

SOME RECENT PUBLICATIONS IN JOURNALS

1. Kakodkar Anil, "Preparing for our technology future" Science and Culture, Vol. 76, No. 1 & 2, 2010.
2. Kakodkar Anil, "The excitement of mission oriented research and development (R&D), Natl. Acad Sci. Lett., Vol.30, No.9 & 10, 2007.
3. Sinha R.K., Kakodkar A., "Design and development of the AHWR – the Indian thorium fuelled innovative nuclear reactor", Nuclear Engineering and Design, Vol.236 (2006), pp. 683-700.
4. Rajeev Ranjan, R.K. Singh, S.K. Sikka and Anil Kakodkar, "Phenomenology of Baneberry Nuclear Event Revisited with 3-D Finite Element Transient Simulation", Nuclear Technology, Vol.153, No.3 (2006), pp. 341-359
5. Kakodkar A 'Breaking Up (a Nuclear Program) Is Hard to Do (Anil Kakodkar, Interview)'. Science Vol. 311 10 February 2006, 765-767.
6. Kakodkar A 'Thorium for energy independence'. Electrical India, Vol. 46 No. 10, 2006, 85-87.
7. Rajeev Ranjan, R.K. Singh, S.K. Sikka and Anil Kakodkar, "Cratering and spall simulation of Pokhran-1 event with three-dimensional transient finite element analysis", Current Science, Vol.88 (2005), No.7, pp.7-15.
8. Kakodkar A. 'Managing nuclear knowledge: a governmental perspective', Int. J. Nuclear Knowledge Management, Vol. 1, Nos.1/2 (2004) pp. 33-38.
9. Kakodkar Anil and Grover Ravi, "Nuclear Energy in India", The Nuclear Engineer Vol. 45, No. 2 (2004) 31-36.
10. Kakodkar A 'India's Energy vision 2030'. Indian Journal of Power & River Valley Development, Vol. 54, No, 9, 2004, 238-240.
11. Kakodkar A 'Nuclear power: an Indian perspective. Electrical India, Vol. 44 No. 3, 2004, 51-54.
12. Kakodkar A; Sinha RK 'Energy from Thorium'. Indian Journal of Power & River Valley Development, Vol. 52, No. 9-10, 2002, 165-172.
13. Maheshwari N.K., Saha D., Chandraker D.K., Venkat Raj V.and Kakodkar A., "Studies on the behaviour of a passive containment cooling system for the Indian Advanced Heavy Water Reactor", Kerntechnik 66 (2001) 15-20
14. Kakodkar A 'Chemical engineering perspectives in atomic energy programme'. Indian Chem. Engr. Section B, Vol. 43, No. 1, Jan-Mar 2001, 44-52.
15. Mukhopadhyay, N.K., Maiti S.K., Kakodkar A., "Review of SIF evaluation and modelling of singularities in BEM", Computational Mechanics 25 (2000) 358-375 © Springer-Verlag 2000.
16. Mukhopadhyay, N.K., Maiti S.K., Kakodkar A., "Two end variable singularity boundary elements and their applications in crack-crack interaction problems", International Journal for Numerical Methods in Engineering 47 (2000)1499-1522.
17. Mukhopadhyay, N.K., Maiti S.K., Kakodkar A., "Variable singularity boundary element and its applications in computation of SIFs", Computers and Structures 99 (2000) 141-154.
18. Mukherjee, A., Shivaprasad , K., Moorthy R.I.K., Kakodkar A., "A neuro-fuzzy tool for CT-PT

