

CURRICULUM VITAE

- **Name :** Pranesh Bhimrao Murnal
- **Date of Birth:** 15th July 1961
- **Field of specialization:** Structural Engineering (Earthquake Engineering)
- **Address for communication:**

Dr. Pranesh Murnal
 Professor & Head, Dept. of Applied Mechanics
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- **Academic Qualifications:**

Sl. No.	Degree	University/ Institution	Percentage/ Grade	Year of passing	Specialization
1	B. Tech.	Mysore University, KREC Surathkal INDIA	84.83%, I Class with Distinction & III rank to University	1984	Civil Engineering
2	M. E.	Shivaji University, WCE, Sangli INDIA	76.4%, I Class with Distinction	1991	Structural Engineering
3	Ph.D.	IIT, Bombay INDIA	-	2000	*Earthquake Engineering

*Title of the thesis: *VFPI: An Innovative Device for Aseismic Design*

- **Awards/Recognitions:**

The Ph.D. thesis has got the “*Innovative Potential of Students Project Award*” at National level conferred by **Indian National Academy of Engineering, New Delhi** for the year 2001.

- **Experience:**

Name & Address of Employer	Post Held	Period of Service	Nature of Duties
Secretary, Higher & Technical Education, Govt. of Maharashtra, Mumbai, (GCE, Aurangabad)	Professor & Head of Applied Mechanics	12-05-2011 till date	Overall administration of department, R & D work, consultancy, guidance to PG and UG students, etc.
Secretary, Higher & Technical Education, Govt. of Maharashtra, Mumbai, (GCE, Karad)	Professor & Head of Applied Mechanics	23-8-2002 to 10-05-2011	Overall administration of department, R & D work, consultancy, guidance to PG and UG students, etc.
Principal, TKIET, Warananagar Maharashtra	Assistant Professor & Head of Civil Engg. Dept.	01-05-94 to 17-07-96 and 5-7-2000 to 22-8-2002	In addition to the above, overall administration of the Dept., long-term planning of development work, etc.
Principal, TKIET, Warananagar Maharashtra	Assistant Professor	01-08-91 to 22-8-2002	In addition to the above, guiding seminars and projects, Promoting R&D work, Counselling, Lab development, etc.
Principal, TKIET, Warananagar	Lecturer	20-12-84 to 31-7-91 (6 yr.)	Teaching, Lab-work, Designing Experiments, Preparation of teaching aids,

• RESEARCH AND DEVELOPMENT

1. PUBLICATIONS

(a) Papers in International refereed Journals

S.No.	Author(s)	Year of Publication	Title of Paper	Complete Reference of Journal
1.	S.G.Joshi, I.D.Gupta, L.R.Pattanur, P.B.Murnal	2014	Investigating the effects of depth and impedance of foundation rock in earthquake analysis of gravity dams	<i>International Journal of Geotechnical Earthquake Engineering</i> , Vol 5 (2), 2014
2	Jangave S.K. and Murnal P.B.	2014	Structural assessment of circular overhead water tank based on frame staging subjected to seismic loading	<i>International Journal of Emerging Technology and Advanced Engineering</i> , Vol 4(6), 2014, pp 145-151
3	P.D.Kumbhar and P.B.Murnal	2014	A new mix design method for high performance concrete under tropical conditions	<i>Asian Journal of Civil Engineering</i> , Vol 15, No. 3, 2014
4	Dhananjay Joshi and Pranesh Murnal	2013	Performance of flat slab structure using pushover analysis	<i>IOSR Journal of Mechanical and Civil Engineering</i> , Vol 7(6), 2013, pp 19-25
5.	Tejashree Gulve and Pranesh Murnal	2013	Feasibility of implementing water tank as passive tuned mass damper	<i>International Journal of Innovative Technology and Exploring Engineering</i> , Vol 3 (3), 2013, pp 12-19
6.	P.D.Kumbhar and Pranesh Murnal	2012	“Assessment of Suitability of existing Mix Design Methods of Normal Concrete for Designing High Performance Concrete Mixes”	<i>International Journal of Civil and Structural Engineering (IJCSE)</i> , August 2012, Vol.3, No.1, pp. 158-167
7.	P.D.Kumbhar, Pranesh Murnal and R.R. Patil	2011	Durability properties of high performance concrete	<i>International journal of Advances in Science & Technology</i> , September 2011 Vol 3(3), 2011
8.	G.V. Mulgund, D.M. Patil, Pranesh Murnal and A.B.Kulkarni	2011	Effects of various parameters on performance of RC frame with infill	<i>International Journal of Industrial Engineering & Technology</i> , Vol 3, No. 2, 2011, pp-199-207
9	G.V. Mulgund, D.M. Patil, Pranesh Murnal and A.B.Kulkarni	2011	Seismic behaviour of brick-infilled RC frames	<i>International journal of Applied Structural Engineering</i>
10	Pranesh Murnal and Ravi Sinha	2004	Earthquake resistant design of torsionally coupled structures using VFPI	<i>Journal of Structural Engineering</i> , American Society of Civil Engineers, July 2004, Vol 130 (7), 1041-1054

