

List of Publications

In International Journals/Book Chapters

1. Mondal, Sandip, and Ghosh, Aparna (Dey). (2018) "Investigation into the optimal bacterial concentration for compressive strength enhancement of microbial concrete." *Construction and Building Materials* Volume 183, pp 202-214.
2. Bhattacharyya, Soumi, Ghosh, Aparna (Dey) and Basu, Biswajit. (2017) "Nonlinear Modeling and Validation of Air Spring Effects in a Sealed Tuned Liquid Column Damper for Structural Control." *Journal of Sound and Vibration* Volume 410, pp 269-286.
3. Dziejch, K., Staszewski, W. J., Ghosh, A., Basu, B. and Uhl, T. (2017) "Characterisation of instantaneous dynamic parameters in vibration analysis of tuned liquid column dampers." *Nonlinear Dynamics*. Volume 90, Issue 1, pp 717–731. DOI 10.1007/s11071-017-3690-z
4. Bhattacharyya, Soumi, Ghosh, Aparna (Dey) and Basu, Biswajit. (2017) "Experimental investigations into CLCD with identification of damping effects." *Journal of Structural Engineering (ASCE)*.143(9): 06017003 DOI: [http://dx.doi.org/10.1061/\(ASCE\)ST.1943-541X.0001788](http://dx.doi.org/10.1061/(ASCE)ST.1943-541X.0001788)
5. Bandopadhyay, Ritwik, Soumyabrata, Maiti, Ghosh, Aparna (Dey) and Chatterjee, Anindya. (2017) "Overhead water tank shapes with depth-independent sloshing frequencies for use as TLDs in buildings." *Structural Control and Health Monitoring (Wiley)*. DOI:10.1002/stc.2049
6. Mondal, Papiya D., Ghosh, Aparna D. and Chakraborty, Subrata. (2016) "Control of underground blast induced building vibration by shape-memory-alloy rubber bearing (SMARB)." *Structural Control and Health Monitoring (Wiley)*. DOI: 10.1002/stc.1983
7. Dziejch, K., Staszewski, W.J., Uhl, T., Ghosh, A. and Basu, B. (2016) "Non-linear damping identification in tuned liquid column dampers." *Insights and Innovations in Structural Engineering, Mechanics and Computation – Zingoni (Ed.) (Taylor and Francis)*. DOI: 10.1201/9781315641645-23
8. Roy, Anuja, Ghosh, Aparna Dey and Chatterjee, Shyamal. (2016) "Influence of Tuning of passive TLD on the seismic vibration control of elevated water tanks under various tank-full conditions." *Structural Control and Health Monitoring (Wiley)*. Volume 24, Issue 6 DOI: 10.1002/stc.1924
9. Mondal, Papiya D., Ghosh, Aparna D. and Chakraborty, Subrata. (2016) "Performances of various base isolation systems in mitigation of structural vibration due to underground blast induced ground motion." *International Journal of Structural Stability and Dynamics (World Scientific)*. DOI: <http://dx.doi.org/10.1142/S0219455417500432>
10. Gangopadhyay, Avijit and Ghosh, Aparna (Dey). (2016). "Seismic retrofitting of an existing steel railway bridge by fluid viscous dampers." *Journal of The Institution of Engineers (India): Series A*, 97(3), 291-297.
11. Roy, A., Staino A., Ghosh, A.(D.), Basu B. and Chatterjee, S. (2016) "Seismic Vibration Control of Elevated Water Tank by TLD and Validation of Full-Scale TLD Model through Real-Time-Hybrid-Testing." *Journal of Physics: Conference Series (IOP Science)*, 744(1), 1-11. DOI: 10.1088/1742-6596/744/1/012042.
12. Mondal, D. P., Ghosh (Dey), A. and Chakrabarty, S. (2014) "Fluid viscous damper in mitigation of structural vibration effect due to underground blast." *Int. J. Materials and Structural Integrity (Inderscience Enterprises Ltd.)* 8 (4), 273-290.
13. Mondal, D. P., Ghosh (Dey), A. and Chakrabarty, S. (2014) "Control of underground blast induced vibration of structures using fluid viscous damper" *Journal of Vibration Engineering and Technologies*, 2 (1), 27-33.

