Curriculum Vitae

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Journal Publications

1. Singh, A., Panghal, H., Bhadauria, S. S., and, Chaudhary, S. (2025). Valorization of De-oiled Sesame and Sunflower Seed Residues as Sustainable Alternatives to Limestone and Supplementary Cementitious Materials in Cement Matrices. Journal of Sustainable Cement-Based Materials.
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3. Sand Shortage and Remediation in India: through the lens of Construction Industry
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15. Understanding the significance of quality control on the life cycle of concrete structures under corrosion
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Author(s): Gupta, S, Sharma, A., Lazorenko, G., and Chaudhary, S.
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Author(s): Choudhary, S., Jain, A., Bhavsar, H., Chaudhary, S., and Choudhary, R.
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Author(s): Gupta, V., Pathak, D. K., Kumar, R., Chaudhary, S.
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Author(s): Choudhary, S., Chaudhary, S., Jain, A., Gupta, R.
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Author(s): Gandhi, S., Gupta, S., and Chaudhary, S.
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Author(s): Gupta, V., Siddique, S., Chaudhary, S.
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Author(s): Agrawal, H., Modhe, S., Gupta, S., and Chaudhary, S.
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Author(s): Gupta, T., Chouhan, D. S., Jain, A., Sharma, R. K., Chaudhary, S., and Jain, S.

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Author(s): Kumar, P., Chaudhary, S. and Gupta, R.
Conference: Procedia Engineering
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Author(s): Banu, S., Choudhary, S., and Chaudhary, S.
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Date: November 05-06, 2016
Place: Gunupur, India
Year: 2016

38. Research, education and training as part of an action plan to start up a recycling policy in Jaipur, India
Author(s): Tripathi, B., Boehme, L., Chandra, T., and Chaudhary, S.
Conference: Proc., Central Europe towards Sustainable Building 2016
Date: June 22-24, 2016
Place: Prague, Czech Republic
Year: 2016

39. Effect of different parameters on the compressive strength of rubberized geopolymer concrete
Author(s): Banu, S., Dave, U., and Chaudhary, S.
Conference: Multi-disciplinary Sustainable Engineering: Current and Future Trends: Proc., 5th Nirma University International Conference on Engineering
Date: November 26-28, 2016
Place: Ahmedabad, India
Year: 2016

40. Durability and dimensional stability of concrete containing zinc slag as sand
Author(s): Tripathi, B., Chandra, T., & Chaudhary, S.
Conference: ACI Special Publication
Date:
Place:
Year: 2015

41. A comparative study of fly ash bricks made with blend of clay brick waste and stone dust
Author(s): Haldia, A., Siddique, S., Shrivastava, S., and Chaudhary, S.
Conference: Proc., Advances in Construction Technology and Management
Date: February 19-20, 2015
Place: Nagpur, India
Year: 2015

42. Influence of waste rubber tyre particles in concrete pavement
Author(s): Gupta, T., Chaudhary, S., and Sharma, R. K.
Conference: Proc., Seventh Asia-Pacific Young Researchers & Graduates Symposium
Date: August 20-21, 2015
Place: Kuala Lumpur, Malaysia
Year: 2015

43. An analytical-numerical procedure incorporating cracking in RC Frames at service load
Author(s): Patel, K. A., Chaudhary, S., and Nagpal, A. K.
Conference: Proc., Sixth Asia-Pacific Young Researchers & Graduates Symposium
Date: July 31-Aug 01, 2014
Place: Thailand
Year: 2014

44. Rapid prediction of long term deflection in high rise composite frames using neural networks
Author(s): Chaudhary, S., Pendharkar, U., Patel, K. A., and Nagpal, A. K.
Conference: Proc., Sixth Asia-Pacific Young Researchers & Graduates Symposium
Date: July 31-Aug 01, 2014
Place: Thailand
Year: 2014

45. An element incorporating cracking in reinforced concrete beams at service load
Author(s): Patel, K. A., Chaudhary, S., and Nagpal, A. K.
Conference: Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium
Date: October 15-16, 2013
Place: Jaipur
Year: 2013

46. Suitability of ISF Slag as fine aggregate in concrete
Author(s): Tripathi, B. and Chaudhary, S.
Conference: Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium
Date: October 15-16, 2013
Place: Jaipur
Year: 2013

47. Experimental investigations for shear bond strength of steel and concrete bonded

by epoxy
Author(s): Kumar, P. and Chaudhary, S.
Conference: Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium
Date: October 15-16, 2013
Place: Jaipur
Year: 2013

48. Flexural strength, compressive strength and workability of waste rubber concrete
Author(s): Gupta, T., Tripathi, B., Sharma, R. K., and Chaudhary, S.
Conference: Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium
Date: October 15-16, 2013
Place: Jaipur
Year: 2013

