

BIO-DATA OF Dr. G. D. Ramtekkar

- 1. NAME IN FULL** : Dr. Gangadhar Ramtekkar
- 2. DESIGNATION** : Professor, Civil Engg. Department,
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) 29 years teaching experience

6. DETAILS OF PAPERS PUBLISHED IN INTERNATIONAL AND NATIONAL JOURNALS AND CONFERENCES:

[A] PAPERS PUBLISHED IN REFEREED INTERNATIONAL JOURNAL

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 & Franics, 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.

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 - 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 - 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.	N.P. Dewangan, G.D.Ramtekkar, M.F. Qureshi	2009	Fuzzy modeling of seismic wave propagation in semiinfinite body referring Rayleigh waves and development of fuzzy rule base	AMSE Journal-FAb-2009 (Lyon-France), Vol.82, Issue 3, No.3-4,p 1-20	
11	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	
12.	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
13	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	
14.	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
15.	P.V. Joshi, N. K. Jain, G.D. Ramtekkar	2014	Analytical modeling and vibration analysis of internally cracked rectangular plates	Journal of Sound & Vibrations, Vol. 333, issue 22 (2014), pp. 5851-5864	Elsevier Science Ltd.
16.	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 and solids. Vol. 50(2015), pp. 100-111.	Elsevier Science Ltd.

17.	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 & Vibrations, Vol. 344 (2015), pp. 377-398	Elsevier Science Ltd.
18.	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 Science Ltd.
19.	Dewangan P.K., Pradhan M., Ramtekkar G.D.	2015	Effect of fragment size, moisture content on compaction and shear strength behavior of coal mine overburden dump material.	European Journal of Advances in Engineering and Technology, Vo. 2 (12), pp. 1-10.	
20.	Dewangan P.K., Pradhan M., Ramtekkar G.D.	2016	Shear strength behavior of fly ash mixed coal mine overburden dump material and stability assessment using numerical modeling.	ARPN Journal of Engineering and Applied Science, Vol 11(1), pp. 615-628	
21.	Dewangan P.K., Pradhan M., Ramtekkar G.D.	2016	Effect of compaction density and moisture content on shear strength behavior of fly ash mixed coal mine overburden dump material.	ARPN Journal of Engineering and Applied Science, Vol 11(13), pp. 1-12	
22.	P.V. Joshi, N. K. Jain, G.D.Ramtekkar, Virdi G.S.	2016	Vibration and buckling analysis of partially cracked thin orthotropic rectangular plates in thermal environment	Thin walled structures, Vol. 109C(2016), pp. 143-158.	Elsevier Science Ltd.
23.	Anupam Shukla, Rajesh Tripathi, G. D. Ramtekkar	2017	Survey on Cost and Time management in Highway Construction Projects	International Journal of Scientific Development and Research (ISSN:2455-2631)	
24.	Anupam Shukla, Rajesh Tripathi, G. D. Ramtekkar	2017	Risk identification based on Historic Data Analysis and Questionnaire Related to Highway construction Projects), International Journal of Scientific Development and Research (ISSN:2455-2631) accepted)	
25.	Anupam Shukla, Rajesh Tripathi, G. D. Ramtekkar	2017	Project Cost Forecasting of National Highways on Overrun by Using Neural Networks	Engineering, Construction and Architectural Management (Emerald Publication) ISSN: 0969-9988 (Scopus Index)(under review)	
26.	S. Kiran, G. D. Ramtekkar, A. Titiksh	2017	Comparative study for mitigating the soft storey effect in multistory buildings using different structural arrangements.	International Journal of Civil Engineering and Technology (IJCIET), Vo. 8, Issue 3, March 2017	
27.	P.V. Joshi, Ankur Gupta, N. K. Jain,	2017	Effect of Thermal environment on free vibration and buckling of	International Journal of Mechanical Sciences, 131-132 (2017) 155-170	Elsevier Science Ltd.

