

## Dr C D Modhera

Professor

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### Education:

- B. E. ( CIVIL) in 1989 from ( SVRCET, Surat ) South Gujarat University ,Surat, Gujarat, India
- M. E. ( CIVIL) specialization in Structure in 1992 ( SVRCET, Surat ) from South Gujarat University , Surat , Gujarat, India
- Ph. D. on “SOME STUDIES ON PARTIALLY SET FIBRE REINFORCED CONCRETE UNDER SUSTAINED TEMPERATURE CYCLE USING SELFING CONCEPT” in Indian Institute of Technology, Bombay, 2001

### Professional Interests:

Dr C D Modhera field of Specialization are Concrete Technology, Structural Dynamics, and Earthquake Engineering and Monitoring health of structural concrete. His research interest lies in the area of Special concrete and relevant application to the field.

### Official assignment:

- Charge taken as I/C. Estate Civil Works (for 2 yrs.) on 01/08/2002.
- Charge taken as Secretary Cum Treasurer of ISTE SURAT Chapter on 22/09/01
- Dept. level: (i) Member of Time-Table Committee from June 2002  
(ii) I/C Computer Lab. From Jan 2001
- Charge taken as Secretary Cum Treasurer of ISTE Gujarat section. On 8/3/03.
- Taken charge as Incharge Superintending Engineer Prof. Incharge Estate & Store Section. 2006.
- Dean (P&D) since 2008 onwards.
- Head, AMD from 11/06/2013 onwards for 2 yrs.

## List of M.Tech. Guided-

Sr.No	Name Of Candidate	Thesis Title
1.	Chinmay A. Gorantiwar (2002)	Modal Analysis For Multi-Storey Building Considering The Effect Of Infill.
2.	D .G. Soni (2003)	An Experimental Study On Shear Strength Test Methods For Sfrc
3.	Vijay M. Upadhyay (2004)	Effect Of Fly Ash (Ukai Power Plant) On Properties Of Concrete.
4.	Ritesh Chauhan (2004)	Retrofitting Of Beam &Column Using Glass Fibre Reinforced Polymer.
5.	Rajesh Patel (2004)	Analysis &Design Of Earthquake Resistant Multi-Storey Building For Different Configuration
6.	Vikrant Tapase (2005)	Base Isolation Technique To Control Response Of Structure Induced Due To Earthquake
7.	Anant M. Parghi (2006)	An Experimental Study On Behaviour Of Exterior Beam-Column Junction Of Sfrc Subjected Cyclic Loading.
8.	Ganvit Kanti Z (2007)	Effect Of Structural Mass Irregularity On Seismic Performance Of Building.
9.	Bharatsinh S Solanki (2008)	Seismic Response Of Unsymmetrical Rcc Building With Lrb Base Isolation System.
10.	Mayan A Patel (2008)	The Performance Of Various Mixes With Plasticizer In Thermal Environment.
11.	Kamlesh S Dalal (2009)	Visible And Invisible Problem &Some Methods Of Concrete Repair.
12.	Divyesh Patel (2009)	Design Of Reinforced Concrete & Post Tensioned Slab Using Software.
13.	Tulesh N Patel (2010)	Analysis & Design Of High Capacity Water Tank On Ground Using Spread Sheet And Cost Prediction By Artificial Neural Networks.
14.	Vikram Jaisingh Kadam (2010)	Analysis Of Curved Box Girder Bridge.
15.	Vijay Praksah Meena (2010)	Some Studies On Strength Of Partially Set Concrete Mixes.
16.	Khunt Hardik Bhikhabhai (2010)	Some Studies On Accelerated Cured Concrete.
17.	Dilip R.Vaghasiya (2010)	Studies On Various Mixes Of Accelerated Cured Specimen With Different Curing Time Duration Using Plasticizer.
18.	Shah Keyur Pravinchandra (2011)	Some Study On High Volume Fly Ash Concrete(Hvfac).
19.	Patel Nilesh Kumar Dahyabhai (2011)	Earthquake Analysis Of Multi-Storied Building With Different Configuration.
20.	Digambar Jagannath Kadbhane (2011)	Analysis And Parametric Study Of Reinforced Concrete Voided Slab Bridge.
21.	Khunt Vaibhav G. (2011)	An Experimental Study On Temperature Effect Of Properties Of Self Compacting Concrete.