49. Cost optimization of composite beams using genetic algorithm and artificial neural network
Author(s): Alankar, K. and Chaudhary, S.
Conference: Proc., 2012 International Conference on Computer Technology and Science
Date: August 18-19, 2012
Place: New Delhi
Year: 2012

50. Experimental assessment of drying shrinkage of ISF slag concrete
Author(s): Tripathi, B. and Chaudhary, S.
Conference: Proc., Fourth Asia-Pacific Young Researchers & Graduates Symposium
Date: December 04-05, 2012
Place: Hong Kong
Year: 2012

51. An efficient finite-element model for flexible composite structures
Author(s): Gupta, R. K ., Patel, K. A., Chaudhary, S. and Nagpal, A. K.
Conference: Proc., Fourth Asia-Pacific Young Researchers & Graduates Symposium
Date: December 04-05, 2012
Place: Hong Kong
Year: 2012

52. Corrosion performance of high volume slag concrete at different W/C
Author(s): Tripathi, B., and Chaudhary, S.
Conference: Proc., Twelfth International Conference on Recent Advances in Concrete Technology and Sustainability Issues
Date: Oct. 30-Nov. 02, 2012
Place: Prague
Year: 2012

53. Permeability of concrete containing pyrometallurgical slag as partial replacement of sand
Author(s): Tripathi, B., Misra, A., and Chaudhary, S.
Conference: D.H., Bager, and J., Silfwerbrand, ed., Concrete Structures for Sustainable Community
Date: fib Symposium Stockholm 2012, June 14-21, Stockholm, Sweden
Place:
Year: 2012

54. Durability of concrete containing ISF slag as partial replacement of sand
Author(s): Tripathi, B., Misra, A., and Chaudhary, S.
Conference: H., Justnes, and S., Jacobsen, ed., Proc., International Congress on Durability of Concrete
Date: June 18-21, 2012
Place: Norway
Year: 2012

55. Dynamic behaviour of steel-concrete composite floors
Author(s): Chaudhary, S., Patel, K. A., Kim, D., Cho, S. G., and Ali, A.
Conference: Proc., 27th Conference of Korea Institute of Structural Maintenance Inspection and Korea Infrastructure Safety Corporation (Spring 2011)
Date: May 20, 2011
Place: Seoul, Korea
Year: 2011

56. A study on the nonlinear characteristics of electrical equipment cabinets under strong seismic motion
Author(s): Cho, S. G., Li, Y. Il, Kim, D., Chaudhary, S., and Yoo, J. S.
Conference: Transactions, SMiRT 21
Date: November 06-11, 2011
Place: New Delhi, India
Year: 2011

57. Seismic analysis of steel-concrete composite walls of nuclear power plant structures
Author(s): Chaudhary, S., Ali, A., Kim, D., and Cho, S. G.
Conference: Transactions, SMiRT 21
Date: November 06-11, 2011
Place: New Delhi, India
Year: 2011

58. Dynamic behaviour of steel-concrete composite shear wall
Author(s): Chaudhary, S., Ali, A. Patel, K. A., Kim, D., and Cho, S. G.
Conference: Proc., The 2011 World Congress on Advances in Structural Engineering and Mechanics
Date: September 18-22, 2011
Place: Seoul, Korea
Year: 2011

59. Service load behaviour of epoxy bonded steel-concrete composite bridges
Author(s): Patel, K. A., Kim, D., Chaudhary, I. P., and Chaudhary, S.
Conference: Proc., Asia-Pacific Young Researchers & Graduates Symposium 2011
Date: March 25-26, 2011
Place: Taipei, Taiwan
Year: 2011

60. Spherical elastomeric bearing for noise and vibration reduction in railway bridges
Author(s): Kim, D., Park, J., Chaudhary, S., and Miah, M. S.
Conference: Proc., Asia-Pacific Young Researchers & Graduates Symposium 2011
Date: March 25-26, 2011
Place: Taipei, Taiwan
Year: 2011

61. Seismic behaviour of steel-concrete composite floors in thermal power plants
Author(s): Chaudhary, S., Kim, D., Cho, S. G., Joe, Y. H., and Patel, K. A.
Conference: Proc., Earthquake Engineering Society of Korea 2011
Date: March 18, 2011
Place: Seoul, Korea
Year: 2011

62. Strengthening of Steel-concrete composite beams
Author(s): Kumari, S., and Chaudhary, S.
Conference: Proc. International conference on Innovative World of Structural Engineering (ICIWSE-2010)
Date: December 25-27, 2010
Place: Aurangabad, India
Year: 2010

63. Finite element study of a bonded steel and concrete composite beam
Author(s): Kumari, S., Patel, K. A., and Chaudhary, S.
Conference: Proc., International Conference on Innovative World of Structural Engineering (ICIWSE-2010)
Date: December 25-27, 2010
Place: Aurangabad, India
Year: 2010