	R. Salhotra, A.M. Rawani, G.D.Ramtekkar		partially cracked isotropic and FGM micro plates based on a non classical Kirchoff's plate theory: An analytical approach.		
28.	Yadav, N., Deo, S. V. Ramtekkar, G.	2018	Workable and robust concrete using high volume construction and demolition waste in sub tropical climate	International journal of technology, Vol 3, 2018, pp 537-548 (<i>Scopus Indexed</i>).	
29.	Yadav, N., Deo, S. V. Ramtekkar, G.	2018	Internally cured glass fiber reinforced sustainable concrete in subtropical climate - A parametric investigation	International Journal of Engineering-Transactions A: Basics 31 (4), 356-363 (<i>Scopus Indexed</i>)	
30	Pavithra V., Balamurali A.G., Dr.Gangadhar Ramtekkar	2018	Optimal Design and Analysis of a Stringer-Stiffened Composite Payload Adapter	International Research Journal of Engineering and Technology	

[B] PAPERS PUBLISHED IN REFEREED 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), 97-103, SERC-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
4.	Dewangan P.K., Pradhan M., Ramtekkar G.D.	2015	Effect of gradation, gravel content and fragment size on the compaction and shear strength behavior of coal mine overburden dump material.	The Indian Mining and Engineering Journal, 55(7), pp 9-16

[C] 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)
10	Dewangan, P. K., Pradhan, M., Ramtekkar G.D.	2016	Generalized shear strength criteria for soft and weather coal mine overburden dump material,	International Journal of Art and Science conference, Boston, USA, 23-27 May, PP.1-11
11.	Dewangan, P. K., Pradhan, M., Ramtekkar G.D.	2016	Generalized shear strength criteria for soft and weathered coal mine overburden dump material.	International journal of arts and science conferences, Bostan, USA, 23-27 may, pp 1-11
12	Pavithra V., Dr. Gangadhar Ramtekkar	2018	Design and Analysis of Composite Payload Adapter for a Typical Launch Vehicle	International Conference Techno-A-Tech 2018
13.	Pavithra V., Dr. Gangadhar Ramtekkar	2019	Anisogrid Lattice Composite Payload Adapter- Optimal Design and Analysis	7th International Congress on Computational Mechanics and Simulation (Springer)
14.	Pavithra V., Dr. Gangadhar Ramtekkar	2019	Optimal Design Techniques of Composite Payload Adapter for a Typical Launch Vehicle	International Conference on Advanced Research and Innovations in Civil Engineering (Springer)

[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, Dec9-17 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.	Hardaha 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	UKIERI Concrete Congress- Concrete research driving profit and sustainability. 708

			sustainability in producing concrete	
11	Dewangan, P. K., Pradhan, M. And Ramtekkar	2016	Shear strength characterization of fly ash mixed coal mine overburden dump material.	National Seminar on Recent practices and innovations in mining industry, Raipur, 19-20 Feb, pp. 362-369
12.	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
13.	B. Rath S. V. Deo G.D.Ramtekkar	2016	Pond Ash : A sustainable building material for smart cities.	National conference on advance in construction technology and management, 19-20 Feb., 2016, VNIT Nagpur, 123
14	Pavithra V., Dr. Gangadhar Ramtekkar	2018	Optimal Design and Analysis of Composite Payload Adapter for a Typical Launch Vehicle	National Conference on Infrastructure Development and Sustainability
15	Pavithra V., Dr. Gangadhar Ramtekkar	2018	Design of Composite Payload Adapter for a Typical Launch Vehicle	National Finite Element Developers Meet, NAFED'18
16	Pavithra V., Dr. Gangadhar Ramtekkar	2019	Construction Approaches of Composite Payload Adapter for a Typical Launch Vehicle	National Conference on Advances in Civil Engineering, ACE'19
17	Gaurav D. Dhadse, Dr. G. D. Ramtekkar, Dr. Govardhan Bhatt	2018	A Review on Mathematical Models of Soil Structure Interaction Analysis	Proceedings of National Conference on Infrastructure Development & Sustainability at GEC Bilaspur during 20 th to 21 st December 2018.
18	Gaurav D. Dhadse, Dr. G. D. Ramtekkar, Dr. Govardhan Bhatt	2019	Response of Single and Multilayered Flexible base for Static and Earthquake loading under Framed RC Structure	Proceedings National Conference on Advances in Structural Technologies (CoAST-2019) during 01 st to 03 rd Feb 2019 at National Institute of Technology, Silchar.

7. 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 : 07; Ongoing : 04

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.
- (v) Life member, Indian Geo Technical Society

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.
- (v) Member, building committee of Pt. Ravishankar Shukla University, Raipur (C.G.)
- (vi) Member, building committee, Indian Institute of Management Raipur (C.G.)