

TECHNICAL REPORTS

1. Rama Mohan Rao, A., Sivasubramanian, K and Umesha, P.K., “Structural system identification using non-classical approaches—a review”, Research Report No: OLP11541/1, May, 2005.
2. Rama Mohan Rao, A., Sivasubramanian, K and Umesha, P.K., “Particle swarm optimisation algorithm and it’s application to system identification and control”, Research Report No: OLP11541/2, October, 2005.
3. Rama mohan Rao, A., Ganesh, A., Umesha, P.K., Rama Mohan Rao, A., “Methodologies for optimal positioning of sensors for structural system identification”, Research Report No: OLP11541/2, November, 2005.
4. Rama Mohan Rao, A., Umesha, P.K., Sivasubramanian, K., “Development of robust and efficient parallel load balancing techniques employing genetic algorithms for parallel FEM/CFD computations”, SERC-ARDB project Report No. ARDB-SP-TR-03-1195-03 (March, 2006).
5. Venu Kumar D., Pukazhendhi DM., and Ramachandra Murthy D.S., “Fatigue crack growth analysis of stainless steel pipes with circumferential surface crack”, Report No.6, MLP 10941/CORE12, December 2005.
6. Prem Navin D., Mohan Rao G.N., and Ramachandra Murthy D.S., “Analytical studies on ratcheting response of SA333 carbon steel pipes”, Report No.5, MLP 10941/CORE12, December 2005.
7. Prem Navin D., Mohan Rao G.N., and Ramachandra Murthy D.S., “Studies on collapse load of defect free elbows under in-plane bending and internal pressure”, Report No.4, MLP 10941/CORE12, December 2005.
8. Venu Kumar D., and Ramachandra Murthy D.S., “Fatigue strength evaluation of 35 HP Sonalika tractor crankshafts”, Report No. COR 21-4, January 2006.
9. Venu Kumar D., and Ramachandra Murthy D.S., “Fatigue strength evaluation of 5 HP agriculture pump engine crankshafts”, Report No.3, CSIR Network Project COR 21, August 2005.
10. Anoop, M.B., Balaji Rao, K. and Lakshmanan, N, “A fuzzy model for environmental loading with respect to chloride-induced corrosion of reinforcement for reinforced concrete bridges”, SERC Project Report No. SS-OLP11641-RR-2005-1, May 2005.
11. Priya, C., Balaji Rao, K., Anoop, M.B., Lakshmanan, N and Manjuprasad, M., “System reliability analysis of reinforced concrete T-beam bridges – A preliminary report”, SERC Project Report No. SS-OLP11641-RR-2005-2, May 2005.

12. Balaji Rao, K., Anoop, M.B., Priya, C. and Lakshmanan, N., "Reliability analysis of partially prestressed concrete bridge girders against flexure", SERC Project Report No. SS- OLP11641-RR-2005-3, May 2005.
13. Anoop, M.B., Balaji Rao, K. and Lakshmanan, N., "Parametric studies on methodology for remaining life assessment of corrosion affected reinforced concrete bridge girders", SERC Project Report No. SS-OLP11641-RR-2005-4, November 2005.
14. Balaji Rao, K., Priya, C., Anoop, M.B. and Lakshmanan, N., "Finite element based reliability analysis of power plant pipe works subjected to erosion-corrosion", SERC Project Report No. SS-OLP11641-RR-2005-5, November 2005.
15. Balaji Rao, K., Anoop, M.B. and Lakshmanan, N., "Reliability analysis of reinforced concrete bridge piers subjected to stochastic seismic excitation using equivalent statistical cubicization technique – Formulations", SERC Project Report No. SS-OLP11641-RR-2005-6, November 2005.
16. Balaji Rao, K., Anoop, M.B. and Vaidyanathan, C.V., 'Some studies on Markov chain Monte Carlo', SERC Project Report No. SS-OLP11641-RR-2005-7, November 2005.
