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Highest Degree	PhD		Date of Graduation	2003			
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Academic Title	Professor		Others (Specify)				
Major field	Structural and Geotechnical Eng.		Specialization field	Earthquake Engineering			
Current Research Interests(English)							
<ol style="list-style-type: none"> 1. Pounding Mitigation and Unseating Prevention at Expansion Joint 2. Smart materials and intelligent structures 3. Non-linear seismic response analysis of long span bridge structures 4. Retrofit or design of buildings/bridges for earthquakes, 5. New technologies for protection against earthquakes 6. System identification and structural health monitoring 7. Stability of space structures 8. Nonlinear dynamic soil structure interaction analysis 9. Dynamics of offshore structures 10. Energy Dissipation System and Structural vibration control 							
Any additional information to be added							
A. Honours and Awards							
<ol style="list-style-type: none"> 1. Outstanding Contribution Certificate in Reviewing award, Engineering Structures Elsevier, 2014. 2. Outstanding Contribution Certificate in Reviewing award, Journal of Constructional Steel Research Elsevier, 2014. 3. Certificate of Excellence in Reviewing award, Engineering Structures Elsevier, June 2013. 4. Assiut University Encouragement Prize Award, Assiut University, 2009. 5. Prof. Ahmed Moharram Prize Award in Structural Engineering and its practical Applications, Academic of Scientific Research & Technology, EGYPT, 2009. 6. The best Research in Engineering Sciences, Assiut University, 2009. 7. National Encouragement Prize Award, Academic of Scientific Research & Technology, EGYPT, 2008. 							
B. Refereed Journal Publications							
<ol style="list-style-type: none"> 1. Abdel Raheem, SE (2014) Damping Characteristics of Composite Tower of Cable-Stayed Bridges, KSCE Journal of Civil Engineering. <i>(accepted, in press)</i> 2. Abdel Raheem SE (2014) Nonlinear Behavior of Steel Fixed Offshore Platform under Environmental Loads, Ships & Offshore Structures, Taylor & Francis. DOI: 10.1080/17445302.2014.954301 							