11	Pranesh Murnal and Ravi Sinha	2004	Aseismic design of structure-equipment systems using Variable Frequency Pendulum Isolator	<i>Nuclear Engineering and Design</i> , 2004, Vol. 231, 129-139
12	Pranesh Murnal and Ravi Sinha	2002	Earthquake resistant design of structures using VFPI	<i>Journal of Structural Engineering</i> , American Society of Civil Engineers, July 2002, Vol. 128(7), 870-880
13	Pranesh Murnal and Ravi Sinha	2000	VFPI: An isolation device for aseismic design	<i>Journal of Earthquake Engineering and Structural Dynamics</i> , Wiley, May 2000, Vol. 29, 603-627

(b) Papers in National refereed Journals

S.No.	Author(s)	Year of Publication	Title of Paper	Complete Reference of Journal
1	P.D. Kumbhar, R.R.Patil and P.B.Murnal	2014	Effect of relative humidity and temperature on properties of M-80 grade high performance concrete	Civil Engineering & Construction Review, Vol 27(9), 2014
2.	Malu Girish and Murnal Pranesh	Accepted	“Variable Coefficient of Friction: An effective VFPI parameter to control near-fault ground motion”	<i>ISET Journal of Earthquake Technology</i> (To be published in issue during 2016)
3.	P.D. Kumbhar and Pranesh Murnal	2012 (May)	Effect of relative humidity and temperature on properties of M80 grade high performance concrete	<i>Civil Engineering and Construction Review Civil Engineering And Construction Review</i> , May 2012, Vol.25, No.5, pp.142-146,
4.	G.V. Mulgund, Pranesh Murnal and A.B.Kulkarni	Accepted	Behavior of Reinforced Concrete Structures with Masonry Infill walls	<i>Civil Engineering and Construction Review</i>
5.	P.D. Kumbhar and Pranesh Murnal	2011	Effect of Humidity and Temperature on Properties of High Performance Concrete	<i>National Building Materials & Construction World</i> , May 2011, 204-210

(c) Papers in International Conferences

S.No.	Author(s)	Year of Publication	Title of Paper	Name and Place of Conference
1.	P.B.Murnal and R.N. Chatorikar	2015	Impact Resistance of Steel fibre reinforced concrete	International Conference on Innovations in Structural Engineering, Department of Civil Engg., University College of Engg., Osmania University, Hyderabad, 14-16 December, 2015

2.	Malu Girish and Murnal Pranesh	2012	“Comparative study of sliding isolation system for low frequency ground motions”	<i>15th World Conference on Earthquake Engineering</i> , Lisbon, Portugal
3.	Girish Malu and Pranesh Murnal	2010	Behavior of structure with VFPI during near-field ground motion	<i>Proceeding of International Conference on Innovative World of Structural Engineering</i> , Aurangabad, India, Vol. 1, 166-174
4.	Gopal Mulgund, Dhanraj Patil, Pranesh Murnal and A.B. Kulkarni	2010	Seismic assesement of masonry infill rc framed building with soft ground floor	<i>International Conference on Sustainable Built Environment</i> , Kandy, Sri Lanka, to be held during 13-14 December, 2010
5.	Pranesh Murnal and Girish Malu	2007	Selection of VFPI parameters for isolation effectiveness during near-field ground motion	<i>8th Pacific Conference on Earthquake Engineering</i> , 5-7, NTU, Singapore, Dec, 2007
6.	Ravi Sinha and Pranesh Murnal	2003	Earthquake resistant design of buildings using VFPI	<i>Second International Conference on Urban Safety of Megacities in Asia</i> , held at Tokyo, Japan, 30-31, Oct, 2003
7.	Pranesh Murnal and Ravi Sinha	2001	Aseismic design of tall structures using variable frequency pendulum isolator	<i>Eighth East Asia-Pacific Conference on Structural Engineering and Construction</i> , Singapore, held on Dec 5-7, 2001
8.	Pranesh Murnal and Ravi Sinha	2001	Vibration Control of primary-secondary systems using VFPI	<i>16th International Conference on Structural Mechanics in Reactor Technology</i> , International Association of Structural Mechanics in Reactor Technology, Washington DC, USA, Aug 2001
9.	Ravi Sinha and Pranesh Murnal	2001	Earthquake resistant design of torsionally coupled structures using VFPI	<i>Structures 2001 Conference: 2001 Structures Congress and Exposition Structural Engineering Odyssey</i> , American Society of Civil Engineers, Washington DC, USA, May 2001
10.	Pranesh Murnal and Ravi Sinha	2000	Aseismic design of tall structures using variable frequency pendulum isolator	<i>12th World Conference On Earthquake Engineering</i> , Auckland, New Zealand, Feb 2000
11.	Ravi Sinha and Pranesh Murnal	1999	Behaviour of multi-degree-of-freedom shear structure isolated using VFPI	<i>8th Canadian Conference on Earthquake Engineering</i> , Canadian Association of Earthquake Engineering, Vancouver, BC, Canada, June 1999

