamid Amiri, “**Laboratory investigation into the flexural behavior of embedded concrete sleepers in two-stage concrete with preplaced aggregate**”, Springer Journal of International Journal of Concrete Structures and Materials, 2021.
103. **Morteza Esmaeili**, Parvaneh Namaei, “**Effect of mother rock strength on rubber-coated ballast (RCB) deterioration**”, Elsevier Journal of Construction & Building Materials, 2021, (DOI: [10.1016/j.conbuildmat.2020.118389](https://doi.org/10.1016/j.conbuildmat.2020.118389)). (DOI: [10.1016/j.conbuildmat.2021.126106](https://doi.org/10.1016/j.conbuildmat.2021.126106)).
104. **Morteza Esmaeili**, Saeid Farsi, Armin Shamohammadi, “**Effect of rock strength on the degradation of ballast equipped with under sleeper pad**”, Elsevier Journal of Construction & Building Materials, 2021.
105. **Morteza Esmaeili**, Morteza Sabbaghi, Mahdi Kharaghani, “**Three-dimensional numerical simulation of the geometrical dimension pile group effects on the critical speed of high-speed railway track (Case study: Tehran- Isfahan high speed railway track)**”, Elsevier Journal of Soil Dynamics and Earthquake Engineering, 2022.
106. Pouria Mansouri, Jabbar-Ali Zakeri, **Morteza Esmaeili**, Sina Ghahremani, “**Discrete element method analysis of lateral resistance of different sleepers under different support conditions**”, Elsevier Journal of Construction & Building Materials, 2022.
107. Javad Sadeghi, Ehsan Haghighi, **Morteza Esmaeili**, “**Effectiveness of grouted layer in the mitigation of subway-induced vibrations**”, Journal of Rail and Rapid Transit, 2022. (DOI: <https://doi.org/10.1177/09544097221089417>)
108. **Morteza Esmaeili**, Ali Pourrashnoo, “**Experimental investigation of shear strength parameters of ballast encased with geogrid**”, Elsevier Journal of Construction & Building Materials, 2022. (DOI: <https://doi.org/10.1016/j.conbuildmat.2022.127491>)
109. Sina Ghahremani, Jabbar-Ali Zakeri, Fateme Samimi, Majid Movahedi Rad, Reza Esfandiari Mehni, **Morteza Esmaeili**, Farshad Astaraki, “**Ballast Stabilization with Polyurethane for Use in Desert Areas**”, Periodica Polytechnica Civil Engineering, 2022. (DOI: <https://doi.org/10.3311/PPci.19968>).

110. Javad Sadeghi, Ehsan Haghighi, **Morteza Esmaeili**, “**Performance of under foundation shock mat in reduction of railway-induced vibrations**”, Journal of Structural Engineering and Mechanics, 2021. (DOI: <https://doi.org/10.12989/sem.2021.78.4.425>).
111. Amin Razzaghi Kalajahi, **Morteza Esmaeili**, Jabbar-Ali Zakeri, “**Assessment of Running Safety of Developed Train–Bridge–Wave Model Under One-Direction and Two Bidirectional High-Speed Train Passing Subjected to Rail Irregularities**”, SAGE journal of Transportation Research Record: Journal of the Transportation Research Board, 2022. (DOI: <https://doi.org/10.1177/03611981221106787>).
112. Peyman Aela, Lu Zong, Zhen-Yu Yin, **Morteza Esmaeili**, Guoqing Jing, “**Calibration method for discrete element modeling of ballast particles**”, Springer journal of Computational Particle Mechanics, 2022.
113. Hossein Ghorbani Dolama, JabbarAli Zakeri, **Morteza Esmaeili**, Parham Hayati, “**An innovative ballasted track utilizing stabilized clayey subgrade**”, Elsevier journal of Transportation Geotechnics, 2022. (DOI: <https://doi.org/10.1016/j.trgeo.2022.100860>)
114. **Morteza Esmaeili**, Farshad Astaraki, Mohammad Reza Roozbini, Majid Movahedi Rad, “**Investigating Slope Stability of Geocell-Reinforced Railway Embankments**”, journal of Acta Polytechnica Hungarica, 2022.
115. **Morteza Esmaeili**, Sadegh Kaviani, Farzad Farivar, “**A prediction model for chloride-ion ingress in concrete sleepers**”, PCI journal, 2023.
116. **Morteza Esmaeili**, Amirhossein Askari, “**Laboratory investigation of the cyclic behavior of rock ballast mixed with slag ballast for use in railway tracks**”, Elsevier journal of Construction and Building Materials, 2023. (DOI: <https://doi.org/10.1016/j.conbuildmat.2022.130136>)
117. Ramin Heydari, **Morteza Esmaeili**, Morteza Gharouni Nik, “**Experimental and numerical analysis of vibrations induced by twin tunnels underground railway**”, Acta Polytechnica Hungarica, 2023.
118. H. Heydari, J. N. Varandas, J. Zakeri, **Morteza Esmaeili**, “**Performance Evaluation of a Combined Transition System in Slab-Ballasted Railway Track Using a Vehicle-Track-Substructure Interaction Model**”, KSCE Journal of Civil Engineering, 2023. (DOI: 10.1007/s12205-023-1273-8)