22.	Teke Arjun Krishnat (2011)	Experimental Study On Flexural Strength Of Beam Using Glass Fibre Reinforced Polymer.
23.	Shah Krutik R (2012)	Comparative Studies Of Different Structural Parameters For Open Cylindrical Shell Under Wind Loading.
24.	Mayank T. Velwan (2012)	Parametric Studies Of Chimney Under Dynamic Wind Loading.
25.	Kasar Akshay Lalit (2012)	Performance Analysis Of Various Bracing Configurations In Steel Buildings.
26.	Mrs. Palak Shukla (2012)	Study Of Extreme Loading On Bridges-Application Of Blast And Seismic Loading.
27.	Sharad Kadbhane (2012)	Soil-Structure Interaction Of Vertically Anchored Foundation Elements.
28.	K P Mswamy (2012)	Some Studies As Rebar Protection Using Corrosion Inhibitor.
29.	Badgha Damyanti (2013)	Experimental Studies On Various Fibrous Reinforced Mortar.
30.	Korat P Jignesh (2014)	Study Of Rincon An Innovative Material.
31.	Basawa Sharan (2014)	Analysis Of Deep Beams Using STM Approach And Atena 3D Software.
32.	Kannauzia Anilkumar (2014)	High Volume Fly Fibre Reinforced Elf Compacting Concrete.
33.	Khatuwala S Amit (2015)	Experimental Studies On Various Mixes Using Untreated And Treated Recycled Coverage Aggregate.
34.	Sudani B Jaydeep (2015)	Suitability Of Recycle Coarse Aggregate.
35.	Thakor Nikunj (2013)	Experimental Studies On Recycled Coarse Aggregate In Concrete
36.	Jadav Bhargav (2013)	Experimental Study On Mortar Using Recycled Fine Aggregate
37.	Mistry Sanket (2014)	
38	Dhat S Somesh (2015)	Parametric Studies On Post-Tensioned Flat Slab Using Adapt-Pt Software.

### List of PhD guided:

Sr. No	Name of candidate	Thesis Title
1	W N Deulkar (D05AM202)	Seismic Response Of Steel Buildings Using Different Bracing Configurations.
2	I N Patel (DS07AM207)	Study Of Engineering And Durability Properties Of Fibre Reinforced Concrete Incorporating High Volume Fly Ash.
3	M K Maroliya (DS07AM208)	Study On Behaviour Of Reactive Powder Concrete Containing Steel Fibres And Silica Fume.
4	D L Shah (DS07AM209)	Evaluation Of Shear Strength In Self Compacting Fibre Reinforced Concrete And Conventional Concrete Deep Beams.
5	K B Parikh (DS08AM211)	Experimental And Analytical Studies On Flexure Strength Of Reinforced Concrete Using GFRP
6	D N Parekh (D09AM204)	Some Studies On Recycled Aggregate Concrete
7	M N Bajad  (DS09AM204)04Jan,2015	Effect of Chloride and Sulphate attack on the Properties of Conglasscrete
8	K S Dalal (DS09AM201)	Studies On Bond Strength Of Repair Materials And Substrate Concrete.
9	Patel N Tulesh (DS10AN203)	Development Of Spreadsheet-Tool, Design Aid And Neural Approaches For Predication Crack Width In Ground Support Tank Reinforced And Fibre Reinforced Concrete Wall Subjected To Seismic Loading.
10	Shah Ujjawal N (DS10AN203)	Parametric Study Of Fibre Reinforced High Volume Fly Ash Self Compacting Concrete.

