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2. Designation: Assistant Professor

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4. Educational qualification:

Degree	Institution	University	Year
B.Tech.	College of Technology	G.B.Pant University Pant Nagar	1996
M.Tech.	IIT Delhi Hauz Khas New Delhi	IIT Delhi Hauz Khas New Delhi	2005
Ph. D.	IIT Delhi Hauz Khas New Delhi	IIT Delhi Hauz Khas New Delhi	2009

5. Area of interests:

- Structural Health Monitoring (SHM)
- Soft Computing,
- Sensor System for SHM.
- Structural Dynamic
- Soil Structure Interaction

6. Research:

- B.Tech. Project Supervised/In Progress: 1 in Progress, 3 Completed

Sl. No.	Title of Project	Institute	Name of student[s]	Co-Supervisor[s], if any	Year
1	Mathematical Modeling of Creep and Shrinkage of Concrete Using Electromechanical Impedance Technique	MNNIT Allahabad	1. Mayank Chaturvedi 2. Vivek Kr. Singh 3. Mudit Mittal 4. Ziad Adil	None	2014 (In Progress)
2	Prediction of Damage Location and Severity in Structures USING Neuro-Fuzzy Model	MNNIT Allahabad	1. Anuj Yadav 2. Pawan Kumar 3. Akhil Anand 4. Kapeesh Kumar Verma	None	2013
3.	Structural Health Monitoring Using Electromechanical Impedance Technique & Wavelet Approach	MNNIT Allahabad	1. Neha Bisht 2. Varsha Meena 3. Deepak Saud 4. Mukesh Kumar Singh	None	2012
4.	Structural Health Monitoring of Reinforced Concrete Structures Using Smart Material	MNNIT Allahabad	1. Prateek Jain 2. Kushal Singh 3. Ritesh Kumar Gupta 4. Prateek Goyal	None	2011

○ M. Tech Supervised/in Progress: 3 in Progress, 9 Completed

Sl. No.	Title of Thesis	Institute	Name of student[s]	Year
1.	Damage Quantification using Global Dynamic Technique	MNNIT Allahabad	Anil Kumar Gupta	2014 (in Progress)
2.	A Combine Approach for Damage Quantification of structural Systems	MNNIT Allahabad	Khyati Sahu	2014 (in Progress)
3.	Analogy between Equilibrium of Structure and Compatibility of Mechanism	MNNIT Allahabad	Ravi Joshi	2014 (in Progress)
4.	GIS Based Bridge Management System	MNNIT Allahabad	Pratyush Kumar Deka	2013
5.	Structural Modelling for Fatigue Analysis using PZT Patches	MNNIT Allahabad	Hemant Sigth Parihar	2013
6.	Damage Control in Structures Using Piezo-electric Actuators	MNNIT Allahabad	Shipra	2013
7.	Modelling of Piezo-transducer for Shear Lag Effect	MNNIT Allahabad	Smita Kaloni	2012
8.	Quantification of Structural Stiffness Using Electromechanical Impedance Technique	MNNIT Allahabad	Tarun Kararha	2012
9.	Health Monitoring of Structural Using Global Dynamic Technique	MNNIT Allahabad	Jitendra Kumar	2011
10.	Structural Health Monitoring Using Electromechanical Impedance Technique	MNNIT Allahabad	Smirti Gupta	2011
11.	Design of Foundation for Over Head Tank for Enhance Capacity	MNNIT Allahabad	Vivek V. Gawali	2010
12.	Estimation of Moment Forces in Tall Building Using Neural Netork	MNNIT Allahabad	Praveen Kumar Bhannarwar	2010

○ Ph. D Supervised/ in Progress – 05 in progress

S. No.	Title of Ph.D. Thesis	Institute	Name of student[s]	Year	Status
1.	Investigation of Stone Dust as Fine Aggregate in Standard Concrete and Prediction of its Health Using Electromechanical Impedance Technique	MNNIT Allahabad	Rakesh Srivastava	2010	Ongoing
2.	Condition Approach and Management System of Bridges	MNNIT Allahabad	Thakur Prasad Singh	2010	Ongoing
3.	Non-linear Inelastic Modelling of Soil-Structure Interaction Mechanism	MNNIT Allahabad	Atul Jaiswal	2010	Ongoing
4.	Quantification of Damage Using Electromechanical Impedance Technique for Strctural Health Monitoring	MNNIT Allahabad	Umesh Chand	2010	Ongoing
5.	Performance Evaluation and Health Monitoring of Ferrocement Structures	MNNIT Allahabad	Anupam Rawat	2012	Ongoing

○ Research Projects – NIL

7. Publications:

- Research Papers –

PUBLICATIONS:

(A) INTERNATIONAL JOURNALS (3 Nos.)

- Bhalla, S., Gupta, A., Shanker, R., Sethi, A., Jain, S. and Medury, A. “ Performance and Conditional Monitoring of Civil Structures from Discrete Strain Measurements”, International Journal of COMADEM, Vol. 12, No.1 pp 2-14.
- Shanker, R., Bhalla, S. and Gupta, A.(2010), “Integration of Electro-Mechanical Impedance (EMI) Technique with Global Dynamic Technique for Structural Health Monitoring”, Journal of Intelligent Material Systems and Structures, Vol.21, No.2, pp. 285-295.
- Shanker R Bhalla S Gupta A and Kumar M K (2011) Dual Use of PZT Patches as a Sensor in Global Dynamic and Local EMI Techniques for Structural Health Monitoring Journal of Intelligent Material Systems and Structures Vol. 22 No 16 pp 1841—1856.

(B) NATIONAL JOURNALS NIL

(C) CONFERENCES (06 Nos.)

- Bhalla, S., Gupta, A. and Shanker, R. (2006), “Instrumentation for Dynamic Characterization of structures”, Proceedings of National Conference on High Rise Buildings: Materials and Practices, October 30-31, New Delhi, pp. 563-570 .
- Deb, S.K., Islam, M. and Shanker, R. (2008), “Health Monitoring of pavement ”, National Workshop on Health Monitoring Non Destructive Evaluation and retrofitting of structures, 7-8 March, IIT Delhi , Hauz Khas, New Delhi, India, 110016
- Shanker, R., and Nagpal, A.K. (2009), “Estimation of Axial Force in Tall Building using Neural Networks”, National Conference & Workshop on High Performance Computing & Applications, 9-11 February BHU, Varanasi, India.
- Shanker, R., Bhalla, S. and Gupta, A. (2009), “Health Monitoring of Deep Foundation Using PZT Transducer”, Research in Civil Engineering 5-6 March IIT Madras., Chennai, India .
- Shanker, R. Bhalla, S. and, Gupta, A. (2008), “Structural Health Monitoring Of Frame Structures Using Piezo-Transducer”, International Workshop On Smart Devices-Modeling of Material Systems, 10-12 January, IIT Madras, Chennai, India, 600036
- Shanker, R. Bhalla, S. and, Gupta, A. (2008), “ An Integrated Approach for Health Monitoring of Multi-storey R.C. Frame”, Proceedings of ASME Conference on smart material, adaptive Structures and Intelligent Systems, October 28-30, Ellicott City, Maryland, USA.

- **Books Chapter (01 No.) –**

- Bhalla, S., Shanker, R. and Gupta, A. (2010) “Integration of EMI Technique with Global Vibration Technique” Chapter 6, Smart Materials in Structural Health Monitoring, Control and Bio-Mechanics and Practices, Soh, C.K. , Yang, Y.K. , and Bhalla, S., editors, Springer-Verlag, Hangzhou.

Edited Books – NA