

PAPERS PUBLISHED - 2005-06

During the year, the following research papers were published in several Indian and foreign Journals / Proceedings of Conferences/ Symposia:

1. Abraham, A., Harikrishna, P., Gomathinayagam, S. and Lakshmanan, N., "Failure investigation of microwave towers during cyclones - A case study", Journal of Structural Engineering (SERC), Vol. 32, No. 3, August-September 2005, Pages 147-157.
2. Abraham, A., Harikrishna, P., Gomathinayagam, S. and Lakshmanan, N., 'Dynamic response of a steel lamp mast under natural wind conditions', Proceedings of the 3rd National Conference on Wind Engineering, Kolkata, January 2006 , pp. 131-138
3. Annie Peter J. and Gopalakrishnan S., 'High Performance Concretes-An overview of research development', Journal of Metal Materials and Processes, Vol. 17, No.2, pp. 113-128, 2005
4. Annie Peter J., Devadas Manoharan P., and Lakshmanan N. (2006) 'Self-Compacting Concrete - A comprehensive study', Proceedings of the National Seminar on Urban Development- Housing, Ahmedabad , pp. 239-250.
5. Anandavalli, N., Lakshmanan, N., Jayaraman, R. and Thandavamoorthy, T.S., "Testing and evaluation of full scale beam-column joints of power plant structures", Journal of Structural Engineering, SERC, Vol.32, No.1, April-May 2005, pp. 1-9.
6. Anandavalli, N., Lakshmanan, N., and Jayaraman, R., "Influence of shear deformation on ductility factor", Proc. Of the National Conference on Earthquake Analysis and Design of Structures, PSG College of Technology, Coimbatore, Feb. 2- 3, pp. D89-D96.
7. Anoop, M.B., Balaji Rao, K. and Gopalakrishnan, S., 'Conversion of probabilistic information into fuzzy sets for engineering decision analysis', Computers & Structures, Vol. 84, January 2006, pp. 141-155.
8. Anoop, M.B., Balaji Rao, K. and Lakshmanan, N., 'Safety assessment of austenitic steel nuclear power plant pipelines against stress corrosion cracking in the presence of hybrid uncertainties', Structural Engineering Convention (SEC-2005), held at Indian Institute of Science, Bangalore, during 14-16 December, 2005 (in CD format).
9. Arul Jayachandran S., Raman N., Seetharaman S. and Karisiddappa, "P-Δ effects in the design of steel frames- Comparative study of the new Revised IS: 800 and BS 5950-Part 1-2000", Masterbuilder, March-April, 2005

10. Arul Jayachandran S., Seetharaman S., Pandian N. and Lakshmanan N. "Cold-formed steel systems for residential buildings", Invited paper, India-Australia Workshop on cold-formed steel structures, IIT Madras, January 109-128, 2006.
11. Arunachalam, S., Lakshmanan, N., Ramesh Babu, G., Selvi Rajan, S., and Panneer Selvam, R., "Wind-induced interference studies on a square building model", Proceedings of third National Conference on Wind Engineering, Kolkata, Jan. 5-7, 2006, pp. 446-453.
12. Balaji Rao, K., 'Service life design of RC structural members - studies at SERC, Chennai', *Keynote Paper* at 2nd National Conference on Advances in Materials and Mechanics of Concrete Structures (NCAMMCS), held at IIT, Madras during 12-13 August, 2005, pp. 395-404.
13. Balaji Rao, K., Anoop, M. B. and Vaidyanathan, C.V., 'Some studies on Markov Chain Monte Carlo', International Conference on Computational and Experimental Engineering and Sciences (ICCES05), held at IIT, Madras, December 1-6, 2005 (in CD format).
14. Balaji Rao, K., 'Markov chain modelling of evolution of serviceability-related effects in flexural members', *Invited Presentation*, Structural Engineering Convention (SEC-2005), held at Indian Institute of Science, Bangalore, 14-16 December, 2005 (in CD format).
15. Bharatkumar, B.H., Balasubramanian, K., and Krishnamoorthy, T.S., "Flexural Behaviour of RC Beams Containing Fly Ash and Slag", Proc. of the Structural Engineering Convention (SEC-2005), IISc, Bangalore, Dec.2005 (in CD).
16. Biernacki, J.J., Gopalakrishnan, S., Garci-Juenger, M.C., Lopez de Murphy, M., Subramaniam, K., Weiss, J., Janson, D., Lakshmanan, N., and Shah, S.P., "Indo-US Workshop on high performance concrete composites", Journal of Structural Engineering, Vol. 32, No.4 Oct.-Nov., 2005, pp 275-282.
17. A.Chellappan "Retrofittings of Masonary Buildings - Part-II Codal Provisions" National programme for Capacity Building of Engineers in earthquake risk management, SERC, Chennai, May 2005, pp.8.47-8.60
18. A.Chellappan "Retrofitting of masonry buildings - Part I General" National programme for Capacity Building of Engineers in earthquake risk management, SERC, Chennai, May 2005, pp.8.29-8.46
19. Dattatreya, J.K., Neelamegam, M., and Rajamane, N.P., "A Comparison of Effect of Ultra Fine Fly Ash and Silica Fume in Concrete", The Indian Concrete Journal, February 2006, pp.44-50
20. Durai Bango S., Senthil, R., Seetharaman, S., Arul Jayachandran S., and Marimuthu V., "Types and modelling of semi rigid connections in steel frames", Paper presented at the National Conference on Innovative