## Representative Publications:

### a. International Journal

1. Modhera C D, Study on Setting time of Concretes using Penetration Resistance Method International Journal of Structures, Vol. No.02, 1998.
2. Deulkar W N, Modhera C D and Patil H S Response of Structure with Conventional and Buckling Restrained Braces, International Journal of Applied Engineering Research, Vol. 5, No. 11, pp. 2001–2014. (Accepted), 2010.
3. Deulkar W N, Modhera C D and Patil H S Buckling Restrained Braces for Vibration Control of Building Structure, International Journal of Research and Review in Applied Science, Vol. 4, No. 2. (Accepted for August issue), 2010.
4. Deulkar W N, Modhera C D and Patil H S, Parametric study of braced steel building structures, Journal of Advances in Structural Engineering, Paper No. 10-1083. (Under review), 2010.
5. Shah D L & Modhera C D, International Journal: “Parametric study on influence of steel and polyester fibers in SCC, International Journal of Applied Engineering Research, ISSN 0973-4562, Vol.5 No.5, pp. 795–806, 2010.
6. Shah D L & Modhera C D, International Journal: “ Evaluation of Shear strength of SCC Deep Beam”, International Journal of Advanced Engineering Technology (IJAET), ISSN 0976-3945 Vol.1, No 2,July-Sept., 2010.
7. Parikh K B & Modhera C D, Design guidelines for flexural strength of singly reinforced concrete beam strengthened with fibre reinforced polymer sheet at bottom, International Journal of Advanced Engg. Tech., Vol. I Issue 2, pp 274-282, July-Sept, 2010.
8. Parikh K B & Modhera C D, Flexural Strength prediction of RC beam strengthened by fibre reinforced polymer sheet, International Journal of Applied Engineering Research, Paper Accepted.
9. Parekh D N and Modhera C D; “Assessment of Recycled aggregate concrete”, Journal of Engg. & Research Studies, 2(1) pp 1-9, Jan – Mar 2011.

10. Parekh D N and Modhera C D; “Experimental study of recycled aggregate concrete by varying source and percentage of recycled aggregates”, Global journal of engineering and applied sciences, pp 161-164.
11. Parekh D N and Modhera C D; “Characterization of recycled aggregate concrete”, International Journal of Advanced Engg. & Tech, – 2(4) pp 321-330, Oct – Dec 2011.
12. Parekh D N and Modhera C D Effect of varying source of recycled aggregate on concrete properties by experimental evolution”, International Journal of Civil and Structural Engineering, Vol 2; No 1; pp 1420 – 1430.
13. Parekh D N and Modhera C D , Percentage variation effect of silica fume and recycled aggregate on recycled aggregate concrete”, International Journal of Advanced Engineering & Research Studies, Vol 1, Issue 3, , pp 76 – 80, April – June 2012.
14. Parekh D N and Modhera C D, Recycled aggregate fly ash concrete”, IUP Journal of Structural Engineering, ) pp 7 – 19, July 2012 .
15. Patel I N & Modhera C D, Study Crushing and Flexural Strength of Fiber Reinforced Concrete Containing High Volume Fly Ash, International Journal of Advanced Engineering Technology, Vol.II, Issue I, pp 299-305, January-March 2011.
16. Patel I N & Modhera C D, Experimental Investigation on Study Effect of Polyester Fibre on Abrasion and Impact Resistance of High Volume Fly Ash Concrete with class-F Fly Ash, International Journal of Emerging Technology and Advanced Engineering, Volume 2, Issue 9, September 2012.
17. Patel I N & Modhera C D, Study Effect of Polyester Fibres on Flexural Strength and Abrasion Resistance of High Volume Fly Ash Concrete with Class F-Fly ash, International Journal of Civil Engineering Research, Volume 2, pp. 83-92, Number 2 2011.
18. M K Maroliya, Anant Parghi, & Dr C D Modhera, An Evaluation of some of the parameter in producing normal weight reactive powder concrete. International Journal of Civil Engineering. 2(2) 93-100, ISSN-0975-5314, Feb. 2010.

