



## Nisha Kumari Soni

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Enthusiastic Geotechnical engineer eager to contribute to team success through hard work, attention to detail and excellent organizational skills. Clear understanding of project management and training in soft skills and technical analysis. Motivated to learn, grow and excel in the industry.

### Skills

• CONCEPT DEVELOPMENT	• Academic Research
• Project Management	• AUTOCAD
• STAAD PRO	• MS Office
• ABAQUS	• Good Communication Skill

### Work Experience

#### **Delhi Technological University (DTU) | Research Scholar**

**Aug 2016 – Present**

- Responsible for preparing accurate Technical Reports
- Assisted in a laboratory experiment in Geotechnical engineering for undergraduate and master's students
- Assisted in the research methodology course for the research scholars
- Managed the purchasing of the required equipment for the research work.
- Generated grant proposals to gain funding for instrumentation set-up, winning 5 Lakhs for research project.
- Evaluated and supervised student activities and performance levels to provide reports on academic progress.
- Conducted engaging in-class discussions to facilitate learning and encourage participation.
- Stayed abreast of developments within Geotechnical engineering to improve curriculum, develop new research and share with colleagues and students
- Documented procedures and results with high degree of accuracy and precision.

### Journal Publications

- Kumari, N., & Trivedi, A. (2021). **"Energy Harvesting from Ambient Vibration in Retaining Structure due to Traffic Movement"**. *Journal of intelligent material systems and structures* (Under Review).
- Kumari, N., & Trivedi, A. (2021). **"The Potential of Piezoelectric Energy harvesting from vibration in Geo-Structures: A Review"**. *Current science* (Under Review).

### Conference Publications

- Kumari N., & Trivedi, A. (2018) **"Application of semi active control strategy for the wall retaining granular fills"**. In: *Proceeding of China-Europe conference on geotechnical engineering*, SSGG. Springer, Aug 13-16
- Kumari, N., & Trivedi, A. (2019) **"The Application of PZT Patch as Energy Harvester in Dynamically Loaded Retaining Structures"** in *International Symposium on Testing and Technology for Load Carrying Capacity of Deep Foundations* on February 26, 2019 Delhi, India.
- Kumari, N. & Trivedi, A. (2020). **Vibration Control of Flexible Retention Systems. Advances in Computer Methods and Geomechanics**, Lecture Notes in Civil Engineering, Springer, Singapore, 2(56), 529-539. [https://doi.org/10.1007/978-981-15-0890-5\\_44](https://doi.org/10.1007/978-981-15-0890-5_44)

- Kumari, N., & Trivedi, A. (2020). **Semi-active Control Strategy for Horizontal Dynamic Loading on Wall Retaining Granular Fills**. In Sustainable Civil Engineering Practices (pp. 71-79). Springer, Singapore
- **Vibration in Civil Structures: A Review**". *Current Science* (Under review)

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**Chandigarh Group of Colleges, Mohali | Assistant Professor** **Jul 2015 – Jul 2016**

- Assisted with the program development, workshops organizing and student assessments.
- Took attendance, graded assignments and maintained student records to assist teachers with administrative tasks and maintain smooth daily operations.
- Used variety of learning modalities and support materials to facilitate learning process and accentuate presentations.
- Contributed to planning appropriate and engaging lessons for both classroom and distance learning applications.
- Helped struggling students by providing support outside of classrooms and consistently checking in on progress.
- Revised course objectives, course materials, instructional and assessment strategies for civil engineering courses.

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**Himalayan Group of Professional Institute, H.P. | Assistant Professor** **Aug 2014 – Jul 2015**

- Delivered teaching sessions on the civil engineering theoretical subjects of - Soil Mechanics and Strength of materials.
- Guided the students in laboratory experiments of soil mechanics.
- Experience of examination invigilator, undergraduate dissertation guidance and workshop organization.

Technical  
Experience

- **Building Planning/Estimation @ Bz Structures -Jaipur**  
Gathering the blueprints documents and relevant material for project cost estimation.  
Calculated the labor cost and material requirement.
- **Rcc Design/Foundation Design/Pile Design @ Bz structures**  
Calculated the detailing of reinforcement of columns and beams.  
Design of driven piles for solar panels.  
Design of foundation of double story building using STAAD and AutoCAD.

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**Education**

Year	University/College	Degree	Grade
<b>2016- Present</b>	<b>Delhi Technological University, Delhi (Formerly Delhi College of Engineering)</b>	<b>Research Scholar</b> (Geotechnical Engineering)	9.0 GPA
<b>2012- 2014</b>	<b>National Institute of Technology (NIT) Kurukshetra (Haryana)</b>	<b>Master of Technology</b> (Soil Mechanics and Foundation Engineering)	9.35 GPA
<b>2008- 2012</b>	<b>University College of Engineering (Kota)</b>	<b>Bachelor of Technology</b> (Civil Engineering)	72.95%

Training and  
Certification

- **4-Weeks Training from SMS PARYAVARANLTD, KOTA** on Construction of Sewage Treatment Plant based on SBR 30 MLD
- 6-Days workshop on "Exploring Engineering", DTU Delhi

- Participated in MHRD sponsored GIAN course on “Geotechnical Structures with Geo-synthetics, Reinforcement and Confinement”
- One day workshop on Patent Filing Procedure”, DTU Delhi.
- 5-Days workshop on “E-Resources: A Gateway for Research”
- One Week Faculty Development Programme: Disaster Mitigation and Management” DTU Delhi
- National Level Training Programme: Geo-Meteorological Hazards Risk Management”, DTU Delhi.
- Presented a paper at China-Europe Conference on Geotechnical Engineering, Vienna, Australia.
- Presented a paper in International Conference on “Sustainable Civil Engineering Practices” organized by Edith Cowan University, Australia and Chitkara University, Himachal Pradesh.
- Presented 2- Research papers in International Conference on “Emerging Technologies” N. C. College of Engineering, Panipat.