

Dr. Sujata Mehta

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EDUCATION:

- Ph.D. in Structural Engineering (Seismic Response control of Structures (2022), Nirma University, Ahmedabad.
- B.E. in Civil Engineering (1994 -1998), L.D. College of Engineering, Gujarat University, India
- M.E. in Computer Aided Structural Analysis and Design (1998 - 2000) Gujarat University, India. (GATE scholar 1999 , 85.87 percentile)

RELEVANT SKILLS:

- Applications: AutoCAD-2000, MicroStation-J, STAAD- Pro, NISA, ANSYS, MATLAB.
- Programming Languages: C, C++, and AutoLISP
- Operating and evaluating the results of non-destructive equipments.
- Conducting hands-on workshops on construction technology and seismic resistant design of structures

EXPERIENCE:

Academic – 19 years

Industry – 3.5 years

June 2018 – Present

Working as Faculty with Dr. Bhanuben Nanavati college of Architecture, Pune

Subjects taught:

- 1) Theory of Structures (FY, SY and TY)
- 2) Building Technology and Materials
- 3) Surveying and Levelling
- 4) Elective – Prefabricated Construction, Appropriate Building Technology

June 2007 - April 2017

Working as visiting faculty with

- Bharati Vidyapeeth College of Engineering, Pune (year 2009)
- Dr. Bhanuben Nanavati College of Architecture, Pune (2007-2017)
- Bharati Vidyapeeth College of Architecture, Pune (2008-2018)
- Brick School of Architecture, Pune (2015 -2017)
- Trinity College of Architecture, Pune (2017)

Teaching following subjects

- 1) Mechanics of Structures to F.Y.B.E.
- 2) Computer Aided Structural Analysis to T.Y.B.E.
- 3) Quantity Surveying and Estimation to Fourth Year B.Arch.
- 4) Theory of Structures to F.Y., S.Y., T.Y. B.Arch.
- 5) Advanced Structures to Fourth year B.Arch.

February 2005 to August 2006

Engineer at Sheladia Associates Inc., Rockville, MD, USA

August 2004 to February 2005

Engineer (Land Development) at AB Consultants Inc., Lanham, MD, USA.

Responsibilities include preparation of

- Storm water Management plans as per standards of Maryland Department of Environment and Department of Environmental Resources.
- Erosion and sediment control plans using MD Soil Conservation District and Prince George's County Soil Conservation District guideline.
- Traffic Control Plans
- Signing and Pavement marking Plans for the Prince George's County using Maryland SHA, AASHTO, and DPW&T standards and criteria.

June 2001 to January 2003

Lecturer – Nirma Institute of Technology, India.

Teaching students of undergraduate courses in Civil Engineering.

Subjects included

- Computer Applications (AutoCAD, EXCEL97)
- Design of Steel Masonry and Timber Structures.
- Fluid Mechanics
- Mechanics of solids

June 2000 to June 2001

Engineer (Design & Testing) – NDM Technologies Pvt. Ltd, India

Responsibilities included

- Design of multistoried (G+9) RCC buildings.
- Design of Underground and overhead water retaining structures and supporting structural system.
- Design of Industrial steel structures and machine foundation.
- Design of RCC pile foundations for bridges, residential & industrial structures.
- Dynamic capacity and integrity testing of pile foundations for reputed clients like Indian Oil Corporation, AFCONS, Gujarat State Department of Highway and Transportation etc.

January 2001 to April 2001

Structural Engineer (Part-time) – Bhoomi Consultants, India

- Active participation in design of residential and industrial buildings, repair and rehabilitation of structures distressed due to massive earthquake in the state of Gujarat in January 2001.

WORKSHOPS AND TRAINING:

- **Session chair** at 8th International Conference on Structural Engineering and Technology (ICSECT'23), Lisbon, Portugal.
- **Panelist** at Indo-Portuguese Seminar on “Sustainable Urbanization and Building Technologies”, ISEL, Lisbon, Portugal.
- **Resource Person** at National workshop on Earthquake resistant design practices (2022, 2023) organized by National Information Centre for Earthquake Engineering at IIT Kanpur.
- **Panelist** at “Ensearch to Enrich” (Dec 23), National Conference by Bamboo Society of India and Council of Architecture, at Pune.
- Worked as **Laboratory Associate** in a short-term training program demonstrating the use of STAAD-Pro to professionals – “Application of Professional software in Structural Engineering” (June 2000)
- Participated in “Modern Methods of Analysis and Design of Foundations and Superstructures”: a training program at Department of Applied Mechanics, M.S. University, India (November 2000).
- Participated in “Evaluation, Repair and Rehabilitation of Distressed Structures”: a training program at Nirma Institute of Technology, India (January 2002).
- Participated in a National level QIP “Unmanned Aerial Vehicles for the Built Environment” , in February 2020 at Dr. B. N. College of Architecture, Pune.

Papers Published:

1. “Reuse of Strength-Tested Concrete Cubes for Cost-Effective Construction Solutions”, NICMAR Journal of Construction Management, December 24.
2. “Seismic Response Control of Benchmark Building using Shape Memory Alloy Based Semi-active Tension Sling Damper”, Proceedings of the 8th International Conference on Structural Engineering and Concrete Technology 2023, Scopus indexed.
3. “Seismic Control of modal building using Shape Memory Alloy based Tension Sling Damper”, International Journal of Structural Engineering (IJStructE), 2022, Vol 12 (3), Scopus indexed.
4. “Proposed SMA Tension Sling Damper for passive seismic control of Building”, Electronic Journal of Structural Engineering 19(1) 2019, Scopus Indexed.
5. “Passive seismic protection of shear building using SMA based Tension Sling Damper” The IUP Journal of Structural Engineering, Vol. XIV, No. 1, January 2021, pp. 49-66
6. “Applications of Shape Memory Alloys for Enhanced Building Performance”, National Conference on “Built Environment and Beyond : Theory and Practice”, BNCA, Pune
7. “Use of wave equation analysis to study pile-soil interaction” at IGC 2000, at IIT Mumbai.
8. “Hammer performance analysis for driven piles” at IGC 2002, MNREC, Allahabad.

REFERENCE:

1. Dr. Sharad Purohit, Professor at Department of Civil Engineering, Nirma Institute of Technology, Ahmedabad. (Ph.D. guide)
2. Ileana Trandefuresku, P.E., Head, Civil Engineering, Dulles Metro Rail Project, Bechtel, VA