19. M K Maroliya, Anant Parghi & Dr C D Modhera, Influence of steel fibers variation on Impact strength of Reactive powder Concrete. International Journal of Earth science s and Engineering. Vol.03 No.03spl, ISSN 0974-5904, July 2010.

**b. National journal**

1. Modhera C D Shear Strength of Fiber Reinforced Concrete, National Journal, Indian Concrete Institute, Vol.01, No.04, 2001
2. Shah D L & Modhera C D, National journal: "Evaluation of fresh and hardened properties of SCC", Civil engineering and construction review (CECR), (Accepted and will be published in Aug-2010)
3. Shah D L & Modhera C D, Journal: "SFRC Deep Beam", ADIT-V.V.NAGAR, India. 2009
4. Parikh K B & Modhera C D, Flexural strength behaviour of RC beam with FRP, Civil Engg. & const. Review (national Journal), Paper Accepted
5. Parekh D N and Modhera C D; "Effect of fly ash on recycled aggregate concrete", New Building Materials & Construction World,- 18 (2) pp 202 – 212, August – 2012
6. Parekh D N and Modhera C D; "Effect of silica fume on recycled aggregate concrete", Journal of Construction Engg, Tech, & Management- 2(2) pp 17-28, August – 2012
7. Parekh D N and Modhera C D; "Workability Study for recycled aggregates", IOSR Journal of Engineering, Vol 2(5, pp 1040 - 1044), May 2012
8. Patel I N & Modhera C D, Study Basic Properties of Fiber Reinforced High Volume Fly Ash Concrete, Journal of Engineering Research and Studies, Vol. I, Issue I, pp 60-70, July-Sept. 2010
9. Patel I N & Modhera C D, Study Basic Properties of Fiber Reinforced High Volume Fly Ash Concrete, Journal of Engineering Research and Studies, Vol. I, Issue I, pp 60-70, July-Sept. 2010

10. M K Maroliya, Anant Parghi, Dr C D Modhera, Dec 2008, Socio -Economic Aspect For Sustainability of ultra High Performance Reactive powder Concrete, National journal of Civil Engineering & Construction Review. Pp 86-92 CE&CR Dec.2008.
11. M K Maroliya, Anant Parghi, Dr C D Modhera, A Comparative Study of Reactive Powder Concrete Containing Steel Fibers and Recron 3s Fibers. Journal of Engineering and research studies. JERS/Vol. I/Issue I/July-Sept. 2010/83-89, E-ISSN 0976-7916 , July 2010.

### c. International Conference

1. Modhera C D , Experimental Study of Polymer Concrete Adopting Various Gradation of Coarse Aggregates, 22nd International Conference Our World in Concrete and Structures, Singapore, Aug.1997
2. Modhera C D. Use of Industrial Waste (Fly -ash as a Building Materials), 22nd International Conference Our World in Concrete and Structures, Singapore, Aug.1997
3. Modhera C D, Fiber Reinforced as Special Concrete, International Conference on Fiber Reinforced Concrete (ICFRC), Guangzhou, China, Nov-1997
4. Modhera C D, An Experiment al Study on Shear Strength Test Methods of SFRC Bridge, Proceedings of the International National Conference on Advances in Concrete and Construction, (ICACC), Hyderabad, Dec-2004
5. Modhera C D, Effect of Ductility and Deformation Behavior of Self Compaction Concrete Structures, The 33rd Conference on Our World in Concrete & Structures, Singapore
6. Modhera C D, Micro Mechanical Crack and Deformations Study of SFRC Deep Beams, The 33rd Conference on Our World in Concrete & Structures, Singapore, Aug-2008
7. Modhera C D, Physio Mechanical Behavior of Reactive Powder Concrete Under Aggressive Environment of Contaminated Soil, The 33rd Conference on Our World in Concrete Structures, Singapore, Aug-2008
8. Modhera C D, A State of The Art: Repair of Reinforced Concrete Members The 4th International Conference & Exhibition on Innovative World of Concrete 2008,New Delhi, Dec-2008



