

RESUME

Shilpa Pal, Ph. D.

Professor

Department of Civil Engineering, Delhi Technological

University (Formerly Delhi College of Engineering)

Delhi

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Date of Birth 06-02-1981

Area(s) of Interest 2-D & 3-D Seismic Analysis of Dams and Seismic Slope Stability Analysis, Damage detection in buildings using SHM, Bio-fortified Concrete, Green Materials in Construction.

ACADEMIC RECORD

| Educational Qualifications | Discipline | Year | Board/ Institution | CGPA/ % |
|-----------------------------------|---------------------------|--|---|------------------------|
| Post Doctoral Visit | | 1 st June 2008 – 31 st July 2008 | Norwegian Geotechnical Institute | |
| Ph D | Earthquake Engineering | 2008 | IIT Roorkee | N.A. |
| M. E. (Gold Medalist) | Structures | 2004 | Punjab Engineering College, Chandigarh | 81.76 % |
| B. E. (Hons.) | Civil | 2002 | Thapar Institute of Engineering & Technology, Patiala | 77.85 % (8.65 / 10) |
| 12 th | Science | 1998 | PSEB | 73.50 % |
| 10 th | Science | 1996 | CBSE | 77.80 % |

ACHIEVEMENTS

- Visiting Professor to CY Cergy Paris University, CY Institute of Advanced Studies from 15th to 22nd June 2024 and gave presentation on the topic “Damage

Detection in Concrete Using Structural Health Monitoring - Science Behind Safety of structure” on 20th June 2024.

- Research excellence awards at DTU under Commendable research Category for the year 2020, 2022, 2023.
- Best Paper in the paper presentation category for the paper titled “CFD Simulation of Wind Effects on Cylindrical Roof of T-Plan Multi-Span Low Rise Building” in the 7th International Conference on Construction, Real Estate, Infrastructure and Project Management (7th ICCRIP) organized by NCMAR, Pune from 11th – 12th August 2023.
- Best paper in Technical Session 6 (T6) for paper title “Experimental validation of damage detection in concrete beam under impact load using piezo sensor ” in the 3rd International Conference on “ Recent Advances in Materials, Manufacturing and Thermal Engineering (RAMMTE-2022) ” organized by the Department of Mechanical Engineering, Delhi Technological University, Delhi during 8th & 9th July 2022.
- Best paper Award for the paper “Impact of ureolytic and nonureolytic bacteria on self- healing of artificial cracks in biofortified concrete” in the 12th International Conference on Material Processing and Characterization (ICMPC 2021) conducted by Department of Mechanical Engineering, NITTTR Chandigarh from 06th – 09th October 2021
- Diamond Jubilee Best Research Paper Award (2020) for the paper entitled An integrated approach for landslide susceptibility–vulnerability–risk assessment of building infrastructures in hilly regions of India, CSIR-CBRI, Roorkee, in February 2020.
- Best Paper Award in the online International Conference on Industrial and Manufacturing Systems CIMS-2020 for the paper titled Investigation of the Impact of Eco-Friendly Building Materials on Carbon Footprints of an Affordable Housing in Plain Region held from 09th - 11th October 2020 organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar.
- Best Paper Award in the International Conference on Smart Cities— Opportunities and Challenges for the paper titled Landslide Susceptibility Assessment Due to Construction of Buildings in Garhwal Area Using GIS held from 14th to 16th March 2019 at JMI, Delhi.

- Winner of the drawing competition conducted by Itasca Consulting group, Minneapolis, USA held at the **Seventh International Conference on Case Histories in Geotechnical Engineering** in Chicago from 1st – 4th May 2013.
- Jan [2005] Awarded Ministry of Human Resource Development (MHRD) Fellowship to pursue Ph.D. in the Deptt. of Earthquake Engineering at IIT Roorkee.
- [2004] Gold Medalist for standing First in M.E.(Civil).
- [2003] First Runner-up in the 12th Annual Concrete Cube Competition 2003 organized by India Chapter of American Concrete institute and ACC Ltd.
- [1998, 2001] Awarded Scholarship for first and third year academic achievement at BE Level at Thapar Institute of Engineering and Technology, Patiala.

RESEARCH ACTIVITIES

- **Name of Guide:** Prof. D. K. Paul & Mr. A. D. Pandey (DEQ, IIT Roorkee)
- **Topic:** EFFECT OF FOUNDATION AND DAM DISCONTINUITIES ON THE RESPONSE OF CONCRETE GRAVITY DAM
- **Ph.D. GUIDED: 05**
 - Yudhveer Singh (Working Professional) – **Rainfall Runoff Modelling for urbanized Watersheds** – Defended thesis in 2019
 - Sachin Tiwari (Full Time) - **Studies in Development of Biofortified Concrete.** – Defended thesis in 2020
 - Aditi Singh (Full Time) – **Landslide Hazard, Vulnerability and Risk Assessment in and around Gopeshwar Township of Chamoli district, Garhwal Himalayas.** – Defended thesis in 2020
 - Ruchi Saraswat (Working Professional) - **Study on Environmental Development and Disaster in Upper part of Bhagirathi Valley, Garhwal Himalayas with particular focus on the Disaster Risk Reduction.** – Defended thesis in 2021
 - Indrajeet Singh (Full Time) - **Damage detection of concrete under impact loading at varying temperature using piezosensors.** – Defended thesis on 02nd January 2024.