14. Mondal, D. P., Ghosh (Dey), A. and Chakrabarty, S. (2014) "Performance of N-Z system in mitigation of underground blast induced vibration of structures." *Journal of Vibration and Control (SAGE)*, 20 (13), 2019-2031.
15. Konar, T. and Ghosh (Dey), A. (2013) "Bimodal vibration control of seismically excited structures by the liquid column vibration absorber." *Journal of Vibration and Control (SAGE)*, 19(3), 385-394.
16. Ghosh, A. (D.), Bhattacharyya, S. and Roy, A. (2013), "On the seismic performance of elevated water tanks and their control using TLDs." *Key Engineering Materials (Trans Tech Publications)*, Vols. 569-570, pp. 270-277. DOI 10.4028/www.scientific.net/KEM.569-570.270
17. Konar, T. and Ghosh (Dey), A. (2010) "Passive control of seismically excited structures by the liquid column vibration absorber." *Structural Engineering and Mechanics, An International Journal (Techno Press)*, 36 (5), 561 -573.
18. Ghosh, R. and Ghosh (Dey), A. (2009) "Passive control of seismic response of soil-structure system by the compliant liquid column damper." *Int. J. Materials and Structural Integrity (Inderscience Enterprises Ltd.)*, 3(4), 332-352.
19. Ghosh, A., and Basu, B. (2008). "Seismic vibration control of nonlinear structures using the liquid column damper." *Journal of Structural Engineering (ASCE)*, 134(1), 146-153.
20. Ghosh, R. K., and Ghosh (Dey), A. (2008). "Soil interaction effects on the performance of compliant liquid column damper for seismic vibration control of short period structures." *Structural Engineering and Mechanics, An International Journal (Techno Press)*, 28(1), 89-106.
21. Murtagh, P. J., Ghosh, A., Basu, B., and Broderick, B. M. (2008). "Passive control of wind turbine vibrations including blade/tower interaction and rotationally sampled turbulence." *Journal of Wind Energy (John Wiley & Sons, Ltd.)*, 11(4), 305 - 317.
22. Ghosh, A., and Basu, B. (2007). "Alternative approach to optimal tuning parameter of liquid column damper for seismic applications." *Journal of Structural Engineering (ASCE)*, 133(12), 1848-1852.
23. Ghosh, A., and Basu, B. (2007). "A closed form optimal tuning criterion for TMD in damped structures." *Structural Control and Health Monitoring (John Wiley & Sons, Ltd.)*, 14, 681-692.
24. Ghosh, A., and Basu, B. (2005). "Effect of soil interaction on the performance of the liquid column damper for seismic applications." *Earthquake Engineering and Structural Dynamics (John Wiley & Sons, Ltd.)*, 34, 1375-1389.
25. Ghosh, A., and Basu, B. (2004). "Seismic vibration control of short period structures using the liquid column damper." *Engineering Structures (Elsevier)*, 26, 1905-1913.
26. Ghosh, A., and Basu, B. (2004). "Effect of soil interaction on the performance of tuned mass dampers for seismic applications." *Journal of Sound and Vibration (Elsevier)*, 274, 1079-1090.
27. Ghosh, A., and Basu, B. (2004). "Equivalent viscous damping of a liquid column damper." *Advances in Vibration Engineering(The Vibration Institute of India.)*, 3(4), 312-319.
28. Dey, A., and Gupta, V. K. (1999). "Stochastic seismic response of multiply supported secondary systems in flexible - base structures." *Earthquake Engineering and Structural Dynamics (John Wiley & Sons, Ltd.)*, 28, 357-369.
29. Dey, A., and Gupta, V. K. (1998). "Response of multiply supported secondary systems to earthquakes in frequency domain." *Earthquake Engineering and Structural Dynamics (John Wiley & Sons, Ltd.)*, 27, 187-201.

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30. Bhattacharyya, Soumi, Ghosh, Aparna (Dey) and Basu, Biswajit. (2017) "Performance of compliant liquid column damper for seismically excited structures." *Journal of Structural Engineering(CSIR-SERC)*, 44(3), 228-235.
31. Roy, A. K. and Ghosh, A. (Dey). (2016). "A study on the design parameters of the compliant LCD for structural vibration control under near fault earthquakes." *Journal of Structural Engineering(CSIR-SERC)*, 43(1), 10-19.

