

BIO-DATA OF Dr. G. D. Ramtekkar

1. NAME IN FULL : Dr. Gangadhar Ramtekkar
2. DESIGNATION : Professor, Civil Engg. Department,
Dean (Planning and Development)
National Institute of Technology Raipur

3. EDUCATIONAL QUALIFICATIONS

DEGREE/ CERTIFICATE	INSTITUTION	DIVISION
B. E. (Civil Engg.)	Govt. Engineering College Bilaspur (M.P.)	First Division with Honors (University Gold Medalist)
M. E. (Civil Engg.)	S.G.S.I.T.S. Indore (M.P.)	First Division with Honors
Ph. D. (Civil Engg.)	Indian Institute of Technology Bombay, Mumbai	Grade A+
Certificate Course on Earthquake Engg.	Indian Institute of Technology Roorkee	Grade A+

4. FIELD OF SPECIALIZATION : Structural Engineering

5. EXPERIENCE :

- (a) One year as Scientific Officer at Nuclear Power Corporation of India
- (b) 26 years teaching experience

6. RESEARCH PUBLICATIONS IN THE FIELD OF STRUCTURAL ENGINEERING

[A] PAPERS PUBLISHED IN REFEREED INTERNATIONAL JOURNALS (SCI)

S.No	Author(s)	Year	Title	Complete Reference of Journal	Publisher of the Journal
1.	Ramtekkar. G.S. Desai Y.M Shah A.H.	2002	mixed finite element model for thick composite laminated plates	Mechanics of Adv. Material & Structures 9(2), 133-156	Taylor & Francis, USA
2.	Desai Y.M Ramtekkar. G.S.	2002	Mixed finite element model for laminated composite beams	Structural Engg. & Mech. 13(3), 261- 276	Techno-Press
3.	Ramtekkar. G.S. Desai Y.M Shah A.H.	2002	Natural vibrations of Laminated composite beams by using mixed finite element modeling	Journals of sound & Vibrations 257(4),635-651	Elsevier Science Ltd.
4.	Desai Y.M Ramtekkar. G.S. Shah A.H.	2003	Dynamic analysis of laminated composite plates using a layer- wise mixed finite element model	Journal of Composite Structure, 59,237- 249	Elsevier Science Ltd.

S.No	Author(s)	Year	Title	Complete Reference of Journal	Publisher of the Journal
5.	Desai Y.M Ramtekkar. G.S. Shah A.H.	2003	A novel 3-D mixed finite element model for statics of angle-ply laminates	Inter. journal Numer. Methods in Engg, 57(12) 1695-1716	Wiley inter Science
6	Ramtekkar. G.S. Desai Y.M Shah A.H.	2003	Application of a three-dimensional mixed finite element model to the flexure of sandwich plate	Computers & Structures, 81(22-23),2183-2198	Pergamon, Elsevier Science Ltd.
7.	Ramtekkar. G.S. Desai Y.M Shah A.H.	2004	First ply failure of laminated composite plates – a mixed finite element approach	Journal of Reinforced Plastics & Composites, 23(3), 291-315	SAGE,) sponsorship p-American Society for Composites)
8.	Ramtekkar. G.S. Desai Y.M	2009	On Free Edge Effect and Onset of Delamination in FRPC Laminates using Mixed Finite Element Model	Journal of Reinforced Plastics & Composites, 28(3), 317-341.	SAGE,) sponsorship p-American Society for Composites)
9.	Ramtekkar. G.S.	2009	Free Vibration of Delaminated Beams using Mixed Finite Element Model	Journal of Sound & Vibrations 328(4-5) 428-440	Elsevier Science Ltd.
10.	P. V. Joshi, N. K. Jain, G.D.Ramtekkar	2014	Analytical modeling and vibration analysis of internally cracked rectangular plates.	Journal of Sound and Vibration, Vol. 333, Issue 22, (2014), pp.5851–5864.	Elsevier
11.	P. V. Joshi, N. K. Jain, G.D.Ramtekkar	2015	Analytical modeling for vibration analysis of partially cracked orthotropic rectangular plates	European Journal of Mechanics A/Solids, Vol. 50 (2015), pp. 100 – 111	Elsevier
12.	P. V. Joshi, N. K. Jain, G.D.Ramtekkar	2015	Analytical modeling for vibration analysis of thin rectangular orthotropic/functionally graded plates with an internal crack	Journal of Sound and Vibration, Vol. 344 (2015), pp. 377 – 398.	Elsevier
13.	P. V. Joshi, N. K. Jain, G.D.Ramtekkar	2015	Effect of thermal environment on free vibration of cracked rectangular plate: An analytical approach	Thin-Walled Structures, Vol. 91 (2015), pp. 38 – 49.	Elsevier
14.	P.K. Dewangan M Pradhan G.D.Ramtekkar	2015	Effect of fragment size, uniformity coefficient and moisture content on compaction and shear strength behaviour of	European Journal of Advances in Engineering and Technology, Vol. 2(12), 1-10	