Ph.D. GUIDING: 07

- Prateek Roshan – Performance Assessment of Reinforced Concrete Buildings on Hill slopes
- Deepak Sharma – Wind Effects on the roof of low-rise structures
- Wesam Al Agah – Assessing Structural Integrity of Steel Fibre Reinforced Concrete Elements under Elevated Temperatures using EMI Technique
- Khyati Sagoo – Compatibility assessment of bonding material for historical structure
- Sugam Jain – Evaluation of flexibility and racking ratio of Underground structures under different geotechnical conditions.
- Shikha Tyagi – Performance of tall building with opening geometry exposed to wind effect
- Tarun Morwal – Effect of Supplementary Cementitious Materials on the Performance of Reinforced Concrete Structures under Corrosion using EMI Technique
- **M.TECH DISSERTATION: 123(guided) @GBU + 19 guided @ DTU**
- **PROJECTS: 102 (guided) @ GBU, 15 groups @(DTU)**
- **PUBLICATIONS**
 - International/National Conferences: 70
 - International/National Journal: 42
 - Report: 01
 - Book Chapter: 04
- **PROJECTS/ CONSULTANCY**
 - Involved in Consultancy work in DTU such as Third Party Quality Assessment and structural audit of buildings.
 - Worked as Co-PI in the project “Seismic Vulnerability Assessment of Building types in India” sponsored by NDMA, Delhi in collaboration with Centre of Excellence in Disaster Mitigation & Management, IIT Roorkee, 2011.
 - Working as Co-PI in the project “Development of Earthquake Disaster Risk Index Phase – II” sponsored by NDMA, Delhi since 3rd December 2020.

CONSULTANCY PROJECTS COMPLETED

| S.N. | Title | Agency | Period | Grant/ Amount Mobilized (Rs. Lakhs) |
|------|-------|--------|--------|-------------------------------------|
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|---|---|-------------|---------------------------|-------------|
| 1 | Structural Audit and Suggesting Measures of Agroha Apartment, Rohini | Private | August – October 2020 | 4,13,000 |
| 2 | Structural Audit and Suggesting Measures of 09 buildings of SDMC, Delhi | SDMC, Delhi | July 2020 – Feb 2021 | 36,34,000 |
| 3 | Construction of 600 two BHK, 250 three BHK and 320 EWS, houses (Design and Build Model) Earmarked in Pocket-9, at Sector A1 to A4, Narela | DDA, DELHI | August 2019 to March 2024 | 1,46,03,863 |

ONGOING CONSULTANCY WORK

| Consultancy work No. | Name, Designation & Organization | Amount of consultancy charges, to be deposited with DTU (Inclusive GST) | Duration of the project | Date of the Start (Approval From VC) | Role |
|--|----------------------------------|---|-------------------------|--------------------------------------|------|
| TPQA -Expansion and remodeling work at Acharya Shri Bhikshu Govt. Hospital at Moti Nagar Construction | PWD, Delhi | 20,91,947 | 15 months (ongoing) | 28-01-2020 | PI |
| TPQA -Expansion and remodeling work at DadaDev Govt. Hospital, Delhi | PWD, Delhi | 11,95,236 | 15 months (ongoing) | 30-09-2020 | PI |
| TPQA –Construction of Mother and Child Block and Screening OPD Block at Dr. B.R.Ambedkar Hospital, Delhi | PWD, Delhi | 36,74,600 | 18 Months (ongoing) | 08-10-2020 | PI |
| TPQA for Construction of CCS-13 in plot no. 138, New Delhi | CPWD, Delhi | 2,01,98,355 | 27 Months (Ongoing) | 01.05.2024 | PI |

MEMBER OF INSTITUTIONAL BODIES

| Society/Association | Membership | W.E.F |
|--|------------------------------|-------------------------------|
| Indian Society of Earthquake Technology | Life Member(LM 1239) | 2005 Onwards |
| Institute of Engineers | Associate Member(AM095277-2) | 2008 Onwards |
| Indian Society for Construction Materials and Structures | Life Member(LM 2015005) | 21 st July 2015 |
| Indian Concrete Institute (ICI) | Life Member (11827) | 25 th October 2016 |
| Soft Computing Research Society (SCRS) | Life Member (2017/4/46) | March 2017 |
| The Indian Science Congress Association | Life Member (L33596) | September 2017 |

| | | |
|--|---------------------|----------|
| Indian Association of Structural Engineers | Life Member (M 252) | May 2018 |
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TEACHING EXPERIENCE

| INSTITUTE | BRIEF DESCRIPTION | POST | Date of Joining | Date of Leaving |
|---|--|---------------------|-------------------------------|------------------------------|
| Delhi Technological University | Teaching UG,PG, guiding research scholars | Professor | 10 th October 2021 | Till Date |
| Delhi Technological University | Teaching UG,PG, guiding research scholars | Associate Professor | 10 th October 2018 | 9 th October 2021 |
| Gautam Buddha University, Greater Noida | Head of Department for 03 yrs Teaching B.Tech., M.Tech., Ph.D. | Assistant Prof. | 28 Oct 2010 | 09 Oct 2018 |
| Galgotia College of Engineering & Technology, Greater Noida | Teaching B.E. | Assistant Prof. | 2 nd March 2010 | 27 Oct 2010 |
| Thapar University, Patiala | Teaching B.E. & M.E. | Assistant Prof. | 18 August 2008 – 1 March 2010 | |
| Indo Global College of Engineering, Ropar, Punjab | Taught B.E. & Architecture | Lecturer | 21/6/2004 | 2/01/2005 |

