

# **K.S.SCHOOLOFENGINEERING&MANAGEMENT**

#15,Mallasandra,Off.KanakapuraRoad,Bengaluru-560109,Karnataka,INDIA.

|                     | 1   |                         |
|---------------------|---|-------------------------|
| FacultvName         | Dr. B.K. Raghu Prasad                         |                         |
|                     |   |                         |
|                     |   |                         |
| Designation         | Visiting Professor                            |                         |
| Designation         |   | (A)                     |
|                     |   |                         |
| Educational         | BE, ME, PhD (IISc)                            |                         |
| Qualification       |   | C CYT                   |
| <b>F V</b>          | 34 years in teaching,                         | Plan and a state of the |
| Experiencein Y ears | research and consultancy                      | -In                     |
|                     | Tesearen and consultancy                      |                         |
| AreasofInterest     | • Fracture Mechanics of Concrete,             |                         |
|                     | • Structural Dynamics,                        |                         |
|                     | • Earthquake Resistant Design.                |                         |
|                     | • Finite Element and Boundary Element methods |                         |
|                     | I mite Element and Boundary Element methods   |                         |
| Aadhar Number       |   |                         |
| E-mail              | bkriisc@gmail.com                             |                         |

| EducationalDetails     |  |                   |  |
|------------------------|--|-------------------|--|
| Examination/<br>Degree | College/University                     | Yearof<br>Passing |  |
| <b>B.E</b> [CIVIL]     | Bangalore University                   | 1967              |  |
| M.E [Structures]       | Bangalore University                   | 1969              |  |
| Ph.D [Engg]            | Indian Institute of Science, Bangalore | 1979              |  |

### **Publications**

#### JournalPublications:

- 1. Raghu Prasad B.K. and Jagadish K.S. "Inelastic Torsional Response of a Single storey framed structure", Journal of Engineering Mechanics, ASCE, Vol 115, No.8, August 1989, pp. 1782-1797.
- 2. K.S.Jagadish, B.K.Raghu Prasad and P.Vasudeva Rao "The Inelastic Vibration absorber subjected to earthquake ground motions" Earthquake Engineering and Structural Dynamics, Vol 7, pp 317-326, 1979.
- 3. Sundara Raja Iyengar K.T, Raghu Prasad B.K and Ananthan H. "Effect of Interaction of macrocracks on the stress intensity factor in a beam", Journal of Engineering Fracture Mechanics, Pergamon Press, Vol 32, No.3, 1989, pp.379-386.
- Gopala Rao N, Channakeshava C, Sundara Raja Iyengar K.T. and Raghu Prasad B.K "Elastic and Inelastic analysis of reinforced concrete structures using Boundary Element Method", Engineering Analysis, Vol. 5, No. 3, Computational Mechanics Publications, Southampton, pp. 146-154.
- 5. H. Ananthan, B.K.Raghu Prasad and K.T. Sundara Raja Iyengar "Influence of Strain Softening on the fracture of plain concrete beams" International Journal of Fracture, Vol 45, Kluwer Academic Publishers, Netherlands 1990, pp 195-219.

- 6. K.T.Sundara Raja Iyengar, H. Ananthan and B.K.Raghu Prasad "Experimental Verification of Softening Beam Model for the fracture of plain concrete beams" Magazine of Concrete Research, Thomas Telford, London.
- B.K.Raghu Prasad "Inelastic dynamic response of R.C beam column joints using BEM" a Technical Note, Engineering Analysis with Boundary Elements, International Journal for Boundary Element Research and Applications, Vol 8. No.6, Dec. 1991, Elsevier Applied Science, U.K. pp. 320-322.
- H.N.Renuka Prasad, C.Channakeshava, B.K.Raghu Prasad and K.T. Sundara Raja Iyengar "Nonlinear finite element analysis of RC Corbels" Computers and Structures, UK, Vol 46, No 2 pp 343-354, 1993
- T.S. Nagraj, S.G. Shashi Prakash and B.K.Raghu Prasad "Reproportioning of concrete mixes" ACI Materials Journal, Journal of the American Concrete Institute, USA, Vol 90, No 1, January-February 1993, pp 50-58.
- K.T.Sundara Raja Iyengar, B.K.Raghu Prasad, T.S.Nagraj and Bharti Patel "Prediction of load-deflection behaviour using fracture energy G<sub>f</sub>: A comparative study of two fracture models for concrete" Journal of Engineering Fracture Mechanics, Pergamon press, UK, Vol 46, No 1 1993, pp 27-33.
- 11. Mohammed Ameen and B.K.Raghu Prasad "A hybrid technique of modeling of cracks using displacement discontinuity and direct boundary element method" International Journal of Fracture Vol 67, pp 343-355, 1994, Kluwer Academic Publishers, Netherlands.
- B.K.Raghu Prasad, G.S. Bhattacharya and H. Mihashi "Size effect in notched concrete plate under plane stress – A lattice model", International Journal of Fracture Vol 67, R3-R8, 1994, Kluwer Academic Publishers, Netherland.
- B.K. Raghu Prasad and A.R.Gopalakrishnan "Effect of soil- structure interaction on the dynamic response of concrete supporting structure for crushers" Journal of Structural Engineering, SERC, Madras, India, Vol 22, No 3, Oct-1995, pp 153-158.
- G.S.Bhattacharya and B.K. Raghu Prasad "Dimensional characterization of singular fractal functions" Chaos, Solitions and fractals, Vol 8, No 6, pp 901-908, 1997.
- K.T. Sundara Raja Iyengar, B.K.Raghu Prasad, T.S.Nagraj, Bharti Patel "Parametric sensitivity of fracture behaviour of concrete" Nuclear Engineering and Design 163 (1996) 397-403
- 16. B.K. Raghu Prasad, D.N. Bhat and G.S. Bhattacharya, "Simulation of fracture in a quasibrittle material in direct tension-a lattice model", Engineering Fracture Mechanics, Pergamon, vol. 61, 1998.
- B.H. Bharatkumar, R. Narayanan, B.K. Raghu Prasad and D.S. Ramachandramurthy, "Mix Proportioning of High Performance Concrete", International Journal of Cement and Concrete Composites, Vol.23. 2001, pp.71-80.
- G. Appa Rao and B.K. Raghu Prasad, "Fracture Energy and Softening Behavior of High-Strength Concrete", Cement and Concrete Research, 32 (2002) 247-252, Pergamon.
- 19. G. Appa Rao and B.K. Raghu Prasad, "Influence of the Roughness of Aggregate Surface on the Interface Bond Strength", Cement and Concrete Research, 32 (2002) 253-257, Pergamon.
- 20. G. Appa Rao, B. K. Raghu Prasad. "Influence of Type of Aggregate and Surface Roughness on the Interface Fracture Properties", Journal of Materials and Structures, Vol 37, 269, pp 328-334, 2004.
- DVTG Pavan Kumar and B.K. Raghu Prasad, "Higher Order Beam Theories for Mode II Fracture of Unidirectional Composites", Journal of Applied Mechanics, ASME, USA, Vol. 70, No. 6, Nov. 2003, pp. 840-853.
- 22. B.H. Bharatkumar, B.K. Raghu Prasad, D.S. Ramachandramurthy, R. Narayanan and S. Gopalakrishnan, "Effect of Fly Ash and Slag on the Fracture Characteristics of High

Performance Concrete", RILEM Journal of Materials and Structures-38 (January – February 2005), pp 63-72.