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32. Mondal, Sandip, and Ghosh, Aparna (Dey). (2017) "Microbial concrete as a sustainable option for infrastructural development in emerging economies." *ASCE India conference 2017, Urbanization Challenges in Emerging Economies*, 12th December – 14th December, IIT Delhi, India. Paper No. 0078_0116_000298.
33. Bhattacharyya, S., Ghosh, A. D. and Basu, B. (2017) "Estimation of supplemental damping by a compliant liquid column damper for seismic vibration control of structures." *ICOVP, 13th International Conference on Vibration Problem*, 29th November – 2nd December, IIT Guwahati, India. Paper No. 355.
34. Dutta, N. K. and Ghosh, A. D. (2017) "Vibration control of seismically excited adjacent buildings prone to pounding by use of friction dampers." *ICOVP, 13th International Conference on Vibration Problem*, 29th November – 2nd December, IIT Guwahati, India. Paper No. 356.
35. Roy, A. K. and Ghosh, A. (Dey) (2014). "A Study on the Design Parameters of the Compliant LCD for Structural Vibration Control under Near Fault Earthquakes", *Structural Engineering Convention (SEC 2014)*, IIT Delhi, India; *Volume 2 of Advances in Structural Engineering: Dynamics*, Springer, DOI: 10.1007/9798-81-322-2193-7_97, pp 1243-1255.
36. Majumder, Rohan and Ghosh, Aparna (Dey) (2014). "Performance Study of a SMA Bracing System for Control of Vibration due to Underground Blast Induced Ground Motion." *Structural Engineering Convention (SEC 2014)*, IIT Delhi, India; *Volume 1 of Advances in Structural Engineering: Mechanics*, Springer, DOI: 10.1007/9798-81-322-2190-6_34, pp 393-404.
37. Roy, Achintya Kumar. and Ghosh, Aparna (Dey) (2014). "Passive Control of Structural Vibrations due to Near-Source Ground Motions by the Compliant LCD." *Proc. 6th World Conference on Structural Control and Monitoring, (6WCSCM)*, July 15-17, Universitat de Catalunya, Barcelona, Spain.
38. Mondal, K.K. and Ghosh, A. (D). (2013). "Seismic vibration control of primary-secondary systems by the TLCD." *Proc. Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics (VEESD 2013)*, Vienna, Austria, Paper No. 537,.
39. Roy, A. and Ghosh, A. (D.) (2013). "Tuned Liquid Damper System for Seismic Vibration Control of Elevated Water Tanks." *Proc. International Conference on Structural Engineering and Mechanics, (ICSEM)*, NIT, Rourkela, India (Parallel Session 5A, Paper 4).
40. Bhattacharyya, S. and Ghosh, A. (D.) (2013). "Effect of Mass ratio on the Performance of a TMD with non-optimal damping." *Proc. International Conference on Structural Engineering and Mechanics, (ICSEM)*, NIT, Rourkela, India, (Parallel Session 5A, Paper 1).
41. Dutta Majumdar, J. and Ghosh, A. (D.) (2013). "Control of Wind-induced Vibration in Transmission Line Towers using Tuned Liquid Column Damper." *Proc. International Conference on Structural Engineering and Mechanics, (ICSEM)*, NIT, Rourkela, India, (Parallel Session 5A, Paper 2).
42. Roy, A. K. and Ghosh, A. (D.) (2013). "Control of Structural Vibrations due to Near-Fault Earthquake by Compliant Liquid Column Damper." *Proc. 58th Congress of ISTAM (International Society of Theoretical and Applied Mechanics)*, Bengal Engineering and Science University, Shibpur, India.
43. Majumder, R. and Ghosh, A. (D.) (2013). "Control of Structural Vibrations due to Underground Blast using SMA dampers." *Proc. 58th Congress of ISTAM (International Society of Theoretical and Applied Mechanics)*, Bengal Engineering and Science University, Shibpur, India.
44. Ghosh, A. (D.), Bhattacharyya, S. and Roy, A. (2013). "On the seismic performance of elevated water tanks and their control using TLDs." *10th International Conference on Damage Assessment of Structures, (DAMAS)*, Dublin, Ireland; *Vol. 569-570 of Key Engineering Materials*, pp 270-77.
45. Mondal, K.K. and Ghosh, A. (D). (2013). "Seismic vibration control of primary-secondary systems by the TLCD." *Proc. Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics (VEESD 2013)*, Vienna, Austria.
46. Ghosh, A. (D.), Saha, P. C. and Basu, B. (2012). "Study of a tank-pipe damper system for seismic vibration control of structures." *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal.