EXPERT LECTURES

1. Delivered an expert talk on Performance Assessment of Hill Buildings under Seismic Excitation in the online mode in Health and Retrofitting of Structures Conference HAROS 2024 on 26th September 2024 held at University of Lorraine, France.
2. Delivered an expert talk on Damage Detection using SHM in the online mode in Health and Retrofitting of Structures Conference HAROS 2023 on 15th September 2023 held at CY Cergy Paris University, Cergy, Paris, France.
3. Delivered an expert talk on “AQAR Preparation on framework of NAAC” on 29th April 2023 in the two days online NAAC sponsored National Seminar on “Role of NAAC in Quality Enhancement in Higher Educational Institutions” from 28th – 29th April 2023 organized by IMS Engineering College, Ghaziabad.
4. Delivered an expert talk on “Conceptual Design for EQ resistant buildings and Do’s and Don’t before, during and after earthquakes” on 07th February 2023 in the “Regional Capacity Building Program on Inspiring the minds for Disaster Risk Reduction” from 06th – 10th February 2023 organized by Gautam Buddha University, Greater Noida and

Institutions Network on Disaster Risk Reduction (IUNDRR), National Institute of Disaster Management.

5. Delivered an expert talk on “Damage Detection using SHM” in the online mode in International Conference on Construction Engineering Towards more Sustainable Structures 2022 (ICCE 2022) on November 28, 2022 held at Damascus.
6. Delivered an expert talk on “Conceptual Design of Earthquake Resistant of Buildings” on 25th May 2022 in the Training of NDMC Engineers on Structural Safety Audit to Improve Earthquake Resiliency of Lifeline Buildings and Upcoming Constructions” from 25th – 27th May 2022 organized by CED, DTU, IAStructE DTU Student Chapter and funded by NDMC, New Delhi.
7. Delivered an international expert talk on topic “Conceptual design for earthquake resistant buildings and safety measures” on 15th October 2021 in the Future Technologies College of Vocational Education, RIMT University, Melbourne, Australia.
8. Delivered an expert talk on topic “Basic Conceptual Design of Earthquake Safe Buildings” in the three days online Training Programme on Earthquake and Cyclone Disaster Risk Mitigation on 26th October 2021 organized by National Institute of Disaster Management (NIDM), New Delhi and Department of Civil Engineering, Andhra University College of Engineering, Visakhapatnam in association with IGS Visakhapatnam Chapter
9. Delivered an expert talk on topic “Seismic effect on Structures” on 06th April 2021 in the AICTE _ ISTE Refresher Programme on Earthquake Resistant Design organized by Govt. Polytechnic, Bolangir, Odisha.
10. Delivered an expert talk on topic “Influence of Modelling Discontinuities in Dam and its Foundation” on 23rd January 2021 in the Webinar organized by Indian Association of Structural Engineers on Structural Engineering for Sustainable Development.
11. Delivered a Keynote lecture on topic “Conceptual Design of Earthquake Resistant Buildings and Safety Measures” on 09th December 2020 in the AICTE Sponsored Six Days Online STTP on “Life Cycle Assessment and Structural Health Monitoring of Structures” (PHASE-III) organized by Department of Civil Engineering, Aarupdai Veedu Institute of Technology, Salem, TN held from 07th to 12th December 2020.
12. Delivered a Keynote lecture on topic “Seismic Conceptual Design of Buildings” on 23rd November 2020 in the Five Days Online STTP on “Seismic Structural Safety Audit of Structures” organized by Department of Civil Engineering, DTU in

collaboration with NIDM (Ministry of Home Affairs, New Delhi), held from 23rd to 27th November 2020.