3. **Abdel Raheem SE**, Ahmed MM, Alazrak TMA (2014) Evaluation of Soil-Foundation-Structure Interaction Effects on Seismic Response Demands of Multi-Story MRF Buildings on Raft Foundations, *International Journal of Advanced Structural Engineering*, 7(1): 13-20. Doi: 10.1007/s40091-014-0078-x
4. **Abdel Raheem SE (2014)** Dynamic characteristics of hybrid tower model in cable-stayed bridges, *Steel & Composite Structures, An International, Techno-Press publishers*, 17(6): 803-824.
5. **Abdel Raheem SE (2014)** Seismic response of bridges with bidirectional coupled model of base isolation bearings system, *Arabian Journal for Science and Engineering (AJSE), King Fahd University of Petroleum and Minerals* 39(12): 8669 - 8679. DOI: 10.1007/s13369-014-1441-8
6. **Abdel Raheem SE**, Ahmed MM, Alazrak TMA (2014) Soil-Raft Foundation-Structure Interaction Effects on Seismic Performance of Multi-Story MRF Buildings, *Engineering Structures and Technologies*, 6(2):43-61. doi:10.3846/2029882X.2014.972656
7. **Abdel Raheem SE (2014)** Analytical and Numerical Algorithm for Exploring Dynamic Response of Non-Classically Damped Hybrid Structures, *Coupled Systems Mechanics An International Journal*, 3(2): 171-193.
8. **Abdel Raheem SE (2014)** Mitigation measures for Earthquake Induced Pounding Effects on Seismic Performance of Adjacent Buildings, *Bulletin of Earthquake Engineering*, 12(4): 1705-1724. DOI 10.1007/s10518-014-9592-2.
9. **Abdel Raheem SE**, Ahmed MM, Alazrak TMA (2014) Soil-structure interaction effects on seismic response of multi-story buildings on raft foundation, *Journal of Engineering Sciences, Assiut University*, 42(4): 905-930.
10. **Abdel Raheem SE (2014)** Study on nonlinear response of steel fixed offshore platform under environmental loads, *Arabian Journal for Science and Engineering (AJSE), King Fahd University of Petroleum and Minerals*, 39(8): 6017 -6030. DOI: 10.1007/s13369-014-1148-x.
11. AbdelSeed FK, Ahmed HH, **Abdel Raheem SE**, Abdel Shafy YGA (2013) Dynamic Non-Linear Behaviour of Cable Stayed Bridges Under Seismic Loadings, *Life Science Journal*, 10(4): 3725- 3741.
12. F.K Abdel Sayed, Ahmed Abdel Raheem Farghly, **Shehata. E. Abdel Reheem**, Ashraf A. Mohamed and M. N. Mohamed, Effect of slabs in space framed structures under seismic loading, *Journal of Engineering Sciences, Assiut University*, 41 (6): 2065- 2078, 2013.
13. M. N. Mohamed, F.K Abdel Sayed, **Shehata. E. Abdel Reheem**, Ahmed Abdel Reheem Farghly and Ashraf A. Mohamed, Evaluation of current Egyptian code on seismic behavior of multi-storey buildings, *Journal of Engineering Sciences, Assiut University*, 41 (5): 1743-1752, 2013.
14. **Abdel Raheem, S.E.**, and Hayashikawa, T.: Energy Dissipation System for Earthquake Protection of Cable-Stayed Bridge Towers, *Earthquakes and Structures, An International, Techno-Press publishers*, 5(6), 657-678, 2013.
15. **Shehata E. Abdel Raheem**, Evaluation of Egyptian Code Provisions for Seismic Design of Moment Resisting Frames Multi-Story Buildings, *International Journal of Advanced Structural Engineering*, 5:20, 1-18, 2013.
16. **Shehata E. Abdel Raheem**, Nonlinear response of fixed jacket offshore platform under structural and wave loads, *Coupled Systems Mechanics An International Journal*, 2(1), 111-126, 2013.
17. **Abdel Raheem, S.E.**, and Hayashikawa, T.: Soil-Structure Interaction Modeling Effects on Seismic Response of a Cable-Stayed Bridge Tower, *International Journal of Advanced Structural Engineering*, 5:8, 1-17, 2013.
18. **Abdel Raheem SE**, Abdel Shafy YGA, Abdel Seed FK, Ahmed HH, parametric study on nonlinear static analysis of cable stayed bridges, *Journal of Engineering Sciences, Assiut University*, 41 (1): 67-88, January 2013.
19. Yehia A. Hassanean, Kamal A. Assaf, **Shehata E. Abdel Raheem**, and Ahmed N.M. Arafa, Flexural behavior of strengthened and repaired R.C. beams by using steel fiber concrete jacket under repeated load, *International Journal of Civil and Structural Engineering*, 3 (3): 564-578, 2013.
20. **Abdel Raheem, S.E.**, and Hayashikawa, T.: Seismic performance of semi-rigid base connection model of cable-stayed bridge tower, *International Journal of Civil and Structural Engineering*, 3 (2): 346-359, 2012.
21. Yehia A. Hassanean, Kamal A. Assaf, **Shehata E. Abdel Raheem**, and Ahmed N.M. Arafa, Behavior of Repaired R.C Beams by Using Steel Fiber Concrete Jacket and Subjected to Short Time Repeated Loading, *Journal of Engineering Sciences, Assiut University*, 40 (5): 1309-1324, September 2012.
22. **Abdel Raheem SE**, Abdel Aal SMA, Abdel Shafy AGA, Abdel Seed FK, Nonlinear Analysis of Offshore Structures under Wave Loadings, *Journal of Engineering Sciences, Assiut University*, 40 (3): 673-687, May 2012.
23. **Abdel Raheem S.E.**, Hayashikawa, T. and Dorca, U.E.: Ground motion spatial variability effects on seismic response control of cable-stayed bridges, *Earthquake Engineering and Engineering Vibration (Institute of Engineering Mechanics (IEM) China Earthquake Administration (CEA), MCEER-University at Buffalo, State University of New York)*, 10 (1): 37 - 49, March 2011.
24. Khaled A. Abdel-Raheem, **Shehata E. Abdel Raheem**, Hosny M. Soghair and Mahmoud H. Ahmed, Evaluation of seismic performance of multistory buildings designed according to Egyptian code, *Journal of Engineering*

Sciences, Assiut University, **38** (2): 381-402, March **2010**.