47. Roy, A. and Ghosh, A. (D.) (2012). "Design of a tuned liquid damper system for seismic vibration control of elevated water tanks." *Proc. International Symposium on Engineering under Uncertainty(ISEUSAM)*, Bengal Engineering and Science University, Shibpur, India.
48. Mondal, P. (D.), Ghosh, A. (D.) and Chakraborty, S. (2012). "Performance of N-Z base isolation system for structures subjected to underground blast." *Proc. International Symposium on Engineering under Uncertainty(ISEUSAM)*, Bengal Engineering and Science University, Shibpur, India.
49. Bhattacharya, S. and Ghosh, A. (D.) (2012). "A frequency domain study on the seismic response mitigation of elevated water tanks by multiple tuned liquid dampers." *Proc. International Symposium on Engineering under Uncertainty(ISEUSAM)*, Bengal Engineering and Science University, Shibpur, India.
50. Ghosh, A., Gangopadhyay, A., and Basu, B. (2011). "Performance investigation of multiple compliant liquid column dampers for control of seismic vibrations." *Proc. 8th International Conference on Structural Dynamics (EURODYN)*, Leuven, Belgium, 1671-1677.
51. Halder, J. K. and Ghosh, A. D. (2010). "Seismic vibration control of a bridge pier using compliant liquid column dampers." *Proc. VETOMAC-VI (Sixth International Conference on Vibration Engineering and Technology of Machinery)*, I.I.T. Delhi, N. Delhi, India, 634-641.
52. Mondal, P. D., Ghosh, A. D., and Chakraborty, S. (2010). "Control of blast induced vibration of structures using fluid viscous damper." *Proc. VETOMAC-VI (Sixth International Conference on Vibration Engineering and Technology of Machinery)*, I.I.T. Delhi, N. Delhi, India, 625-633.
53. Paul, S. and Ghosh (Dey), A. (2009). "Seismic vibration control of a multi-storeyed building by the liquid column damper." *Proc. ICOVP – 2009 (International Conference on Vibration Problems)* IIT, Kharagpur, India.
54. Ghosh, R. K., and Ghosh (Dey), A. (2007). "Seismic applications of the liquid column damper to short period structures." *Proc. CENeM- 2007 (International Conf. on Civil Engineering in the New Millennium – Opportunities and Challenges)* at Bengal Engineering and Science University, Shibpur, India.
55. Ghosh, A., and Basu, B. (2006). "Compliant liquid column dampers for control of seismically excited short period structures." *Proc. 1st ECEES(First European Conf. on Earthquake Engineering and Seismology)*, Geneva, Switzerland, ES 3d - 54.
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58. Dey, A., and Gupta, V. K. (1997) "Response transfer functions of multiply supported secondary systems." *Proc. 14thSMiRT Conf.*, Lyon, France, 8, 285-292.

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59. Mondal, Papiya D., Ghosh, Aparna D. and Chakraborty, Subrata (2016). "Comparative study on N-Z and SMA-assisted bearings for structural control against blast induced ground motion." *Proc. ISSS National Conference on MEMS, Smart Materials, Structures and Systems*, September 28-30, 2016, Kanpur, India.
60. Sah, Sonam and Ghosh, Aparna (Dey) (2016). "Response mitigation of transmission tower subjected to tornado loads by fluid viscous dampers." *Proc. The Eighth National Conference on Wind Engineering*, December 16-17, 2016, IIT (BHU), Varanasi, India.
61. Roy, Madhusree and Ghosh, Aparna (Dey) (2016). "Cyclone wind response mitigation of transmission towers by SMA dampers." *Proc. SEC – 2016 (Structural Engineering Convention)* CSIR-SERC Chennai, India.
62. Bhattacharyya, S. and Ghosh, Aparna (Dey) (2016). "Performance of compliant liquid column damper for seismically excited structures." *Proc. SEC – 2016 (Structural Engineering Convention)* CSIR-SERC Chennai, India.
63. Das, Mrinmoy and Ghosh, Aparna (Dey) (2016). "Mitigation of structural pounding by the tuned mass damper." *Proc. SEC – 2016 (Structural Engineering Convention)* CSIR-SERC Chennai, India.

64. Bhattacharya S. and Ghosh, A. (D.) (2012). "Seismic vibration control of elevated water tanks by multiple tuned liquid dampers." *Proc. ISET Golden Jubilee Symposium, Indian Society of Earthquake Technology, IIT, Roorkee, India.*
65. Ghosh, R. K. and Ghosh (Dey), A. (2008). "Passive control of seismic response of soil-structure system by the compliant liquid column damper." *Proc. SEC – 2008 (Structural Engineering Convention) SERC Chennai, India.*
66. Ghosh, R. K., and Ghosh, A. (2006). "Design of a compliant liquid column damper for seismic vibration control of stiff structures." *Proc. 13SEE- 06 (13th Symposium on Earthquake Engineering) IIT, Roorkee, India, Vol. II, 1390-1400.*
67. Ghosh, R. K., and Ghosh, A. (2005). "SSI effects on the performance of compliant LCD model for seismic vibration control of short period structures." *Proc. SEC – 2005 (Structural Engineering Convention) IISc, India, 403.*