64. Neural network-based structural monitoring and damage detection
Author(s): Chaudhary, S., and Kumari, S.
Conference: Proc., Civil Engg. Conference- Innovation without limits
Date: Sept. 18-19, 2009
Place: Hamirpur, India
Year: 2009

65. Effect of flexibility of shear connectors on service load behavior of steel-concrete composite structures
Author(s): Chaudhary, S., and Kumari, S.
Conference: Proc., Int. Conf. Advances in Mechanical and Building Sciences in the 3rd Millenium
Date: December 14-16, 2009
Place: Vellore, India
Year: 2009

66. Analysis and behaviour of composite structures at service load
Author(s): Chaudhary, S., and Nagpal, A. K.
Conference: Proc., Int. Conf. Advances in Concrete, Structural and Geotechnical Engineering
Date: October 25-27, 2009
Place: Pilani, India
Year: 2009

67. Simplified technique for the design of steel concrete composite beams using artificial neural networks
Author(s): Chaudhary, S., and Nagpal, A. K.
Conference: Proc., the First International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering
Date: September 01-04, 2009
Place: Funchal, Madeira, Portugal

Year: 2009

68. Non-Linear behaviour of steel-concrete composite frames
Author(s): Patel, K. A., Kumari, S., and Chaudhary, S.
Conference: Proc. Sustainable Concrete Infrastructure Development (SCID-2009)
Date: May 19-20, 2009
Place: Jaipur, India
Year: 2009

69. Mortarless Masonry: An Overview
Author(s): Naqvi, S. A. A., and Chaudhary, S.
Conference: Proc. International Conference on Recent Developments in Structural Engineering (RDSE-2007)
Date: August 30-September 01, 2007
Place: Manipal, India
Year: 2007

70. Mortarless masonry system for accelerated construction
Author(s): Naqvi, S. A. A., Bajpai, S., and Chaudhary, S.
Conference: Proc. Recent Trends in Geotechnical and Structural Engineering (RTGSE-2007)
Date: December 22-23, 2007
Place: Jaipur, India
Year: 2007

71. Neural network model for short term inelastic moments at interior supports of continuous composite beams
Author(s): Pendharkar, U., Chaudhary, S., and Nagpal, A. K.
Conference: Proc. National Seminar on Soft Computing Methodology-07
Date: March 19-20, 2007
Place: UEC Ujjain, India
Year: 2007

72. Time-dependent behavior of continuous composite beams
Author(s): Chaudhary, S., Pendharkar, U., and Nagpal, A. K.
Conference: Proc., Third Int. Conf. Steel and Composite Structures
Date: July 30-August 01, 2007
Place: Manchester, UK
Year: 2007

73. Sensitivity analysis for predicting parameters for ANN for bending moment in continuous composite beams considering concrete cracking
Author(s): Pendharkar, U., Chaudhary, S., and Nagpal, A. K.
Conference: Proc., Recent Advances in Computational Mechanics and Simulation
Date: December 08-10, 2006
Place: IIT Guwahati, India
Year: 2006

74. Effect of grouting and reinforcement on hollow block masonry
Author(s): Chaudhary, S., and Gupta, R. C.
Conference: Proc., National Seminar on Recent Trends in Civil Engineering
Date: Feb. 22-23, 2002
Place: MBM Engg. College, Jodhpur, India
Year: 2002

75. Composite steel-concrete construction
Author(s): Bharti, S. D., and Chaudhary, S.
Conference: Proc., National Seminar on Recent Trends in Civil Engineering
Date: Feb. 22-23, 2002
Place: MBM Engg. College, Jodhpur, India
Year: 2002

Patents

1. Food and bacteria blended powder as a bio-admixture for cement composites
Author(s): Gupta, S., Singh S., Thakare, A., Jha, H.C., Chaudhary, S.
Year: 2025
Application Number: 202521035191A
Grant Number: -
Grant Date: -
Description: A bio-admixture prepared by non-pathogenic bacteria and food wastes. The bio-admixture is an easy-to-use powder that can enhance the microstructure, strength, durability and self-healing ability of concrete. The bio-admixture can also reduce cement requirement and make concrete more sustainable.

2. Bacterial Mortar Composition and Process for Preparation Thereof by using Food Waste derived Nutrient Media
Author(s): Thakare, A. A., Gupta, S., Rajpoot, S., Jha, H. C., and Chaudhary, S.
Year: 2025
Application Number: 202521071253A
Grant Number: -
Grant Date: -
Description: A special class of bacterial mortar with doubled compressive strength, self-healing ability, ~43% lower effective carbon footprint and ~16% lower effective cost.