(d) Papers in National Conferences

S.No.	Author(s)	Year of Publication	Title of Paper	Name and Place of Conference
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1.	Pranesh Murnal and Girish Malu	2014	Performance Evaluation of VFPI Subjected Near-Fault Ground Motion Through Wavelet Excitation	SEC-2014, held at IIT Delhi during 22-24 December, 2014
2.	Pranesh Murnal	2010	Passive vibration control techniques	<i>National Conference on Civil Engineering for Infrastructural Developments held 30-31st August, 2010</i>
3.	B. A. Konnur and Pranesh Murnal	2008	Application of seismic risk modelling for earthquake disaster management of lifeline structures	<i>Conference on Challenges and Applications of Mathematical Modelling Techniques in Building Science and Technology, CBRI, Roorkee, 7-8, Feb, 2008</i>
4.	Pranesh Murnal , Sandip Kotalwar, A. Ramrao, Singh U. P., and S. K. Sinha	2008	Refinement of finite element model of a power plant by ambient vibration test using system identification	<i>SEC-2008, The Sixth Structural Engineering Convention, Chennai, to be presented during 18-20, Dec, 2008</i>
5.	Basavaraj Konnur and Pranesh Murnal	2008	Role of seismic hazard technique in earthquake disaster management of lifeline structures	<i>National Conference on Emerging Technologies in Civil Engineering , held at VVPCE, Ahmednagar, 28-29, Feb, 2008</i>
6.	Pranesh Murnal and Kedar Kumbhojkar	2008	Effectiveness of base isolation for torsionally coupled asymmetric buildings	<i>National Conference on Emerging Technologies in Civil Engineering , held at VVPCE, Ahmednagar, 28-29, Feb, 2008</i>
7.	B. A. Konnur and Pranesh Murnal	2007	Earthquake protection of infrastructures in cities	<i>National Conference on Emerging Technology and Development in Civil Engineering, held at GCE, Amravati, 22-23, March, 2007</i>
8.	Pranesh Murnal and Chetan Patil	2006	A seismic evaluation procedure for Indian Conditions	<i>13th Symposium on Earthquake Engineering, IIT, Roorkee, 18-20, Dec, 2006.</i>
9.	P. D. Kumbhar and Pranesh Murnal	2006	Mix proportioning of high performance concrete	<i>National Conference on Concrete Technology, for the Future, Kongu Engineering College, Perundurai, Erode, Tamilnadu, 21st and 22nd April 2006, pp.484-492</i>
10.	Konnur B. A., Deshpande U. L., and Pranesh Murnal	2006	Earthquake disaster management for infrastructures in India	<i>National Conference on Role of Civil Engineers in Disaster Management, held at BMSCOE, Bangalore, 2-4, Feb, 2006</i>
11.	Pranesh Murnal	2002	Passive vibration control; an emerging trend in earthquake resistant design	<i>National Conference on Concrete and Concrete Structures, held at GIT, Belgaum, 25-26, Oct, 2002</i>
12.	Pranesh Murnal	1995	Seismic base isolation systems	<i>Proc. National Conf. On Civil Engg. Materials & Structures, held at Hyderabad, 1995</i>

2. PATENTS

SI No	Title of patent	Inventors	Owned by	Patent Nos
1.	A constant long period vibration-protective pendulum isolator for structures	Ravi Sinha and Murnal Pranesh	Indian Institute of Technology, Bombay, Powai, Mumbai	197756
2.	A variable period vibration-protective pendulum isolator for structures	Ravi Sinha and Murnal Pranesh	Indian Institute of Technology, Bombay, Powai, Mumbai	197850