17. Sathish kumar, K., Muthumani, K., Gopalakrishnan, N., Sreekala, R., Dhiman Basu, and Avinash, S., 'Experimental Evaluation of Dynamic Characteristics of Laminated Rubber Bearing', SERC Research Report No.MLP 9641/20, April 2005
18. Sreekala, R., Avinash, S., Gopalakrishnan, N., Sathish kumar, K., and Muthumani, K., 'Experimental Study on a Passive Energy Dissipation Device Using Shape Memory Alloy', SERC Research Report No.MLP 9641/21, April 2005
19. Sreekala, R., Gopalakrishnan, N., Lakshmanan, N., and Muthumani, K., 'Damage Modelling of Reinforced Concrete from Cyclic Testing', SERC Research Report No.MLP 9641/22, April 2005
20. Muthumani, K., Gopalakrishnan, N., Sathish kumar, K., Sreekala, R., Dhiman Basu, Avinash, S., and Seshi Reddy, L.R., 'Development and Evaluation of Vibration Control Devices for Structural Systems under Seismic Excitation', SERC Research Completion Report (Part 1) No.MLP 9641/23, November 2005
21. Muthumani, K., Gopalakrishnan, N., Sathish kumar, K., Sreekala, R., Dhiman Basu, Avinash, S., and Seshi Reddy, L.R., 'Development and Evaluation of Seismic Base Isolation for Structural Systems under Seismic Excitation', SERC Research Completion Report (Part 2) No.MLP 9641/24, November 2005
22. Srinivas, V., and Ramanjaneyulu, K., "Damage detection of structures using genetic algorithms", SERC Research Report No. RCS-MLP10741-RR-2005-1, April 2005.
23. Saptarshi Sasmal, Ramanjaneyulu, K., and Lakshmanan, N., "Transfer matrix method for identification of damage in structures using vibration characteristics", SERC Research Report No. RCS-MLP10741-RR-2005-2, April 2005.
24. Kunal D. Kansara, and Ramanjaneyulu, K., "Condition rating of bridges – An overview", SERC Research Report No. RCS-MLP10741-RR-2005-3, April 2005.
25. N. Lakshmanan, Nagesh R. Iyer, K. Ravisankar, K. Muthumani, K. Ramanjaneyulu, N. Gopalakrishnan, G. Ramesh Babu, S. Parivallal, K. Kesavan, V. Srinivas,

- Saptarshi Sasmal, P. Sreeshylam, Kunal D. Kansara, and S. Sridhar, "Preliminary instrumentation and measurement of response of plate girder bridge No.42 at Tiruttani", Research Report No. CORE 12/Act.-VI/1/05, August 2005.
26. V.Srinivas and K.Ramanjaneyulu, "Genetic algorithm based damage detection of structures using vibration data", SERC Research Report No. RCS-MLP10741-RR-2005-4, October 2005.
 27. Saptarshi Sasmal, K.Ramanjaneyulu, and N. Lakshmanan, "Methodology for structural damage detection using uniform load surface curvatures obtained from vibration characteristics", SERC Research Report No. RCS-MLP10741-RR-2005-5, October 2005.
 28. Saptarshi Sasmal, K.Ramanjaneyulu, and N.Lakshmanan, "A method of analysis for detection and quantification of multiple cracks in beam like structures", SERC Research Report No. RCS-MLP10741-RR-2005-6, October 2005.
 29. Kunal D. Kansara, Saptarshi Sasmal and Ramanjaneyulu, K., "Methodology for load rating of existing concrete bridge superstructure using fuzzy logic", SERC Research Report No. RCS-MLP10741-RR-2005-7, October 2005.
 30. Sreeshylam, P., Ravisankar, K., Parivallal, S., Kesavan, K. and Sridhar, S., 'Comparative evaluation of measured long-term prestress losses and design code estimates', SERC Research Report No. EML-RR-2005-1, March 2005
 31. Kesavan, K., Ravisankar, K., Parivallal, S., Sreeshylam, P. and Sridhar, S., 'Development of displacement based technique for embedding EFPI fiber optic sensors in concrete', SERC Research Report No. EML-RR-2005-2, April 2005
 32. Ravisankar, K., Parivallal, S., Kesavan, K., Sreeshylam, P., Sridhar, S. and Narayanan, T., 'Application of fiber optic sensors for health monitoring of civil engineering structures', Final Project Report MLP 10241, Report No. EML-RR-2005-3, September 2005
 33. Sridhar, S., Ravisankar, K., Parivallal, S., Kesavan, K., and Sreeshylam, P., 'A State-of-the-Art Report on Remote Health Monitoring of Civil Engineering Structures', Research Report No. EML-RR-2006 - 1, SERC, March 2006
 34. Dattatreya,J.K., Neelamegam,M., "Characterization of Flexural Toughness of Fibre Concrete – A Review", Report NET/COR-0013-2005-1, August 2005.
 35. Neelamegam,M. and Dattatreya,J.K., "Characterization of Shrinkage of Concrete – A Review", Report NET/COR-0013-2005-2, August 2005.