3. Cow dung-based lightweight construction materials and method
Author(s): Gupta, S., and Chaudhary, S.
Year: 2024
Application Number: 202421010279A
Grant Number: -
Grant Date: -
Description: It is a first-of-its-kind bio-admixture, prepared using cow dung, to be used as a natural foaming agent for the manufacturing of lightweight concrete, bricks and blocks. The bio-admixture is marketed under the trademark of GOBAiR, and can be used to produce lightweight bricks, blocks and concrete. The patent describes the specification of the bio-admixture and the method of preparation thereof.

4. Method of Preparation of Conplas Paver Block Utilizing waste Polythene
Author(s): Gupta, T., Chaudhary, S., Sharma, R. K., and Jain, S.
Year: 2020
Application Number: 202011002264
Grant Number: 396218
Grant Date: May 5, 2022
Description: The present invention relates to a method of preparation of paver block utilizing waste polythene bags. The object of the proposed invention is to utilize sustainable waste material and analogously minimizing the consumption of fine aggregate by replacing it with waste polythene bags in shredded form. The composition for preparation of sustainable

conplas paver blocks comprises of cement (17.15%, 416.67 kg), fine aggregate (26.79%, 650.95kg), coarse aggregate (48.15%, 1170kg), waste polythene bags (1.71%, 41.55kg) and water (6.19%, 150.5kg) for production of one cubic meter concrete. Conplas paver blocks have unique feature of high impact resistance and energy absorption capacity. Following invention is described in detail with the help of Figure 1 of sheet 1 showing schematic presentation with dimensions of the sustainable conplas paver block.

5. Composition for preparation of Paver Block utilizing rubber waste
Author(s): Authors: Gupta, T., Sharma, R. K., Chaudhary, S., and Siddique, S
Year: 2020
Application Number: 202011018399
Grant Number: 385236
Grant Date: Dec. 27, 2021
Description: The present invention relates to a method of preparation of paver block utilizing rubber waste. The object of the proposed invention is to utilize waste tyre material and replacing the fine aggregate by waste tyre rubber ash (in powder form) and rubber fibers (in shredded form). The composition for preparation of sustainable rubcrete paver blocks comprises of cement (15.83%, 365 kg), fine aggregate (26.50%, 611 kg), coarse aggregate (48.79%, 1125 kg), waste rubber ash (1.69%, 39 kg), waste rubber fibers (1.34%, 31 kg), water (5.55%, 128 kg) and super plasticizer (0.30%, 7 kg) for production of one cubic meter concrete. Proposed paver blocks have unique feature of high energy absorption capacity, better abrasion resistance, and less water absorption. Following invention is described in detail with the help of Figure 1 of sheet 1 showing schematic presentation with dimensions of the proposed sustainable paver block.

Research Projects

1. Livelihood interventions for Scheduled Caste labourer through “Shramik Vikas” community partnered training programs in Simrol Block, Indore District, Madhya Pradesh State
Year: 2025-2028
Funded By: DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Principal Investigator

2. Innovative Waste-Derived and Eco-Friendly Alternatives to Alkali Activators in Geopolymer Concrete: Towards Sustainable Development
Year: 2025-2027
Funded By: DST, GOI
Collaborator(s): NPDF: Dr. Rudra Pratap Singh
Project Type: Sponsored Research Project
Role: As Scientist Mentor

3. Advancing the Industrial Application of Epoxy Bonded Reinforcement
Year: 2025-2026
Funded By: Captain Steel India Limited
Collaborator(s):
Project Type: Sponsored Research Project
Role: As Principal Investigator

4. Sustainable Cement Manufacturing: Overcoming Limestone Shortages with Bio Ash

Year: 2025-2026
Funded By: JSW Cement Ltd, Ballari, India
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Principal Investigator

5. Inspiring the researchers of tomorrow in sustainable concrete construction
Year: 2024-2026
Funded By: SPARC and UKIERI
Collaborator(s): University of Plymouth, UK and NIT Warangal, India
Project Type: Sponsored Research Project
Role: As Principal Investigator

6. Technology Dissemination of Compressed Colored Composite for a wide range of products to support sustainable rural infrastructure
Year: 2023-2025
Funded By: DST, GoI
Collaborator(s): TIET Patiala, India
Project Type: Sponsored Research Project
Role: As Principal Investigator

7. Innovative and sustainable fibre-reinforced recycled aggregate concretes for structural applications
Year: 2023-2024
Funded By: INSA, DST, GOI
Collaborator(s): ISRF: Dr. Thanongsak Imjai
Project Type: Sponsored Research Project
Role: As Scientist Mentor

8. GOBAiR - a novel cow dung based foaming agent for developing sustainable light weight construction materials
Year: 2023-2024
Funded By: IIT Indore
Collaborator(s): TRF: Dr. Sanchit Gupta
Project Type: Sponsored Research Project
Role: As Scientist Mentor