[B] PAPERS PUBLISHED IN INTERNATIONAL JOURNALS

S.No	Author(s)	Year	Title	Complete Reference of Journal	Publisher of the Journal
1.	N.P. Dewangan, G.D.Ramtekkar M.F. Qureshi	2009	Fuzzy modeling of seismic wave propagation in semiinfinite body referring Ravleigh waves and development of fuzzy rule base	AMSE Journal-FAb-2009 (Lyon-France), Vol.82, Issue 3, No.3-4,p 1-20	
2.	N.P. Dewangan, M.F. Qureshi G.D.Ramtekkar,	2010	Fuzzification of aquifer system parameters for modeling its seismic response.	AMSE Journal-2011 (Lyon-France(, Vol.53, Issue 2, N.1-2 p 26-40	
3.	N.P. Dewangan, M.F. Qureshi G.D.Ramtekkar,	2010	Sugeno-Fuzzy Modeling of the Depth-Dependent Pressure Anomalies in Well-Aquifer System Excited by the Rayleigh Waves	Advances in Geosciences, ADGEO-10 p. 33-46, Vol.26	World Scientific Publishers
4.	N.P. Dewangan, M.F. Qureshi G.D Ramtekkar,	2011	Modeling Seismic Response of Water Level of Confined Aquifer Well system in Fuzzy Plane	AMSE Journal	
5.	N.P.Dewangan, M.F. Qureshi G.D.Ramtekkar,	2012	Type-2 Sugeno-Fuzzy Model for Generating PGA for Distant Earthquakes.	Advances in Geosciences, ADGEO-11	Works Scientific Publishers

[C] PAPERS PUBLISHED IN NATIONAL JOURNALS

S.No	Author(s)	Year	Title	Complete Reference of Journal
1.	Choubey U.G. Gupta U. Ramtekkar G.S.	1991	Design aids for RC annular column section	J. Struct. Engg. 18(3), 81-88, SERC-CSIR Madras
2.	Ramtekkar G.S.	1997	The effect of redundancy on deflection of bridge trusses	J. Struct. Engg. 24(2), 97-103SERC-CSIR Madras
3.	B. Rath, S. Deo, G.D. Ramtekkar	2014	Reducing the life cycle cost of reinforced concrete structures by using fiber in concrete	I-manager's journal on Civil Engineering, Vol.4, No.-3 June Aug-2014