 36. Neelamegam,M. and Dattatreya,J.K., "Studies of Shrinkage Characteristics of Concrete with Mineral Admixtures and Fibres", Report NET/COR-0013-2005-3, August 2005.
 37. Dattatreya,J.K., Neelamegam,M., "Studies of Diffusion Coefficient of Concrete Mixtures Incorporating Mineral Admixtures ", Report NET/COR-0013-2005-4, August 2005.
 38. Dattatreya,J.K., Neelamegam,M., "Studies on Electrical Resistivity of Concrete Mixtures Incorporating Mineral Admixtures ", Report NET/COR-0013-2005-5, August 2005.

39. Neelamegam,M., Balasubramanian,K., Bharatkumar,B.H., Dattatreya,J.K. and Sabitha,D.,“Design of Concrete Mixtures M45 Grade Using Ground Granulated Blast Furnace Slag as Supplementary Cementitious Material”, consultancy Project No. CNP-79641, July 2005.
40. Neelamegam,M. and Dattatreya,J.K.,“Advanced Cementitious Composites (ACCs) with Mineral Admixtures and Hybrid Fiber Reinforcement”, Review Report, RR/OLP11841/1-2005, Oct. 2005.
41. Rajamane N. P., J. Annie Peter, Ambily P. S. and Sabitha D., ‘Studies on steel fiber reinforced fly ash based lightweight aggregate concrete’, CCL-R&D-05-MLP 10641/RR-1/2005, June 2005, pp. 1-47
42. Rajamane N. P., J. Annie Peter, Sabitha D., and Ambily P. S. ‘Studies on development of Geo-polymeric Low-Energy Cement from industrial wastes for structural applications’, CCL-R&D-05-MLP 10641/RR-2/2005, August 2005, pp. 1-47
43. Palani G.S. Rama Chandra Murthy A., and Nagesh R. Iyer, “State-of-the-art review on fracture analysis of structural components with 3-D surface cracks”, CSD-MLP112-RR-02, April 2005.
44. Rajasankar J. and Nagesh R. Iyer, “State-of-the-art review on finite element analysis of reinforced concrete structural elements based on lumped damage mechanics”, CSD-MLP112—RR-03, April 2005.
45. Nagesh R. Iyer, A. Rama Chandra Murthy, G.S. Palani, J. Rajasankar and B. Yerrayya Swamy, “Implementation of non-linear transient dynamic analysis program modules including impact and contact algorithms”, Report No.CMM20-ST1-SERC-02-05, June 2005, Chennai.
46. Nagesh R. Iyer, G.S. Palani, and J. Rajasankar, “Finite element engineering analysis using adaptive refinement techniques – User Manual (Version 3b1)”, Report No. CMM20-ST1-SERC-03-05, October 2005.
47. Nagesh R. Iyer, J. Rajasankar and G.S. Palani, “Finite element engineering analysis using adaptive refinement techniques – Programming and Installation Manual (Version 3b1)”, Report No. CMM20-ST1-SERC-04-05, October 2005.
48. Rajasankar J. and, Nagesh R. Iyer, "Reliability-based Integrity Assessment of Critical Structural Elements", Report No. CORE12-CSD-RR-06, June 2005
49. Lakshmanan N., Nagesh R. Iyer, Ravisankar K., Muthumani K., Ramanajaneyulu K., Gopalakrishnan N., Ramesh Babu G. Kesavan K., Parivallal S., Sreeshylam P., Srinivas V. Saptarshi Sasmal, Sridhar S. and Kunal D. Kansara, “Preliminary instrumentation and measurement of response of plate girder bridge No.42 at Tiruttani”, Report No.CORE12/Act-VI/1/05, August 2005.
50. Rajasankar J. and, Nagesh R. Iyer, "Optimal Inspection Scheduling of Critical Structural Elements Based on Structural Integrity Assessment", Report No.CORE12-CSD-RR-07, September 2005.
51. Palani G.S. and Nagesh R. Iyer, "NI-MVCCI Technique for Fracture Analysis of Stiffened Plate/Shell Components", Report No. CORE12-CSD-RR-08, December 2005.
52. Rajasankar J. and, Nagesh R. Iyer "Reliability-based Model for Pitting Corrosion in Metals/alloys", Report No. CORE12-CSD-RR-09, March 2006.

53. Umesha, P.K., Rama Mohan Rao, A., Sivasubramanian, K., Vaidyanathan, C.V., "Damage detection in Civil Engineering structures using wavelets - A review", Research Report No: OLP011441/1, April, 2005.