Technologies in Civil Engineering held at CIT, Coimbatore during March 20-21, 2006.

21. Gomathinayagam, S., Vendhan, C.P. and Lakshmanan, N., "Random wind loading on structures close to ground - a field approach in natural wind", Proc. of the National Symposium on Structural Dynamics, Random Vibrations and Earthquake Engineering, IISc, Bangalore, pp 125-132, July 2005.
22. Helen M. Santhi, Samuel Knight, G.M., and Muthumani, K., 'Evaluation of seismic performance of gravity load designed reinforced concrete frames', Journal of Performance of Constructed Facilities, American Society of Civil Engineers, Vol.19, No.14, November 2005, pp.277-289
23. Kesavan, K., Ravi Sankar, K., Parivallal, S. and Sreeshylam, P., "Technique to assess the residual prestress in prestressed concrete members", Experimental Techniques, SEM, USA, Vol. 29, No.5, September/October 2005, pp 33 to 38
24. Kesavan, K., Ravi Sankar, K., Parivallal, S. and Sreeshylam, P., "Non destructive evaluation of residual stresses in welded plates using Barkhausen noise technique", Experimental Techniques, SEM, USA, Vol.29 , No.5, September/October 2005, pp17- 21
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27. Kunal D. Kansara and Ramanjaneyulu, K., "Influence of geometric nonlinearities on the response of suspension bridges", Proceedings of *Structural Engineering Convention 2005 (SEC-2005)*, December 14-16, 2005, IISc., Bangalore (CD Format)
28. Kunal, D. Kansara and Ramanjaneyulu, "Fuzzy logic based analytical load rating of existing bridges", Proc. National Conference on "Advances in Bridge Engineering (ABE)", held at IIT Roorkee, during March 24-25, 2006.
29. Lakshmanan, N., "R&D in structural concrete: recent Trends from India", 2nd ICI-ASIAN Conference - ACECON, Bombay, 2005, September, pp 1-12.
30. Lakshmanan, N., "Effect of Shear span on damage index in concrete beam elements", National Symposium on Structural Dynamics, Random Vibration and Earthquake Engineering, IISc, Bangalore , July 2005, pp 51-59.

31. Lakshmanan, N., "Across wind response of structures", Proc. Of Structural Engineering Convention , SEC-2005, IISc., Bangalore, Dec. 2005, pp 283-294.
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33. Lakshmanan, N., "Seismic qualification of reinforced concrete structures", national Conference on Earthquake Analysis and Design of Structures , EQUADS-06, Coimbatore, Keynote paper, Feb.2006, pp K33-K48.
34. Lakshmanan, N., "Analysis and design of concrete structures", International Conference on Recent Advances in Concrete and Construction Technology, Keynote paper, SRM, 2005, pp K185-K202.
35. Lakshmanan, N., "Advanced structural testing and evaluation", Workshop on Seismic Structural Analysis and Design, Keynote Lecture, SESTRAD, NIT, Trichy, Oct. 2005, pp 217-238.
36. Lakshmanan, N., "Use of bonded laminates for improving structural performance", Civil Engineering and Construction Review, Aug. 2005, pp 23-30.
37. Lakshmanan, N., Arunachalam, S., Selvi Rajan, S., Ramesh Babu, G., and Panneer Selvam, R. "Wind tunnel pressure measurement study on a memorial tower", Proceedings of the Sixth Asia-Pacific conference on Wind Engineering (APCWE VI), Seoul, S.Korea, Sep 12-14, 2005, pp 669-678.
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 44. Lakshmanan, N., and Ramanjaneyalu, K., "Bridge maintainance - A future perspective", CEMCON-2006, Pune, pp 99-102.
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 55. Muthumani, K., Gopalakrishnan, N., and Sathish Kumar, K., 'Base isolation in structures', Proceedings of National Conference on Innovative Technologies in Civil Engineering, Coimbatore, March 20 & 21, 2006, pp.99-117
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