- contact detection in a pressurized heavy water reactor", Engineering Application of Artificial Intelligence 13 (2000) 451-458.
19. Sikka S.K., Nair G.J., Falguni Roy, Anil Kakodkar and Chidambaram R., "The recent Indian Nuclear tests – A Seismic overview" – Current Science Vol. 79 No.9 November 10, 2000.
20. Falguni Roy, Nair G.J., Basu T.K., Sikka S.K. Kakodkar A, Chidambaram R., Bhattacharya S.N. and Ramamurthy V.S. " Indian explosions of 11 May 1998: Analysis of regional Lg and Rayleigh waves" – Current Science Vol. 77 No.12, 25 December 1999.
21. Mukhopadhyay, N.K., Maiti S.K., Kakodkar A., "Effect of modelling of traction and thermal singularities on accuracy of SIFS computation through modified crack closure integral in BEM" , Engineering Fracture Mechanics 64 (1999) 141-159.
22. Mukhopadhyay, N.K., Maiti S.K., Kakodkar A., "modified crack closure intergral based computation of stress intensity factors for 2-D thermoelastic problems through boundary element method" , Nuclear Engineering and Design 187 (1999) 277-290.
23. Mukhopadhyay, N.K., Dutta B.K., Swami Prasad, Kushwaha H.S., Kakodkar A., "Implementation of finite element based fatigue monitoring system at Heavy Water Plant Kota", Nuclear Engineering and Design 187 (1999) 153-163.
24. Mukherjee Abhijit., Pravin R. Rajade., Moorkthy R.I.K., Kakodkar A., "Artificial neural network in CT-PT contact detection in a PHWR" Nuclear Engineering and Design 183 (1998) 303-309
25. Mukhopadhyay N.K., Maiti S.K., and Kakodkar A., "BEM based evaluation of SIFs using modified crack closure integral technique under remote and/or crack edge loading" Engineering Facture Mechanics 61 (1998) 655-671
26. Mukhopadhyay N.K., and Kakodkar A., "Further Consideration in Modified Crack Closure Integral Based Computation of Stress Intensity Factor in Bem" Engineering Fracture Mechanics Vol 59 No.3 269-279 (1998).
27. Maiti S., Mukhopadhyay N.K., and Kakodkar A., "Boundary element method based computation of stress intensity factor by modified crack closure integral" Computational Mechanics 19 203-210 (1997).
28. Moorthy R.I.K, Kakodkar A and Srirangarajan H.R., "The Significance of Higher Modes for Evolution of Chaos in Structural Mechanics Systems", Journal of Sound and Vibration 198 (3), 267-277 (1996).
29. Mukhopadhyay N.K, Kakodkar A,Dutta B.K, Kushwaha H.S, Mahajan S.C., "Numerical Characterisation of A Cylinder with Circumferential Cracks under Pressurised Thermal Shock", Int. J. Press. Ves. & Piping 69 pp 97-104 (1996).
30. Moorthy R.I.K, Rama Rao A, Sihna J.K.,Kakodkar A,"Use of an unconventional technique for Seismic qualification of equipments" Nuclear Engineering and Design, 165 pp15-23 (1996).
31. Moorthy R.I.K. Kakodkar A, and Srirangarajan H.R., "Chaotic Response of a Composite Plate", International Journal "Computers & Structures", Vol. 57, No.4, pp 699-701, 1995.
32. Chattopadhyay J; Dutta BK; Kushwaha HS; Mahajan SC ; Kakodkar A 'Limit load analysis and safety assessment of an elbow with a circumferential crack under a bending moment'. Int. J. Pres. Ves. & Piping Vol. 62 1995, 109-I 16.