13. Delivered an expert talk on topic “Ensure Your Safety Against Earthquake: Dos and Don’ts” on 25th June 2020 in the National Webinar organized by Centre for Extension and Field Outreach, DTU participating institute of Unnat Bharat Abhiyan.
14. Delivered an expert talk on topic “Ensure Your Safety Against Earthquake: Dos and Don’ts” on 31st May 2020 in the one day National Webinar on Safety against Earthquake organized by School of Engineering and Technology Indira Gandhi National Open University, New Delhi.
15. Delivered an expert talk on topic “Development of Self-Healing concrete for Concrete Healing” on 13th May 2020 in the two day online workshop on Behaviour of Smart Materials and Concrete Structures organized by Deptt. of Civil Engineering, Aligarh Muslim University, Aligarh.
16. Delivered an expert talk on the topic “Modeling Dams and Landslides – A route to Mitigate Disaster” in the one week FDP on Disaster Mitigation and Management from 25th – 29th November 2019 sponsored by TEQIP III organized by Deptt. of Civil Engineering, DTU.
17. Delivered an expert talk on the topic “Landslides Hazard Vulnerability and Risk Assessment” on 13th Feb 2020 Geo-Meteorological Hazards Risk Management (at Department of Civil Engineering, Delhi Technological University, Delhi) Organized by NIDM (Ministry of Home Affairs, New Delhi) & Department of Civil Engineering, DTU, New Delhi from 10 -14 February 2020.
18. Delivered an expert talk on the topic “Modeling Dams and Landslides – A route to Mitigate Disaster” in the one week FDP on Disaster Mitigation and Management from 25th – 29th November 2019 sponsored by TEQIP III organized by Deptt. of Civil Engineering, DTU.
19. Delivered an expert talk on the topic “Importance of Earthquake Resistant Structures for Smart Cities” on 17th December 2019 in the Two Week Faculty Development Programme on Smart Cities: Challenges and Opportunities from 09th – 21st December 2019 organized by Deptt. of Civil Engineering, Aligarh Muslim University, Aligarh.
20. Delivered an expert talk on the topic “Modeling of Dams and Foundation” in the one week FDP on Earthquake Resistant Design of structures” from 27th – 31st May 2019 sponsored by TEQIP III organized by Deptt. of Civil Engineering, DTU.

21. Lecture on “Dam Failure: Cause, Social Impact and Mitigation” on 13th March 2019 in the short term course “Extreme Events, Disaster Risk Reduction and Management”, held at VNIT, Nagpur.
22. Lecture on “Codal Provisions for Seismic Design and Ductility Considerations of Tall Buildings” 20th July 2018 in the faculty development programme on Planning and Design of High Rise Buildings, GNIOT, Greater Noida from 16th -20th July 2018.
23. Lecture on “Earthquake Resistant Design of Structures” on 29th March 2018 in the Department of Civil Engineering, ABES College, Ghaziabad.
24. Lecture on “Seismic Analysis of Dams and Landslides” in the Faculty Development Programme on 10th December 2017 Earthquake Resistant Design of Structures organized by GNIOT from 08th – 12th December 2017.
25. Lecture on “Lessons learnt from past earthquakes and New Codal provision IS 1893:2016 (Part-I)” in the Faculty Development Programme on 06th July 2017 on Earthquake Resistant Design of Structures organized by AKGEC from July 3 – 10th July 2017.
26. Lecture on “Seismic Analysis of Dam Foundations” at a Workshop on Earthquake Related disaster organized by Centre for Disaster Management Studies at Aligarh Muslim University on 26th April 2012.
27. Lecture on the topic Effect of Foundation Discontinuity on Dam Response in an International Course on “Earthquake Risk Mitigation” for participants from SAARC Countries at IIT Roorkee Extension centre at Greater Noida organized by Centre of Excellence in Disaster Mitigation & Management and SAARC Disaster Management Centre, New Delhi on 14 June 2011.
28. Lectures & Practical’s on Modeling of Dams using UDEC/3DEC in the Short Term Course on EQ Resistant Design of Embankment & Concrete Gravity Dams organized by Department of Earthquake Engineering and Continuing Education Centre, IIT Roorkee on 9th -14th February, 2009.
29. Lectures & Practical’s on Modeling of Dams using UDEC/3DEC in the Short Term Course on Modeling and Analysis of Dam Systems Subjected to Earthquakes organized by Department of Earthquake Engineering and Continuing Education Centre, IIT Roorkee on 18th -23rd May, 2009.
30. Lectures & Practical taken on Modeling of Dams using UDEC/3DEC in the Short Term Course for NHPC Engineers on Earthquake Resistant Design of Embankment and

Concrete Gravity Dams organized by Department of Earthquake Engineering and Continuing Education Centre, IIT Roorkee on 4-9 February, 2008.

31. Lecture & Practical taken on Modeling of Dams using UDEC/3DEC and Reservoir Rim Stability Analysis in the Short Term Course for CWC & NTPC Engineers on Seismic Analysis and Design of Large Dams organized by Department of Earthquake Engineering and Continuing Education Centre, IIT Roorkee on 12-24 March, 2006.