[D] PAPERS PUBLISHED IN INTERNATIONAL CONFERENCES

S.No	Author(s)	Year	Title	Complete Reference of Journal
1.	Ramtekkar G.S. Desai Y.M	2001	Analysis of laminated composite beam using mixed finite element model	Proceeding on Recent Advancements in Structural Engineering, SEC-2001. I.I.T/ Roorkee (India), 925-933.
2.	Ramtekkar.G.S. Desai Y.M	2001	Statics of Laminated Composite Plates by using Mixed Finite Elements	Proceeding on 46 th congress of ISTAM, R.E.C. Hamirpur (India), 279-283)
3.	Ramtekkar G.S. Desai Y.M	2007	Mixed finite element model for accurate assessment of local response of composite laminates.	8 th Seminar of Experimental Techniques and Design in Composite Materials – ETDCM8, University of Cagliari, Sardinia (Italy)
4.	N.P. Dewangan Ramtekkar.G.S. M.F. Kureshi	2007	Response modeling of a river basin based on Sugeno-Fuzzy model-a case study	Proceedings of the international Conference on modeling and simulation MS, 07 Italy, Oct 22 nd – 24 th , Terni, Italy.
5.	N.P. Dewangan Ramtekkar G.S. M.F. Kureshi	2007	Rainfall runoff modeling with ANFIS and its comparison with back propagation and radial basis function networks.	International conference of modeling and simulation (MS07-Algeria) held in Algeria from 02-to 04 July 2007.
6.	Qureshi M.F. Ramtekkar. G.S. N.P. Dewangan	2009	Fuzzification of aquifer system parameters for modeling its seismic response.	International conference on modeling and simulation, MS'09-Trivendram, India, 01-03 Dec, 2009. at College of Engineering Trivendram, Kerla.
7.	Qureshi M.F. Ramtekkar G.S. N.P. Dewangan	2010	Sugeno – Fuzzy modeling of anomalies in pressure changes in well-aquifer system excited by Raleigh waves.	SE 10-D2-PM2, page-295 AOGS'10- India, Annual General Meeting and the International Conference of the Asia-Oceania Geoscience Society, AOGS'1 India, 04-09 July, 2010, International Convention Center Hyderabad, India.
8.	N.P. Dewangan M.F. Qureshi G.D. Ramtekkar	2011	Type-2 Sugeno-Fuzzy Model For Generating PGA for Distant Earthquakes.	SE-A004, AOGS'11-Taiwan, Annual General Meeting and the International Conference of the Asia-Oceania Geosciences Society, AOGS'11- Taipei, Taiwan, 08-12 Aug, 2011
9.	Ramtekkar G.S. Desai Y.M.	2012	Effect of delamination on free vibration of laminated beams	ICSSD 2012, Fourth International Conference on Structural Stability and Dynamics, 4-6 January, 2012 Organized jointly by Department of Mechanical Engineering, Texas A & M University (USA) and Malviya National Institute of Technology Jaipur (India)

[D] PAPERS PUBLISHED IN NATIONAL CONFERENCES

S.No	Author(s)	Year	Title	Complete Reference of Journal
1.	Ramtekkar G.S.	2003	Good Construction Practices: A Lesson from Bhuj Earthquake	Proceeding on Issues pertaining to the development of new state and the capital of Chhattisgarh, Institution of Engineers, Chhattisgarh State Chapter Raipur (C.G.), 24-30
2.	Ramtekkar G.S.	2006	Earthquake Resistant Structures : Need of the Time	Proceeding on Indian Building Congress, Mid-Term Session on Green Buildings, 91-96, Public Works Department, Govt. of C.G. 15-16 Dec. 2006
3..	Tripathi R.K. Sahu T., Verma M.K., Ramtekkar G.S.	2007	Application of Seismic hazard analysis of dams.	23 rd National Convention of Civil Engineering and National Seminar on Seismic Response “ Design and Strengthening of Building Structures, 27-28 Oct. 2007, Institution of Engineers (I) Jabalpur local center.
4.	Ramtekkar G.S.	2007	Earthquake Resistant Design of Structures in Perspective of Chhattisgarh State	National Conference of Recent Advances and Trends in Civil Engineering, BITCON 2007, 9-17, BIT Durg
5.	Ramtekkar G.S.	2008	Analysis of composite laminates using mixed finite element model	Proceedings of the National Conference of emerging trends in Civil Engineering for infrastructure Development, Feb. 15-16, 2008, Dept. of Civil Engg. NIT Raipur
6.	N.P. Dewangan G.S. Ramtekkar M.F. Qureshi S.R. Kamlesh	2008	Fuzzy modeling for seismic wave propagation in semi-infinite body referring Rayleigh waves and development of fuzzy rule base	Proceedings of the National Conference on emerging trends in Civil Engineering for infrastructure Development, Feb 15-16, 2008 Dept. of Civil Enggg., NIT Raipur
7.	Ramtekkar G.S.	2008	Analysis of composite laminate	National Conference on Technological Advances in Civil Engineering, BIT Durg, 7-8 Nov. 2008
8.	Hardha R. P. Gupta M.K. Ramtekkar G.S.	2008	A review on stone dust as a substitute of sand in cement concrete mix	National Conference on Technological Advances in Civil Engineering, BIT Durg, 7-8 Nov. 2008
9.	B. Rath, S. Deo G.D.Ramtekkar	2015	A review on possibility of sustainable engineered cement concrete	UKIERI Concrete Congress- Concrete research driving profit and sustainability. 2349
10.	N. Yadav, S. Deo G.D.Ramtekkar	2015	Internal Curing using secondary materials driving profitability and sustainability in producing concrete	UKIERI Concrete Congress- Concrete research driving profit and sustainability. 708