- 23. Raghu Prasad, B.K., Bharatkumar, B.H., Ramachandra Murthy, D.S., Narayanan, R., and Gopalakrishnan, S., "Fracture Mechanics Model for Analysis of Plain and Reinforced High-Performance Concrete Beams", ASCE Journal of Engineering Mechanics, Vol.131, No.8, August 2005, pp.831-838.
- 24. B.K. Raghu Prasad and B.H.Bharat Kumar "Fracture Characteristics of High strength High performance concrete" The American Ceramic Society, Special Volume, May 2005, pp 43 –52.
- N.Lakshmanan, B.K Raghu Prasad, K.Muthumani, N.Gopalakrishnan, and Basu D., "Wavelet Analysis and Enhanced Damage Indicators", Smart Structures and Systems, 3(1), Jan-2007, pp. 23-49.
- 26. B.K.Raghu Prasad and M.V.Renuka Devi, "Extension of FCM to plain concrete beams with vertical tortuous cracks", Journal of Engineering Fracture Mechanics, Elsevier, Vol 74, Issue 17, Nov 2007 pp 2758-2769
- 27. Lakshmanan N, B.K Raghu Prasad, K.Muthumani, Gopalakrishnan. N, Sreekala R, "Seismic Damage Estimation through Measurable Dynamic characteristics", Computers and Concrete, Vol: 4(3),June 2007, pp 167-186.
- 28. Lakshmanan N, Raghu Prasad B.K, Muthumani K, Gopalakrishnan N, Basu D, "Damage Evaluation through radial basis function network based artificial Neural Network Scheme", Smart structures and Systems, Vol: 4(1), Feb.2008.
- 29. Pavan Kumar, D.V.T.G and Raghu Prasad B.K, "Analysis of unidirectional fiber(0°) reinforced laminated composite double cantilever beam specimen using higher order beam theories", Engineering Fracture Mechanics", Vol 75 (2008), pp 2156-2174.
- 30. B.K Raghu Prasad and R. Vidya Sagar, "Relationship between AE energy and Fracture Energy of plain concrete beams- An Experimental study, ASCE, Journal of Materials in Civil Engineering (2007) (March 2008 Issue)
- B.K.Raghu Prasad, N.Lakshmanan, N.Gopalakrishnan, K.Muthmani, "Sensitivity of Eigen Value to Damage and its Identification", Structural Durability and Health monitoring, SDHM Vol. 4, No. 3, 2008, pp 117-144
- 32. Lakshmanan N, B.K. Raghu Prasad B.K, Muthumani K, Gopalakrishnan N, and Basu D, " Identification of Reinforced Concrete Beam-like structures subjected to Distributed Damage from Experimental Static Measurements", Computers and Concrete, Vol 5(1), February 2008, pp. 37-60.
- Mohammed Ameen, B.K.Raghu Prasad and A.R.Gopalakrishnan, "Boundary element analysis of Reinforced Concrete structural elements", Engineering Analysis with Boundary elements 33 (2009) pp 263-270.
- 34. B.K.Raghu Prasad and D.V.T.G. Pavan Kumar, "Analysis of Composite ENF specimen using higher order beam theories", Thin Walled Structures, Elsevier, 46 (2008) pp 676-688.
- 35. B.K.Raghu Prasad, Hamid Eskandari and B.V.Venkatarama Reddy, "Prediction of compressive strength of SCC and HPC with high volume flyash using ANN", Construction and Building Materials 23 (2009) pp 117-128.
- 36. B.Kumar., Srinivas B., B.K.R Prasad, "A Simplified Procedure for seismic evaluation of Multi-story buildings", Structural Engineering International., IABSE, SEI Vol. 19, No.3, August 2009, pp 240-248.
- 37. B.K.Raghu Prasad and D.V.T.G Pavan Kumar, "Fracture behaviour of multidirectional DCB specimen: Higher order beam theories", ASCE Journal of Engineering Mechanics. Volume 135, Issue 10, pp. 1119-1128 (October 2009)
- 38. R. Vidya Sagar and B.K.Raghu Prasad, "AE Energy release during the fracture of HSC beams", Magazine of Concrete Research, Thomas Telford, U.K., Volume 61 Number 6,

August 2009 pp 419-435.

- R.Vidya Sagar, B.K.Raghu Prasad and B.L.Karihaloo, "Verification of the applicability of lattice model to concrete fracture by AE study," International Journal of Fracture. DOI 10.1007/s 10704-009-9431-7
- 40. S.Muralidhara, B.K.Raghu Prasad, Hamid Eskandari, B.L. Karihaloo," Fracture process zone size and true fracture energy of concrete using acoustic emission", Construction and Building Materials, Volume 24, Issue 4, April 2010, Pages 479-486.
- 41. N.Lakshmanan, B.K. Raghu Prasad, N.Gopalakrishnan, K.Satishkumar and S.G.N. Murthy, "Detection of contiguous and distributed damage through contours of equal frequency change", Journal of Sound and Vibration, Vol 329, 2010, pp 1310-1331.
- 42. R.Vidya Sagar and B.K.Raghu Prasad (2011) An experimental study on acoustic emission energy as a quantitative measure of size-independent specific fracture energy of concrete beams., Construction and building materials; vol.25;issue 5; May2011; pp.2349-2357. Elsevier publishers [doi:10.1016/j.conbuildmat.2010.11.033]
- 43. R.Vidya Sagar and B. K. Raghu Prasad, S.Shantha kumar (2012) Comparison of *b*-values with strains in steel and concrete of R.C beam for damage evaluation, Bridge engineering [Thomas Telford journals, ICE., London] Vol.125; December 2012, issue BE4. pp.233-244. D:\tbe800038Revised.pdf pp. 233-244 (12)
- 44. R.Vidya Sagar and B.K.Raghu Prasad (2011) Fracture analysis of concrete using singular fractal functions with lattice beam network and confirmation with Acoustic Emission study. Theoretical and applied fracture mechanics, vol.55; Issue: 3, pp. 192-205, Elsevier publishers. <u>dx.doi.org10.1016j.tafmec.2011.07.003.pdf</u>
- 45. R.Vidya Sagar, B.K.Raghu Prasad (2012) A Review of recent development in parametric based acoustic emission techniques applied to concrete structures, Nondestructive testing and evaluation, [Taylor and Francis Publishers London], <u>doi: 10.1080/10589759.2011.589029</u>, Vol.27, Issue No.1, March 2012, pp. 47-68.
- 46. R.Vidya Sagar, B. K. Raghu Prasad and Reema Sharma (2012) Evaluation of damage in reinforced concrete bridge beams using acoustic emission technique, Nondestructive testing and evaluation [Taylor and Francis Publishers London], <u>Vol. 27</u>, <u>Issue 2</u>; pp.95-108; <u>doi: 10.1080/10589759.2011.610452</u>
- 47. R.Vidya Sagar, B.K.Raghu Prasad (2012) Damage limit states of reinforced concrete beams subjected to incremental cyclic loading using relaxation ratio analysis of AE parameters. Construction and building materials , Elsevier; 35, pp.139-148; doi:10.1016/j.conbuildmat.2012.02.057
- 48. R.Vidya Sagar B.K.Raghu Prasad S.Shantha Kumar (2012) an experimental study on amplitude distribution analysis of acoustic emissions released during fracture process in concrete. Cement and Concrete research, Vol 42, issue 8; pp. 1094-1104 <u>doi.10.1016/j.cemconres.2012.05.003</u>.
- 49. R.Vidya Sagar, B.K.Raghu Prasad, R.V.Prasad, and M.V.M.S.Rao (2013) Micro-cracking and fracture behavior of cement concrete and mortar: A comparative study using AE technique. Experimental mechanics. Springer; doi: 10.1007/s11340-012-9708-z
- 50. R. Vidya Sagar, B.K.Raghu Prasad (2013) Laboratory investigations on cracking in reinforced concrete beams using on-line Acoustic Emission Monitoring Technique, journal of civil structural health monitoring. **Springer**, DOI: 10.1007/s13349-013-0036-5
- 51. R. Vidya Sagar, B.K.Raghu Prasad (2013) Laboratory investigations on cracking in reinforced concrete beams using on-line Acoustic Emission Monitoring Technique, journal of civil structural health monitoring. Springer, DOI: 10.1007/s13349-013-0036-5.
- 52. Eskandari. H, Muralidhara, S., Raghu Prasad, B. K. and Venkatarama Reddy B.V. (2010). "Size effect in self consolidating concrete beams with and without notches" Sadhana, Indian Academy of Sciences, Vol. 35, Part 3, pp. 1–15.
- 53. **Muralidhara, S.**, Raghu Prasad, B. K., Karihaloo, B. L. and Singh R.K. (2011) "Size-independent fracture energy in plain concrete beams using tri-linear model" Cons

Build. Mater, (Elsevier Publishers), Vol. 25, no. 7, pp. 3051-3058.