COURSES/WOKSHOP/CONFERENCE/LECTURE ORGANIZED

- Organized a Short Term Training Programme on “Computer Aided Engineering Graphics and Drawing” from 13th to 17th June 2011 at Gautam Buddha University.
- Organized a 3 days training programme with Dr. V.K. Shanwal on Rapid Visual Screening of Buildings jointly with NIDM, Sponsored by NIDM GOI, Ministry of Home Affairs, in School of Engineering, GBU from 19th – 21st June 2013.
- Organized one day Workshop of “Seismic Design” jointly with Civil Simplified, Bangalore on 28th March 2014 at Gautam Buddha University.
- Organized one day Workshop on “Research Areas in Structural Engineering” on 14th September 2015 at Gautam Buddha University.
- Organized one day Workshop on “Nature Inspired Algorithms & its Application in Engineering” on 28th March 2016 at Gautam Buddha University.
- Organized one day Workshop on “STAAD Software” on 14th March 2016 in collaboration with CEPTA Infotech Pvt. Ltd at Gautam Buddha University.
- Organized one day Workshop on “Primavera” on 29th September 2016 in collaboration with CEPTA Infotech Pvt. Ltd at Gautam Buddha University.
- Organized a Short Term Training Programme on “Application of Techniques/Tools in Engineering” from 9th to 14th October 2017 at Gautam Buddha University
- Organized one day workshop on “Primavera” on 04th April 2018 in collaboration with CEPTA Infotech Pvt. Ltd at Gautam Buddha University.
- Organized one day workshop on “AutoCAD and Revit Architecture” on 05th April 2018 in collaboration with CEPTA Infotech Pvt. Ltd at Gautam Buddha University.
- Organized one Week Faculty Development Programme on “Earthquake Resistant Design of structures” from 27th – 31st May 2019 sponsored by TEQIP III Project at Delhi Technological University.
- Organized one week FDP on Disaster Mitigation and Management from 25th – 29th November 2019 sponsored by TEQIP III at Delhi Technological University.

- Organized one Week Faculty Development Programme on Geo-Meteorological Hazards Risk Management (at Department of Civil Engineering, Delhi Technological University, Delhi) Organized by NIDM (Ministry of Home Affairs, New Delhi) & Department of Civil Engineering, DTU, New Delhi from 10 -14 February 2020.
- Organized one week online short Term Training Programme on Seismic Structural Safety Audit of Structures jointly organized by Department of Civil Engineering, DTU & NIDM (Ministry of Home Affairs, New Delhi) &, New Delhi from 23rd to 27th November 2020 sponsored by NIDM, MOHA.
- Organized Online Refresher Course on Seismic Rehabilitation & Retrofitting of Buildings organized by Indian Association of Structural Engineers (IAStructE) as the Course-Coordinator from 04 September 2021 to 04 October 2021 during five Saturdays between 03:00 PM to 06:00 PM (IST).
- Organized one week Faculty Development Programme on Disaster Preparedness and Risk Reduction Jointly Organized by Geo-Meteorological Risk Management Division through India universities and Institutions Network for Disaster Risk Reduction of NIDM (Ministry of Home Affairs, Govt. of India, New Delhi) & Department of Civil Engineering, Delhi Technological University, New Delhi from 11th to 15th Dec 2023 at DTU.

COURSES/WORKSHOP/LECTURE ATTENDED

- “Earthquake Engineering Literature Survey Workshop” organized by NICEE, NPEEE & IIT Kanpur from 21st -26th August 2006.
- “Structural Steel Design for University Faculty” organized by Thapar University (Patiala) & INSDAG (Kolkata) from 1st – 6th December 2008.
- Two day workshop on “Research Methods in Educational Technology,” organized by JIIT, Noida and IIT Bombay on 2nd and 9th February 2013.
- “The Bentley Learning Conference” organized by BENTLEY from 24th -25th Nov. 2015 at Delhi.
- One week STTP on “Research Techniques in Information and Communication Technology” from 30th January to 04th February 2017, organized by SOICT, GBU, G. Noida.

- One week FDP on “Recent Advances in Concrete Technology and Sustainable Concrete” from 15th – 19th March 2017 organized by ITS Engineering College, G. Noida and ICI.
- One day Workshop on “Advances in Corrosion in Concrete Structures – Science, Prevention and Repair” organized by CSIR-CRRI, New Delhi on 24th April 2017.
- Two day National Workshop on NBC 2016 & Recently revised Seismic Codes – Impact on Structural Design, Construction & Safety of Buildings” organized jointly by the IAStructE and BIS, New Delhi, 27th & 28th June 2017.
- Attended two day Workshop on Current Aspects of Research Evaluation and Plagiarism from 30th Nov to 1st Dec 2018 at IIIT Noida.
- Attended one day workshop on ‘Performance –Based earthquake engineering for Enhanced Community Resilience” on 19th Dec 2018 at IIT Roorkee.
- Attended one week FDP on Advance Pedagogy, IPR, Sponsored Research & Entrepreneurship from 16th - 20th July 2019 organized by Engineering Staff College of India and DTU.
- Panelist in the International Webinar on “Health Monitoring Service Life Prediction, Repair and Rehabilitation” organized by Bridge Engineering and Structures Division, CSIR-CRRI from 8-10 May 2020.
- Attended one day Webinar on “Proposed Revisions of IS 456:2000 Plain and Reinforced Concrete and IS 1343:2012 Prestressed Concrete Codes by members of Code Drafting Committee of IS 456 and IS 1343 organized by Structural Engineering Forum on India on 14th May 2020.
- Panelist in the International Webinar on “Durability, Design and Construction Aspect of bridges" organized by Indian Concrete Institute Ghaziabad Centre in Association with CSIR-CRRI from 29th to 31st May, 2020.
- Attended three day International Webinar on Durability, Design and Construction Aspects of Bridges, organized by Indian Concrete Institute, Western UP Centre (ICI-WUPC) Ghaziabad, India in association with CSIR - Central Road Research Institute (CRRI), New Delhi, India during May 29-31, 2020.
- Attended one day Webinar on “Waterproofing of Structures” organized by ICI Ghaziabad Centre in Association with SRM University Sonipat on 14th June 2020.
- Attended One-Week Online National Training Program on “Disaster Risk, Vulnerability Assessment and Management” jointly organized by National Institute

of Disaster Management, Delhi and Department of Civil Engineering, Delhi Technological University, Delhi during June 29th - July 3rd, 2020.