119. Marjan Mehvari, **Morteza Esmaeili**, Masoud Fathali, “**Superstructure System Selection for High-Speed Railway Tracks Considering Geotechnical Aspects: A Case Study**”, Springer journal of Transportation Infrastructure Geotechnology, 2023. (DOI: <https://doi.org/10.1007/s40515-023-00297-z>)
120. Seyed Elyas Hashemian, Fereidoon Moghadas Nejad, **Morteza Esmaeili**, “**Laboratory and numerical investigation on the behavior of reclaimed asphalt pavement (RAP) as railway track subballast layer**”, Elsevier journal of Construction and Building Materials, 2023. (DOI: <https://doi.org/10.1016/j.conbuildmat.2023.131442>)
121. Hamid Amiri, **Morteza Esmaeili**, “**Flexural Performance Sensitivity and Uncertainty Analysis of Embedded Concrete Sleepers in Preplaced Aggregate Concrete**”, Springer International Journal of Civil Engineering, 2023. (DOI: <https://doi.org/10.1007/s40999-023-00879-5>)
122. **Morteza Esmaeili**, Sajad Behnajad, Milad Hossein Esfahani, “**Laboratory Investigation on Preplaced Ballast Aggregate Concrete Deterioration over Freezing–Thawing Cycles**”, Springer International Journal of Concrete Structures and Materials, 2023. (DOI: <https://doi.org/10.1186/s40069-023-00606-3>)

## - Research Papers

1. B.M.A. Rafie, R. Ziaie Moayed, **M. Esmaeili**, “**Evaluation of soil collapsibility potential: A case study of Semnan Railway Station**”, Electronic Journal of Geotechnical Engineering 2008; 13: Bund G.
2. **M. Esmaeili**, S. Ebrahimi, B. Sane Moghaddam, “**Investigation on geotextile behavior under railway embankment**”, Electronic Journal of Geotechnical Engineering 2008; 14: Bund H.
3. Farid Khayyer, Morteza Gharouni Nik, **Morteza Esmaeili**, Nasim Sahebzamani, “**The improvement of railway embankments with micropiles**”, International Journal of Scientific & Engineering Research 2011; 2(10).

