



AISSMS

COLLEGE OF ENGINEERING

ज्ञानम् सकलजनहिताय

An Autonomous Institute Affiliated to Savitribai Phule Pune University
Approved by AICTE, New Delhi and Recognised by Govt. of Maharashtra
Accredited by NAAC with "A+" Grade | NBA - 7 UG Programmes



Department of Civil Engineering

Faculty Profile

Dr. Atulkumar A. Manchalwar

BE (Civil Engg), MTech Civil (Structural Engg), PhD (Structural Engg)

✉ aamanchalwar@aissmscoe.com

☎ (020) 26058587; Extn: 1313

🔗 <https://scholar.google.com/citations?user=7B5w83kAAAAJ&hl=en>

🔗 <https://www.scopus.com/authid/detail.uri?authorId=57195775343>

🔗 Orcid: 0000-0003-4827-1267



Research Areas / Areas of Interest

Structural Engineering

Personal Details

Domicile: Maharashtra

Gender: Male

Blood Group: B+ve

Contact Details: Department of Civil Engineering AISSMS College of Engineering,
Kennedy Road, Pune-411 001

Academic Background

S. NO.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph. D	Structural Engineering	VNIT Nagpur		2019
2	M.E. (Env)	Structural Engineering	RTM Nagpur University	Distinction	2012
3	B.E. (Civil)	Civil Engineering	Sant Gadgebaba Amravati University	First	2010

Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	6	1
Total		6	1

Subjects / Courses Taught

S. No.	Subject	UG/ PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Engineering Mechanics	UG	FE	02
2	Strengths of materials	UG	SE	02
3	Finite Element Method	PG	SE	02
4	Earthquake Engineering	PG	SE	02
5	Computer Application in civil Engineering	UG	BE	01
6	Design of Pre-stressed Concrete Structures	PG	FE	03
7	Retrofitting and Strengthening of R C Structures	PG	SE	02
8	Analysis and Design of Earthquake Resisting Structure	PG	SE	02

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
Journals	-	29	-	29	00
Conferences	03	02	-	-	--

Publication Details (Journals) - 29

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1	Performance of RC structures equipped with steel and aluminium X-plate dampers	A. A. Manchalwar	2016	<i>Journal of The Institution of Engineers (India): Series A</i>	2250-2157	Springer
2	Optimization of metallic damper location for seismic response control	A. A. Manchalwar	2019	<i>Journal of Vibration Engineering & Technologies</i>	2523-3939	Springer
3	Seismic response control of building with optimal location of metallic dampers	A. A. Manchalwar	2019	<i>Structures and Buildings</i>	1751-7702	ICE
4	Seismic performance of structure with isolated foundation using u-shape steel damper as an isolator	A. A. Manchalwar	2020	<i>Soil mechanics and foundation Engineering</i>	1573-9279	Springer
5	Vibration control of structure by top base isolated storey as tuned mass damper	A. A. Manchalwar	2020	<i>International Journal of Dynamics and Control</i>	2195-2698	Springer
6	Comparison of Seismic isolation with isolator and Soil structure Interaction U-shaped metallic isolator and Soil structure Interaction	G Jyothi Sravya, A Manchalwar	2020	<i>E3S Web of Conferences</i>	2267-1242	E3S
7	Performance of 2-D Frame Equipped With Base isolation System under Dynamic Loadings	N O. Reddy, A. Manchalwar	2020	<i>E3S Web of Conferences</i>	2267-1242	E3S
8	Behaviour of the water tank staging with aluminum and steel X-plate damper	G. Nirmala, A. A. Manchalwar	2020	<i>E3S Web of Conferences</i>	2267-1242	E3S
9	Damage capacity on RC structures using performance based analysis	Kurelly Spandana, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
10	Effect of joint rigidity on structural behavior of RC buildings	Kurelly Spandana, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
11	Blast Response of Elevated Water Tank Staging with Metallic Damper	Boda Balaraju, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
12	Performance of elevated water tank staging with base isolation under blast loading	Boda Balaraju, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
13	Response control of structures under Seismic and Blast induced ground motions	Siripuram V., A. A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
14	Isolating system using U Shaped steel damper	Siripuram V., A. A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
15	Nonlinear seismic performance of a regular building using base isolation method	V. Yadav, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S
16	Nonlinear Seismic Performance of a Building Using Base Isolation	V. Yadav, A. Manchalwar	2021	<i>E3S Web of Conferences</i>	2267-1242	E3S