54. Umesha, P.K., Rama Mohan Rao, A., Sivasubramanian, K., Vaidyanathan, C.V., 'Structural damage identification methods based on dynamic characteristics', Research Report No: OLP011441/2, October, 2005.
55. Umesha, P.K., Rama Mohan Rao, A., Sivasubramanian, K., Vaidyanathan, C.V., 'Damage detection of beam elements using wavelet transform', Research Report No: OLP011441/3, May, 2006.
56. Rama Raju, K., Abdul Malik, S., and Muthumani, K., "Theoretical and experimental investigation on use of controllable fluid dampers with toggle brace mechanism in a 3-D Moment Resistant Steel Building Frame, Part-I Theoretical investigations and Part-2 Fabrication Details", SERC Research Report No. OLP 11741-RR-01, April 2005
57. Rama Raju, K., and Muthumani, K., "Optimum Control of SDOF and MDOF modeling of frames with Semi-active MR Dampers", SERC Research Report No. OLP 11741-RR-02, April 2005
58. Rama Raju, K., Abdul Malik, S. and Nagesh.R.Iyer. "Experimental dynamic performance evaluation of MR dampers (RD 1003-5 of Lord Corporation) and their use in 3-storey Steel Moment Resistant Frame with toggle bracing mechanism", SERC Research Report No. OLP 11741-RR-03, October 2005.
59. Rakkimuthu, S., Rama Raju, K., and Nagesh R. Iyer., State of art report on "Studies on finite element simulation of reinforced concrete and beam column joints and characterization of the Latex modified polymer concrete subjected to earthquake loads", SERC Research Report No. OLP 11741-RR-04, March 2006.
60. Lakshmanan, N., Arunachalam, S., Selvi Rajan, S., Ramesh Babu, G., and Panneer Selvam, R., "Wind Tunnel studies on Dynamic Sectional Model (Sdof) of a Bridge Deck", SERC Research Report No. MLP/ 09741/12, April 2005.
61. Lakshmanan, N., Arunachalam, S., Selvi Rajan, S., Ramesh Babu. G., and Panneer Selvam, R., "Wind Tunnel Studies on Generalised Across-wind Force Spectrum for a Building with a Square Cross-Section and (aspect ratio = 4)", SERC Research Report No. MLP /09741/13, April 2005.
62. Lakshmanan, N., Arunachalam, S., Selvi Rajan, S., Ramesh Babu. G., and Panneer Selvam, R., "Wind Tunnel Studies on Dynamic pressures on a Tall Rectangular Building Model (side ratio=1:3)", SERC Research Report No. MLP/ 09741/14, April 2005.
63. Lakshmanan, N., Arunachalam, S., Selvi Rajan, S., Ramesh Babu. G., and Panneer Selvam, R., "Wind-Induced Interference Studies on a Square Building Model", SERC Research Report No. MLP/ 09741/15, April 2005.
64. Selvi Rajan, S., Lakshmanan, N., Arunachalam, S., Ramesh Babu, G., and Panneer Selvam, R., "Design of Bridges under Wind Loading", SERC Research Report No. MLP/ 09741/16, April 2005.
65. Arunachalam, S., Lakshmanan, N., Selvi Rajan, S., Ramesh Babu, G., and Panneer Selvam, R., 'Across-wind Response of Prismatic Structures having Different Cross

- Sectional Shapes under Atmospheric Wind', Project Completion Report, SERC Research Project No. MLP/09741/17, September 2005.