4. Jabbar-Ali Zakeri, **Morteza Esmaeili**, Seyed-Ali Mosayebi, Rauf Abbasi, “**Effects of vibration in desert area caused by moving trains**”, Springer Journal of Modern Transportation 2012; 20(1): 16-23 (DOI: 10.1007/BF03325772).
5. **Morteza Esmaeili**, Jabbar Ali Zakeri, Parisa Haji Abdulrazagh, “**Minimum depth of soil cover above long-span soil-steel railway bridges**”, Springer International Journal of Advanced Structural Engineering 2013; 5(7) (DOI: 10.1186/2008-6695-5-7).
6. **Morteza Esmaeili**, Morteza Ghaouni Nik, Farid Khayyer, “**Static and dynamic analyses of micropiles to reinforce the high railway embankments on loose beds**”, Journal of Rehabilitation in Civil Engineering 2013; 1(2): 80-89 (DOI: 10.22075/JRCE.2013.11).
7. **Morteza Esmaeili**, Navid Nakhaee, Seyyed Ali Mosayebi, “**Performance of shred tire mixed with railway subgrade in reduction of train induced vibrations**”, International Journal of Advances in Railway Engineering 2013; 1(1): 37-49.
8. Akbar Salemi, Farhang Sereshki, **Morteza Esmaeili**, “**Numerical modeling of the segmental lining of underground structures**”, International Journal of Mining and Geo-Engineering (IJMGE) 2014; 48(2): 147-157 (DOI: 10.22059/ijmge.2014.53100).
9. **M. Esmaeili**, S.M. Hakimpour, “**Three dimensional numerical modeling of stone column to mitigate liquefaction potential of sands**”, Journal of Seismology and Earthquake Engineering (JSEE) 2015; 17 (2): 127-140.
10. **Morteza Esmaeili**, Seyed Ali Mosayebi, Farhad Kooban, “**Effect of rail corrugation on the amount of train induced vibrations near a historical building**”, International Journal of Advances in Railway Engineering 2015; 2(2): 73-84.
11. **Morteza Esmaeili**, Hamid Khajehee, “**Mechanical behaviour of embankments overlying on loose subgrade stabilized by deep mixed columns**”, Journal of Rock Mechanics and Geotechnical Engineering 2016; 8(5): 651-659 (DOI:10.1016/j.jrmge.2016.02.006).
12. **Morteza Esmaeili**, Saeed Mohammadzadeh, Mohammad Mehrali, “**Dynamic response of the coupled vehicle-floating slab track system using finite element method**”, International Journal of Transportation Engineering 2016; 4(1): 9-26.
13. **Morteza Esmaeili**, Seyed Ali Mosayebi, Nabid Nakhaei, “**Experimental investigation of load-deformation behavior of railway embankment mixed with tire derived aggregates (TDA)**”, MOJ Civil Engineering 2017; 2(1): 00020 (DOI: 10.15406/mojce.2017.02.00020).

14. **Morteza Esmaeili**, Seyed-Ali Mosayebi, Jabbar-Ali Zakeri, “**Ground-borne vibrations caused by unsupported railway sleepers in ballasted tracks**”, Elsevier Journal of Procedia Engineering (X International Conference on Structural Dynamics, EURODYN 2017) 2017; 199(2017): 2645-2650 (DOI: 10.1016/j.proeng.2017.09.513).
15. **M. Esmaeili**, J.A. Zakeri, S.A. Mosayebi, “**Investigation thr Vertical Stifness on Railway Track Performance**”, London Journal Press, London Jurnal of Engineering Research2017 (Accepted, Under Press).
16. **Morteza Esmaeili**, Hamid Khajehei, Farshad Astaraki, “**The Effectiveness of Deep Soil Mixing on Enhanced Bearing Capacity and Reduction of Settlement on Loose Sandy Soils**”, International Journal of Railway Research 2017, 4 no.1: 35-42.
17. **Morteza Esmaeili**, Valiollah Khalilian, Fatemeh Khatibi, “**A Numerical Study on Geofoam Application in the Settlement Reduction of Railway Embankments**”, International Journal of Railway Research 2017, 4 no.1: 13-28.
18. Kazem Jadidi, **Morteza Esmaeili**, Mehdi Kalantari, Mehdi Khalili, Moses Karakouzian, “**A Review of Different Aspects of Applying Asphalt and Bituminous Mixes under a Railway Track**”, Materials Journal of MDPI 2020. (DOI: <https://doi.org/10.3390/ma14010169>).
19. Farshad Astaraki, Majid Movahedi Rad, Reza Esfandiari Mehni, Guixian Liu, **Morteza Esmaeili**, Guoqing Jing, “**Effect of Geocell on the Mechanical Behavior of Railway Embankments, Using FE Modeling**”, journal Acta Polytechnica Hungarica, 2022.
20. Mehrad Mousavi-Rahimi, J.A, Zakeri, **Morteza Esmaeili**, “**Effect of Foundation Geometry and Structural Properties of Buildings on Railway-Induced Vibration: An Experimental Modeling**”, Open Science Journal of Buildings, 2022.
21. **Morteza Esmaeili**, Morteza Gharouni Nik, Hamed Hoseinpour, “**Assessment of grouting applicability in type C Tehran alluvium**”, Ground improvement journal of ICE Proceedings, 2013.
22. Mohamadreza Adlparvar, **Morteza Esmaeili**, Mohammad Hossein Taghavi Parsa, “**Strength Properties of Fiber Reinforced Concrete Including Steel Fibers**”, World Journal of Engineering, Emerald Publishing, 2022.
23. **Morteza Esmaeili**, Marjan Mehvari, Masoud Fathali, “**Developing a Technical-Economical Method for Selection of Railway System (Ballasted/Ballastless)**”, Journal of Transportation Research, Iranian Road, Housing and Urban Development Research Center, 2022. (DOI: 10.22034/TRI.2022.346653.3048)