	Method					
17	Response reduction factor based on geometric variation with	AV Sai Veda, A. Manchalwar	2021	<i>AIP Conference Proceedings</i>	1551-7616	<i>American Institute of Physics</i>
18	Incremental dynamic analysis of building with weak storey at top as TMD	A. A. Manchalwar, P. B. Nangare	2023	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
19	Seismic Behavior of Regular and Vertically Irregular Reinforced Concrete Building by 3D and MDOF Models	S. A. Chavan, N. U. Mate & A. A. Manchalwar	2023	<i>Lecture Notes in Civil Engineering</i>	2366-2565	<i>Springer</i>
20	Design of base-isolation using lead rubber bearing	D. Nishipriya, A. Manchalwar; S. Koniki	2023	<i>AIP Conference Proceedings</i>	1551-7616	<i>American Institute of Physics</i>
21	Influence of height of building on strong column-weak beam design	A Ahmed, A Manchalwar, S Koniki	2023	<i>AIP Conference Proceedings</i>	1551-7616	<i>American Institute of Physics</i>
22	Pushover analysis of retrofitted RC building	A Gugulothu, A Manchalwar, S Koniki	2023	<i>AIP Conference Proceedings</i>	1551-7616	<i>American Institute of Physics</i>
23	Seismic Analysis of Five-Storied Building Using U-Shaped Hybrid Isolator and Lead Rubber Bearing Isolator	S. Gaikwad, P. R. Satarkar, A. Manchalwar	2024	<i>Lecture Notes in Civil Engineering</i>	2366-2565	<i>Springer</i>
24	Optimal allocation of non-linear viscous dampers for building structures	A. Manchalwar	2024	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
25	Vibration control of structure using inelastic tuned mass damper	A. Manchalwar	2024	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
26	Seismic Effect on Medium Rise Reinforced Concrete Building Considering Vertical Irregularities Under the Effect of Soil-Structure Interaction	A. Manchalwar	2024	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
27	Enhancement in Seismic Isolation Using U-Shape Metallic Isolator	A. Manchalwar	2025	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
28	Improving seismic performance of base isolated structures with a hybrid U-shaped steel damper as an isolator	A. Manchalwar	2025	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>
29	Optimal energy based seismic design of inelastic tuned mass damper	A. Manchalwar	2025	<i>Asian Journal of Civil Engineering</i>	2522-011X	<i>Springer</i>

Publication Details (Conferences)- 05

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
International Conference						
1	Seismic Performance of Structure Equipped with Fluid Viscous Dampers and Location Optimization	G. Gurbani, S. Bakre and A. Manchalwar	2018	16th European Conference on Earthquake Engineering		Thessaloniki, Greece
2	Performance of RC Structures Equipped with Steel and Aluminium X-Plate Dampers	A. Manchalwar & S. V. Bakre	2014	Structural Engineering Convention (SEC 2014)	978-9-38-489872-4	IIT Delhi
National Conference						
1	Seismic Response of a RCC building with Lead Extrusion Dampers	S. Arora, A. Manchalwar	2017	<i>Indian Conference on Applied Mechanics (INCAM)</i>		MNNIT Allahabad
2	Fluid Viscous Damper for Structural Response Control	G. Gurbani, A. Manchalwar	2017	<i>Indian Conference on Applied Mechanics (INCAM)</i>		MNNIT Allahabad
3	Seismic Response control of RC water tower frame staging	A. Manchalwar	2017	<i>Indian Conference on Applied Mechanics (INCAM)</i>		MNNIT Allahabad

Professional Memberships

S No	Professional Body	Level (National / International)	Type (Fellow/Life/ Annual)	Membership No.

