DR PRIYANKA DHURVEY
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CONTACT

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RESEARCH INTEREST

Sustainable Concrete Material, waste management in building construction materials (Geopolymer Concrete), Microstructure and durability of concrete, Alkali-activated binders, Characterization Techniques, Petrography/Thin Section Analysis, Non- destructive Techniques, Mechanics of Composite Materials, Finite Element Analysis, Stress Analysis, Experimental Stress Analysis, Elastic Stability, Soft Computing

TEACHING INTEREST

Mechanics of Materials, Structural Analysis, Finite Element Method, Concrete Technology, Engineering Mechanics, Theory of Elasticity, Theory of Plates and Shells, Advanced Concrete Technology, Sustainable Material, Soft Computing

RESEARCH SUPERVISION

PhD : 03 awarded, and 3 in progress
MTech: 65 awarded

PhD Thesis Awarded

No.	Name of Student	Title	Year	Co-Supervisor(s)
3.	Pushpendra Singh Palash	Design, Development and Application of Geopolymer Concrete	2025	-
2.	Chandra Prakash Gour	Study on Strength and Durability of Geopolymer Concrete Using Bone China Waste and Recycled Concrete Aggregates	2025	-
1.	Parth Verma	Design, Development and Performance Evaluation of Metakaolin Based Geopolymer Concrete	2024	-

EDUCATION

Ph. D. (2015, Composite Laminates), Maulana Azad National Institute of Technology Bhopal (India).
M. Tech. (2006, Engineering Material), Maulana Azad National Institute of Technology Bhopal (India).

B. Tech. (2000, Civil Engineering), Maulana Azad College of Technology (REC), Bhopal (India)

INTERNATIONAL JOURNALS

1. Sahu, K.K., Prasad, V., **Dhurvey Priyanka**, "Cross-flow turbine's CFD analysis for hydropower generation", Ish Journal of Hydraulic Engineering, 2025.
2. P Singh Palash, **Priyanka Dhurvey**, "Analysis of Flyash Aggregate Behavior in Geopolymer Concrete Beams Using Method of Initial Functions (mathematical Programming)" Archives for Technical Sciences 31 (2), 168-174.

3. P Singh Palash, **Priyanka Dhurvey**, “Influence and Prediction of Sintered Aggregate Size Distribution on the Performance of Lightweight Alkali-Activated Concrete”, Archives for Technical Sciences 31 (2), 49-56.
4. CP Gour, **Priyanka Dhurvey**, “Performance evaluation of bone China ceramic as fine aggregates in geopolymer concrete” Materials Today: Proceedings
5. Pushpendra S. Palash, **Priyanka Dhurvey**, “Evaluating the Durability and Suitability of Various Aggregate Types for Construction Applications”, Journal of Engineering and Technology Management 72, 1760-1776.
6. Gour, C.P., **Dhurvey, P.,** “Determination of the effectiveness of porcelain fine waste to enhance the performance of geopolymer concrete with recycled waste using central composite design and Taguchi method”, Canadian Journal of Civil Engineering, 2024, 51(6), pp. 577–604.
7. Chandra Prakash Gour, **Priyanka Dhurvey**, and Nagaraju Shaik. "Optimization and Prediction of Concrete with Recycled Coarse Aggregate and Bone China Fine Aggregate Using Response Surface Methodology." ***Journal of Nanomaterials*** 2022 (2022).
8. Parth Verma, **Priyanka Dhurvey**, and Venkatesa Prabhu Sundramurthy. "Potential Assessment of E-Waste Plastic in Metakaolin Based Geopolymer Using Petrography Image Analysis." (2022).
9. Chandra Prakash Gour, **Priyanka Dhurvey**, and Nagaraju Shaik. "Design of structural concrete with bone China fine aggregate using statistical approach." ***Advances in Materials Science and Engineering*** 2022 (2022).
10. Verma, Parth, **Priyanka Dhurvey**, and Venkatesa Prabhu Sundramurthy. "Structural behaviour of metakaolin geopolymer concrete wall-type abutments with connected wing walls." ***Advances in Materials Science and Engineering*** 2022 (2022).
11. **Priyanka Dhurvey**, Anil Kumar Patidar, and Sanjay Soni. "Design Optimization of Composite Plate under Transverse Loading using Ritz Method." *Materials Today: Proceedings* 24 (2020): 1147-1156.
12. Gaur Akash, and **Priyanka Dhurvey**. "Comparative Study of Beam Theories on the Effect of Span-Depth Ratio for Symmetric and Un-symmetric Loadings." *IOP Conference Series**: Materials Science and Engineering***.** Vol. 936. No. 1. IOP Publishing, 2020.
13. **Priyanka Dhurvey**, et al. "Aerodynamic and Structural Analysis of Ceiling Fan for Different Blade Materials." ***Materials Today: Proceedings*** 5.9 (2018): 19604-19613.
14. Mishra, Abhigyanam, **Priyanka Dhurvey**, and Sanjay Soni. "Vibration based gear fault detection." ***Materials Today: Proceedings*** 46 (2021): 4728-4733.
15. Mishra, **Priyanka Dhurvey**, Subha Sinha, Pallav Kumar, “Effect of Dam Construction on Vegetation Cover and Shoreline: A case study”, International Journal of Engineering Research and Technology. ISSN 0974-3154, Volume 13, Number 7 (2020), pp. 1686-1691
16. S Mishra, P Shrivastava and **Priyanka Dhurvey**. *Change detection techniques in remote sensing: A review*. ***International Journal of Wireless and Mobile Communication for Industrial Systems*** Vol. 4, No. 1 (2017) (ISSN: 2205-8443).
17. **Priyanka Dhurvey**. "Buckling analysis of composite laminated skew plate of variable thickness." ***Materials Today: Proceedings*** 4.9 (2017): 9732-9736.
18. Shahir, M. and **Priyanka Dhurvey**. "Seismic Response of Concrete Gravity Dam in Afghanistan", International Research Journ***al of Engineering and Technology*** 4.6 (2017): 1178-1185.
19. **Priyanka Dhurvey** , and N. D. Mittal. "Review on various studies of composite laminates with ply drop-off." ***ARPN Journal of Engineering and Applied Sciences*** 8.8 (2013): 595-605.
20. **Priyanka Dhurvey**, and N. Mittal. "Study the effect of externally and internally ply drop-off in composite laminate analysis." ***ARPN Journal of Engineering and Applied Sciences*** 8.4 (2013): 595-605.
21. **Priyanka Dhurvey**, and N. D. Mittal. "Finite element analysis of internally ply drop-off composite laminates**."** ***International Journal of Engineering Research*** 1.1 (2012): 12-16.
22. **Priyanka Dhurvey**, and N. D. Mittal. "Buckling behavior of an orthotropic composite laminate using finite element analysis**."** ***International Journal of Scientific Engineering and Technology*** 1.4 (2012): 93-95.