25. **Abdel Raheem S.E.**: Pounding Mitigation and Unseating Prevention at Expansion Joint of Isolated Multi-Span Bridges. *Engineering Structures*, **31** (10): 2345-2356, October 2009. doi:10.1016/j.engstruct.2009.05.010
26. **Abdel Raheem SE**, Hayashikawa T, Dorka UE (2009) Earthquake ground motion spatial variation effects on seismic response control of Cable-Stayed Bridges, *Journal of Structural Engineering, JSCE*, 55A: 709 - 718.
27. Hayashikawa, T., Mohamed Omar, **Abdel Raheem, S.E.**: Seismic analysis of cable stayed bridge steel towers with shape memory alloy anchor bolts, *Journal of Earthquake Engineering, JSCE*, Hokkaido branch, Vol. 64, 1-6, 2008.
28. **Abdel Raheem S.E.**, Dorka, U.E. and Hayashikawa, T.: Friction based semi-active control of cable-stayed bridges, *Journal of Structural Engineering, JSCE*, Vol.53A, pp. 428 - 438, 2007.
29. **Abdel Raheem S.E.** and Hayashikawa T.: Damping characteristics in soil-foundation-superstructure interaction model of cable-stayed bridges tower, *Journal of Construction Steel, JSSC*, Vol. 15, pp. 261-268, 2007.
30. **Abdel Raheem S.E.**: Seismic response of cable-stayed bridge tower with semi-rigid base connection modelling, *Journal of Engineering Sciences, Assiut University*, 34(6): 1743-1755, 2006.
31. **Abdel Raheem S.E.**: Seismic Pounding between Adjacent Building Structures, *Electronic Journal of Structural Engineering – EJSE, The University of Melbourne*, 6: 66 -74, 2006.
32. **Abdel Raheem S.E.** and Hayashikawa T.: Dynamic analysis of cable-stayed bridge tower under level II earthquake ground motion, *Steel Construction Engineering, JSSC*, 11: 47-58, 2004.
33. Hayashikawa T., Kawakami T. and **Abdel Raheem S.E.**: Improvement of Seismic Performance of Tower of Cable-Stayed Bridges with Low Yield Material, *Journal of Construction Steel, JSSC*, 12: 25-30, 2004.
34. **Abdel Raheem S.E.**, Hayashikawa T. and Hashimoto I. Seismic analysis of cable-stayed bridges tower including base connections anchor bolts lift-off, *JSCE Journal of Earthquake Engineering*, Vol.27, Paper No. 11, 2003.
35. **Abdel Raheem SE**, Hayashikawa T (2003) Parametric study on steel tower seismic response of cable-stayed bridges under great earthquake ground motion, *Structural Engineering and Earthquake Engineering, JSCE*, 20(1): 25-41.
36. **Abdel Raheem SE**, Hayashikawa T, Hashimoto I (2003) Effects of soil-foundation-superstructure interaction on seismic response of cable-stayed bridges tower with spread footing foundation, *Journal of Structural Engineering, JSCE*, 49A: 475-486.
37. **Abdel Raheem SE**, Hayashikawa T, Sato K (2002) Effect of frameworks on dynamic behavior of steel towers of cable-stayed bridge under great earthquake ground motions, *Journal of Structural Engineering, JSCE*, 48: 359-368.
38. Hayashikawa T. and **Abdel Raheem S.E.**: Nonlinear dynamic behavior of steel tower of cable-stayed bridges with passive energy dissipation system, *Journal of Structural Engineering, JSCE*, 48: 863-874, 2002.
39. **Abdel Raheem S. E.** and Hayashikawa T.: Effects of Construction imperfections on steel tower dynamic response of cable-stayed bridge under great earthquake, *Journal of Construction Steel, JSSC*, 10: 355-362, 2002.
40. **Abdel Raheem S.E.**, Hayashikawa T. and Hashimoto I.: Study on foundation flexibility effects on steel tower seismic response of cable-stayed bridges under great earthquake ground motion, *Journal of Construction Steel, JSSC*, 10: 349-354, 2002.
41. Hayashikawa T., Haga Y., Yahara D. and **Abdel Raheem S.E.**: Effect of horizontal beam on nonlinear dynamic response of steel towers of cable-stayed bridges under great earthquakes, *Journal of Construction Steel-JSSC*, 9: 301-308, 2001.
42. Abdel Shafy AGA, Abdel Said FK, Ahmed HH, **Abdel Raheem SE (2000)** Analysis of space trusses using nonlinear elastic and elasto-plastic models, *Bulletin of Faculty of Engineering, Assiut University*, 28(1): 1-9.
43. Abdel Shafy AGA, Abdel Said FK, Ahmed HH, **Abdel Raheem SE (1999)** Constitutive models of tubular strut members in elastic and elasto-plastic analysis, *Bulletin of Faculty of Engineering, Assiut University*, 27(2): 59-75.