- 54. Hamid Eskandari, S. Muralidhara, B.K. Raghu Prasad, B.V. Venkatarama Reddy (2012) "Fracture properties of Self Compacting Concrete for Notched and Un-notched Beams" Global Journal of researches in engineering Civil And Structural engineering, Vol. 12, No.1. Online ISSN: 2249-4596 & Print ISSN: 0975-5861.
- 55. **Muralidhara, S.**, Raghu Prasad, B. K. and Singh, R.K., (2013) "Size independent Fracture energy from fracture energy release rate in plain concrete beams" Engg. Frac.Mech. (Elsevier Publishers), Vol. 98, pp. 284-295.
- 56. Mahesh Mungule, Raghu Prasad B.K., Muralidhara, S. (2013) "Fracture studies on 3D Geometrically similar beams" submitted to Journal of Engineering Fracture Mechanics (Elsevier Publishers), Vol. 98, pp. 407-422.
- 57. Ramachandra Murthy, B.K.Raghu Prasad, Nagesh R Iyer. (2013) "Estimation of fracture Properties for high strength and ultra high strength concrete beams and size effect" International Journal of damage mechanics 0 (0), 1-18, DOI 10.1177/1056789513477121.
- 58. A.Ramachandra Murthy, Nagesh R Iyer, B.K.Raghu Prasad, (2012) "Fatigue crack growth study and remaining life assessment of high strength and ultra high strength concrete beams", Tech Science press, CMES, Vol 89, No. 6, pp 459-480, 2012.
- 59. A.Ramachandra Murthy, Nagesh R Iyer, B.K.Raghu Prasad, (2012) "Fracture analysis of High strength and ultra high strength concrete beams by using finite element method", Tech Science press, CMES, vol 30, no.2, pp 177-194, 2012.
- 60. A.Ramachandra Murthy, Nagesh R Iyer, B.K.Raghu Prasad, (2012) "Evaluation of fracture parameters by double G, double K models and crack extension resistance for high strength and ultra high strength concrete beams", Tech Science Press, CMC, vol.31, no.3, pp 229-251, 2012.
- 61. A.Ramachandra Murthy, Nagesh R Iyer, B.L. Karihaloo, B.K.Raghu Prasad (2013)
  "Determination of size independent specific fracture energy of concrete mixes by two Methods", Cement and Concrete research 50 (2013) pp 19-25.
- 62. Mahesh Mungule, B K RaghuPrasad, "Meso-scale studies in Fracture of Concrete: A Numerical Simulation", Computers and Structures, Vol.89, Issue 11-12, June 2011

#### List of Papers Authored/Co-Authored in refereed Journals (National).

- B.K.Raghu Prasad, H.Ananthan and K.T. Sundara Raja Iyengar "Fracture behaviour of reinforced concrete beams" Journal of Structural Engineering, SERC, Madras, India, Vol 19, No. 1, April 1992, pp 50-58.
- 2. B.K.Raghu Prasad, B.R. Srinvasa Murthy, A.R. Gopalakrishnan and K.S.Nanjunda Rao "Damage assessment and rehabilitation measures for reinforced cement concrete sewage digestor tank – a case study" Journal of Structural Engineering, SERC, Madras, India. Vol 20, No. 2, July 1993, pp 83-90.
- 3. K.T. Sundara Raja Iyengar, B.K. Raghu Prasad, T.S. Nagaraj and Bharti Patel, "Determination of load-deflection curve of plain concrete beams from the softening beam model" Journal of Structural Engineering, vol. 24, No.1, April 1997.
- Prakash Desayi, B.K. Raghu Prasad and V. Bhaskar Desai, "Mode-II fracture of cementitious materials – Part I: Studies on specimens of some new geometries", Journal of Structural Engineering, vol. 26, No.1, 1999.
- Prakash Desayi, B.K. Raghu Prasad and V. Bhaskar Desai, "Mode-II fracture of cementitious materials – Part II: Fracture toughness of cement paste, mortar, concrete and no-fines concrete", Journal of Structural Engineering, vol. 26, No.1, April 1999.
- 6. Prakash Desayi, B.K. Raghu Prasad and V. Bhaskar Desai, "Mode-II fracture of cementitious materials Part III<sup>+</sup>: Studies on shear strength and slip of cement paste,

mortar, concrete and no-fines concrete", Journal of Structural Engineering, vol. 26, No.2, July 1999.

- Prakash Desayi, B.K. Raghu Prasad and V. Bhaskar Desai, "Mode-II fracture of cementitious materials – Part IV<sup>+</sup>: Fracture toughness, shear strength and slip of fiber reinforced cement mortar and concrete", Journal of Structural Engineering, vol. 26, No.4, January 2000.
- Prakash Desayi, B.K. Raghu Prasad and V. Bhaskar Desai, "Mode-II fracture of cementitious materials – Part V<sup>+</sup>: Size effect on fracture toughness, shear strength and slip of cement mortar and concrete reinforced with and without fibers", Journal of Structural Engineering, vol. 27, No.2, July 2000.
- B.K. Raghu Prasad, guest editor, Fracture Mechanics of Concrete (Special Issue), Sadhana, Academic proceedings in Engineering Sciences, Indian Academic Sciences, Bangalore, 27(126), Vol. 27 Part 4 August 2002.
- G. Appa Rao and B.K. Raghu Prasad, "Strength and Fracture Toughness of Interfacial Zone in HSC", Journal of Structural Engineering, SERC, Chennai, India Vol 30, No. 3, Oct-Dec 2003.
- G. Appa Rao and B.K. Raghu Prasad, "Size Effect and Fracture Process zone in High Strength Concrete", Journal of Structural Engineering, SERC Vol 32, No. 3 August-September 2005 pp. 207-215.
- G. Appa Rao and B.K. Raghu Prasad, "Fracture Energy of Fiber Reinforced High Strength Concrete", Journal of Structural Engineering, SERC Vol 31, No. 4 January-March 2005, pp 249-255.
- B.K. Raghu Prasad, and M.V Renuka Devi, "Fracture Mechanics of concrete A state of the art with Historical Review". To be published in Perspectives of Civil Engineering, A Golden jubilee Publication, Department of civil Engineering, IISc 2002.
- 14. B.K. Raghu Prasad and R. Vidya Sagar, "Numerical Modeling of Fracture and Size Effect in Plain Concrete", Vol 86, Institution of Engineers, February 2006 pp 182-186.
- B.K.Raghu Prasad and R.Vidya Sagar (2006), "Use of Singular fractal functions to generate constitutive laws of Quasi-brittle materials" Journal of Structural Engineering, SERC, Chennai. Vol 33 No. 3 August-September 2006, pp. 181-186.
- B.K.Raghu Prasad, N.Lakshmanan, K.Muthumani and N.Gopalakrishnan, "Enhancement of damage indicators in wavelet and curvature analysis", Sadhana Vol 31, Part 4, August 2006, pp 463-486.
- B.K.Raghu Prasad and R.Vidya Sagar (2008) "b-Value analysis of AE released due to concrete fracture" Journal of Structural Engg. (SERC) Chennai" Vol 34. No. 6 February-March 2008, pp 447-455.
- N.Lakshmanan, B.K.Raghu Prasad, N.Gopalakrishnan, K.Muthumani and G.V.Rama Rao, "Damage estimation as a multi-variate interpolation problem of Eigen-changes through radial basis function network", Journal of Structural Engineering, SERC, Chennai. Vol 35 No. 2, June-July 2008, pp 121-127
- 19. G.Appa Rao, B.K.Raghu Prasad and R. Eligehausen, "Understanding the relationship between elastic and mechanical properties of concrete", Journal of Structural Engineering, SERC, Chennai. Vol 34, No. 5 December – January 2008, pp 335-342.
- 20. G.Appa Rao, B.K.Raghu Prasad and R. Eligehausen, "Characterization of concrete failure from load-CMOD curves and tension softening modulus", Journal of Structural Engineering, SERC, Chennai. Vol 35, No. 3 August – September 2008, pp 207-215.
- 21. R.Vidya Sagar and B.K.Raghu Prasad, "An experimental study on fracture process zone in HSC three point bend beam specimen using acoustic emission method", Journal of Structural Engineering, SERC, Chennai. Vol 36, No. 1 April – May 2009, pp 59-69.
- 22. R.Vidya Sagar, B.K.Raghu Prasad and A.R.Gopalakrishnan, "Size independent

specific fracture energy of high strength concrete beams using hybrid method" The Indian Concrete Journal (ICJ), Vol 82, No 11, November 2008 pp 30-42.