3. RESEARCH GUIDANCE

(a) Ph.D. Guidance

S.No.	Name of Student	Year of Completion	Title of Thesis/Research Area	Co-Supervisors (if any)
1.	Popat D. Kumbhar	2012	Mix proportioning of high performance concrete for Indian environment	-
2.	Girish M. Malu	2013	Characterization of VFPI of VFPI isolated structures subjected to near-field and low-frequency earthquakes	-
3.	Umesh L. Deshpande	Ongoing (registered in 2008)	Seismic evaluation of existing asymmetric gravity-load designed reinforced concrete buildings in medium to high seismic regions of Maharashtra	-
4.	Sharad G. Joshi	2017	Statistical Response Spectrum Superposition for Earthquake Analysis of Gravity Dams.	Dr. I. D. Gupta, Director, CWPRS, Pune
5.	Mrs. Reshma Karad	Ongoing (registered in 2013)	Base isolation for Earthquake Resistance	-
6.	Pawar S.N.	Ongoing (registered in 2014)	Seismic behaviour of joints	-

(b) M.E. Guidance

S.No.	Name of Student	Year of Completion	Title of Dissertation
1.	Harshal Admane	2016	A study on behaviour of masonry arch-vault structure
2.	Niranjan Muley	2016	Progressive collapse assessment of steel building using nonlinear dynamic analysis
3.	Pathan Majaed	2016	Experimental investigation of effectiveness of combined TMD and base isolation system under harmonic loading
4.	Vaibhav Kothari	2015	Seismic analysis of skew bridges
5.	Nitin Chavan	2015	Seismic response of bridge with elastomeric bearing and isolator
6.	Sameer Shaikh	2015	Seismic isolation at different levels in building
7.	Nitesh Jogdand	2015	Seismic behaviour of precast building

8.	Momin Anarkali	2014	Effect of opening in infill walls on structural behaviour of RC frame building
9.	Tejashree Gulve	2014	Suitability of water tank as a tuned mass damper for buildings
10.	Landge Deepak	2014	Behaviour of circular overhead water tank with shaft type staging subjected to seismic loading
11.	Jangave Sneha	2014	Comparative study of different modelling systems of overhead circular water tank
12.	Chetan Tare	2012	Soil structure interaction of base isolated building
13.	Prashant Kore	2012	Seismic behaviour of flat slab systems
14.	Jadhav Anand	2011	Seismic Pounding between adjacent building structures subjected to near-field ground motion
15.	Mujawar Sahil	2011	Comparative study of push-over analysis methods for estimating inelastic dynamic response of structures
16.	Kate Gunavant	2010	Effect of addition of fly ash in high strength concrete on shrinkage characteristics
17.	Kedar Baraswade	2010	Seismic evaluation and retrofitting of existing reinforced concrete buildings with open parking floor
18.	Dhanashree Patil	2010	Reliability of pile foundation of low-rise structures in Karad city founded on expansive soils
19.	Dhanraj Patil	2010	Comparative study of seismic behaviour of various steel braced frames
20.	Mahesh More	2010	Estimation of response reduction factors using performance based approach for earthquake resistant design of buildings with shear walls
21.	Gopal Dhanjode	2010	Performance of moment resistant steel framed buildings with different connections under earthquake loading
22.	Dineshri Rajbhoj	2010	Dynamic behaviour of windmill foundation systems
23.	Smita Gokhale	2010	Behaviour of GFRP-RC composite member under flexural loading
24.	Vinayak J. Yadav	2009	Use of experience data for seismic qualification of power plant equipment
25.	Amitkumar R. Gavali	2009	Estimation of response reduction factors using performance based approach for earthquake resistant design
26.	Sandip Kotalwar	2008	Refinement of finite element model of a power plant by ambient vibration test using system identification approach
27.	Nikin Meshram	2008	Quantification of structural configuration parameters on seismic evaluation of existing building
28.	Suyog Dhongade	2007	Seismic qualification of power plant equipments using acceleration time-history compatible with site-response spectra
29.	Kedar Kumbhojkar	2007	Effectiveness of base isolation for torsionally coupled asymmetric building
30.	Giriraj Tawari	2006	Seismic performance of bridges using combination of modified elastomeric and friction bearings
31.	Kishor Patil	2006	Behaviour of structure-equipment system of power house subjected to real earthquake
32.	Sandeep Nimbalkar	2006	Seismic performance of high-rise buildings founded on soft soil considering soil-structure interaction
33.	Chetan Patil	2006	Seismic evaluation of existing building
34.	Nitesh Raut	2006	Seismic isolation of elevated water tank with shaft type staging