- Attended one week Short Term Training Programme on Applications of Techniques/Tools in Engineering from 20th – 24th July 2020 organized by Deptt of Mathematics and Electrical Engineering, Gautam Buddha University, Greater Noida.
- Attended two week refresher course on “Engineering Physical Sciences and Management” held from 19th to 31st October, 2020 with A+ organized by BVICAM, New Delhi.
- Attended online Faculty Development Program on “Nascent Methodologies, Challenges and Realms of Research” held from 03 to 07 October, 2020 organized by Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India.
- Attended one week AICTE Training and Learning (ATAL) Academy online FDP "Underground Space Utilization" from 2021-1-18 to 2021-1-22 organized by Zakir Husain College of Engineering and Technology, AMU, Aligarh.
- Attended one week online FDP "Ethics and Values in Technical Education in Context of National Education Policy 2020' from 15th – 19th April 2021 organized by Centre for Value Education, DTU, Delhi.
- Attended one week AICTE Training and Learning (ATAL) Academy online FDP "Sustainable Construction Materials" from 2021-07-05 to 2021-07-09 organized by Rajasthan Technical University, Kota.
- Attended three day Faculty Development Programme on NBA Accreditation Procedures organized by IQAC DTU and conducted by NITTTR Chennai from 06th – 08th June 2022.
- Attended two day online National Level Workshop on NAAC Accreditation Process from 20th – 21st June 2022 organized by Institute for Academic Excellence, Hyderabad.
- Attended One Week online Short Term Training Program on “Machine Learning for Optimal Process Design and Development: Techniques and Tools in Python from 05th – 10th June 2023 organized by Gautam Buddha University, Greater Noida.
- Attended three day ISO 9001:2015 Internal QMS Auditor Training Course from 19th – 21st July 2023 organized by IQAC, DTU in collaboration with STQC EDTC Solan.

- Completed SWAYAM Online Course Certification on Quality Assurance through NAAC Accreditation Process organized by NITTTR Chennai under the aegis of SWAYAM from July to December 2023
- Completed 12 weeks Faculty Development Programme by NPTEL – AICTE on NBA Accreditation and Teaching-Learning in Engineering (NATE) from Jan – April 2024.
- Completed NPTEL Online Certification Course on “NBA Accreditation and Teaching-Learning in Engineering (NATE)” from Jan- April 2024 organized by IISc Bangalore under the aegis of SWAYAM.
- Completed Swayam Online Certification Course on NEP and Institutional Building offered by NITTTR Chennai from Jan to June 2024.

CONFERENCES ATTENDED

- 1 Workshop on *Seismic Hazard and Risk Assessment* from 18th -19th March 2006 organized by DEQ, IIT Roorkee & INPIC in collaboration with NGI and NORSAR, Norway.
- 2 Workshop on *Earthquake Engineering for Teachers* from 18th – 19th August 2006 organized by DEQ, IIT Roorkee & NPEEE, MHRD.
- 3 1st Indian Disaster Management Congress from 29th -30th November 2006 organized by NIDM, New Delhi.
- 4 13th Symposium on *13th Earthquake Engineering 13SEE* from 18th – 20th December 2006 organized by DEQ, IIT Roorkee & ISET Roorkee.
- 5 Workshop on *NCFRS* from 26th - 27th May 2007 organized by Department of Civil Engineering IIT Roorkee.
- 6 National Seminar on *Recent trends in Geotechnical and Structural Engineering* from 22nd – 23rd December 2007 organized by DSE, MNIT Jaipur.
- 7 Diamond Jubilee Conference on *Landslide Management Present Scenario & Future Directions* from 10th – 12th February 2008 organized by CBRI, Roorkee.
- 8 14th Symposium on Earthquake Engineering 14SEE from 17th – 19th December 2010 organized by DEQ, IIT Roorkee & ISET Roorkee.
- 9 Seventh International Conference on Case histories in Geotechnical Engineering from 1st – 4th May 2013 organized by Missouri University of Science and Technology, Wheeling (Chicago), Illinois, USA.