- Vinod kumar T.A, Sakeyshamu and Raghu Prasad B.K., "Effect of the surface texture of the aggregates on fracture energy", Journal of Structural Engineering, Vol 36, No 3, August-September 2009.
- 25. T.A. Vinod Kumar, Sakey Shamu and B.K. Raghu Prasad., "Effect of abrasion value of the aggregates on fracture energy", Journal of Structural Engineering, Vol 36, No.3, December 2009 January 2010.
- 26. R. Vidya Sagar and B.K.Raghu Prasad., "Modelling heterogeneity of concrete using 2D lattice network for concrete fracture and comparison with AE study", Sadhana Vol. 34, Part 6, December 2009, pp. 865-886.
- 27. R. Vidya Sagar and B.K.Raghu Prasad.,"Acoustic emission energy as an indicator of fracture energy of concrete", The Indian Concrete Journal, Vol 84, No.4, April 2010, pp. 39-50.

#### **ConferencePapers**:

#### List of Papers in International and National Seminar/Symposium/Conferences

- 1. B.K.Raghu Prasad and K.S.Jagadish "The Inelastic torsional response of structures to earthquake ground motions" Proceedings of sixth world conference on earthquake engineering, New Delhi, Jan 10-14, 1977, India, pp 3.404-3.405
- Raghu Prasad B.K and Gopalakrishnan A.R "Finite element inelastic analysis of Nuclear Power Plants subjected to Dynamic loads" pp. 827-834, Proceedings of International conference on Finite elements in computational mechanics, Pergamon Press, 2-6 Dec 1985, IIT Bombay.
- 3. Raghu Prasad B.K, Gopalakrishnan A.R and Sudhakara M.S "Dynamic analysis of towers for windloads pp 277-286, Asia-Pacific symposium on wind engg, Dec 5-7 1985, Civil Engineering Department, University of Roorkee, Roorkee, India.
- Raghu Prasad B.K and Gopalakrishnan A.R "Approximate Design Method for a nuclear containment vessel subjected to earthquakes pp 49-56, Proceedings of 8<sup>th</sup> European conference on earthquake engineering, Lisbon, Portugal, Sept, 7-12 1986
- Raghu Prasad B.K. and Ramakrishna B "Rehabilitation of RCC structural elements with clamps under repeated cyclic loading, pp 5.45-5.59, Vol 2, Proc. Of the 2<sup>nd</sup> Int. conf on concrete technology for developing countries, Tripoli, Libya Oct 27-30, 1986.
- Raghu Prasad B.K. and Ravi Raj V, "Inelastic torsional response of offshore platforms subjected to earthquake ground motions" pp49-56, Proc. Of 8<sup>th</sup> European Conference on Earthquake engineering, Lisbon, Portugal, September 7-12, 1986.
- Raghu Prasad B.K. and Saibaba A "Influence of shape in plan of a building on the Inelastic earthquake response pp 17-24. Proc. of 8<sup>th</sup> European conference on Earthquake Engineering, Lisbon, Portugal, Sept 7-12, 1986.
- Sundara Raja Iyengar K.T. Raghu Prasad B.K and Gopala Rao N "Stress distribution in pre-stressed concrete anchorage blocks – a comparative study using boundary elements and finite element methods" International Conference on finite elements in computational mechanics pp 449-459, Dec 1985.
- B.K.Raghu Prasad "Inelastic dynamic response of R.C beam-column joints using BEM" 11<sup>th</sup> International Conference in Boundary Element Methods, Cambridge, Massachusetts, USA.
- 10. B.K.Raghu Prasad, K.T.Sundara Raja Iyengar and H. Ananthan "Effect of depth and

position of crack on mixed mode stress intensity factors in a beam" Advances in Structural testing, analysis and design, Proc. International conference in structural testing, analysis and design, July-Aug 1990, India

- 11. B.K.Raghu Prasad and A.R.Gopalakrishnan"Inelastic dynamic analysis of R.C. containment vessels using FEM" 11<sup>th</sup> International conference in Structural mechanics in reactor technology, SMIRT 11, Tokyo, 1991
- 12. K.T.Sundara raja Iyengar, B.K.Raghu Prasad and H.Ananthan "On the development of a beam model for the fracture of plain and reinforced concrete" 11<sup>th</sup> International conference in Structural mechanics in reactor technology, SMIRT 11, Tokyo, 1991.
- 13. B.K.Raghu Prasad, A.R.Gopalakrishnan and K.S.Jagadish " Dynamic design of seismic holding-down bolts for equipment" Symposium on earthquake effects on plant and equipment, Hyderabad, India, dec 1984.
- 14. Raghu Prasad B.K. and Jagadish K.S. "Inelastic torsional response of a single storeyed structure-three degrees of freedom sysytem" 3 day seminar on recent trends in structural analysis and design, Bangalore,India, March 1987 pp B13-20.
- 15. Ramakrishna B and Raghu Prasad B.K "Rehabilitation of RCC structural elements with external clamps under repeated reversed cyclic loading" Seminar on Recent trends in Structural Analysis and Design, Bangalore pp C20-27, 1987
- 16. Sundara Raja Iyengar K.T, Raghu Prasad B.K and Ananthan H "Fracture Mechanics of plain and reinforced concrete- State of the art" Seminar on Recent trends in Structural Analysis and Design" Bangalore C1-C6 1987.
- 17. Sundara Raja Iyengar K.T and Raghu Prasad B.K "Dynamic Analysis of tall Tower Strutures" recent Advances in Concrete Construction, IIT Madras, March 2-5 1987 pp 1-30.
- K.T.Sundara Raja Iyengar, B.K.Raghu Prasad and H.Ananthan "A state of the art on analytical models for the fracture of concrete" International symposium on Fatigue and Fracture in steel and concrete structures Vol 1. Dec 19-21, 1991 Madras pp 423-433.
- K.T.Sundara Raja Iyengar, T.S. Nagraj, B.K.Raghu Prasad and Bharti Patel "Evaluation of a few models for the fracture of plain concrete beams" International Symposium on Fatigue and fracture in steel and concrete structures Vol 1. Dec 19-21, Madras, pp 461-475.
- Prakash Desayi. B.K.Raghu Prasad and V.Bhaskar Desai, "A brief review on fracture of concrete in Mode II" International symposium on Fatigue and Fracture in steel and concrete structures Vol 1, Dec 19-21, 1991 Madras, India, pp 435-459
- 21. K.T.Sundara Raja Iyengar, B.K.Raghu Prasad and H.Ananthan "On the development of a beam model for the fracture of plain and reinforced concrete" 11<sup>th</sup> International conference on Structural Mechanics in Reactor Technology (SMIRT 11) Vol H, Tokyo, Japan August 18-23, 1991.
- 22. B.K.Raghu Prasad and A.R.Gopalakrishnan "Inelastic dynamic analysis of nuclear vessels" 11<sup>th</sup> International conference on Structural Mechanics in Reactor Technology (SMIRT 11) Vol H, Tokyo, Japan August 18-23, 1991.
- S.G.ShashiPrakash, T.S.Nagraj and B.K.Raghu Prasad "determination of consistency of cement paste – A fresh look" 9<sup>th</sup> Inetrnational Congress on the Chemistry of Cement, New Delhi 23-28 Nov. 1992.
- 24. B.K.Raghu Prasad and J.M.Chandrakishen "Modeling of process zone for fracture of concrete" 1<sup>st</sup> International conference on Fracture mechanics of concrete structures (FRAMCOS1), June 1-5, 1992, Colorado, USA
- 25. H.Ananthan, K.T.Sundara Raja Iyengar and B.K.Raghu Prasad "Crackwidth in R.C. beams –A fracture mechanics approach" 1st International conference on Fracture mechanics of concrete structures (FRAMCOS1), June 1-5, 1992, Colorado, USA.
- 26. B.K.Raghu Prasad and A.Ghosh "Damage theory for concrete beams" 1<sup>st</sup> International conference on Fracture mechanics of concrete structures (FRAMCOS1), June 1-5, 1992,