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	-	08	-

Patents/IPR Filed/ Granted

1. The design granted to “**Water Distribution Apparatus with inbuilt Flow Rate Control Mechanism**”
2. Published patent on “**Device to Monitor Growth of Plants and Crops**” on 26 April 2024.
3. Published patent on “**Device to Monitor Loading Status of Railway Wagons**” on 29 April 2024.
4. Copyright on “**Load Detection System for Goods**” on 16 March 2024

Books Published

S. No	Title	Name of the Publisher	ISBN/ISSN Number

Research Grants Received

S. No	Program	Duration	Funding Agency	Grant Amount

Knowledge enrichment courses

Name of Course	Title of course	Duration	Organizing authority
NITTTR Module 1	Orientation Towards Technical Education and Curriculum Aspects	Feb – March 2020	AICTE
NITTTR Module 2	Professional Ethics & Sustainability	Sep – Oct 2021	AICTE
NITTTR Module 3	Communication Skills and Knowledge Dissemination	Feb 20232023	AICTE
NITTTR Module 4	Instructional Planning and Delivery	Sep – Oct 2021	AICTE
NITTTR Module 5	Technology Enabled Learning & Life Long Self Learning	Sep – Oct 2021	AICTE
NITTTR Module 6	Student Assessment and Evaluation	Feb – March 2022	AICTE
NITTTR Module 7	Creative Problem Solving, Innovation and Meaningful research and development	Feb 2025	AICTE
NITTTR Module 8	Institutional Management & Administrative Procedures	Feb 2025	AICTE
SWAYAM-NPTEL	Digital Transformation in Teaching Learning Process	01 Jan – 30 March 2020	AICTE

Details of Workshop / STTP / FDP / Seminar / Conferences Organized

S.N o	Title	Type	Duration	Level (State/National / International)	Sponsoring Agency
1	National Technology Day (Theme: Rebooting the Economy through Science, Technology and Research)	Seminar	1 Day	National	GRIET
2	Engineers' day (Theme: Engineers for a Self-reliant India)	Seminar	1 Day	National	
3	United Nations International Peace Day Celebrations-2020	Workshop	1 week	National	

Contribution as Resource Person

S. No.	Place/ Organization	Topic	Level (National/Int/State/ Regional)	Date

Details of Workshop / STTP / FDP / Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1	STAAD Pro	Training	4th May to 6th June 2009	Government Polytechnic Nagpur	
2	Earthquake Resistant Design of Sensitive Structures	STTP	22-23 March 2013	VNIT Nagpur	
3	Seismic Analysis and Design of RC Buildings	STTP	5th to 9th March 2014	VNIT Nagpur	
4	Advanced Engineering Optimization Through Intelligent Techniques	STTP	24-28 March 2014	SVNIT Surat	
5	Seismic Design of Multi Storey Buildings; Is 1893 vs. Eurocode 8	STTP	7th – 9th Dec. 2014	VNIT Nagpur	
6	Nonlinear modelling and seismic response evaluation of structures	STTP	14th – 16th Dec. 2014	IIT Roorkee	
7	Understanding Earthquake behavior of Buildings	STTP	21st – 26th May 2016	VNIT Nagpur	
8	Metro Rail Technology	FDP	10 th to 14 April 2020	TGP College of Eng. & Tech., Nagpur.	
9	Computational Tools and Techniques: MATLAB, ANSYS	FDP	26 April – 01 May 2020	Government College of Engineering, Karad	
10	Progress of Concrete Science Since the Time of Duff A. Abrams	Webinar	07 May 2020	IIT Delhi	
11	Civil Engineering Opportunities & Various Industrial Development	Webinar	08 May 2020	Sri Ramdeobaba College of Engineering and Management	
12	Earthquake Engineering & Technology	Webinar	09 May 2020	Indian Society of Earthquake Technology	
13	Outcome based education & NBA Accreditation	FDP	11-17 May 2020	Chhatrapati Shivajiraje College of Engineering	
14	Trends In Civil Engineering	FDP	18-22 Jan 2021	GRIET Hyderabad	
15	Foundation Engineering Practice (Case Studies)	FDP	6 April – 28 May 2021	GRIET Hyderabad	

Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
01	Executive member of Inauguration and main program arrangement of Alumni meets Committee
02	Class Coordinator B.E. Final Year (Civil)
03	Member of Stock Verification Committee
04	Seminar Hall In charge
05	Practical Examination Coordinator
06	Paper Setter (Theory)
07	MTech Project Coordinator
08	R&D Coordinator

Awards Received

S. No.	Awards
01	Dr Jai Krishna Prize by Institution of Engineers India

Declaration: I hereby declare that all the statement made above are correct to the best of my knowledge and belief.

Dr. Atulkumar Manchalwar

(Name with Signature)