

## **In The Name of God**

### **- Personal Information**

- **Surname:** Esmaeili
- **First name:** Morteza
- **Birthday:** 1973/09/15
- **Academic ranking:** Associate Professor
- **Department:** Railway Track and Structures
- **Positions:** Director of the department, Faculty Member
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### **- 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 I & 2
- Structural analysis I & 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.

## - 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 Ramezani pour, 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 Esmaili**, Hosseini Kalantar Neyestanaki, “**Railway nailed sleeper**”. Iran National Patent, Number: 87175; Date: 2015/11/09.
8. **Morteza Esmaili**, 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

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

**- ResearchGate link:** [https://www.researchgate.net/profile/Morteza\\_Esmaili2](https://www.researchgate.net/profile/Morteza_Esmaili2)

**- 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 Esmaeili**, 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 Esmaeili**, 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. Esmaeili**, 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. Esmaeili**, 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. Esmaeili**, 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. Esmaeili**, 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 Esmaeili**, 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. Esmaeili**, 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 wheelrail 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: 10.1080/19648189.2015.1110053).
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 Esmaili**, 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 Esmaili**, 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 Esmaili**, 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 Esmaili**, “**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 Esmaili**, 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 Esmaili**, 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 Esmaili**, 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. Esmaili**, 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; (Accepted, Under Press).
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 (Accepted, Under Press).
60. Hamidreza Heydari Noghabi, José Nuno Varandas Ferreira, **Morteza Esmaili**, 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 (Accepted, Under Press).
  61. Mohsen Sabermahani, **Morteza Esmaili**, 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 (Accepted, Under Press).
  62. **Morteza Esmaili**, Kaveh Yousefian, Reza Nouri, “**Vertical load distribution in ballasted railway tracks with steel slag and limestone**”, Taylor & Francis International Journal of Pavement Engineering 2017 (Accepted, Under Press).
  63. **Morteza Esmaili**, Kaveh Yousefian, Peyman Asgharzadeh, “**An investigation on abrasion and wear characteristics of steel slag and granite ballasts**”, ICE Journal of Construction Materials 2017 (Accepted, Under Press).
  64. **Morteza Esmaili**, 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 (Accepted, Under Press).
  65. Seyed-Ali Mosayebi, Jabbar Ali zakeri, **Morteza Esmaili**, “ **Investigations on Vehicle Interaction with CWR Tracks Considering Some Aspects of Rail Support Modulus**”, Journal of Periodica Polytechnica Civil Engineering 2017(Accepted, Under Press).

## **- Research Papers**

1. B.M.A. Rafie, R. Ziaie Moayed, **M. Esmaili**, “**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, Seyed 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, EURO DYN 2017) 2017; 199(2017): 2645-2650 (DOI: 10.1016/j.proeng.2017.09.513).
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