C. Main Papers in International conference proceedings

1. **Abdel Raheem S.E.**: "Ground Motion Spatial Variation Effects On Seismic Performance of Structural Control Of Cable-Stayed Bridges, The Ninth International Conference on Structural Dynamics (EURODYN 2014), Porto, Portugal, Paper ID. ABS_1027, 30 June - 2 July **2014**.
2. **Abdel Raheem S.E.**, Hayashikawa T.: "Mitigation Measures for Expansion Joint Effects on Seismic Performance of Bridge Structures, the Thirteenth East Asia-Pacific Conference on Structural Engineering and Construction (EASEC-13), Sapporo, Japan, Paper No. 286, September 11-13, **2013**.
3. **Abdel Raheem S.E.**: Evaluation and Mitigation of Earthquake Induced Pounding Effects on Adjacent Buildings Behavior, 2013 World Congress on Advances in Structural Engineering and Mechanics - ASEM13 Congress, Jeju, Korea, Paper ID. MS509_201, September 8-12, **2013**.

4. **Shehata E. ABDEL RAHEEM** and ElSayed M. A. ABDEL AAL: Finite Element Analysis for Structural Performance of Offshore Platforms under Environmental Loads, *10th International Conference on Damage Assessment of Structures (DAMAS 2013)*, Trinity College, Dublin, 8-10 July **2013**. (*Key Engineering Materials, Damage Assessment of Structures X*), pp. 159-166.
5. **Abdel Raheem S.E.**: Mitigation measures for seismic pounding effects on adjacent buildings responses, *4th conference of Computational Mechanics, Structural Dynamics and Earthquake Engineering - COMPDYN 2013*, Kos Island, Greece, Paper ID. 1699, 12-14 June **2013**.
6. **Abdel Raheem S.E.**, and Hayashikawa, T.: Effect of Expansion Joint Modeling on the Seismic Response of Bridge Structures, *15th World Conference on Earthquake Engineering, 15WCEE*, Lisbon, Portugal, Paper No. 3232, 24-28 September **2012**.
7. **Shehata E. Abdel Raheem**, Sayed M. A. Abdel Aal, Aly G. A. Abdel Shafy, Fayez K. Abdel Seed.: Nonlinear Analysis Of Offshore Structures Under Wave Loadings, *15th World Conference on Earthquake Engineering, 15WCEE*, Lisbon, Portugal, Paper No. 3270, 24-28 September **2012**.
8. **Abdel Raheem S.E.**: Seismic Pounding at Expansion Joints of Multi-Span Bridge Structures, *7th International Engineering Conference, 7th IEC*, 23-28 March **2010**, Mansoura / Sharm El-sheikh.
9. **Abdel Raheem S.E.** and Hayashikawa, T.: Seismic Response Control of Cable-Stayed Bridge Tower with Low Yield Steel Hysteretic Damper, *The Eleventh East Asia-Pacific Conference on Structural Engineering & Construction, EASEC-11*, Taipei, Taiwan, November 19-21, 2008, Paper ID 413, 2008.
10. **Abdel Raheem S.E.**, and Hayashikawa, T.: Innovative control Strategy for seismic pounding mitigation of bridge structures, *14th World Conference on Earthquake Engineering, 14WCEE*, Beijing, China, Paper No. 05-02-0107, 12-17 October 2008.