S.No	Author(s)	Year	Title	Complete Reference of Journal
11.	R. Palod S. V. Deo G.D.Ramtekkar	2016	Preliminary investigation on steel slag: production, processing and cementitious properties	National conference on advance in construction technology and management, 19-20 feb., 2016, VNIT Nagpur, 209
12.	B. Rath S. V. Deo G.D.Ramtekkar	2016	Pond Ash : Asustainable building material for smart cities.	National conference on advance in construction technology and management, 19-20 feb., 2016, VNIT Nagpur, 123

7. GOOGLE CITATION : 209 (total)

8. RESEARCH GATE CITATION: 141 (108 READS, 16 Impact Points)

9. NOTABLE RESEARCH CONTRIBUTION

- (i) **Developed a Two Field Mixed Finite Element Model using Single-Field Variational Principle for the analysis of delamination of Fibre Reinforced Polymer Composite Laminate.**

The research work has been referred internationally in many research papers, Ph. D. and M. Tech thesis as well as in a book entitled “**DAMAGE AND FRACTURE MECHANICS**” in a chapter on ‘**Mixed Finite Element for cracked Interface**’, Publisher : **Springer Netherlands, 2009.**

10. Ph. D Guidance :

Completed : 02

Ongoing : 07

11. AWARDS / HONOURS :

- (1) **University Gold Medal** for Securing 1st Position in B.E. (Civil Engg.) Examination
- (2) Nominated for **Marquis who’s who** for 2011 edition of Who's Who in the World.

12. PRESTIGIOUS CONSULTANCY PROJECTS UNDERTAKEN AND COMPLETED

- (i) **Structural design and supervision of 82 m. high monument ‘JAIT-KHAMB’ at Girodpuri-Dham, Dist. Raipur (C.G.), as one of the tallest monument in India.**
- (ii) Investigation of the causes of failure of the 255m high R.C.C Chimney at BALCO, Korba (C.G.), which resulted in the loss of 43 lives. Appointed by the Dept. of Police, Govt. of Chattisgarh, the report became the guiding reference for the enquiry commission and the high court.
- (iii) Retrofitting of the Surge Cole Hopper building at Hasdeo-Thermal Power Plant, CSPGCL-Korba, Govt. of C.G: The 30 year old building got damaged due to hitting of dumpers and corrosive effects of coal. The working of the plant cannot be stopped as it is the life line for electricity generation. The retrofitting scheme

suggested by us gives opportunity for execution of strengthening works without hampering the electricity generation.

- (iv) Proof checking of high rise industrial structures like 275m high RCC Chimneys, silos, bag hoppers etc for various Power plants and Cement plants.
- (v) Scrutiny of the DPRs of various rural roads as member of the State Technical Agency, Pradhan Mantri Gram Sadak Yojna, Govt. of India.

13. MEMBERSHIP OF PROFESSIONAL SOCIETIES

- (i) Life member, Institution of Engineers (India)
- (ii) Life member, Indian society for technical education.
- (iii) Life member, Indian Concrete Institute.
- (iv) Life member, Indian Building Congress.

14. CORPORATE AND SOCIAL RESPONSIBILITIES

- (i) Member, building committee of Chhattisgarh Medical and Health Science University, Raipur.
- (ii) Member, building committee of Chhattisgarh Swami Vivekanand Technical University Bilai (C.G.)
- (iii) Member, High rise building committee, Govt. of Chattisgarh.
- (iv) Member, panel of experts for selection of Engineers for Service Selection Board, Govt. of India.
- (vi) Member, State Technical Agency, Pradhan Mantri Gram Sadak Yojna, Govt. of India.