INTERNATIONAL AND NATIONAL CONFERENCE

1. KK Sahu, C Parashar, **P Dhurvey**, “Numerical Analysis of Cross-Flow Hydro”,Proceedings of the 1st International Conference on Fluid, Thermal and Energy 2024.
2. Atul Singh, Sumit Raikwar, **Priyanka Dhurvey**, Parth Verma and Chandra Prakash Gour, “Comparative Analysis of Drying Shrinkage of Mortar with Varying Ratio of Fly Ash And GGBS”,

36th National Convention of Architectural Engineers & National Conference on Green Buildings, Innovation and Sustainability (NCGBIS) 2022.

3. Badri Sahu, **Priyanka Dhurvey,** Parth Verma, Juneed Rahim, Aditya Bhargava "Analysis of Layered Beam Using ANSYS" , International Conference on Advances in Materials and Manufacturing Technology AMMT -2022, Nov. 22-26, 2022, NIT Bhopal.
4. Aruna Ekka, Kavita Gidwani, **Priyanka Dhurvey**, H. Kaur, Chandra Prakash Gaur, "Experimental and Numerical Analysis of Strength Characterization of Concrete with Recycled Concrete Aggregate : A Case Study", International Conference on Advances in Materials and Manufacturing Technology AMMT -2022, Nov. 22-26, 2022, NIT Bhopal.
5. Kundan Kr. Sahu, Charu Parashar, **Priyanka Dhurvey**, "Numerical Analysis of Cross Flow Hydro Turbine with Different Number of Blades", International Conference in Fluid Thermal and Energy Systems, June 9-11, 2022, NIT Calicut, Kerala, India
6. **Priyanka Dhurvey , "**Experimental Investigation on Mechanical Properties of concrete with pulverized PVC Plastic Waste as Fine aggregate", Recent Advances in Civil Engineering for Sustainable Development (RACESD 2021), (International Conference), February 13-14 2020 (on-line), NIT Bhopal.
7. **Priyanka Dhurvey ,"**Macromechanical analysis of Orthotropic Angle ply laminated composite plate", Recent Advances in Civil Engineering for Sustainable Development (RACESD 2021), (International Conference), February 13-14 2020 (on-line), NIT Bhopal.
8. Shahir, M. and **Priyanka Dhurvey, "**Stability Analysis of concrete gravity dam for seismic loading in Afghanistan", International Conference on Advancement in Engineering Applied Science and Management (ICAEASM-2017)
9. **Priyanka Dhurvey**, "Buckling analysis of composite laminated skew plate of variable thickness under in-plane compression", **61th Congress of ISTAM** (International Conference), 2017, VIT, Vellore
10. **Priyanka Dhurvey**, "Buckling analysis of composite laminated skew plate of variable thickness under biaxial loading", ICCMS 2016, IIT Bombay
11. **Priyanka Dhurvey**, "Static Analysis of laminated composite skew plate with ply drop-off", **60th Congress of ISTAM** (International Conference), 2016, MNIT Jaipur
12. Kulkarni, Kaustubh, and **Priyanka Dhurvey**. "Postbuckling analysis of laminated composite plates subjected to in-plane uniaxial load." *2014* ***International Conference on Advances in Engineering & Technology Research*** *(ICAETR-2014)*. IEEE, 2014.
13. **Priyanka Dhurvey**, "Finite Element Analysis for study the effect of Fibre orientation on buckling behavior in an orthotropic composite laminates", ***ICAMMP 2011*** 10 International Conference on pr Advances Materials and Materials Processing, IIT Kharagpur, 2011.
14. **Priyanka Dhurvey**, "Three Dimensional Finite International Element Buckling Analysis of Castellated Beam", International conference on Theoretical Applied Computational P and Experimental Mechanics (**ICTACEM 2007**), IIT Kharagpur.