11. **Abdel Raheem S. E.**, Hayashikawa, T. and Dorka, U.: Spatial Variation Effects on Seismic Response Control of Cable-Stayed Bridges, *14th World Conference on Earthquake Engineering, 14WCEE*, Beijing, China, Paper No. 05-02-0015, 12-17 October 2008.
12. **Abdel Raheem S. E.** and Hayashikawa, T.: Control strategy for seismic pounding mitigation of bridge structures, *International Association for Bridge and Structural Engineering – IABSE Conference, Information and Communication Technology (ICT) for Bridges, Buildings and Construction Practice*, Helsinki, Finland, June 4-6, 2008, CD-ROM, Paper ID. B35, 2008.
13. **Abdel Raheem S.E.** and Hayashikawa, T.: Vibration and Damping Characteristics of Cable-Stayed Bridges Tower, *International Association for Bridge and Structural Engineering – IABSE Conference, Information and Communication Technology (ICT) for Bridges, Buildings and Construction Practice*, Helsinki, Finland, June 4-6, 2008, CD-ROM, Paper ID. F15, 2008.
14. Mohamed OMAR, Toshiro HAYASHIKAWA and **Shehata E. ABDEL RAHEEM**, Seismic Analysis of Cable-stayed Bridge Steel Towers with Base Plate Lift-off , *Twelfth International Colloquium on Structural and Geotechnical Engineering, ICSGE*, Cairo, Egypt, December 2007.
15. **Abdel Raheem S.E.**, Hayashikawa T.: Seismic protection of cable-stayed bridges under multiple-support excitations, *4th International Earthquake geotechnical Engineering – 4ICEGE*, Thessaloniki, Greece, 25-28 June 2007, Paper No. 1361.
16. **Abdel Raheem S.E.**, Hayashikawa T.: Low Yield Steel Energy Dissipation Link for Seismic Protection of Cable-Stayed Bridge towers, *7th German-Japanese Bridge Symposium – GJBS07*, Osaka, Japan, July 30 – August 1, 2007, 25-41.
17. **Abdel Raheem S.E.**, Hayashikawa T.: Bi-directional seismic response control for bridge structures, *International Association for Bridge and Structural Engineering – IABSE Symposium, Improving Infrastructure Worldwide – Bringing People Closer*, Weimar, Germany, 19-21 September 2007, Paper No. 68, 2007.
18. **Abdel Raheem S. E.** and Hayashikawa T.: Characterization of biaxial interaction of seismic isolation for bridge structures, *Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, Vol. 63, pp.200-203, 2007.
19. **Abdel Raheem S. E.** and Dorka, U.E.: Feasibility study on semi-active control of the cable-stayed bridge benchmark with friction device system, *4th World Conference on Structural Control and Monitoring - 4WCSCM*, San Diego, California, U.S.A., 11-13 July 2006, Paper No. 32, 2006.
20. **Abdel Raheem S. E.**: Friction Device system for Semi-Active Control of Cable-Stayed Bridges, *Symposium Stahl & Verbund 2005*, Kassel, Germany, pp. 26-36, 2005.
21. **Abdel Raheem S. E.**: Evaluation and prevention of seismic pounding between adjacent building structures, *3rd Egyptian Conference on Earthquake Engineering - EGYQUAKE 3*, Cairo, Egypt, 6-8 December 2004, 253-266, 2004.