9. PARVAT (Prevention of accidents in hilly routes by virtue of automated technology)
Year: 2023-2024
Funded By: DRISHTI-CPS, IIT Indore
Collaborator(s): Student PI: Himanshu Khati, Benjamin Basumatary
Project Type: Sponsored Research Project
Role: As a Guide

10. Carbon-neutral technologies for recycling large-tonnage waste from fuel energy with the production of functional geopolymer materials
Year: 2022-2024
Funded By: Government of the Russian Federation
Collaborator(s): Platov South-Russian State Polytechnic University (NPI), Russia
Project Type: Sponsored Research Project
Role: As Principal Investigator

11. Sustainable solution for limestone shortage in cement manufacturing through Ca-

rich bio ash
Year: 2022-2024
Funded By: DST, GOI
Collaborator(s): NPDF: Dr. Ashita Singh
Project Type: Sponsored Research Project
Role: As Scientist Mentor

12. A cyber physical system for low energy HVAC solutions based on natural thermal cycles and adaptive thermal comfort for smart cities
Year: 2022-2023
Funded By: DRISHTI-CPS, IIT Indore
Collaborator(s): Student PI: Sumer Thakur
Project Type: Sponsored Research Project
Role: As a Guide

13. Real time quality control tool for fresh state concrete using a hydrostatic digital twin model
Year: 2022-2023
Funded By: DRISHTI-CPS, IIT Indore
Collaborator(s): Student PI: Parth Dwivedi
Project Type: Sponsored Research Project
Role: As a Guide

14. A digital twin based real time traffic regulation system for risk management and failure prevention in bridges
Year: 2022-2023
Funded By: DRISHTI-CPS, IIT Indore
Collaborator(s): Student PI: Ayush
Project Type: Sponsored Research Project
Role: As a Guide

15. A comprehensive rheology based thixotropic fluid flow model for improved control on 3D printing of concrete
Year: 2021-2024
Funded By: SERB, DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Principal Investigator

16. Waste characterization and possible gainful utilization of induction melting furnace dust
Year: 2021-2022
Funded By: Jaideep Ispat & Alloys Pvt. Ltd., Moira Sariya, India
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Co-Principal Investigator

17. Safeguarding heritage structures using seismic metamaterials
Year: 2019-2021
Funded By: SPARC, MHRD
Collaborator(s): UNIVERSITÉ AIX-MARSEILLE, France and IMPERIAL COLLEGE LONDON, UK
Project Type: Sponsored Research Project

Role: As Principal Investigator

18. Utilization of Bamboo Strip as reinforcement in concrete
Year: 2019-2020
Funded By: TEQIP, MHRD
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Co-Principal Investigator

19. Investigation of cracks in concrete PSC Girder on Bridge no 10 in RAU to TIHI new Broad Gauge line section
Year: 2019
Funded By: Western Railway
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

20. Natural-coloured functionally graded rubberised geopolymer system: A cement-less solution for optimised concrete paver manufacturing
Year: 2018-2020
Funded By: DST, GOI
Collaborator(s): University of Edinburgh, UK
Project Type: Sponsored Research Project
Role: As Principal Investigator

21. Investigations for structural safety of Mughal Museum being made by Precast Technique and subsequent technical suggestions
Year: 2018-2019
Funded By: U.P Rajkiya Nirman Nigam Ltd.
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

22. Third Party Quality Assurance for Infrastructure of New Campus of IIM Udaipur
Year: 2018
Funded By: CPWD
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

23. Sustainable and economical functionally graded rubberized concrete pavements
Year: 2017-2021
Funded By: DST, GOI
Collaborator(s): University of Carthage, Tunisia
Project Type: Sponsored Research Project
Role: As Principal Investigator

24. Vetting of Design and Drawing of 90 meter Arch, 252 meter suspension bridge & 90 meter truss bridge at Rajim, Raipur (C.G.)
Year: 2017
Funded By: AQUATIC Pump Industries, Indore (India)
Collaborator(s): -
Project Type: Consultancy Project

Role: As Principal Investigator

25. Utilization of plastic waste in concrete: Feasibility studies
Year: 2016-2019
Funded By: DST, GOI
Collaborator(s): MNIT Jaipur
Project Type: Sponsored Research Project
Role: As Principal Investigator

26. Waste utilisation in concrete as aggregate: Asian perspective
Year: 2016-2019
Funded By: Asian Concrete Federation
Collaborator(s): Researchers from China, Hong Kong and Thailand
Project Type: Sponsored Research Project
Role: As Principal Investigator

27. Durability studies on geopolymer concrete containing waste rubber fibre as partial replacement of sand
Year: 2015-2017
Funded By: DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Scientist Mentor