## - Conference Papers

1. **M. Esmaeili**, G. Moazzaminejad, “**Process of quality control in segmental lining production for Nosoud water conveying tunnel**”, 8th International Congress on Advances in Civil Engineering, Eastern Mediterranean University, Famagusta, North Cyprus, September 2008.
2. **M. Esmaeili**, P. Fallahzadeh, “**Investigation on underground structure behavior under accidental explosion effects**”, Budapest Conference Proceedings, European Federation of Explosives Engineers, 2009.
3. **M. Esmaeili**, B.M.A Rafie, “**Evaluation of soil collapsibility potential in Semnan Railway Station**”, 3rd International Conference on Problematic Soils, Adelaide, Australia, April 2010.
4. **M. Esmaeili**, P. Abdolrazzagah, “**Pseudo-static evaluation of earthquake effects on soil steel bridges**”, 8th International Conference on Short and Medium Span Bridges, Ontario, Canada, August 2010.
5. J. Zakeri, **M. Esmaeili**, P. Abdolrazzagah, “**Simplified design method of long-span railway soil-metal bridges**”, 6th International Conference on Arch Bridges, Fujio, China 2010.
6. M. Rad, **M. Esmaeili**, M. D. Pirooz, “**Effects of fluid-structure-soil interaction on seismic response of jacket type offshore platforms**”, International Conference on Earthquake and Structural Engineering, Paris, France 2010.
7. M. Rad, M. Dolatshahi Pirooz, **M. Esmaeili**, “**Effects of sea water level fluctuations on seismic response of jacket type offshore platforms**”, International Conference on Marina and Naval Engineering, Paris, France 2010.
8. M. Rad, **M. Esmaeili**, M. Dolatshahi Pirooz, “**Effects of peak ground acceleration on seismic response of jacket type offshore platforms considering fluid-structure-soil interaction**”, International Conference on Earthquake and Structural Engineering, Paris, France 2010.
9. **M. Esmaeili**, S.A. Mosayebi, “**Factors affecting the applicability of stabilization methods of loose subgrades in under-operation railways**”, 43rd Symposium on