22. Hayashikawa T., **Abdel Raheem S. E.** and Hashimoto I.: Nonlinear seismic response of soil-foundation-structure interaction model of cable-stayed bridges tower, 13th World Conference on Earthquake Engineering, Vancouver, Canada, Paper No. 3045, 1-6 August 2004.
23. Abdel-Shafy A. G. A., Moawad M. A., Aly M. M., **Abdel Raheem S. E.** and Hussein M. O.: Nonlinear response analysis of steel towers of cable-stayed bridge under earthquake motion, *3rd Egyptian Conference on Earthquake Engineering - EGYQUAKE 3*, Cairo, Egypt, 6-8 December 2004, pp 267-281.
24. **Abdel Raheem S. E.**, Hayashikawa T.: Soil structure interaction effect on seismic response of cable-stayed bridges tower, 1st International Conference of Civil Engineering Science (ICCES1), Egypt, 480-491, 7-8 October 2003.
25. **Abdel Raheem S. E.** and Hayashikawa T.: Nonlinear behavior of cable-stayed bridges tower under level II earthquake ground motion, *International Workshop on Structural Health Monitoring of Bridges/Colloquium on Bridge Vibration*, Kitami, Japan, pp. 133-140, 1-2 September 2003.
26. **Abdel Raheem S. E.** and Hayashikawa T.: Soil structure interaction effect on seismic response of cable-stayed bridges tower, 1st International Conference of Civil Engineering Science (ICCES1), Egypt, 480-491, 7-8 October 2003.
27. **Abdel Raheem S. E.**, Hayashikawa T. and Hashimoto I.: Seismic tower response of cable-stayed bridges including nonlinear soil interaction, *Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, 59:200-203, 2003.
28. Hayashikawa T., Hirooka T., Ikeda K. and **Abdel Raheem S. E.**: Dynamic behavior of viaducts with PC cables in consideration of pounding of girders and energy absorption, *Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, **59**, 50-53, 2003.
29. Hayashikawa T., Kawakami T., **Abdel Raheem S. E.** and Sato K.: Seismic response analysis of steel tower of cable-stayed bridge with residual stress, *Proceedings of Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, **59**, 204-207, 2003.
30. Hayashikawa T., **Abdel Raheem S.E.**: Steel tower seismic response of cable-stayed bridges with passive energy dissipation system, *7th International Conference on STEEL & SPACE STRUCTURES*, Singapore, 191-198, 2-4 October 2002.
31. Hayashikawa T., Aly G. A. and **Abdel Raheem S. E.**: Dynamic response of steel tower of cable-stayed bridge with construction imperfection under great earthquake ground motion, *Proceedings of Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, **58**, 108-111, 2002.
32. Hayashikawa T., Aly G. A. and **Abdel Raheem S. E.**: Effect of vertical ground motion on seismic response of steel tower of cable-stayed bridges, *Proceedings of Hokkaido Chapter of the Japan Society of Civil Engineers, JSCE*, **58**, 112-115, 2002.
33. Hayashikawa T., Yahara D., Abdel Raheem S. E.: Effect of base isolation device on steel tower seismic response of cable-stayed bridge under great earthquake, *26th JSCE Earthquake Engineering Symposium*, Earthquake Engineering Committee, Japan Society of Civil Engineering, Sapporo, Japan, **2**, 1013-1016, 2001.
34. Hayashikawa T., Yahara D., Haga Y., Abdel Raheem S.E.: Isolated effect on dynamic behavior of steel tower under great earthquake, *Proceedings of Hokkaido Chapter of the Japan Society of Civil Engineers*, **57**, 254-257, 2001.

D. Edited Books

- 1- **Abdel Raheem, S. E.**, Hayashikawa, T. and Dorka U.: *Seismic Performance of Cable-Stayed Bridge Towers: Nonlinear Dynamic Analysis, Structural Control and Seismic Design* (Taschenbuch), **VDM Verlag** (3. November 2009), ISBN: 978-3639202236.
- 2- **Abdel Raheem, S. E.**, Hayashikawa, T. and Dorka U.: *Advances in Engineering Research. Volume 2: edited by Victoria M. Petrova. Chapter: Structural Control of Cable-Stayed Bridges*, **Nova Publishers**, 2011, ISBN: 978-1613247099.

E. Theses

1. **Abdel Raheem**, Shehata Eldabie, " **Tower Nonlinear Dynamic Response of Cable-Stayed Bridges Under Great Earthquake Ground Motion**", *Ph.D. Thesis (Earthquake, Bridge, Structural and Geotechnical Engineering)*, Graduate School of Engineering, Hokkaido University, Sapporo, Japan, September 2003.
2. **Abdel Raheem**, Shehata Eldabie, " **Elastic and Elasto-plastic Nonlinear Analysis of Space Trusses**", *M.Sc. Thesis (Structural Engineering)*, Civil Engineering Dept., Faculty of Engineering, Assiut University, Egypt, May 1999.