9. Modhera C D, Effect of Ductility and Deformation Behavior on Structural Members The 4th International Conference & Exhibition on Innovative World of Concrete 2008, New Delhi, Dec-2008
10. Modhera C D Mechanical Properties of Normal to High Strength Steel Fiber-Reinforced Concrete, The 4th International Conference & Exhibition on Innovative World of Concrete 2008, New Delhi, Dec-2008
11. Deulkar W N, Modhera C D and Patil H S, Time History Analysis of Braced Frame Structures, International conference on Innovative World of Structural Engineering, (ICIWSE-2010), Govt. College of Engineering Aurangabad, India, 17-19 September, 2010. (Accepted) ,2010.
12. Deulkar W N, Dr Modhera C D and Patil H S, Controlling the Seismic Response of Building using Bracings, Pravara International Conference on Emerging Trends in Engineering, (PICETE-2008), Pravara Rural College of Engineering, Loni, Maharashtra, India, 20-22 December 2008 pp. 55, Paper No. CV-40. (Published) , 2008.
13. Shah D L & Modhera C D, International Conference at Singapore-“Shear strength of deep Beam”, Our world of concrete, Aug-2008.
14. K B Parikh & Modhera C D, Application of GFRP to structural Components – A state of Art Review, International Conference on Advances in conc. Str. and geo. Engg. At BITS, Pilani, pp 1 – 10, 25-27 Oct-2009.
15. K B Parikh & Modhera C D, Analytical work on beam by using GFRP, International Conference on Advances in materials & Techniques in civil Engg. At VLBJEET, Coimbatore, pp 67-79, 07-09 Jan- 2010,
16. K B Parikh & Modhera C D, Analytical model of RCC beam using Glass fibre reinforced polymer sheet, International Journal of Advanced Engg. Tech., Apr-June, 2010,, pp 46-58, Apr-June, 2010
17. Parekh D N and Modhera C D;” Experimental evolution of recycled aggregates”, Proceedings’ of 2<sup>nd</sup> International conference on current trends in technology; Nirma University; Ahmedabad, NUICONE; 8 – 10, pp 1 – 5, Dec’11
18. M K Maroliya, Anant Parghi, Dr C D Modhera, Aug 2008, Physio-Mechanical Behavior of Reactive Powder Concrete under Aggressive environment of contaminated Soil. International Conference on “OUR WORLD OF CONCRETE” (CI PREMIER PTE LTD), Singapore. August 2008

19. M K Maroliya, Anant Parghi & Dr C D Modhera, Dec 2008, Experimental investigation on Reactive powder concrete using steel fibers and silica, International Conference on Concrete for new age Structure 11 -14, new Delhi. December 2008.
20. M K Maroliya, Anant Parghi & Dr C D Modhera, Influence of steel fibers variation on Impact strength of Reactive powder Concrete. International Conference on Advances in Concrete, Structural and Geotechnical Engineering (ACSGE 2009) 25 – 27th Oct 2009, BITS, Pilani, Oct 2009.
21. M K Maroliya & Dr C D Modhera, An Investigation on RPC Using Different Mineral Admixtures and Curing regime. International Conference on Advances in materials, mechanics and Management (IMMM2010) 14 – 16th Jan 2010, College of Engineering , Trivendrum, kerala,Jan 2010.

#### d. National Conference

1. Modhera C D Techniques of Controlling the Seismic Response of Building Structures, Proceeding of the National Conference for Pune University Teachers, Pune, Feb-2007
2. Modhera C D Deformability and Ductility in Over Reinforced Self compacting Concrete Structures, Proceeding of the National Conference MAST. NIT Warangal, Dec. 2007
3. Modhera C D Finite Element Analysis of RC Columns Confined with FRP Sheets, Proceeding of the National Conference held at NITHamirpur (IDC), NIT Hamirpur, May 2008
4. Deulkar W N, Dr Modhera C D and Patil H S, Response of Structure using Conventional Brace and Buckling Restrained Brace, Regional Conference for Pune University and College Teachers (Innovation-2009), organized by Amrutvahini College of Engineering, Sangamner, Dist. Pune, Maharashtra, India,11-12 December, pp. 38,2009.
5. Deulkar W N, Dr Modhera C D and Patil H S, Effect of Conventional Brace and Buckling Restrained Braces in Response Reduction of Building Structure, Regional Conference for Pune University and College Teachers (Innovation-

2009), organized by Amrutvahini College of Engineering , Sangamner, Dist. Pune, Maharashtra, India, 11-12 December, pp. 39. 2009.