- 10 16th conference of IAMG on geostatistical and geospatial approaches for the characterization of natural resources in the environment: challenges, processes and strategies, 17-19 October 2014, JNU, New Delhi.
- 11 International Conference on Trends and Recent Advances in Civil Engineering (TRACE 2016), 11-12th August 2016, Amity University, Noida.
- 12 International Conference on Emerging Technology in Structural Engineering (ETSE 2017), 17-18th March 2017, Nagpur.
- 13 1st International Conference on New Frontiers in Engineering, Science and Technology, 8th -12th January 2018, DTU, Delhi.
- 14 2nd International Conference on Advances in Concrete, Structural and Geotechnical Engineering (ACSGE 2018), 26-28th February 2018, BITS Pillani.
- 15 International Conference on Advances in Construction Materials and Structures (ACMS 2018), 7-8th March 2018, IIT Roorkee.
- 16 16th Symposium on Earthquake Engineering at IIT Roorkee from 20-22 Dec 2018.
- 17 UKIERI Concrete Congress – The Global Builder from 05th – 08th March 2019 at NIT Jalandhar.
- 18 1st International Conference on “Landslides Risk Reduction and Resilience – 2019” on 28th November 2019 organized by National Institute of Disaster Management, MHA, GoI.
- 19 Two days International seminar on “Performance Based Design of buildings & Bridges for Enhanced Seismic Resilience” organized by Indian Association of Structural Engineers from 08th – 09th November 2019 at PHD House, Delhi.
- 20 8th International Symposium on Fusion of Science and Technology held from January 6 - 10, 2020 held at YMCA Faridabad, India.
- 21 Two days online International Summit on Quality Indices in Higher Education - 2020, held during 6th to 7th November, 2020 at Delhi. Technological University, Delhi.
- 22 Two days online International Conference on Scientific and Natural Computing held during 05th – 06th February 2021 at Gautam Buddha University, Greater Noida, India.
- 23 Two days online 06th International Conference on Advanced Production and Industrial Engineering (ICAPIE 2021) held during 18th – 19th June 2021 organized by Delhi Technological University, Delhi.
- 24 Four days online 12th International Conference on Material Processing and Characterization (ICMPC 2021) conducted by Department of Mechanical Engineering, NITTTR Chandigarh from 06th – 09th October 2021.

- 25 Second International Conference on Sustainable Infrastructure with Smart Technology for Energy and Environment Management SISTEEM 2022, Bannari Amman Institute of Technology, Tami Nadu from 24th -26th March 2022.
- 26 Presented paper in the online mode on topic “Damage detection on Low, Medium and High Rise Buildings using Modal Slope and Curvature” in the 1st International Conference on Innovations in Smart and Sustainable Infrastructure ISSI 2022, organized by Pandit Deendayal Energy University, Gandhinagar, Gujarat from 23rd - 25th August 2022.
- 27 Second International Conference on Construction Materials and Structures (ICCMS-2022) during 13-19 December, 2022 and presented the paper titled “Study on the Accelerated Curing Effect on Blended Concrete Using Electromechanical Impedance (EMI) Technique”.
- 28 Presented paper titled “Sensing and Actuating Behavior of Jacketed PZT in Concrete subjected to 3.5 m Impact loading at 50^o C Temperature” in the 11th International Conference on Microelectronics, Circuits & Systems MICRO 2024 from 16th -17th May 2024 organized by Vinod Dham Centre of Excellence for Semiconductors and Microelectronics, DTU and Applied Computer Technology, Kolkata.
- 29 Presented paper titled “Assessment of Shear Bond Strength of Triplets Using Different Joint Thicknesses and Mortar Types” in 22nd ISME - International Conference on Recent Advances in Mechanical Engineering for Sustainable Development (ISME 2024) organized by the Department of Mechanical Engineering, Delhi Technological University, Delhi held on July 11-13, 2024.

CURRENTLY HOLDING ADMINISTRATIVE POSITIONS AT DTU

DEPARTMENTAL LEVEL

1. Coordinator, M.Tech. Structural Engineering since 2019 onwards
2. Member, Departmental Purchase Committee since 2019 onwards
3. Faculty Mentor of IAStructE DTU student Chapter since 2021 onwards
4. Lab Incharge , Earthquake Technology Lab since 2019 onwards
5. Member, Departmental Research Committee for year 2023-25.
6. Member for NBA related works associated with UG –Civil Engineering and PG-Structural Engineering
7. Member of various committees in the department which are assigned from time to time

UNIVERSITY LEVEL

1. Chairperson, Cultural Council from 01.09.2024 onwards
2. Associate Director, IQAC since November 2019 onwards
3. M.Tech Admission Deputy Chairperson for AY 2023-24 and 2024-25
4. Member of various committees at University level which are assigned from time to time

OUTSIDE UNIVERISTY

1. Honorary Secretary, Governing Council Member and Vice President (North Zone) of IAStructE for term 2023-25.
2. Governing Council Member and Chairperson, Student Affairs committee of IAStructE for term 2021-23.
3. Governing Council Member of IAStructE for term 2019-21.
4. Executive Member, ICI Delhi Chapter for term 2023-25.
5. Executive Member, ICI Ghaziabad Chapter for term 2021-23.
6. Executive Member, ICI Ghaziabad Chapter for term 2017-19.
7. Jury Member of 2nd CE&CR Awards and 03rd CE&CR Awards
8. Expert for taking Viva Voce Examination/ SRC member in institutions of repute such as IIT Delhi, MNIT Bhopal, JMI, AMU, YMCA Faridabad, etc

PERSONAL PROFILE

Marital status.....Married
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REFERENCES

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(Dr. Shilpa Pal)