28. Experimental investigations of bond characteristics of steel-concrete composite interface connected by adhesive bonding
Year: 2015-2016
Funded By: Institution of Engineers (India)
Collaborator(s): Student PI: Pankaj Kumar
Project Type: Sponsored Research Project
Role: As a Guide

29. Proof checking of structural design and drawing of bridge at Gambhiri river and ROB at Hindaun Bypass
Year: 2014-2016
Funded By: RSRDC Ltd., Jaipur
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

30. Proof Checking of Structural Design/Drawings for C/o 500 Bedded Boys Hostel and 210 Bedded Girls Hostel with provision for future vertical extension on III floor
Year: 2014-2015
Funded By: CPWD, Jaipur
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

31. Proof Checking of Structural Design of Multistoried residential apartment located at Sun-City, Jaipur-Bikaner Highway, Jaipur
Year: 2014
Funded By: Apeksha Infrastructures Pvt. Ltd., Jaipur
Collaborator(s): -

Project Type: Consultancy Project
Role: As Principal Investigator

32. Experimental and analytical studies for the short term and long term behavior of epoxy bonded steel-concrete composite bridges
Year: 2012-2015
Funded By: DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Principal Investigator

33. Technical evaluation/quality assessment of PQC mix for cement content
Year: 2012-2013
Funded By: Airport Authority of India, Jaipur
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

34. Proof checking of structural design and drawing of three ROB's at Makrana, Kishangarh and Ajmer in Rajasthan
Year: 2012-2013
Funded By: Multimedia Consultants Pvt. Ltd., Ahmadabad, India
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

35. Proof checking design of substructure of seventeen major railway bridges in the Swarupganj-Abu Road section of Ajmer division of north western railway
Year: 2011-2012
Funded By: Rail Vikas Nigam Limited
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

36. Durability of concrete containing zinc slag as partial replacement of sand
Year: 2010-2013
Funded By: DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Scientist Mentor

37. Development of a highly efficient procedure and GUI equipped software for the service load analysis of composite structures
Year: 2008-2011
Funded By: DST, GOI
Collaborator(s): -
Project Type: Sponsored Research Project
Role: As Principal Investigator

38. Performance evaluation of interlocking brick/block masonry
Year: 2007-2008
Funded By: Institution of Engineers (India)
Collaborator(s): Student PI: Ahmed Naqvi

Project Type: Sponsored Research Project
Role: As a Guide

39. Knowledge incubation for technical education under Technical Education Quality Improvement Program of MHRD
Year: -
Funded By: MHRD
Collaborator(s): -
Project Type: Institute Level Project
Role: -

40. Proof Checking of Various designs and drawings of Rajasthan Rural Water Supply and Mitigation Project
Year: -
Funded By: Larsen & Toubro Limited. Ltd., Chennai
Collaborator(s): -
Project Type: Consultancy Project
Role: As Principal Investigator

Supervised Dissertations

1. To be declared
Name: Manish
Year: 2025
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

2. To be declared
Name: Krishna
Year: 2025
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

3. To be declared
Name: Noman
Year: 2025
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

4. Optimization of Sustainable Construction Materials for Industrial Applications
Name: Sanchit Gupta
Year: 2024
Co-Supervisors: -
Degree: PhD Thesis Awarded

5. Utilization of fine micron size waste of vitrified porcelain stoneware tiles for sustainable and durable concrete
Name: Pooja Jain
Year: 2023
Co-Supervisors: Dr. Rajesh Gupta
Degree: PhD Thesis Awarded

6. Structural health monitoring of Railway Bridge
Name: Bagle Sushil Sukalal
Year: 2022
Co-Supervisors: Dr. Pavan Kumar Kankar
Degree: MTech and MSc Awarded/Ongoing

7. Finite element simulations of Nanoindentation on FCC single crystals
Name: Eli Pradeep
Year: 2022
Co-Supervisors: Dr. Indrasen Singh
Degree: MTech and MSc Awarded/Ongoing

8. Raman Spectroscopic Study of Building Construction Materials
Name: Chetan Shakti Pandey
Year: 2022
Co-Supervisors: Dr. Rajesh Kumar
Degree: MTech and MSc Awarded/Ongoing

9. Strength, durability, ductility and microstructure investigation of functionally graded concrete containing rubber fiber as replacement of fine aggregate
Name: Sumit Choudhary
Year: 2022
Co-Supervisors: Dr. Rajesh Gupta
Degree: PhD Thesis Awarded

10. Performance assessment of rubberised self-compacting concrete
Name: Akshay Thakare
Year: 2022
Co-Supervisors: -
Degree: PhD Thesis Awarded