33. Moorthy RIK; Sinha JK; Rama Rao A; Sinha SK; Kakodkar A 'Diagnostics of direct CT- PT contact of the coolant channels of PHWRs'. Nuclear Engineering and Design Vol. 155 No. 3, 1995, 591-596.
34. Mukhopadhyay N.K., Dutta B.K., Kushwaha H.S., Mahajan S.C., and Kakodkar A., "On line fatigue life monitoring methodology for power plant components", Int. J. Pres. Ves. & Piping 60 pp 297-306 (1994)
35. Bhattacharya A. Buragohain D.N. and Kakodkar A, "Determination of the Equivalent Properties of Perforated Plates" International Journal of Engineering Analysis and Design, Vol.1 No.2, (1994)
36. Chattopadhyay J., Dutta B.K., Kushwaha H.S., Mahajan S.C., and Kakodkar A, "A Database to evaluate stress intensity factors of elbows with throughwall flaws under combined internal pressure and bending moment", International Journal of Pressure Vessel & Piping Vol 60 71-83 (1994)
37. Kamala Balakrishnan and Kakodkar A., "Optimization of the Initial Fuel Loading of the Indian PHWR with Thorium Bundles for Achieving Full Power", - Ann. Nucl. Energy Vol. 21, No.1, pp. 1-9 (1994)
38. Moorthy R.I.K., Kakodkar A., Srirangarajan H.R., Suryanarayanan S., "An Assessment of Newmark Method for solving chaotic vibration of Impacting Oscillators", Computers and Structures Vol. 49, No.4, pp. 597-603 (1993)
39. Moorthy R.I.K., Kakodkar A., Srirangarajan H.R., Suryanarayanan S., "Finite Element Simulation of Chaotic Vibration of a Beam with Non-linear Boundary Conditions", Computer and Structures Vol.49, No.4, pp.589-596 (1993)
40. Ghosh A.K., Venkatraj V. and Kakodkar A., "A Scheme for Passive Isolation of the Containment of a Reactor" Nuclear Safety Vol. 34, No.1, Jan-March 1993.
41. Kamala Balakrishnan, Umashankari Kannan and Anil Kakodkar, "Reactivity worth of Liquid Poison Jets in the Moderator", Ann. Nucl. Energy Vol 20, No.6, pp. 391-405, (1993)
42. Chawla D.S., Dutta B.K., Kushwaha H.S., and Kakodkar A, "Temperature Transient Analysis of 500 MWe PHWR End-Shield under Station Blackout Condition". Journel of Energy, Heat and Mass Transfer, Vol. 15, 285-291 (1993).
43. Singh R.K., Kant T and Kakodkar A, "Three-Dimensional Transient Analysis of a Single Submerged Cylindrical Shell", Engg. Computations, Vol. 8, 195-213 (1991).
44. Singh R.K., Kant T and Kakodkar A, "Three-Dimensional Transient Analysis of Two Coupled Submerged Cylindrical Shells", Engg. Computations, Vol. 9, 39-48 (1992).
45. Dutta B.K., Maiti S.K. and Kakodkar A, "A 6-noded triangular element to model up to three variable order singularities lying in close proximities", International Journal on Communication in Applied Numerical Methods Vol.7, pp. 329- 339 (1991).
46. Moorthy R.I.K., Rama Rao A and Kakodkar A, "Diagnosis and cure of Dhruva Fuel Vibration" Nuclear Engg. Design, 125 pp.259-266 (1991).
47. Dutta B.K., Maiti S.K. and Kakodkar A, "Two Singular Points Finite Elements in the Analysis of Kinked Cracks" International Journal on Computational Mechanics, 7, 329-339 (1991).

48. Singh R.K., Kant T and Kakodkar A, "Coupled Shell-Fluid Interaction Problems with Degenerate Shell and Three- Dimensional Fluid Elements", Computers & Structures, Vol.38, No.5/6, pp. 515-528 (1991).
49. Dutta B.K., Maiti S.K. and Kakodkar A, "Analysis of Crack- microcrack Interactions and doubly kinked cracks using multiple singular points elements". Engg. Fracture Mech. 38, 215-223 (1991).
50. Krishnan J and Kakodkar A., { HYPERLINK "[\t _blank](http://et.al)" }. "An Experimental investigation into Tube to Tube-Plant Welding Using the Impactor Method". Jour. of Materials Processing Technology 22, pp.191-201(1990).
51. Dutta B.K., Maiti S.K. and Kakodkar A, "On the use of one point and two points singularity elements in the analysis of kinked cracks", International Journal of Numerical Methods in Engg. Vol. 29, pp. 1487-1499 (1990).
52. Singh R.K., Kant T and Kakodkar A, "Efficient partitioning schemes for Fluid Structure Interaction Problems", Engg. Computations Vol.7, No.2, pp. 105-115 June (1990).
53. Kakodkar A, Babar A.K. "Pressurised Heavy Water Reactor and Public Safety", Nuclear Safety Vol. 31, No.1 January-March (1990).
54. Dutta B.K., Maiti S.K. and Kakodkar A., "Development and application of two singular points finite elements" International Journal on Numerical Methods in Engg., 28, 1449-1460 (1989)
55. Kakodkar A., Kushwaha H.S., Dutta B.K., "Structural Evolution of Containment of Indian PHWRs", Nucl. Engg. and Design Journal 177, pp.33-44 (1989)
56. Dutta B.K., Chawla D.S., Kushwaha H.S. and Kakodkar A., "Temperature transient during multipass welding", Rej. J. Energy Heat Mass Transfer Vol.11 No.2, pp.79-84 (1989).
57. Singh R K, Kushwaha H S, Murali B and Kakodkar A, "Evaluation of Temperature Field in Composite Tube Sheet Geometries with Complex Boundary Conditions", Regional Jr. of Energy Heat and Mass Transfer Vol. 11, No 3, pp. 197-202, (1989).
58. Kakodkar A 'Pressurised heavy water reactor - a review in the light of Chernobyl accident'. Bulletin of Radiation Protection Vol. 9 No. 4, 1986, 43-50.