- Engineering Geology and Geotechnical Engineering to be convened in Las Vegas, Nevada, USA 2011.
10. **M. Esmaeili**, M. Fathali, S.A. Mosayebi, “**Stabilization of loose railway subgrade utilizing Jet grouting method**”, Symposium International GEORAIL (CITE DES SCIENCES LA VILLETTE), Paris, France 2011.
  11. **M. Esmaeili**, M. Parsafard, P. Haji Abdulrazzagah, “**Pseudo-static evaluation of soil-steel structure seismic behavior using finite element method**”, 6th International Conference on Seismology and Earthquake Engineering, Tehran, Iran 2011.
  12. **M. Esmaeili**, J.A. Zakeri, S.A. Mosayebi, “**The effect of the open trenches shapes to reduce vibrations due to passage trains on the surround of rail line**”, 1st International Conference on Acoustic and Vibration, Amirkabir University, Tehran, Iran 2011.
  13. **Morteza Esmaeili**, Morteza Gharouni Nik, Farid Khayyer, “**The improvement of railway embankments with micropiles**”, 5th IE Conference on Railway Condition Monitoring and Non Destructive Testing, Derby Conference Center, UK 2011.
  14. **Morteza Esmaeili**, Jabbar-Ali Zakeri, Seyed-Ali Mosayebi, “**Investigating the effect of shapes of in-filled concrete trenches on railway induced vibrations**”, 9th International Congress on Civil Engineering, Isfahan University of Technology, Esfahan, Iran 2012.
  15. **M. Esmaeili**, H.R. Heydari, “**Determining the effective length of railway tracks in earthquake excitation using a 3D numerical model**”, 9th International Congress on Civil Engineering, Isfahan University of Technology, Esfahan, Iran 2012.
  16. **M. Esmaeili**, S. Fazel, A. Pouryousef, S. Dadsetan, “**Load bearing characteristics of innovative magnetic connection for steel structures**”, 5th International Conference on Engineering Failure Analysis, the Hague, Netherland 2012.
  17. **Morteza Esmaeili**, S. Mehrab Hakimpoor, “**Three dimensional numerical modeling of stone column behavior in mitigation of liquefaction**”, International Conference on Ground Improvement and Ground Control, University of Wollongong, Australia 2012.
  18. **Morteza Esmaeili**, Morteza Gharouni Nik, Hamed Hoseinpoor, “**Assesment of grouting applicability in type C Tehran alluvium with experimental method**”, International Conference on Ground Improvement and Ground Control, University of Wollongong, Australia 2012.

19. **Morteza Esmaeili**, Hamid Khajehei, Morteza Gharouni Nik, “**The effectiveness of deep soil mixing on enhanced bearing capacity and reduction of settlement on loose sandy soils**”, 3rd International Conference on Recent Advances in Railway Engineering (ICRARE), Iran University of Science and Technology, Tehran, Iran 2013.
20. **Morteza Esmaeili**, Saeed Mohammadzade, Mohammad Mehrali, “**Modeling and analysis of slab track using random stiffness for track bed**”, 3rd International Conference on Recent Advances in Railway Engineering (ICRARE), Iran university of science and Technology, Tehran, Iran 2013.
21. **Morteza Esmaeili**, Morteza Gharouni Nik , Farid Khayyer, Nasim Saheb Al Zamani, “**Determining minimized arrangement of micro piles to stabilize high railway embankments on loose foundations**”, 3rd International Conference on Recent Advances in Railway Engineering (ICRARE), Iran University of Science and Technology, Tehran, Iran 2013.
22. **Morteza Esmaeili**, Seyed Ali Mosayebi, Navid Nakhaei “**Laboratory Investigation on the Behavior of Soil Mixed with Shred Tires for Use in Railway Earthworks**”, 11th World Congress on Railway Research (WCRR), Milan, Italy 2016.
23. **Morteza Esmaeili**, Ahmad Hosseini, “**A new methodology for calculation of ballasted railway track lateral resistance considering dynamic load characteristics**”, The 1st Asian Conference on Railway Infrastructure and Transportation (ART), Phoenix Island, Jeju, Korea 2016.
24. **Morteza Esmaeili**, Ahmad Hosseini, “**Lateral interaction of pre-stressed concrete sleeper with ballast layer under various impact loads**”, The 1st Asian Conference on Railway Infrastructure and Transportation (ART), Phoenix Island, Jeju, Korea 2016.
25. **M. Esmaeili**, M. Hosein Esfahani, A. Hemati, “**Application of Preplaced Aggregate Concrete to Convert the Ballasted Railway Tracks into Slab Tracks**” , IUPINE PUBLISHER, Trends in Civil Engineering and Material Science 2018.
26. Farshad Astaraki, Mohammad Reza Roozbini, **Morteza Esmaeili**, Jafar Chalabi, “**Investigation on Mechanical Behavior of Embedded Geocell in Geocell-Reinforced Railway Embankment**”, 6th International Conference on Recent Advances in Railway Engineering (ICRARE), Iran University of Science and Technology, Tehran, Iran 2019.
27. **Morteza Esmaeili**, Parvaneh Namaei, “**Laboratory Investigation of the Effect of Rubber Coating on Stone Ballast Life**”, 5th International Conference on Railway Technology (RAILWAYS 2022), Montpellier, France.



28.