35.	Vishwas Patil	2005	Behaviour of infilled frame under lateral load
36.	Kadam B. M.	2005	Study of short retrofitted reinforced concrete column
37.	Prashant Bajpai	2005	Analysis of raft foundation by finite element method
38.	Sachin Selot	2004	Characterization of top soft storey for vibration control of regular multi-storeyed buildings
39.	Umesh Gavas	2004	Improvement of earthquake resistance of bridges using elastomeric bearings
40.	Pankaj Naikwadi	2004	Critical assessment of RC frame using push-over analysis
41.	Rajesh Shah	2004	Characterization of soft storey in multi-storey buildings
42.	Rahul Dingane	2004	A comparative study on seismic performance of building with on-site detailing practices and codal provisions
43.	Rajkuwar Jadhav	2004	Analysis and design of machine foundation with special reference to turbo-generator set
44.	Aruna Varekar	2004	Effect of cyclic loading on polymer based SFRC beam-column joint
45.	Amrita Kulkarni	2004	Experimental study of fibre-reinforced concrete using natural fibres
46.	Sandip Sonawani	2004	Retrofitting of reinforced concrete members using polymer based cement concrete/mortar
47.	P. D. Jadhav	2004	A comparative study on delayed vibration of concrete with and without use of retarder
48.	Jitendra Rathod	2003	A comparative study of effect of coarse aggregate type on mechanical properties of high performance concrete
49.	V. K. Pingale	2003	Behaviour and strength of reinforced concrete beams with circular openings in shear
50.	Darshan Gaidhankar	2003	Dimensional effect on the flexural strength of reinforced concrete beams

4. SPONSORED RESEARCH

Year of Funding	Sponsoring Organisation	Title of Project	Amount of Grant	Co-Investigators (if any)
2005	Board of Research in Nuclear Sciences (BRNS)	Acquisition of earthquake experience data and acceleration response data of Structure, System and Equipment (SS&E) of Koyna dam Power Plant and validation of FEM models used for seismic qualification of SS&E.	Rs. 28.91 Lakhs	Shri. P. K. Deshpande
2008	All India Council for Technical Education	Mix proportioning of high strength concrete with crushed sand as fine aggregate	Rs. 5.40 Lakhs	Dr. S. S. Jamkar

Consultancy Projects

Period	Organisation	Nature of Projects	Value (Rs.)	Co-Consultants (if any)
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2013-14 onwards	Paithan-Apegaon Development Corporation	Third Party Audit of various structures	1.50 Crores Approx.	Faculty from Civil & Applied Mech
2011-12	Contonment Board, Aurangabad	Supervision and third party inspection of overhead water tanks	3,00,000/-	Dr. R.S.Londhe
2012	PWD, Aurangabad	Structural Audit of District Court Building, Aurangabad	50,000/-	Dr. R.S.Londhe
2012	Jain Irrigation Systems Ltd., Jalgaon	Safety Checking of solar tracker system for Rajasthan	60,000/-	-
2011	Tapi Prestressed Products-JV, Ahmednagar	Structural Stability Assessment of pumping stations undee Ahmednagar Muncipal Corporation	50,000/-	Dr. R.S.Londhe
2008	Relief and Rehabilitation Department, Government of Maharashtra	Damage survey of rural houses damaged during 4.8 magnitude earthquake of 17-09-08	3,00,000/-	Shri. U. L. Deshpande
2008	Zilla Parishad, Satara	Quality checking of Zilla Parishad schools in Satara district through NDT built under Sarva Shiksha Abhiyan	6,00,000/-	1. Shri. P. K. Deshpande 2. Shri. U. L. Deshpande

Note: In addition to above major consultancy works many small consultancy works with value ranging from Rs. 5000 to Rs. 20000 have been completed.

5. COURSES CONDUCTED

Conducted a **AICTE-sponsored two-week** faculty development programme on “Base isolation techniques for earthquake resistant design” at Government College of Engineering, Karad, during 27th November and 9th December 2006.

6. OTHER CREDENTIALS

1. Member of Buildings & Works Committee, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
 2. Worked as Dean (Academic)
 3. Visited Singapore and Japan for presenting technical papers
 4. Worked as member of BoS and Faculty in Shivaji University
 5. Resource person for UNDP-GoM Disaster management training programmes conducted all over Maharashtra
 6. Worked in various committees at State and National level for AICTE and UGC.
 7. Delivered many guest/invited lectures at various institutions and conferences.
 8. Attended many short term courses and training programmes
- **Membership of Professional Bodies**
 1. Life member of Institution of Engineers (India)
 2. Life member of Indian Society for Technical Education

**Sd/-
-Pranesh Murnal**