11. Industrial scale waste utilisation in unfired bricks
Name: Vivek Gutpa
Year: 2021
Co-Supervisors: -
Degree: PhD Thesis Awarded

12. Assessment of Corrosion Behaviour of Stainless Steel Reinforced Bar in Concrete
Name: Anurag Singh Chauhan
Year: 2021
Co-Supervisors: Dr. Vinod Kumar
Degree: MTech and MSc Awarded/Ongoing

13. Sustainable production of self-compacting concrete utilizing fly ash and granite waste
Name: Abhishek Jain
Year: 2021
Co-Supervisors: Dr. Rajesh Gupta
Degree: PhD Thesis Awarded

14. Investigations into behaviour of adhesive bonded steel-concrete composite flexural members
Name: Ankit Bhardwaj

Year: 2020
Co-Supervisors: Prof. V. Matasagar; Prof. A. K. Nagpal
Degree: PhD Thesis Awarded

15. Performance evaluation of mechanically connected and adhesive bonded steel-concrete composite connections
Name: Pankaj Kumar
Year: 2018
Co-Supervisors: Dr. Amar Kumar Patnaik
Degree: PhD Thesis Awarded

16. Utilisation of bone china ceramic waste as fine aggregate in sustainable concrete
Name: Salman Siddique
Year: 2018
Co-Supervisors: Dr. S. Shrivastava
Degree: PhD Thesis Awarded

17. Performance evaluation of rubberised geopolymer concrete and flyash based geopolymer mortar
Name: Salmabanu Luhar
Year: 2017
Co-Supervisors: -
Degree: PhD Thesis Awarded

18. Feasibility of use of silt from storm water drain as partial replacement of fine aggregate in concrete
Name: Rijuta Gupta
Year: 2017
Co-Supervisors: Prof. A. B. Gupta
Degree: MTech and MSc Awarded/Ongoing

19. Feasibility of use of sludge from settling tank of bisalpur water treatment plant as partial replacement of fine aggregate in concrete
Name: Inderjeet Singh Choudhary
Year: 2017
Co-Supervisors: Prof. A. B. Gupta
Degree: MTech and MSc Awarded/Ongoing

20. Numerical analysis of steel-concrete composite girder under cyclic loading
Name: Ashutosh Gupta
Year: 2017
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

21. Effect of different hydrophobic treatments on properties of recycled aggregate concrete
Name: Ram Swaroop Mandolia
Year: 2017
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

22. Development of computationally efficient techniques for instantaneous and time-dependent analysis of reinforced concrete beams and frames at service load

Name: Kashyap A. Patel
Year: 2016
Co-Supervisors: Prof. A. K. Nagpal
Degree: PhD Thesis Awarded

23. Effect of position of singly reinforcement layer in steel-concrete composite section
Name: Rahul Karwasra
Year: 2016
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

24. Strength and durability studies of alkali-activated fly ash based geopolymer mortar
Name: Suman Choudhary
Year: 2016
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

25. Development of computational techniques for service load analysis of steel-concrete composite structures
Name: M. P. Ramnavas
Year: 2016
Co-Supervisors: Prof. A. K. Nagpal
Degree: PhD Thesis Awarded

26. Effect of position of double reinforcement layer on composite sections
Name: Jayesh Kr. Teli
Year: 2016
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

27. Strength, durability, ductility and fire performance of concrete containing waste rubber tyre ash and rubber fibers as partial replacement of fine aggregates
Name: Trilok Gupta
Year: 2016
Co-Supervisors: Prof. R. K. Sharma
Degree: PhD Thesis Awarded

28. Effect of reinforcement detailing on shear connection in steel-concrete composite structures
Name: Nawal Kr. Dwivedi
Year: 2015
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

29. Effect of concrete strength on behaviour of mechanical connection in steel concrete composite
Name: Pradeep Kumar
Year: 2015
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

30. Flood risk assessment using MATLAB fuzzy logic model
Name: Sunil Kr. Pradhan

Year: 2015
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

31. Cost optimisation of flexibly connected composite beams
Name: Minhaj Majeed
Year: 2014
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

32. Experimental investigations for shear bond strength of steel and concrete bonded by epoxy
Name: Pankaj Kumar
Year: 2013
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

33. Optimisation of simply supported composite beams using genetic algorithm technique
Name: Rupesh Ramesh Gawas
Year: 2013
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

34. Effect of skewness on three span reinforced concrete t girder bridges
Name: Bhawnesh Kuldeep
Year: 2013
Co-Supervisors: Prof. R. Nagar
Degree: MTech and MSc Awarded/Ongoing

35. Experimental and numerical studies for the behaviour of interlocking block masonry
Name: S.A.A. Naqvi
Year: 2013
Co-Supervisors: -
Degree: PhD Thesis Awarded