66. Gomathinayagam, S., Harikrishna, P., Abraham, A. and Lakshmanan, N., "Development of fatigue load spectrum for design of structures/components subjected to dynamic wind loads – Project Completion Report", SERC Research Report No. MLP 09841/R-17, September 2005
 67. Gomathinayagam, S., Harikrishna, P., Abraham, A. and Lakshmanan, N., 'Full scale wind effects on tubular and lattice structures in natural wind', SERC Research Report No. MLP12041-R01, January 2006
 68. Gomathinayagam, S., Harikrishna, P., Abraham, A., Karthigeyan M. and Karthik, N.P., 'Wind and response analysis of roof towers including flexibility of building', SERC Research Report No. MLP12041-R02, January 2006
 69. Gomathinayagam, S. and Lakshmanan, N., 'Disaster reduction on coast- an overview of international practice' SERC Report on Proceedings of International Symposium held at Australia, Report No. MLP120-R03, January 2006
 70. Gomathinayagam, S., Harikrishna, P., Abraham, A., and Lakshmanan, N. , 'Full scale investigations on existing 300 kW 2-bladed wind turbine', SERC Research Report No. TLP 001-01, September 2005
 71. Gomathinayagam, S., Harikrishna, P., Abraham, A., Lakshmanan, N. and N.P Karthik,, 'Analytical study of guyed tilt-up windmill support tower of 300 kW two bladed wind turbine', Research Report No. TLP 001-02, March 2006
 72. Nagesh R. Iyer, Gomathinayagam, S., Palani, G.S., and Velan, A.M., 'Static and dynamic analysis of composite GFRP wind turbine blades ', Research Report No. TLP 001-03, November 2005
 73. Prasad Rao. N., Mohan, S.J., Raghunathan, M.D, Rokade, R.P and Bala Gopal, R., "Bibliography on Guyed Towers" SERC, Research Report No. MLP 113 41/1, May
 74. Bala Gopal, R., Mohan, S.J., Raghunathan, M.D, Prasad Rao, N and Rokade, R.P. "Literature review on Guyed Structural Systems" SERC, Research Report No. MLP 113 41/2, November 2005
 75. Rokade, R.P, Mohan, S.J., Raghunathan, M.D, Prasad Rao, N and Bala Gopal, R., "Analytical studies on V and Portal type of 765 KV Guyed Transmission Line Towers", SERC, Research Report No. MLP 113 41/3, November 2005.
 76. Mohan, S.J., Raghunathan, M.D., Prasad Rao, N., Rokade, R.P. and Bala Gopal, R., 'Report on the Development of Circular Test Pad for Mono-pole Testing', SERC Research Report No. MLP 113 41 / 4, May 2006.
 77. Prasad Rao, N., Mohan, S.J., Raghunathan, M.D., Rokade, R.P. and Bala Gopal, R., 'Static and Dynamic behaviour of 400 kV S/C Portal and V-type Guyed towers', SERC Research Report No. MLP 113 41 / 5, May 2006.
 78. Rokade, R.P., Mohan, S.J., Raghunathan, M.D., Prasad Rao, N. and Bala Gopal, R., 'Analytical Investigations for Guyed Modular Masts used as Emergency Restoration System for Transmission Lines', SERC Research Report No. MLP 113 41 / 6, May 2006
 79. Arul Jayachandran S., S. Seetharaman, N. Pandian, V. Marimuthu, "Experimental investigations on flexible steel beam to column connections", SERC Research Report OLP-10041/12, March-2005

80. Pandian, N., Seetharaman, S., Arul Jayachandran S., and Marimuthu, V., “An Integrated Limit State Design Program for Plane Frame by Draft IS: 800 Code for Structural Steel Design”, Project Report No. OLP 10041/13, September 2005.
81. Marimuthu V. and Seetharaman S., “Comparative study of a multi storeyed frame using different design approaches”, Project Report No. OLP 10041/14, September 2005.
82. Seetharaman S., Pandian N., Arul Jayachandran S. and Marimuthu V., Advanced Analysis and Design Methods for Steel Frames and Experimental Investigation of Steel Frame Connections” Project Completion Report OLP 10041/15, September 2005.
83. Ramesh Kumar V., Seetharaman S., Pandian N., Arul Jayachandran S., Marimuthu V. and Sundara Mahalingam S., “Limit state design of steel tension members according to IS: 800-2005”, SERC Research Report No. OLP 12341/1, December 2005.
84. Seetharaman S., Pandian N., Arul Jayachandran S., Marimuthu V. and Nagapadmaja P., “Analytical and experimental investigations on steel building frames and connections – A state-of-the-Art”., SERC Research Report OLP 12341/2, March 2006.
85. Vengadeswaran M., Arul Jayachandran S., Nagapadmaja P., Marimuthu V., Pandian N. and Seetharaman S., “Design of steel beam to column endplate connections”, SERC Research Report OLP 12341/3, March 2006.
86. Krishnamoorthy, T. S., Lakshmanan, N., Balasubramanian, K., and Bharatkumar, B.H., “Investigations on the Behaviour of Retrofitted RC Beam Column Joints”, SERC Project Report No. OLP 011141-RR-2005-1, May, 2005
87. Krishnamoorthy, T. S., Lakshmanan, N., Balasubramanian, K., and Bharatkumar, B.H., “Investigations on the Properties of Fibre Reinforced Plastic Wrap”, SERC Project Report No. OLP 011141-RR-2005-2, July, 2005