Colorado, USA

- 27. B.K.Raghu Prasad and A.R.Gopalakrishnan "Elasto-plastic dynamic response of RC nuclear containment vessel with tension softening" 12<sup>th</sup> Int. Conf. On structural Mechanics in Reactor technology (SMIRT 12), Stuttgart, Germany, August 15-20, 1993.
- 28. B.K.Raghu Prasad and A.R.Gopalakrishnan "Nonlinear finite element analysis of arches made of precast concrete hollow blocks" 3<sup>rd</sup> Int. Conf. On Concrete Technology for Developing countries, Tripoli, Libya, Oct 27-28, pp. 476-487, 1983.
- H.Ananthan, K.T.Sundara Raja Iyengar and B.K.Raghu Prasad "Crackwidth in R.C.Beams-Application of Softening Beam model" 3<sup>rd</sup> Int. Conf. On Concrete Technology for Developing countries, Tripoli, Libya, Oct 27-28, pp. 446-460, 1983.
- 30. K.T.Sundara Raja Iyengar, H.Ananthan and B.K.Raghu Prasad "Experimental verification of softening beam model for the fracture of plain concrete beams" 3<sup>rd</sup> Int. Conf. On Concrete Technology for Developing countries, Tripoli, Libya, Oct 27-28, pp. 438-445, 1983.
- B.K.Raghu Prasad, A.R.Gopalakrishnan and M.R.N.Murthy "Finite element analysis of RC deep beams circular in plan" Int. Symp. On Innovative world of conference, ICI-IWC-93, Aug. 30-Sept. 3, 1993, Bangalore, India, pp. 4.185-4.195.
- B.K.Raghu Prasad, and A.R.Gopalakrishnan "Nonlinear finite element analysis of RC structures" Int. Symp. On Innovative world of conference, ICI-IWC-93, Aug. 30-Sept. 3, 1993, Bangalore, India, pp. 4.219-4.230.
- 33. B.K.Raghu Prasad and G.S.Bhattacharya "State-of-the –art on deterministic fractals in fracture" 8<sup>th</sup> Int. conference on fracture, kiev, Ukraine, 8-14 June, 1993.
- 34. B.K.Raghu Prasad and G.S.Bhattacharya "Fractals for concrete fracture" Int.symp, Brittle Matrix Composites 4" AM. Brandt, V.C.Li and I.H.Marshall eds., Sept 13, Warsaw, 1994.
- 35. B.K.Raghu Prasad and G.S.Bhattacharya "Fractals in heterogeneity and fracture of concrete" 3<sup>rd</sup> Int. Congress on Industrial and Applied Mathematics (ICIAM 95), Hamburg, 3-7 July 1995
- 36. B.K.Raghu Prasad and TVRL Rao "Initial stiffness method for fracture of concrete" 3rd Int. Congress on Industrial and Applied Mathematics (ICIAM 95), Hamburg, 3-7 July 1995.
- 37. B.K.Raghu Prasad "Teaching Materials Science etc., 3<sup>rd</sup> Annual smp. On teaching the materials science, Engineering and field aspects, Dept of Civil and Environmental Engineering, University of Cincinnati, Ohio, USA, July 9-12,1995
- M.H.Mathana, K.S.Jagadish and B.K.Raghu Prasad "Strength and elasticity of burnt bricks" Proc. of Asia pacific conference for structures and construction materials, ASPEC 1996, Johor Bahru, Malaysia, 16-19, June 1996.
- Prakash Desayi, B.K.Raghu Prasad and V.Bhaskar Desai "Experimental determination of K<sub>IIC</sub> from compliance and fracture-energy" National Seminar on Aerostructures, (NASAS 93), Dec 29-30,1993, IIT Kanpur, India.
- 40. B.K.Raghu Prasad and G.S.Bhattacharya "State of the art on deterministic fractals in fracture" National Seminar on Aerostructures, (NASAS 93), Dec 29-30,1993, IIT Kanpur, India.
- 41. B.K.Raghu Prasad "Seismic Resistant Design of Buildings" All India Seminar on Earthquake resistant Structures 23-24 April 1994, Engineers and Architects Association, Sangli, Mah. India.
- 42. B.K.Raghu Prasad and G.S.Bhattacharya "Fractals in damages and fracture of cementitious materials" National Seminar on Aerostructures, (NASAS 94), Dec 8-9,1994, IIT Kharagpur, India.
- 43. B.K.Raghu Prasad "Effect of size on the strength of RC deep beams and walls" National Workshop on Proposal for Revision of IS 456-1978, Jan 27-28, 1995, Indian Concrete Institute, Bangalore pp 9.5-9.14.

- 44. B.K.Raghu Prasad, AR Gopalkrishnan and MRN Murthy, "Deep beams curved in plan" National Workshop on Proposal for Revision of IS 456-1978, Jan 27-28, 1995, Indian Concrete Institute, Bangalore pp 9.15-9.21.
- 45. B.K.Raghu Prasad, S.Sudhar and K.Jeyapal "evaluation of stress intensity factor by FEM via –Bridging model" National Workshop on Stress Strain Characteristics of Engineering and Geomaterials, Feb 2-3, 1996, Indian Geotechnical Society, Baroda chapter, Baroda.
- 46. B.K.Raghu Prasad "Fundamental of Boundary Element method for Engineers" National Symposium on Recent advances in Civil Engineering Dec 21-23,1996 Dept of Civil Engineering, Sri.Venkateshwara College of Engineering, Tirupathi, pp. 25-40
- 47. Discussion meeting on strong motion earthquakes and their engineering specification-Oct 1993-JN Centre for Advanced Scientific Research, Dept of Civil Engineering, IISc, Bangalore.
- 48. Remalli Vidya Sagar, B.K.Raghu Prasad," Size Effect in Tensile Fracture of Concrete- A Study Based on Lattice Model Applied to CT- Specimen", 21<sup>st</sup> International Congress of Theoretical and Applied Mechanics (ICTAM-2004), Warsaw, Poland, Aug 15-21, 2004.
- 49. B.K.Raghu Prasad, Vijay Kumar and Remalli Vidya Sagar," Fracture Energy of high strength Concrete Beams using AE technique", Workshop on NDE of Concrete Structures Chennai, India, December 2-4,2002.
- 50. B.K.Raghu Prasad and A.S.V. Durga Prasad," Inelastic Seismic Vibration Absorber In Buildings with Coupled Translation And Torsion", for SDCE-2002, 18-19 July 2002.
- 51. S. Anantha Ramu, B.K.Raghu Prasad and V.T. Johnson," Application of Fast Haar Transforms in Intelligent Structural Integrity Monitoring Using Vibration Techniques", for SDCE-2002, 18-19 July 2002.
- 52. V.T. Johnson, S. Anantha Ramu (Late), B.K.Raghu Prasad, "Genetic algorithm for damage assessment, Proc of the IUTAM Symposium on Evolutionary Methods in Mechanics, Cracow, 24-27 September 2002.
- 53. B.K.Raghu Prasad and M.N. Srinivasan," Disaster Housing Using Aluminium", Two-Day National Workshop, 8-9 April 2002, Dept. of Civil Engineering, MVSR College of Engineering, Hyderabad.
- 54. G. Appa Rao, B.K. Raghu Prasad and R. Malathy, "Characterization of Interface in High Performance Concrete", Our World in Concrete and Structures, CI Premier Pte. Ltd., Singapore, 2002.
- 55. G. Appa Rao and B.K.Raghu Prasad," Softening of high performance concrete", ICCE-2001, volume 2, 23-25 July 2001.
- 56. D.V.T.G. Pavan Kumar and B.K.Raghu Prasad," Variationally Consistent Matching Conditions for ENF and ENC", ICC-2001, volume 2, 23-25 July 2001.
- 57. B.K.Raghu Prasad and G. Appa Rao," Fracture Behaviour of High Strength Concrete", for Workshop on safety of Nuclear Power Plant Structures (SNPP-2001), 21-22 July 2001.
- 58. G. Appa Rao and B.K. Raghu Prasad, "Fracture Process Zone in High-Strength Concrete", Fourth International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCos-4), Cachan, May 28-June 2, 2001, pp. 327-332.
- 59. G. Appa Rao and B.K. Raghu Prasad, "Interfacial Fracture Properties in HSC in Mode-II Failure", CONSEC'01, University of British Columbia, Vancouver, Canada, 2001, pp. 1209-1216.
- 60. B.K. Raghu Prasad and G. Appa Rao, "Fracture Energy of Silica Fume/Fly Ash HSC", National Workshop on "Advances in Structural Engineering", 21-22 December 2001, SVU, Tirupati, pp. 22-35.
- 61. G. Appa Rao, M. Gopal Reddy and B.K. Raghu Prasad, "Mix proportioning and Behavior of High-Strength Mortars", Proceedings of the 6<sup>th</sup> International Seminar on "Structural Masonry for Developing Countries", IISc, Bangalore, 11-13 October 2000, pp. 50-59.