15. **Priyanka Dhurvey**, "Experimental Investigation of stress concentration factor on central circular hole and V- notch in woven E-glass epoxy sheet", National Conference on Frontiers in Mechanical Engineering (**FIME 2013**) MANIT Bhopal.
16. **Priyanka Dhurvey**, "Interlaminar stress analysis of composite plates with arbitrary laminates and boundary conditions", National Conference on Frontiers in Mechanical Engineering (**FIME 2013**) MANIT Bhopal.
17. **Priyanka Dhurvey**, "Strengthening of reinforced concrete members through retrofitting", BITCON 2008, Raipur.
18. **Priyanka Dhurvey**, "Simulation Based Design Process", **22nd National Convention of Production Engineers & National Seminar**, Institute of Engineers Jabalpur.
19. **Priyanka Dhurvey**, "Retrofitting of Reinforced Concrete Building Frames", **National Seminar on Seismic Response: Design & Strengthening of Building Structures**, Jabalpur 2007.
20. **Priyanka Dhurvey**, "Finite Element Analysis of Castellated Beam", **National Seminar on Condition Monitoring and Vibration Analysis**, Institute of Engineers, Bhopal.
21. **Priyanka Dhurvey**, "Seismic Retrofitting", **National Convention of Architectural Engineer's(AEC 2003),** Institute of Engineers, Bhopal.

BOOKS

1. ***Postbuckling Analysis of Symmetrically Laminated Composite Plate***, (ISBN-13 978-613-9-94734-8).
2. ***Influence of Thermal Effects on Failure of Composite Laminate***, (ISBN- 978-613-9-93192-7).

3. ***Flexural Analysis of Laminated Composite Plates under Sinusoidal Loading,*** (ISBN-13 979-8890671387)

CHAPTERS IN BOOKS / MONOGRAPHS

1. Utilization of E-Waste as Coarse Aggregates in Geopolymer Concrete, 2022, Sustainable Approaches and Strategies for E-Waste Management and Utilization, IGI Global.
2. Utilization of Waste Ceramic as Coarse Aggregate in Concrete, 2022, Waste Recovery and Management: An Approach Toward Sustainable Development Goals, CRC Press Taylor, and Francis.
3. Stability Analysis of concrete gravity dam for seismic loading in Afghanistan, 2017, Engineering, Applied Sciences and Management (ISBN 978-81 934083-4-6).
4. Buckling Analysis of composite laminated skew plate of variable thickness, Recent Trends in Engineering and Material Sciences (ISBN 978-89 3525-423-0, 2016, JNU publishing House Jaipur.
5. Experimental Investigation of stress concentration factor of central circular hole and v-notch in woven e-glass epoxy sheet, Frontiers in Mechanical Engineering (ISBN:978-93 83083-27-5), 2013, Excellent Publishing House, New Delhi.
6. Analysis of interlaminar stresses in rectangular laminated plates under transverse load, Frontiers in Mechanical Engineering (ISBN:978-93 83083-27-5), 2013, Excellent Publishing House, New Delhi.
7. Stress and Load displacement analysis of laminate with ply drops under compression, Mechanics of Functional Materials and Structures (ISBN 978-81-8487-248 4), 2012, Narosa Publishing House New Delhi.

PATENT

1. **Concrete Mixer Analyzing Device**, Date of Publication: 15/07/2022, INTELLECTUAL PROPERTY INDIA, GOVT. OF INDIA.
2. **Soil Compactness Analyzer**, Date of Publication: 30/07/2022, INTELLECTUAL PROPERTY INDIA, GOVT. OF INDIA.
3. **Slump Test Analyser,** (Accepted), INTELLECTUAL PROPERTY INDIA, GOVT. OF INDIA.