36. Study on behaviour of recycled coarse concrete aggregates in addition with cast iron/mild steel powder in concrete
Name: Ashish Garg
Year: 2013
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

37. Durability of concrete containing ISF slag as partial replacement of sand
Name: Bhavna Tripathi
Year: 2012
Co-Supervisors: -
Degree: PhD Thesis Awarded

38. Comparative study of space structural forms under gravity and lateral loads
Name: Durgesh Nandini Bairwa
Year: 2012

Co-Supervisors: Prof. R. Nagar
Degree: MTech and MSc Awarded/Ongoing

39. Finite element analysis of traditional and interlocking masonry
Name: Vimal Kumar
Year: 2012
Co-Supervisors: Prof. R. Nagar
Degree: MTech and MSc Awarded/Ongoing

40. 3-d finite element study of bonded and mechanically connected steel-concrete composite beams by 3-dimensional finite element modelling
Name: Indra P. Choudhary
Year: 2010
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

41. Prediction of ultimate shear strength of reinforced concrete beams using artificial neural networks
Name: Gaurav Saraswat
Year: 2010
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

42. Nonlinear behaviour of steel-concrete composite frames
Name: Kashyap Patel
Year: 2009
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

43. Behaviour of graphite/epoxy laminates subjected to low velocity transverse impact
Name: Suchindra Silayach
Year: 2009
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

44. Development of hybrid analytical numerical procedure for service load analysis of composite frames and beams using step-by-step method for modeling of time dependent effects of creep and shrinkage phenomena
Name: Addisu Shewarega
Year: 2009
Co-Supervisors: Prof. A. K. Nagpal
Degree: MTech and MSc Awarded/Ongoing

45. Development of neural networks for prediction of deflection of composite bridges considering non-linearities-flexibility of shear connection, cracking of concrete and yielding of steel
Name: Kasi Viswanath
Year: 2009
Co-Supervisors: Prof. A. K. Nagpal
Degree: MTech and MSc Awarded/Ongoing

46. Behaviour of tall composite building frames considering cracking of concrete, creep and shrinkage subjected to service load

Name: Sunil Kumar
Year: 2009
Co-Supervisors: Prof. A. K. Nagpal
Degree: MTech and MSc Awarded/Ongoing

47. Development of neural networks for prediction of deflection of composite frame considering non-linearities-flexibility of shear connection, cracking of concrete and yielding of steel
Name: Ashish Yadav
Year: 2009
Co-Supervisors: Prof. A. K. Nagpal
Degree: MTech and MSc Awarded/Ongoing

48. Control of cracking, creep and shrinkage effects in steel concrete composite frames
Name: Lalit Kr. Varshney
Year: 2009
Co-Supervisors: Prof. A. K. Nagpal
Degree: MTech and MSc Awarded/Ongoing

49. Behaviour of steel concrete composite frames
Name: Amit Kr. Garg
Year: 2008
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

50. Cost comparison of multistoreyed buildings in earthquake zones
Name: Kapil Sarawagi
Year: 2005
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

51. Computer aided design of footings
Name: Deepak Gaur
Year: 2005
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

52. Reinforced block masonry
Name: Pawan Singhania
Year: 2005
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

53. Castellated beam- analysis and design
Name: Neeraj Gupta
Year: 2005
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

54. Study of soil classification systems
Name: Sudhir Verma
Year: 2001

Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

55. Computer aided design of composite tee beam bridge
Name: Pramiti Tiwari
Year: 2001
Co-Supervisors: Dr. M. K. Shrimali
Degree: MTech and MSc Awarded/Ongoing

56. Study of various methods of concrete mix design
Name: Rajesh Poonia
Year: 2001
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

57. Risk and safety margins in structural design
Name: Ajay Saxena
Year: 2000
Co-Supervisors: -
Degree: MTech and MSc Awarded/Ongoing

58. Investigating Structural performance of Innovative Engineered Bamboo-Timber Composite TRAIL BRIDGES for Prosperity to Rural Ethiopia
Name: Habtamu Melesse
Year: -
Co-Supervisors: Prof. Krishnaraj Ramaswamy
Degree: PhD Thesis in progress

59. Service life estimation of concrete under corrosion
Name: Kameshwar Nim
Year: -
Co-Supervisors: -
Degree: PhD Thesis in progress

60. Naturally colored composites and their application as building products
Name: Akash Paradkar
Year: -
Co-Supervisors: -
Degree: PhD Thesis in progress

61. Comprehensive rheology based thixotropic fluid flow model for cement-based composites
Name: Astha Sharma
Year: -
Co-Supervisors: -
Degree: PhD Thesis in progress

62. Development of sustainable construction materials through recycling of solar wastes
Name: Gaurav Sharma
Year: -
Co-Supervisors: -
Degree: PhD Thesis in progress