- 62. B.K. Raghu Prasad, G. Appa Rao, and A.R. Gopalakrishnan, "Influence of Course Aggregate and Cement Content on Compressive Strength of High Performance Concrete", Proceedings of the 5th International Conference on "Concrete Technology for Developing Countries", NCB, 17-19 November 1999, NEW DELHI, pp. IV-14 - IV-22.
- 63. G. Appa Rao and B.K. Raghu Prasad, "Micro Structure and Resistance to Crack Propagation in the Paste –Aggregate Interface in Mortar Containing Silica Fume", Proceedings of National Workshop on "Advances in Cement, Slag and Pozzolanic Materials in India", June 27<sup>th</sup> 1998, SVU, Tirupati, pp.94-98.
- 64. G. Appa Rao and B.K. Raghu Prasad, "Some Experimental Investigations on the Effect of Silica Fume on Various Properties of Mortars", Proceedings of National Conference on "Advances in Materials of Construction and Construction Methods", August 22-23, 1997, Tirupati, pp.31-41.
- 65. G. Appa Rao and B.K. Raghu Prasad, "Fracture Toughness of Fiber Reinforced Composite Notched Beams", Proceedings of International Conference on Recent Trends in Concrete Technology and Structures, 10-12, Sep. 2003, Coimbatore, pp. 186-194.
- 66. G. Appa Rao and B.K. Raghu Prasad, "Ductility of GFRP Reinforced Composite Notched Beams", ICI Technical Volume on International Symposium on Innovative World of Concrete, ICI, Pune, 19-21 September, 2003, pp.13.
- 67. G. Appa Rao and B.K. Raghu Prasad, "Size Effect in Structural High Strength Concrete", FraMCOS-5, Colorado, USA, 12-16 April 2004.
- 68. G. Appa Rao and B.K. Raghu Prasad, "Ductility of High Strength Concrete in Tension", FraMCOS-5, Colorado, USA, 12-16 April 2004.
- 69. G. Appa Rao and B.K. Raghu Prasad, "Fracture Toughness of Fiber-Reinforced High-Strength Concrete", Proceedings of the 14<sup>th</sup> Engineering Mechanics Conference (EM 2000), ASCE, University of Texas, Austin, 21-24 May 2000, pp. 203 (CD).
- 70. G. Appa Rao and B.K. Raghu Prasad, "Fracture Process Zone in High-Strength Concrete", Fourth International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCos-4), Cachan, May 28-June 2, 2001, pp. 327-332.
- 71. B.K. Raghu Prasad, G. Appa Rao and R. Patnaik, "Influence of Strength on Fracture Energy of HPC" SMiRT 16, Washington, 12-17 August 2001. (Theme Speaker).
- 72. B.K. Raghu Prasad, "Seismic Resistant Design", National Programme on Earthquake Engineering Education, NPEEE, 6<sup>th</sup> 11<sup>th</sup> October 2003, Indian Institute of Science, Bangalore.
- 73. B.K. Raghu Prasad and R. Vidya Sagar, "Fracture Process of a notched Concrete plate under plane stress – A lattice model" 1<sup>st</sup> National Conference on Emerging Trends in Engineering, Technology and Management, 8-9 September 2003, Adhiyamaan Engineering College, Hosur, Tamilnadu.
- 74. Bharatkumar, S. Gopalakrishnan, B.K. Raghu Prasad and D.S. Ramachandramurthy, "Mixture proportioning of High Performance Concrete", Supplementary Proc. of Seventh CANMET/ACI Conference, Madras, India, July 2001,pp.311-323.
- 75. B. K. Raghu Prasad, A. Seetha Ramaiah and A. K. Singh," Capacity Spectrum For Structures Asymmetric In Plan", 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004, Paper No. 2653.
- 76. B. K. Raghu Prasad and M. V Renuka Devi, "Fractal Fracture Mechanics Of Quasibrittle Materials", International Conference on Advances in Structural Integrity in conjunction with XIII National Seminar on Aerospace Structures 14 - 17 July 2004, IISc, Bangalore (Invited Paper).
- 77. B. K. Raghu Prasad and M. V Renuka Devi, "Fracture Mechanics Of Concrete", National Conference on Recent Advances in Structural Engineering (RASE 2004), Jawaharlal Nehru Technological University College of Engineering, Anantapur, 9 Sep2004.

- 78. B. K Raghu Prasad, "Basics of Earthquake Resistant Design", workshop on "Earthquake Engineering & Design", Dept. of Civil Engg, Kongu Engineering College, Perundurai, 1-2,October 2004.
- 79. Raghu Prasad B. K and Bharat Kumar B. H, "Analytical Model For Fracture Of Plain And Reinforced Concrete", Proc. of the National workshop on Advances in Materials and Mechanics of Concrete Structures (NWAMMCS), Dept. of Civil Engg, IIT, Madras, 02-03, July 2004.
- 80. Appa Rao G and Raghu Prasad B. K, "Energy Absorption And Failure Behavior Of HSC In Direct Tension", Proc. of the National workshop on Advances in Materials and Mechanics of Concrete Structures (NWAMMCS), Dept. of Civil Engg, IIT, Madras, 02-03, July 2004.
- 81. Bharat Kumar B. H, Raghu Prasad B. K, Gopalakrishnan S, Ramachandra Murthy D S and Narayanan R, "Use Of HPC Towards Sustainable Development In Concrete Construction", Proc. of the National workshop on Advances in Materials and Mechanics of Concrete Structures (NWAMMCS), Dept. of Civil Engg, IIT, Madras, 02-03, July 2004.
- 82. B.K.Raghu Prasad, B.H.Bharat Kumar, "Fracture Characteristics of High Performance Concrete" National Workshop on Damage Assessment, Retrofitting and Strengthening of Buildings (DASREST- 2005), 21<sup>st</sup> – 23<sup>rd</sup> January 2005, Kolkata.
- 83. B.H.Bharatkumar, S.Gopalakrishnan, B.K.Raghu Prasad, D.S.Ramachndramurthy and R. Narayanan, "Effect of Fly Ash and Slag on the Pore Structure of HPC" Proceedings of the International Conference on Advances in Concrete Composites and Structures. January 6-8, 2005, SERC, Chennai, India.
- 84. N.Gopalakrishnan, B.K.Raghu Prasad, N.Lakshmanan, K.Muthumani, "Damage Identification using Wavelet Analysis", Proceedings of the International Conference on Advances in Concrete Composites and Structures. January 6-8, 2005, SERC, Chennai, India.
- 85. B.K.Raghu Prasad, B.H.Bharatkumar, "Fracture Characteristics of High Strength High Performance Concrete", Proceedings of the Indo-U.S. Workshop on High-Performance Cement-Based Concrete Composites under The American Ceramic Society held in Chennai, January 2005.
- 86. B.K.Raghu Prasad, B.H.Bharatkumar, "Fracture Mechanics to Concrete", International Conference on Structural and Road Transportation Engineering (START), 3rd to 5th January 2005, Indian Institute of Technology, Kharagpur, INDIA.
- 87. B.K.Raghu Prasad and M.V.Renuka Devi, "Application of Fictitious crack model to Plain concrete beams with fractal cracks", 2<sup>nd</sup> National Conference on Advances in Materials and Mechanics of concrete Structures, 12-13 August 2005, IIT Madras, pp 1-9.
- 88. B.K.Raghu Prasad and M.V.Renuka Devi, "Fracture Mechanics of Concrete", First National Conference on Recent Developments in Structural Engineering (RDSE 2005), August 29 and 30, 2005.
- 89. B.K.Raghu Prasad and B. Srinivas, "A study on Inelastic response of multistory buildings to near field ground motions", SEC 2005 December 14-16, 2005.
- 90. B.K. Raghu Prasad and N. Gopalakrishnan," Strategy for Damage Localization and Wavelet Analysis", Proceedings of ICCES 2005, December 1-6, 2005 IIT Madras.
- 91. B.K.Raghu Prasad, "Importance of Ductility in Earthquake Resistant Design", National Conference on Role of Civil Engineers in disaster Management And Mitigation, February 2-4, 2006. BMS College of Engineering pp 01-07.
- 92. B.K. Raghu Prasad, "Fracture Mechanics of Concrete- Some Recent Development", National Conference on Recent Advances and Innovations in Structural Engineering 27-28<sup>th</sup> March 2006, PSNA College of Engineering and Technology, Dindigul.
- 93. B.K.Raghu Prasad and R. Vidya Sagar" AE-based *b*-value Analysis Application to Plain Concrete Beams" Seminar on Non destructive testing NDE 2006 Dec 7-9, 2006,