AWARDS/ ACHIVEMENTS

1. **Awarded Bharat Gaurav Puraskar and Certificate of Excellence** by KTK Outstanding Achievers and Education Foundation. On 18 Dec. 2022.
2. **Best Paper Award** in the technical session TS-10, RACESD 2021 at NIT Bhopal, February 13-14 2021 International Conference.
3. **Best Paper Award** in the theme of Structural Mechanics, ICMMS 2020 at NIT Calicut, July 2020,India International Conference.
4. **Appreciation Letter** by Director MANIT in 2004.

MEMBER OF PROFESSIONAL BODIES

1. Indian Society of Theoretical and Applied Mechanics, Life Member
2. Indian Society of Geomatics, Life Member
3. Association of Agrometerologist, Life Member
4. Indian Concrete Institute, Life Member
5. Materials Research Society of India (MRSI), Life Member
6. Institute of Engineer, Life Member

SHORT TERM TRAINING/WORKSHOP PROGRAM ORGANISED

1. ANSYS TRAINING PROGRAMME , Self-Sponsored for Students 2024.
2. Application of Artificial Intelligence and Iot in Civil Engineering, 23-27 March 2021, funded by **TEQIP III**.
3. Sensor Networks, Internet of Things (IoT) and Internet of Every Thing, 05-14 November 2019, funded by **DST, ICPS Division, Delhi.**

4. Artificial Intelligence (AI), Machine Learning(ML) and Deep Learning, 17-26 December 2019, funded by **DST, ICPS Division, Delhi.**

LECTURES DELIVERED IN SHORT TERM COURSES / FACULTY DEVELOPMENT PROGRAMMES/CONFERENCES

1. Expert Lecture at National Conference on Integrative Advances in Civil Engineering organized by Department of Civil Engineering SIRT Bhopal on "Textile Reinforcement", dt. 24/04/2023.
2. Expert Lecture at RCVP Noronha Academy of Administration on " Classification of soils and its suitability of Earthern Dam", dt. 14/12/2022.
3. Expert Lecture at RCVP Noronha Academy of Administration on " Suitability of Material and Testing", dt. 14/12/2022.
4. Expert Lecture at 05 days STTP on "Application of Artificial Intelligence and Iot in Civil Engineering" under TEQIP- III on "Applications of ANN in Construction and Building Materials", dt.27/03/2021.
5. Expert Lecture at Department of Civil Engineering, SIRT on "Mechanics of Materials" on 20/02/2020.
6. Expert Lecture on workshop on "Retrofitting Techniques and Associated Challenges" at SATI Vidisha from 04-05 Feb 2020 on Textile Concrete Reinforcement (05/02/2020).
7. Expert Lecture at Department of Civil Engineering, SIRT on "Mechanics of Materials" on 25/09/2019.
8. Expert Lecture at NITTTR Bhopal from 27-31Aug 2018 on Finite Element Analysis, Finite Element Methods.
9. Expert Lecture at SAM College of Engineering & Tech., Bhopal from 30/10/2018 on Finite Element Analysis and Design Engineering under TEQIP III.
10. Expert Lecture at RCVP Noronha Academy of Administration on " Advanced Surveying", dt. 10/2017.

REVIWER IN CONFERENCES/JOURNALS

1. Journal of Building Engineering, SCIE, Q1.
2. International Conference on Advances in Materials and Manufacturing Technology, AMMT -2022.
3. International Conference on Advances in Construction Materials and Structures 2021, ICCMS-2021.
4. International Conference On Sustainable Materials and Practices for Built Environment, SMPBE 2021.
5. 21 st IEEE International conference on Nanotechnology, NANO 2021.
6. International Conference on Materials Science and Sustainable Manufacturing Technology, ICMSSMT 2022.
7. Materials Today: Proceedings Journal, Apr 2021.
8. Materials Today: Proceedings Journal, Jun 2021.
9. Materials Today: Proceedings Journal, Aug 2020.
10. Materials Today: Proceedings Journal, Sep 2020.
11. Materials Today: Proceedings Journal, Sep 2020.
12. Materials Today: Proceedings Journal, Oct 2020.
13. Acta Mechanica Journal, Oct 2020.

RESEARCH PROJECT

1. Strengthening & Development of research Laboratories, Principal Investigator, 2011, 50 Lacs, MHRD-MANIT Scheme .

RESEARCH ID's

Google Scholar ID:- WkqxnUYAAAAJ
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Scopus Scholar ID:- 55735563100
Vidawan ID:- 40909