6. Deulkar W N, Dr Modhera C D and Patil H S, Techniques of Controlling the Seismic Response of Buildings, Regional Conference for Pune University College Teachers (Innovation-2008), organized by S R E S's college of Engineering Kopergaon, Dist. Ahamednagar, Maharashtra, India, 24-25 November, paper No. 149,2008.
7. Deulkar W N, Dr Modhera C D and Patil H S, Techniques of Controlling the Seismic Response of Building, Regional Conference for Pune University College Teachers (Innovation-2008), organized by S R E S's college of Engineering Kopergaon, Dist. Ahamednagar, Maharashtra, India, 24-25 November, pp. 26, Paper No. Civil-148, 2008.
8. Deulkar W N, Dr Modhera C D and Patil H S, Techniques of Controlling the Seismic Response of Building, First Conference for Pune University Teachers (Innovation-2007), organized by Board of College and University Development (BCUD), Maharashtra, India 19-20 November, pp. 102, Paper No. 224.,2007.
9. Deulkar W N, Dr Modhera C D and Patil H S, Study and Review of Literature of Base Isolation Systems, Proceeding of National Conference on Recent Developments in Geotechnical Engineering and Rock Mechanics (NCGRM-2007), D. Y. Patil College of Engineering, Pune, India, 25-26 August, pp. 287,2007.
10. Deulkar W N, Dr Modhera C D, Shintre D P and Gupta I D, Prediction of Earthquake Magnitude and Ground Acceleration for the Design of Important Structure, National Conference on Recent Advances in Structural Engineering,(NCGRASE-2006), Jawaharlal Nehru Technological University, Andrapradesh, India, 11-12 February, pp- 137-143, Paper No ERD/3. , 2006.
11. Shah D L & Modhera C D, National Conference: "Crack and deformation study on steel fiber reinforced concrete deep beam", NIT Hamirpur-IDCE-2008.
12. Shah D L & Modhera C D,, National Conference: "State – of- the- art review on SELF-COMPACTING CONCRETE", ACSGE, BITS Pillani, INDIA, 2009.

13. Parikh K B & Modhera C D, Experimental work on beam by using GFRP sheet, a national conference on current trends on research & development in civil & Env. Engg. – AN Indian Perspective At SVIT, Vasad, , pp 1-8,21-22 Jan- 2010.
14. Patel I N & Modhera C D Study Effect of Polyester Fibres on Engineering and Durability Properties of High Volume Fly Ash Concrete.
15. M K Maroliya, Anant Parghi & Dr C D Modhera, May 2008, Influence of curing condition on Compressive and Flexural strength of Reactive powder Concrete. Proceedings of national Conference on Infrastructure Development in civil Engineering (IDCE 2008) 16th May – 19th NIT, Hamirpur, May 2008.

**Research Project Completed:**

**Title: Some Studies n Recycled Aggregate Concrete**

Sponsored By:

Gujarat Council on Science and Technology (GUJCOST)

Department of Science and Technology, Government of Gujarat, Sector-11,  
Gandhinagar – 382 011.

**Research Project Ongoing:**

**Title:** Experimental and Analytical Investigation of Mechanical Properties of High Performance Concrete Using Industrial Waste (Essar Steel Slag)

Sponsored By:

Gujarat Council on Science and Technology (GUJCOST)

Department of Science and Technology, Government of Gujarat, Sector-11,  
Gandhinagar – 382 011.