Hyderabad

- 94. Raghu Prasad B.K., Srinivas B (2005), 'A study on inelastic response of multistory buildings to near field ground motions', Structural Engineering Convention, IISc Bangalore.
- 95. Raghu Prasad B.K., Srinivas B (2005), 'Understanding the inelastic seismic behaviour of shape of a multi-story building in plan', National Conference on Recent Advances in Structural Engineering, JNTU Kakinada.
- 96. RaghuPrasad B.K., Srinivas B (2006) 'The influence of masonry infill in reinforced concrete multi-story buildings to near-fault ground motions(Accepted for 2<sup>nd</sup> International Congress on Computational Mechanics at IIT Guwhati. 8<sup>th</sup> December 10<sup>th</sup> December 2006.
- 97. B.K.Raghu Prasad, M.V. Renuka Devi, "Extension of Fictitious Crack Model Self Affine cracks" (Keynote paper) International Conference on Computational and Experimental Engineering and Sciences 07 (ICCES07), January 3-8, 2007 Miami Florida, USA
- 98. B.K.Raghu Prasad, TVRL Rao and A.R. Gopalakrishnan, "Initial stiffness method to analyse mode 1 fracture behaviour of plain concrete beams" (Contributed paper) International Conference on Computational Experimental Engineering and Sciences07 (ICCES07), Miami, Florida, January 3-8, 2007.
- 99. B.K.Raghu Prasad, TVRL Rao and A.R. Gopalakrishnan "A study of size effect in a notched plain concrete beam using initial stiffness method" ASME Applied Mechanics and Materials Conference June 3-7, 2007 ~ University of Texas at Austin, MCMAT 2007.
- 100. B.K.Raghu Prasad, TVRL Rao and A.R. Gopalakrishnan, "Modified lattice model for mode I fracture analysis of notched plain concrete beam using probabilistic approach" 6th International Conference on Fracture and Damage Mechanics Madeira, Portugal, 17-19 July 2007.
- 101. B.K.Raghu Prasad, M.V. Renuka Devi, "Influence of tortuousity of crack on fracture energy of plain concrete beam", 30-31<sup>st</sup> August, 1<sup>st</sup> September, National Conference on Recent developments in Structural Engineering RDSE2007, Manipal.
- 102. R.K. Singh, S.M. Basha and Raghu Prasad B.K, "Experimental and finite element simulation studies for the size effect influence on the fracture energy of p-lain oncrete beam specimens", 3-8 November 2007, Structural Engineers World Congress 2007 (SEWC 2007).
- 103. Anoop M.B, Lakshmanan N, Raghu Prasad B.K, Balaji Rao K, "Detection of orrosion initiation in reinforced concrete structures using on-line monitoring data" Structural Engineers World Congress 2007 (SEWC 2007)
- 104. Anoop M.B, Lakshmanan N, Raghu Prasad B.K, Balaji Rao K, "Performability analysis for selecting the optimal maintenance scheme for reinforced concrete bridge girders in corrosive environments". 11<sup>th</sup> International conference on Inspection, appraisal, Repairs and maintenance of structures, North Cyprus 14-17<sup>th</sup> November 2007.
- 105. B.K.Raghu Prasad and Gopalakrishnan N, "Damage Identification from static measurements", 3-8 November 2007, Structural Engineers World Congress 2007 (SEWC 2007).
- 106. Inderjit Mukerjee and Raghu Prasad B.K., "Localization induced base isolation in hysteretically damped non linear system", 2<sup>nd</sup> International conference on nonlinear dynamics, National Polytechnical University, Kharkov,25-29<sup>th</sup> September 2007.
- 107. Indrejit Mukerjee and Raghu Prasad B.K., "Localization induced base isolation in fractionally damped non linear system", (Technical publication) (DETC-34348) ASMEIDETC/CIE 2007, September 4<sup>th</sup>-7<sup>th</sup> 2007, Las Vegas, Nevada, USA.
- 108. B.K Raghu Prasad and Vidya Sagar R., "An Experimental study on b-Value analysis of AE connected to fracture of RCC beam", Seminar on non destructive testing NDE-

2007, Vodadara, November 28th -30, 2007.

- 109. B.K.Raghu Prasad, S.Muralidhara, Mahesh P. Mungule and A. Ramachandra Murthy, "Recent Advances in Fracture of Concrete with Emphasis on Size effect in shear and modeling of heterogeneity", Proceedings of the 6<sup>th</sup> Structural Engineering Convention (SEC-2008), Dec 18-20, 2008 (Invited paper)
- 110. D.V.T.G. Pavan Kumar and B.K.Raghu Prasad, "Analysis of Composite End Notch Cantilever Specimen Using Higher order Beam theories", Proc. of National Conference on Recent Advances in Steel and Concrete for Construction, St. Peter's Engineering College, Avadi, Chennai, January 22-24, 2008. (Keynote paper)
- 111. B.K.Raghu Prasad and D.V.T.G. Pavan Kumar, "Unidirectional 'DCB' and 'ENF' Specimens – A Comparative Study between Finite elements and Higher order beam theories", Proc. of XXII ICTAM, 25-29<sup>th</sup> August 2008, Adelaide, Australia.
- 112. B.K.Raghu Prasad, T.V.R.L. Rao and A.R.Gopalakrishnan, "Modified Lattice Model for Mode-I fracture analysis of notched Plain Concrete beam using Probabilistic approach", Proc. ICCES, Miami, U.S.A, Vol 6, No. 2, pp. 99-112.
- 113. S. Muralidhara, Hamid Eskandari and B.K.Raghu Prasad, "Utilising AE Sensor Peak Energy to Estimate Fracture Process Zone size in Plain concrete beams", Proc. IQCICF-2008, 3-7 August 2008.
- 114. R.Vidya Sagar and B.K.Raghu Prasad, "The effect of transition ligament length on fracture energy of concrete. Proc. IQCICF-2008, 3-7 August 2008.
- 115. R.K.Singh, S.M.Basha and B.K.Raghu Prasad, "Size effect studies for the fracture energy of concrete structures, Proc. IQCICF-2008, 3-7 August 2008.
- 116. R.Vidya Sagar and B.K.Raghu Prasad, "Experimental study on fracture process zone in high strength concrete beams", Proc. IQCICF-2008, 3-7 August 2008.
- 117. B.K.Raghu Prasad, N.Lakshmanan, N.Gopalakrishnan and K.Muthumani," Damage Identification through Iso-Eigen Change Contours", Proc. IQCICF-2008, 3-7 August 2008.
- 118. M. Sundareshan, R. Prasad, H. E. Naddaf and B. L. Karihaloo, "Estimation of Fracture Process Zone size and True Fracture Energy using Acoustic Emission Data", Proc. of 2009 Joint ASCE-ASME –SES Conference on Mechanics and Materials, Blacksburg, Viriginia, U.S.A, June 24-27, 2009
- 119. Hamid Eskandari, S. Muralidhara, B.K.Raghu Prasad, B.V. Venkatarama Reddy, "Nano- Micro Fracture using Moment tensor based on AE", Proc. of IMECE 2009 13<sup>th</sup> November 2009, Florida, USA.
- Raghu Prasad, B.K., R.Vidya Sagar., (2005) Numerical simulation of concrete fracture – A lattice model., Recent developments in structural Engineering – 2005 (RDSE – 2005)., Manipal Institue of technology., Manipal – 576 104. pp.42.
- 121 Raghu Prasad, B.K. and R. Vidya Sagar (2006) AE-based b-value Analysis Application to Plain Concrete Beams, NDE 2006 Seminar on Non –Destructive evaluation, December 7-9, 2006, HICC&Hitex Exhibition centre, Hitec city, Hyderabad, India, TP-109.
- 122 Raghu Prasad, B.K., R.Vidya Sagar, (2007) Size Effect in Plain Concrete Beams Via Singular Fractal Function McMat 2007 ASME Applied Mechanics and Materials Conference June 3-7, 2007 University of Texas at Austin; MCMAT-2007-30271.
- 123 Raghu Prasad, B.K., R. Vidya Sagar (2007) An experimental study on the development of fracture process in plain concrete beams using b-value analysis of AE signals 306 FraMCoS-6 "6th International Conference on Fracture Mechanics Of Concrete and Concrete Structures"CATANIA, Italy, June 17-22, 2007. (Editors:Carpinteri et al ) 2007 Taylor & Francis group, London, ISBN

978-0-415-44065-3, pp. 233-241.