List of Papers Published in Conferences/Workshop

NATIONAL CONFERENCES

1. **Shilpa Pal**, A.D. Pandey and D.K. Paul (2006). “Dam Foundation Interaction Studies – A Review,” Proceedings of the National Conference on Earthquake Disaster: Technology and Management, Allahabad, India, February 11-12, Paper No. IV-28-32.
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5. **Shilpa Pal**, D.K. Paul (2008). “Modeling Failure Mechanism to explain Rock Slope Stability,” Proceeding of Landslide Management – Present Scenario & Future Direction, Feb 10-12, 2008, CBRI, Roorkee.
6. Shilpa Pal (2012), “Stability Analysis of Rock Slope under Blasting,” Proceedings of the 2nd National Conference on Trends and Recent Advances in Civil Engineering, 27th September 2012, Pg 36-39, ISBN: 978-93-81583-65-4.
7. H. Bhatia, A. Chaurasia, **Shilpa Pal**, S.S. Patel (2016), “Effect of Masonry Infill on RC Buildings,” Role of Civil Engineering in Nation Building (RCNB-2016), 16th & 17th April, Roorkee. (proceedings not published)
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9. Shivangi Sharma, V.V.L.Kanta Rao, **Shilpa Pal** (2018), “Experimental Investigation for carbonation of some concrete members,” Proceedings of 19th National Conference on Corrosion Control, 5-7 December 2018, MAYFAIR Convention, Bhubaneswar.

INTERNATIONAL CONFERENCES / CONGRESS

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2. **Shilpa Pal**, D.K. Paul and A.D. Pandey (2006). "Dynamic Analysis of Cracked Concrete Gravity Dam," Workshop on Seismic hazard and Risk Assessment, New Delhi, March 18-19, SHRA-05.
3. **Shilpa Pal**, D.K. Paul and A.D. Pandey (2006). "Case Studies of Dam Failures: A Geological Insight," Workshop on Seismic hazard and Risk Assessment, New Delhi, March 18-19, SHRA-09.
4. **Shilpa Pal**, N.V.V Raghvan, D.K. Paul (2006). "3-D Analysis of Koyna Dam Using DEM," Workshop on Seismic hazard and Risk Assessment, New Delhi, March 18-19, SHRA-15.
5. Tewdros Mulat, Nand K. Kolpate, **Shilpa Pal**, D.K. Paul (2006). "Seismic Response of Tunnels in Fractured Rock Mass using DEM," Workshop on Seismic hazard and Risk Assessment, New Delhi, March 18-19, Pg. SHRA-06.
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37. Ruchi Saraswat, Surya Parkash and **Shilpa Pal** (2020), “Landslide Susceptibility Assessment Due to Construction of Buildings in Garhwal Area Using GIS,” Proceedings of International Conference on Smart Cities (ICSC 2019) in Lecture Notes in Civil Engineering titled Smart Cities—Opportunities and Challenges, 58, https://doi.org/10.1007/978-981-15-2545-2_70, Pg 871-885.
38. Shilpa Pal and Kartik Singh (2020), “Shear resistance of hybrid steel and basalt fiber reinforced concrete,” IOP Conf. Ser.: Mater. Sci. Engg 804 (2020) 012038, <https://doi:10.1088/1757-899X/804/1/012038>.
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42. Prateek Roshan, Shilpa Pal, “Seismic Safety of buildings on Hill Slopes – A Review,” Recent Advances in Earthquake Engineering, Lecture Notes in Civil Engineering 175, https://doi.org/10.1007/978-981-16-4617-1_16 (online 21st September 2021). ISBN:978-981-16-4617-1.
43. Indrajeet Singh, Nirendra Dev, Shilpa Pal, and Talakokula Visalakshi, “Finite Element Analysis of Impact Load on Reinforced Concrete,” CIGOS 2021, Emerging Technologies and Applications for Green Infrastructure, Lecture Notes

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44. Md. Zahid, Md. Miraz, Md. Faizan, Shilpa Pal, “Seismic Analysis of Vertically Regular and Irregular Buildings with Shear Walls and RCC X –Bracing System,” Proceedings of 1st International Conference on Construction Materials and Environment (ICCME2021), Advances in Construction Materials and Sustainable Environment, Lecture Notes in Civil Engineering 196, June 03-04, 2021 organized by JUIT, Solan, HP. https://doi.org/10.1007/978-981-16-6557-8_79
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46. Salil Jha, Shilpa Pal, “Prioritizing Buildings for seismic Retrofit on the basis of RVS Score ,” Proceedings of 1st International Conference on Construction Materials and Environment (ICCME2021), Advances in Construction Materials and Sustainable Environment, Lecture Notes in Civil Engineering 196, June 03-04, 2021 organized by JUIT, Solan, HP , https://doi.org/10.1007/978-981-16-6557-8_64 (online 15th December 2021)
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4. Naveen Pareek, Mukat Lal Sharma, Manoj Arora, **Shilpa Pal** (2013), “Inclusion of earthquake strong ground motion in a GIS based Landslide Susceptibility Zonation (LSZ) in Garhwal Himalayas,” *Natural Hazards*, 65(1), 739-765, ISSN:0921-030X. (Springer - SCIE, IF- 3.7)
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