- 124. Vidya Sagar and B. K. Raghu Prasad (2008) fracture simulation of concrete using fractal approach and lattice model – validation by AE study ICTAM 2008, IUTAM Congress Adelaide; Australia (accepted for lecture session) ISBN 978-0-9805142-09.
- 125. B.K.Raghu Prasad, Rabindra Kumar Saha, A.R.Gopalakrishnan, "Fracture behavior of Plain concrete Beams"- Experimental Verification of One Parameter Model", ICCES-2010, Las Vegas, USA, March 28-April 1, 2010.
- 126. S. Muralidhara, Hamid Eskandari, B.K. Raghu Prasad, R.K. Singh, "b-value of plain Concrete beams based on AE Quanta" Proceedings of the 7<sup>th</sup> International Conference on Fracture Mechanics of Concrete and Concrete Structures (FRAMCOS-7), Jeju, Korea, May 23-28, 2010. Korea Concrete Institute, ISBN 978-89-5708-182-2.
- 127. R.Vidya Sagar and B.K.Raghu Prasad (2012) Numerical modeling of concrete fracture in concrete using fractals theory and comparison with AE based *b*-value, 23<sup>rd</sup> International congress of Theoretical and applied mechanics (ICTAM-2012) IUTAM congress, pp.131 [proceedings CD-ROM].
- 128. R.Vidya Sagar and B.K.Raghu Prasad R.K.Singh (2013) Laboratory Investigations on Concrete Fracture using Acoustic Emission Technique -, FraMCos-8 March 10-14, Toledo, Spain. [Paper number 615]
- 129. V. Veselý, P. Frantík, R. Vidya Sagar, M. Štafa and T. Pail (2013) Balanced energy dissipation at propagating crack tip in quasi-brittle materials – Analysis via Soft-computing methods, International Conference on Fracture and Damage Mechanics, (FDM 2013) September 17-19, 2013. Alghero, Sardinia, Italy.
- 130. S. Muralidhara, Hamid Eskandari, B. K. Raghu Prasad, R. K Singh (2010), "b-value of plain concrete beams based on AE Quanta" Proceedings of the SEM Annual Conference June 7-10, Indianapolis, Indiana USA ©2010 Society for Experimental Mechanics.
- 131. S. Muralidhara, Hamid Eskandari, B. K. Raghu Prasad and R. K. Singh (2010), "b-value of plain concrete beams based on AE Quanta" 7th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-7), May 23 ~ 28, Jeju Island, South Korea, ISBN 978-89-5708-182-2, Proceedings of FraMCoS-7, Pp.1789-1793.
- 132. M Mungule, B K Raghu Prasad, "Hydration kinetics and effect on performance of concrete", 21st International Conference on Structure Mechanics in Reactor Technology (SMiRT 21), 6-11 November 2011, New Delhi, India.
- 133. M Mungule, B K Raghu Prasad, "Meso-scale studies in fracture of concrete: A Numerical simulation", 6th M.I.T Conference on Computational Fluid and Solid Mechanics, 15-17 June 2011, Massachusetts Institute of Technology, Cambridge, USA.
- 134. B K Raghu Prasad<sup>\*</sup> & P V Ramana 2010 "Limitations of Adomian Decomposition *Method*" (Keynote), Annamalai University, Chennai, India.
- 135. P V Ramana & B K Raghu Prasad, Oct 21-23, 2011"*Modified Adomian Decomposition Method for Non-linear Duffing-holmes equations*", ACE 2011, KL University, Vaddeswaram, Vijayawada, India.
- 136. P V Ramana& B K Raghu Prasad, 2012 "Semi-Analytical Method for Non-Linear Problems" Knowledge College of Engg, Shrikapur, India.
- 137. P V Ramana& B K Raghu Prasad, 2012 "Novel Technique For Solving Continuous Support Bridge Problems", SPICON2012, SP College of Engg, Mumbai, India.
- 138.P V Ramana, P V Adsul & B K Raghu Prasad, 2012" Soft Computational for Box Girder

Bridge Problems", SPICON2012, SP College of Engg, Mumbai, India.

- 139. P V Ramana, 2012 "A Novel Technique for Solving fractional Problems" ASME, Houston, USA.
- 140. P V Ramana& B K Raghu Prasad, 2012 "A Novel Technique for Solving nonlinear plate problems" GBECT, China.
- 141. P V Ramana& B K Raghu Prasad, 21-23 June 2012 "An innovative method for solving axial bar and beam problems" MSRIT, Bangalore.
- 142. P V Ramana& B K Raghu Prasad, 21-23 June 2012 "A Analysis of Dynamic Angle of Twist in Twisted Shape Towers" MSRIT, Bangalore.
- 143. P V Ramana& B K Raghu Prasad, 11-13 July 2012 "An innovative method for solving multi-support obstacle problems" CIT, Coimbatore, India.
- 144. P V Ramana& B K Raghu Prasad, 5-7 July 2012 "Green building inventions" IISc, Bangalore, India.
- 145. P V Ramana& B K Raghu Prasad, 5-7 July 2012 "Adoptive techniques for Green building construction and maintain" IISc, Bangalore, India.
- 146. P V Ramana& B K Raghu Prasad, 5-7 Dec 2012 "An Innovative Method for Large Geometrical Deformable Structures"InnDeM 2012, PDPM, IIIT Jablapur, India.
- 147.P V Ramana& B K Raghu Prasad, 5-7 Dec 2012 "An Analysis Approach for Angle of Twist in Twisted Shape Towers " InnDeM 2012, PDPM, IIIT Jablapur, India.
- 148. P V Ramana& B K Raghu Prasad, 10-12 Dec 2012 "An Innovative Technique for Solving 3D Thick Plate Hyperbolic Problems" ICCMS, IIT, Hyderabad, India.
- 149. P V Ramana& B K Raghu Prasad, 10-12 Dec 2012 "Computational Mechanism on large deformable bodies" ICCMS, IIT, Hyderabad, India.
- 150. P V Ramana& B K Raghu Prasad, 19-21 Dec 2012 "The decomposition method for stability non-linear problems" SEC, SVNIT, Surat, India.
- 151.P V Ramana& B K Raghu Prasad, 19-21 Dec 2012 "An innovative technique for one and two dimensional problems in engineering" SEC, SVNIT, Surat, India.
- 152. P V Ramana& B K Raghu Prasad, 19-21 Dec 2012 "An Angle of Twist in Twisted Shape Towers Core Design" SEC, SVNIT, Surat, India.
- 153. P V Ramana& B K Raghu Prasad, 21-23 Feb 2013 "Limitations on decomposition method for engineering problems", IIT, Varanasi, India.
- 154. P V Ramana& B K Raghu Prasad, 21-23 Feb 2013 "An Innovative approach for fractional derivative problems", IIT, Varanasi, India.
- 155. P V Ramana& B K Raghu Prasad, 21-23 Mar 2013 "An FSM Analysis for Box Girder Bridges", ICEISTCON 2013, Computer division, IRD, Pune, India.
- 156. P V Ramana& B K Raghu Prasad, 21-23 Mar 2013 "A NOVEL PROCEDURE FOR SOLVING MULTI-SUPPORT OBSTACLE PROBLEMS", ICMMME 2013, Mechanical division, IRD, Pune, India.
- 157. P V Ramana& B K Raghu Prasad, 29-30 Mar 2013 "A Novel Procedure For Solving Beam and Truss Problems", ICGTI 2013, Mumbai, India.
- 158. P V Ramana& B K Raghu Prasad, 29-30 Mar 2013 "A NONLINEAR ANALYSIS FOR SOLVING MULTI-SUPPORT OBSTACLE PROBLEMS", ICGTI 2013, Mumbai, India.
- 159. P V Ramana& B K Raghu Prasad, 21-22 April 2013 "Structural Health Monitoring for High Raised Buildings", ICMESS 2013, Mumbai, India.

## **OtherAccomplishment**

- 1. Secured 5<sup>th</sup> Rank in BE & 1<sup>st</sup> Rank in M.Tech at Bangalore University.
- 2. Written a text book titled "Structural Dynamics in Earthquake and Blast Resistant Design"
- 3. Has 1293 google citations
- 4. Supervised 27 PhD scholars
- 5. Successfully completed funded projects to the tune of 91 Lakhs.

## ResearchGuidance

Prof B.K Raghu Prasad has supervised 27 PhD scholars and 8 PG Students.

# **ProfessionalMembership**

American Society of Civil Engineers (ASCE)

### **ContactDetails**

Department of Civil Engineering K S School of Engineering and Management Bangalore – 560 109, India.

Email: bkriisc@gmail.com